

Recoding Reproductive Politics: Tech- Infrastructures and Reproductive Regulation at the U.S. Border

Madeleine Grace Tillyard | PhD Thesis
Media, Communications and Cultural Studies
Goldsmiths, University of London

*This thesis is dedicated to Laura Estefania Muños Quiñones,
Dian Alarcón and
Marleine Bastien*

Acknowledgements

This project would not have been possible without the support and love of so many people.

I first would like to thank my supervisor, Marianne Franklin for the now many years of encouragement and support. Special thanks also to the Goldsmiths' Graduate School and to Mark Johnson whose support towards the end of this project was invaluable. Thanks also to Rosamond Eele whose time and expertise guided me through many fieldwork trips across the Atlantic. Many thanks to all the coordinators and participants of the 'Reproduction and Resistance' reading group who offered many valuable insights of importance to this project. Warm thanks to the workers at the British Library where many an hour was spent working on this thesis. Thanks to the Sophia Smith Special Collection archivists and the librarians at Goldsmiths. Heartfelt thanks also to all my students who I have spent time learning with over the last four years.

This thesis was made possible thanks to the support of the Consortium for Humanities and the Arts for the South East of England (CHASE). I would like to thank all those who coordinate the network and Steve Colburn who has been so supportive of the many workshops, research trips and conferences organised by myself and others at Goldsmiths. Warm thanks also to the Stuart Hall Foundation and scholars for many important and thought-provoking events and conversations over these years.

My deepest thanks and gratitude go to the South Florida social justice movement. These past years of working with and learning from tireless community advocates and activists serves as a reminder that far more important things than a thesis came from this project. Special thanks to the workers and community organisers at FANM in Little Haiti, to friends and comrades at the Florida Immigrant Coalition and the Miami Circle of Protection, to the tireless activists at the Latina Institute for Reproductive Justice and Women Working Together, and my sisters and siblings at Poderosa is her Power. Thanks to Jonathan De Camps for housing me and for the many important

conversations we had about archiving and social justice work. Special thanks also to Vanessa Andrea Urbina Bermúdez, Charo Valero, Tiffy Burks, Thomas Kennedy, Amalia Villafane, Maria Angelica Ramirez Barrera, Stephanie Loraine Piñeiro, Renee Bracey Sherman, Nahomi Matos Rondón, Yaqueline Lopez, Rosana Araujo, Maria Asuncion Bilbao and of course to Laura Estefania Muños Quiñones, Dian Alarcón and Marleine Bastien to whom this thesis is dedicated. I continue to learn so much from all of you. Thanks also to all who organised and participated in the wildcat marking boycott at Goldsmiths in the summer of 2020, and to those who shouldered the legacy of this action into this academic year.

The love and support of my chosen and unchosen families carried me through this PhD. Warm thanks to Miha Brebenel, Roberto Mozzachiodi, Ognjen Soskic, Stephanie Cocagne, Felix Reissman, Enrico Cristiani, Alex Coupe, Elvira Grob and Katie Kruger for your friendship and laughter. Thanks to Luke Davies, Tanya Cubric and Kostya Kiwi Dariushka for communal cooking, morning wake-ups and for your patience during this last stretch of work. Special thanks to Sandeep Gill for always believing in me and staying so close, even whilst we have been separated over this last year. Special thanks also to Akanksha Mehta who taught me so much whilst we taught together, and who shared so much knowledge, support and kindness throughout this process. I am eternally grateful for Charlotte Terrell, Annie Goh, Sandra Kazlauskaite, Peter Reece, Nyangala Zolho and Anna Rauhanen, for their support and feedback on the work of this thesis and whose encouragement, friendship, and guidance is weaved into this project and has sustained me and it over write-up in isolation.

I am particularly grateful to my mother and my brother who have been patiently supporting me through this long journey. I am writing these acknowledgements because of all the love and support they have given me over a lifetime. Thanks also to my father who has been an important source of support and strength especially in the final stages of this project. Finally, my heartfelt thanks to Ardalan Al-Jaf whose support carried me over the finishing line.

Thesis Abstract

Recoding Reproductive Politics examines the role of networked digital infrastructures and the technology industry in reproductive politics and processes. The project traces the ways that ongoing historic regimes of gendered and racialised reproductive regulation in the United States are increasingly co-produced with information infrastructures in the context of networked societies and specifically in the border state of Florida.

The thesis offers an original contribution to the fields of feminist theory, science and technology studies (STS) and internet studies by ontologically and empirically disrupting academic and common-sense understandings of what constitutes a reproductive technology. Specifically, this project explores reproductive technologies that act ‘beyond’ individualised reproductive bodies, at the level of the body politic. I coin the term ‘technologies of reproductive regulation’ as a descriptor for these processes that act by way of the social body and govern the terms, spaces and conditions of reproductive life, in keeping with the state’s bio-necropolitical logics. Moreover, this thesis examines how in the information age, technologies of reproductive regulation are co-produced with tech-infrastructures and other organisational actors.

Extensive fieldwork provides substantiation of these dynamics as they unfold historically and currently in the U.S. border state of Florida. Through the prism of the field site, this thesis explores tech-driven gentrification, border policing technologies and the emerging digital strategies of the antiabortion movement. The project examines the co-production and increasing reliance of the state and political groups on information infrastructures and the technology industry in order to assemble technologies of reproductive regulation in the information age. Drawing on these empirical examples, I argue that the national border in the US case, zoning regulations and gentrification processes alongside attempts to block access to abortion care are ‘reproductive technologies’ designed to reproduce the settler state.

The conclusion drawn calls attention to the ways that tech-infrastructures and reproductive politics in the United States are mutually constituted and undergirded by

white patriarchal and settler colonialist logics, through a close analysis of how these entanglements naturalise and sediment reproductive hierarchies and inequalities.

Table of Contents

Chapter 1. Technologies of Reproductive Regulation.....	10
1.1 Thesis Focus and Research Questions.....	12
1.2 Methodology	17
1.3 Structure of this Thesis.....	19
Chapter 2. Conceptual Framework: Rethinking the Entanglements of Reproduction, Politics and Technology	22
2.1 Reproduction and Technology.....	24
2.2 Reproduction Beyond the Body.....	33
2.3 Bio-Necropolitics, The Settler State and Bordering.....	43
2.4 Theorising Digital Technologies and/as Infrastructures	62
2.5 Reproductive Politics and Digital Technologies: Beyond Existing Scholarship	82
Chapter 3. Methodology: Critically Mapping Technologies of Reproductive Regulation	89
3.1 Introduction	89
3.2 Locating the Spaces of Research: From Archives to Field Site	90
3.3 Mapping Technologies of Reproductive Regulation: A Mixed-Method Approach.....	103
3.4 Research Ethics, Reflexivity and Witnessing.....	109
3.5 Conclusion	117
Chapter 4. Ongoing Histories of Reproductive Regulation: Clinics, Housing, Borders	118
4.1 Introduction	118
4.2 The Spatialised Technologies of the Eugenics Movement.....	121
4.3 Zoning and Redlining Reproduction	128
4.4 Reproducing the National Border	134
4.5 ‘Pro-Family’ Politics and the Antiabortion Movement.....	140
4.6 Conclusion	148
Chapter 5. Technologies of Obstruction: The Digitized Reproductive Grammars of the Antiabortion Movement in Central and South Florida	150
5.1. Introduction	150
5.2 White Supremacy, Reproductive Regulation and Managing “Risk”.....	154
5.3 The Infrastructures of the Antiabortion Movement in Florida	164
5.4 Harassment and Targeting Abortion Access Infrastructures.....	174
5.5 Antiabortion Politics and Tech-Infrastructures	182
5.6 Conclusion	188

Chapter 6. Bordering Technologies: Emerging Technological Practices of Policing, Surveillance and Family Separation.....	190
6.1 Introduction	190
6.2 Family Separation, Reproductive Regulation and the Travelling Border	192
6.3 Electronic Detention and Gendered Technologies of Benevolence	196
6.4 Tech-Infrastructures of Family Separation and the Homestead Temporary Shelter for Unaccompanied Children.....	209
6.5 Conclusion	219
Chapter 7. Eviction Technologies: Reproduction, Dispossession and Tech-Speculative Gentrification in South Florida	222
7.1 Introduction	222
7.2 Little Haiti, Gentrification and Tech.....	226
7.3 The ‘Magic City’ Innovation District.....	229
7.4 Ideologies of Technological Progress and their Links to Capitalism, Colonialism and the Patriarchy.....	241
7.5 Housing Insecurity, Reproduction and Community uses of Technology	246
7.6 Conclusion	251
Chapter 8. Conclusion: Reflections on Technologies of Reproductive Regulation	253
8.1 Introduction	253
8.2 Reconnecting the Abortion Clinic, the Neighbourhood and the Border	254
8.3 Bio-Necropolitical Bordering Regimes.....	257
8.4 Technologies of Reproductive Regulation in the Information Age.....	263
8.5 Conclusion	269
Bibliography.....	272
Appendix A.....	309
Appendix B.....	311

List of Figures

Fig. 1 Map of the 100-mile border zone from the ACLU (2020).....	97
Fig. 2 <i>Google Maps</i> search for “abortion clinic” in the greater Miami area shows both Crisis Pregnancy Centers (e.g. A Woman’s Choice) and Planned Parenthood clinics.....	173
Fig. 3 Screenshot from BI’s Product Catalogue 2019.....	202
Fig. 4 Internal data-management spreadsheet from Caliburn retrieved by the local press.....	214

Chapter 1. Technologies of Reproductive Regulation

In 2016, people across the United States in abortion clinic waiting rooms began to receive unsolicited advertisements on their smartphones from antiabortion organisations, persuading them to leave the clinic and visit a religious crisis pregnancy centre¹. The scheme, later struck down by a Massachusetts court on the grounds that it violated fair competition laws, was devised by a Boston based Advertising Firm, Copley Advertising. Copley Advertising proposed to use a technology known as mobile 'geofencing' - normally used to track consumer behaviour like interest in buying a car or shoes - to build data profiles of so called 'abortion minded women'. By compiling this information and selling it to pro-life groups, the advertising company supplied them with the means to target people's smartphones with ads (Rewire 2016).

Geofencing, a practice commonly used in commercial advertising and marketing, creates a virtual boundary around a location that records when a respondent crosses the virtual perimeter either to enter or exit the fenced location and gathers other available data about the person, which in turn triggers an advertisement or a survey (Poynter 2015). In digital advertising, marketers tailor their ads to very specific groups of consumers by compiling 'personas' based on aggregated data sets that reveal their online activities. Through this data digital marketers can discern people's age, gender, profession, race as well as the places they visit. Copley Advertising proposed to use this geofencing technology to target Planned Parenthood reproductive health clinics as well as methadone clinics with antiabortion advertising. Copley Advertising's package to target 'abortion-minded women' also included the option for antiabortion groups to access the names and addresses of people seeking abortion care, and those who provide it. The company claims to have reached more than 800,000 people on behalf of his Anti-choice clients, and to have sent more than 2,000 of those women to crisis pregnancy centre websites (Rewire 2016, Fullerton 2017).

¹ A crisis pregnancy centre is a religious counselling facility run by antiabortion 'pro-life' groups in the United States. These facilities are known for purposefully camouflaging as legitimate abortion clinics to deceive seekers of abortion care.

The same year that Copley Advertising developed its geofencing technology, Immigration and Customs Enforcement (ICE), a branch of the Department of Homeland Security in the United States, initiated a technology-based monitoring service known as the Alternative to Detention Programme. The initiative was spearheaded by the U.S. government in order to release people held in immigration detention centres on the condition that they would instead be placed under technological monitoring. People enrolled in the programme are subjected to varying levels of 'supervision' by case workers through a combination of face-to-face and telephone check-in meetings, unannounced home visits, scheduled office visits, and meeting alerts. Participants in the programme are also required to wear a GPS tracking device (an ankle bracelet), and interface with case workers through a recently developed smartphone application that uses facial recognition to confirm their identity and location.

The majority of people placed in the Alternative to Detention programme self-identify as women and many are also part of a family unit that has roots in the United States (Singer 2019). The programme is frequently framed by the U.S. government as a humanitarian act that allows people with reproductive and caring responsibilities to leave brick-and-mortar detention centres to be reunited with their families and children (Gómez Cervantes, Menjívar, and Staples 2017). However, behind this veneer of benevolence lies a programme that is not only integral to wider im/migration policies and policing practices that separate families in the United States, it also monetizes them. Automatic tracking systems designed to log people's whereabouts on ICE servers are becoming increasingly sophisticated, as corporate enterprises vie to develop technologies in order to cash in on government contracts. The Alternative to Detention programme is currently outsourced by the U.S. government to a corporate technology company, BI inc, a subsidiary of the global multinational Geo Group. Geo Group administrates detention centres in the United States, Australia and the UK, turning a multi-billion-dollar profit annually. Part of this revenue is generated by obliging those placed in the Alternative to Detention programme to cover the cost of their electronic monitoring, at around \$5 US dollars a day. These '*grilletes*', or shackles as the Spanish speaking community calls them, are fitted irrespective of a person's age

or health. The scheme is deployed in conjunction with other technological infrastructures that separate family and kin at the border and in the interior of the country.

Copley Advertising's mobile surveillance strategy for antiabortion groups and the Alternative to Detention programme spearheaded by ICE and administrated by corporate tech companies appear on the surface to be unrelated initiatives. The former, developed by a single advertising company can be read as a commercial attempt to monetize the desire of antiabortion groups in the United States to reach and deter seekers of abortion care. The Alternative to Detention programme, on the other hand, is a government funded nationwide initiative allegedly designed to place people under electronic monitoring so they can leave brick-and-mortar detention facilities and be reunited with their families and children. While the actors and scope of these political projects are different, as are their consequences and effects, both these examples show how complex technological systems mediate geopolitical tensions around reproduction, nation, gender and race. This convergence is a complicated interplay between sociotechnical systems, data, corporations, infrastructures of the state, policy instruments, organised groups and the people that administrate and are captured by these technologies, all deployed with the specific intension of intervening in reproductive politics and processes.

1.1 Thesis Focus and Research Questions

This thesis explores these two unfolding dynamics of our time: reproductive politics and processes and the ways these struggles intersect with the proliferation of digital and networked technologies and the expansion of tech-industry infrastructures. Building on feminist and critical race approaches to the study of reproductive politics, and scholarship on contemporary digital society, this project aims to contribute to both these literatures by examining how the information age structures and is structured by social and political struggles over reproduction. In so doing, the project explores the following questions: in what ways are networked digital technologies and the infrastructures of the tech-industry complicit in ongoing histories of gendered and

racialised reproductive regulation in the United States? In what ways are these technologies undermined and resisted? These dynamics are investigated by way of historical research and through fieldwork conducted in the U.S. border state of Florida over the course of two years between 2018 to 2019. Florida, chosen for its social and political location as a border state in the American south, serves as a situated site and point of departure for a broader investigation into what I call, *technologies of reproductive regulation*. This analytic is the primary intervention of this thesis and is forged to conceptualise historical, discursive, material and technological flows that play an important role in (un)making babies, families and kin.

Unlike bespoke forms of engineering (for instance contraceptive technologies or Assisted Reproductive Technologies) that intervene in the socio-biological processes of gestation and fertility, technologies of reproductive regulation are political technologies and fluid sociotechnical systems that act on the body politic. Technologies of reproductive regulation, therefore, do not intervene in individualised reproductive bodies, but instead govern the terms, spaces and conditions of reproductive life, in keeping with the bio-necropolitical logics of the state and adjacent actors. This ontological choreography (Thompson 2005) is driven by power structures and imbued with social relations in ways that (re)structure gendered, racialised and classed inequalities and empower some categories of people to nurture and reproduce while disempowering others (Colen 1995; Ginsburg and Rapp 1995).

Copley Advertising's ad-tech strategy and the Alternative to Detention programme's electronic monitoring systems are both examples of technologies of reproductive regulation. On the one hand, antiabortion groups develop data-intensive technologies that deter people seeking access to abortion care in line with New Right, Christian conservative political agendas. On the other hand, the state and corporate tech enterprises assemble data-gathering technologies and policy instruments into an 'alternative detention' that intensifies racialised and gendered surveillance practices (Browne 2012; 2015) and carceral infrastructures under the auspices of 'family reunification'. Copley Advertising's digital strategy and the electronic monitoring in the Alternative to Detention programme discursively and materially reshape and

redefine reproductive processes and politics. They construct gendered and racialised ‘abortion minded women’ and ‘alternative detainees’ whilst also producing material conditions of reproductive abjection by separating families and kin or forcing people to carry pregnancies to term.²

This thesis documents and theorises this interplay between reproductive political agendas, machine codes, automation, state and non-state infrastructures, human-actors and tech-enterprise that constitute technologies of reproductive regulation. As argued throughout, in the context of the United States these technologies strive towards the preservation of what Sarah Franklin and Faye Ginsburg (2018) have called the “nativist reproductive imaginary”, or “an overarching grammar of national belonging defined by the preservation of whiteness, biological men and women, heterosexual marriage, and the right to carry one’s weapon of choice” (4). Within this framework, antiabortion, anti-immigration, white nativist and cis-heteronormative grammars scaffold and sculpt hegemonic reproductive models of what counts as a ‘legitimate’ households or family. Technologies of reproductive regulation are structured by these logics. These are in turn reformulated into bio-necropolitical modalities that intervene in processes of living-being in ways that reproduce the white settler state.

Technologies of reproductive regulation as an analytic is developed in part as a critique of prevalent scholarly conceptualisations of reproductive technologies. As Adele Clarke (2008) reminds us, reproductive technologies encompass a broad range of bio-technical knowledges and practices ranging from contraceptives to assisted reproductive technologies, genetic testing and technologies of pregnancy and birth. For the most part, the ‘reproductive’ component of the term, refers to ‘bio-social’ (C. Roberts 2007) processes that happen in bodies but are a co-construction of the biological and the social, or the biological and the technological (Franklin 2008).

² These examples are brought together here because they illustrate the different ways in which complex technological systems mediate geopolitical tensions around reproduction, nation, gender and race. The intension is not to draw a comparison or make an analogy between their respective and very different effects on people and communities.

Conversely, the term ‘technologies’ in an empirical sense refers to bio-technologies such as Assisted Reproductive Technology (ART), Egg freezing and transfer, artificial insemination and contraceptives that intervene at the level of bodies, cells and genes. Conceptually, these ‘technologies’ have been discursively constructed as inherently liberatory, inherently patriarchal or value-neutral (Firestone 1970; Menning 1981; Mies 1987). Within STS influenced literatures, reproductive technologies are conceptualized as assemblages or a “choreography” (Thompson 2005), of artefacts, practices, knowledges, humans and non-humans that (un)make parents, babies and kin. Important recent work also posits that the relationship between reproductive technology and society is one of mutual shaping (S. Franklin 2013; Oudshoorn 1994; Thompson 2005).

With this in mind, this thesis argues that ring-fencing the relationship between reproduction and technologies under the placeholder of ‘reprotech’, precludes a broader imagining of how institutions, policies, technologies, people and artefacts outside of scientific and bio-medical institutions intervene in reproductive politics and processes. Drawing on the concepts of distributed reproduction, (Murphy 2011, 2013, 2017), stratified reproduction (Colen 1995), alongside the work of activist-scholars of reproductive justice (Ross et al. 2017), I argue that departing from thinking about reproduction as something that happens primarily in bodies (micro-logical) and reproductive technology as synonymous with biotech, highlights the importance of other processes and sociotechnical systems. As evidenced by the examples of Copley Advertising and the Alternative to Detention programme, digital surveillance technologies, political policies and institutions can be assembled into processes that are integral to (un)making babies, families and kin (Murphy 2013). And yet, they are seldom seen that way. This thesis contends that these processes can be understood as reproductive technologies that act on the body politic, or, as I conceptualise them, technologies of reproductive regulation.

The conceptual intervention of this thesis rests on historical analysis and three examples of reproductive regulation derived from fieldwork undertaken in the US border state of Florida. First, building on existing historical analysis (Gordon 2002; D.

Roberts 1997; Ross 2017; Stern 2005), I carve out a genealogy of technologies of reproductive regulation. This overview historicizes and frames the empirical research findings of this thesis. The insight offered through this discussion, is that throughout the twentieth century, alongside practices that intervened in socio-biological processes of reproduction, neighbourhood spaces, the national border and abortion clinics were consolidated as key sites of bio-necropolitical reproductive regulation (Foucault et al. 1976; Mbembé 2003).³

Starting in the early twentieth century, and concentrating on the eugenics movement, its repositioning in housing policies, zoning practises and its active participation in border enforcement, I take the historical context up to the present and show how it continues to resonate within individual, state and federal strategies deployed in the contemporary. This analysis aims to show that in addition to the important and well documented histories of the birth control movement (Gordon 2002), sterilization abuse (D. Roberts 1997) and the population control era (Connelly 2010), a comprehensive genealogy of reproductive regulation and its technologies also charts the connections between reproduction and housing policies, urban planning, im/migration policing, government surveillance and the pro-family politics of the New Right, alongside more commonly charted forms of bio-medicalised reproductive control.

I trace the continuities of these histories through three contemporary studies of technologies of reproductive regulation: (1) The evolution of New Right ‘pro-family’ antiabortion politics through digital infrastructures, (2) emerging border policing technologies and family separation policies and, finally, (3) tech-driven gentrification.⁴ These regulatory technologies are assembled through technical,

³ This historical overview draws from reproductive justice activist-scholar Loretta Ross’ caution to pay attention to policies that, “move beyond biology to control communities in ways that re-rationalize eugenical thinking by advantaging the economically privileged” (Ross 2017). This historical overview attempts to chart, starting with the Eugenics movement, how reproductive regulation was written into housing policies, zoning practices, border technologies and eventually took expression in the coercive reproductive politics of the New Right.

⁴ Tech-driven gentrification is used to describe processes of urban ‘renewal’ in large global cities that make room for the productive and reproductive forces of tech-capital.

infrastructural, legal, political and digital instruments of the state, corporate technology industries and other actors, and are co-produced with reproductive politics and processes. Each study touches upon a different area of importance for reproductive politics in Florida and discusses the ways in which these struggles are entangled with tech-infrastructures (Aouragh and Chakravartty 2016). Navigating between the histories of technologies of reproductive regulation and their contemporary manifestations, I examine once more the localised political significance of neighbourhood space, the national border and the clinic. These sites and political struggles, I argue, are intimately connected and fraught attempts to regulate collectivised bodies, borders, living spaces and processes of living-being.

The objective of this project is two-fold. Conceptually, it offers a necessary critical perspective about the complicated and continuously co-evolving relationship between reproduction and technology. This intervention moves the conversation about reproductive technologies beyond preoccupations with biology and the individualised reproductive body into the realm of geopolitics. The project also demonstrates how mobilizing technologies of reproductive regulation as an analytic allows for this broader imagining and highlights the ways in which other infrastructures and technological assemblages intervene in reproductive politics and processes. Building on this, this thesis also highlights the urgency of researching the entanglements of reproductive politics and processes with networked and digital technologies. In attending to these questions, this project demonstrates how tech-infrastructures naturalize and entrench hierarchies and dualisms, against which the normative white middle-class American family asserts its belonging and reproductive citizenship.

1.2 Methodology

For my method, I turn my attention to people and virtual-material spaces. This thesis was researched over the course of six months of fieldwork, conducted in the U.S. border state of Florida and by working with and learning from the social justice movement. Given the heterogenous political make-up of the United States, the decision to locate this enquiry within a specific geographical site, albeit a

transnational space, was taken to account for historical, social and geopolitical complexities. In order to hone a situated gaze (Haraway 1988), I develop an interdisciplinary socio-spatial methodology which permits an analysis of interlocking systems of power which in turn produce subjectivities and spaces.

This approach combines site-specific fieldwork, policy analysis, media analysis and socio-spatial mapping of virtual-material infrastructures in order to analyse and critique ongoing historical dynamics and formations of power in the United States. These methods are supplemented with interviews with people who are in a variety of ways attempting to dismantle these structures. Traversing different topics of relevance to reproductive political struggles, the empirical explorations of this thesis are bound together through a shared topography of the Florida landscape. This interdisciplinary approach, combining fieldwork with internet studies and science and technology studies, provides a situated perspective on the machinations of complex power structures and the sociotechnical systems they assemble. As the information age (re)codes and (re)assembles power relations, I propose this methodology as an innovative way of researching and thinking about technologies not as exceptional, untethered sociotechnical systems but as ordinary and integral to the fabric of daily life (M. I. Franklin 2013).

Finally, a brief note on language. As Sophie Lewis (2019) reminds us, “there can be no utopic thought on reproduction that does not involve uncoupling gestation from the gender binary”(22). In the spirit of this commitment and as the reader may already have noticed from this brief introduction, the term “woman” is used sparingly in this project. There are notable exceptions to this, namely when quoting from interviews, policy documents and academic literature that uses the term. When discussing gestation, pregnancy and abortion care I use the formulation “pregnant person”, to denote pregnant women, men and non-binary persons which includes trans-masculine people and trans men.

Developing terminology to refer to people who have migrated, immigrated or are in state of travel or transition to and from the occupied sequestered lands referred to as

the United States is an equally important political engagement. This thesis draws on Martha Escobar's (2016) formulation "im(migrant)", which is in turn formulated through Nicolas De Genova's (2002) critique of the word 'immigration'. De Genova (2002) favours the term migration because it accounts for non-linear and multi-directional movements of people. Escobar's (2016) formulation, "im(migrant)" contains both senses of the word in order to highlight that for some, im(migration) is compulsorily unidirectional given that many cannot leave the territorial boundaries of the US nation-state without the risk of never being able to return. I draw on this thinking and employ the term "im/migration" throughout this project unless quoting from policy documents or interviews.

1.3 Structure of this Thesis

Moving now towards a description of the chapter structure and layout of this thesis, Chapter 2, *Rethinking the Entanglements of Reproduction, Politics and Technology* develops the guiding analytics that organise and frame the empirical findings of this enquiry. Through this discussion, I forge technologies of reproductive regulation as an analytic and explore the ways that these processes are undergirded by both biopolitical and necropolitical governmentalities. This chapter also conceptualises an (infra)structural approach to the study of digital and networked technologies and the platform industry. This conceptualisation encompasses the material stuff of cables, wires and devices, the physical spaces of (re)production of platform capitalism such as offices and city spaces, alongside their social sedimentations.

Chapter 3, *Methodology* outlines the research methods and rationale for this project, including an overview of the Florida field site and the primary actors that feature in this project. What follows are four original research chapters comprising a historical overview and three studies that map, document and theorise technologies of reproductive regulation and their infrastructures in Florida.

Chapter 4 *Ongoing Histories of Reproductive Regulation* provides a genealogy of technologies of reproductive regulation and maps historically formed connections

between reproductive regulation, urban planning, bordering regimes and, finally, the reproductive policies of the American New Right. This historical overview also acts as a pre-cursor to the empirical research and fieldwork findings of the thesis centred around the triad spatialities of abortion clinics, neighbourhood geographies and bordering technologies.

Chapter 5, *Technologies of Obstruction* offers a geopolitical exploration of antiabortion politics and tactics in the digital age. Framed as ‘technologies of obstruction’, this chapter analyses the ways that antiabortion ‘pro-life’ groups mobilise tech-infrastructures to block access to sites of abortion care. These tactics are explored through the prism of the Florida field site and in relation to the genealogies of reproductive regulation charted in Chapter 2. I argue that these digitized strategies are a continuation of New Right ‘pro-family’ political agendas and a response to nativist fears around the moral and racial ‘decline’ of white America. Conceptually, the aim of this chapter is to discuss how the technologies of reproductive regulation of the antiabortion movement, with its histories of eugenic gatekeeping, are co-produced with information infrastructures.

Chapter 6, *Bordering Technologies* examines the evolution of the border patrol, forged by turn of the century American eugenicists, into digital and networked systems of borderization (Mbembé 2019). In the contemporary, bordering infrastructures are developed by tech corporations and deployed by US government agencies, proliferating borderlands into the interior of the country. Specifically, this chapter maps technological infrastructures that sustain family separation policies in the border state of Florida. Highlighting the ways that tech-infrastructures mediate racialised and gendered reproductive anxieties, this analysis shows how bordering regimes are mobilised to reproduce a white national identity and the settler state. Conceptually, this discussion highlights that analysing bordering technologies in the United States through the prism of reproduction permits an analysis of how gendered, as well as racialised and classed power relations structure technological infrastructures.

Chapter 7, *Eviction Technologies* analyses an array of extractive technologies and discourses through which tech-enterprises sequester urban spaces in South Florida. Taking a close look at the Magic City Innovation District project, a multi billion-dollar innovation and tech-hub proposed for development in Little Haiti, Miami, this chapter frames the social space of the home, and the material space of the neighbourhood, as contested sites of bio-necropolitical reproductive regulation. The chapter discusses how the sequestration of land by developers and the strategies articulated by the Miami city commissioners that promised to ‘modernize’ an under-resourced neighbourhood, are eviction technologies deployed to annex neighbourhood spaces for the (re)production of tech-capital. I argue that taxonomies of race, and gendered difference, created through bio-necropolitical technologies, serve to demarcate what spaces of reproduction are valuable and supported, and which are averted. This chapter analyses how these eviction technologies deployed by local government officials and developers, create the conditions where erasure and dispossession are framed as acceptable and inevitable through promises of technological progress.

Chapter 8, by way of conclusion, revisits some of the theoretical engagements elaborated in Chapter 2 and discusses these points in relation to the historical and empirical research findings. The aim is to re-situate the three examples of technologies of reproductive regulation and discuss their historical and conceptual commonalities. This final reflection also revisits the question of what is at stake in analysing obstruction to abortion care, gentrification and im/migration policing through the prism of technologies of reproductive regulation. This chapter concludes with a discussion of how these topics have been explored throughout this project and some reflections on how these preliminary reflections might be taken further.

Chapter 2. Conceptual Framework: Rethinking the Entanglements of Reproduction, Politics and Technology

To reiterate briefly, this thesis investigates the increasingly important role of networked digital infrastructures and tech-capitalism in ongoing histories of gendered and racialised reproductive regulation in the United States. These underexplored and increasingly important dynamics are investigated through the prism of the Florida field site, chosen for its social and political location as a U.S border state. In this chapter I depart somewhat from the empirical focus of this enquiry in order to develop the guiding analytics for this thesis that organise and frame its findings. Specifically, I forge *technologies of reproductive regulation*, and *tech-infrastructures* as the primary analytics of this thesis. These concepts are developed in order to name and substantiate political technologies that regulate reproduction, on the one hand, and in order to conceptualise the discursive-material structures of the information age, on the other.

While what follows is primarily a theoretical and conceptual exploration, these analytics are forged in order to understand how reproductive politics and processes are co-produced with tech-infrastructures in the information age and in the Florida field site. By way of example, the machinations of the alternative to detention programme explored in the introduction to this thesis reveal how forms of gendered and racialised reproductive regulation and tech-infrastructures co-produce digitized infrastructures of family separation. In order to make sense of this assemblage, it is necessary to define first what is meant by reproductive regulation. Second, a conceptualisation of the material, discursive, technological, economic, and social structures that make the information age is also required (Hayles 1993). Naming and substantiating these processes is the principle empirical pursuit of this thesis. What follows, then, is a conceptual choreography that enables an identification of what I call technologies of reproductive regulation. My hope is that this framework can make space for an unearthing of less obvious convergences between tech-infrastructures and

reproductive politics and processes as illustrated by the alternatives to detention programme.

The first part of this chapter develops technologies of reproductive regulation as a critique of prevalent scholarly conceptualisation of ‘repro-tech’. It argues that departing from thinking about reproduction as something that happens primarily in individualised reproductive bodies (Murphy 2011) and focussing instead on larger scale processes, opens up possibilities for a broader imagining of what reproductive technologies are (ontology) and what they do (politics). Drawing on the concepts of distributed reproduction, (Murphy 2011, 2012, 2017), stratified reproduction (Colen 1995), alongside the work of activist-scholars of reproductive justice (Ross and Solinger 2017), I highlight the importance of other processes such as the politics of housing, immigration, labour, the environment, incarceration, and care for reproductive politics and processes.

Second, in response to this, I forge technologies of reproductive regulation as an analytic to conceptualise historical, discursive, material and technological flows that govern the terms, spaces, conditions and quality of reproductive life, in keeping with the state’s bio-necropolitical agendas. Third, I develop tech-infrastructure as the second analytic of importance to this enquiry. By way of key contributions in the field of science and technology studies and internet studies, I make a case for an infrastructural approach to conceptualising power and materiality in the information age. This approach calls attention to both the material stuff of cables, wires and devices, the physical spaces of production and reproduction of tech-capital such as offices and city spaces, alongside their “social sedimentations” (Murphy 2013).

The final section of this chapter maps existing scholarship at the intersections of reproduction and digital technologies. I argue that critical examinations of the entanglements of reproductive politics and tech-infrastructure can be pushed beyond the boundaries of contemporary scholarship by thinking with the analytic of technologies of reproductive regulation. Reviewing existing scholarship on contemporary digital societies, I argue that the shadows of what I conceptualise as

technologies of reproductive regulation can be seen in existing scholarship but have yet to be named or substantiated.

2.1 Reproduction and Technology

In this first section of the theoretic exegesis and exploration of this thesis, I chart how reproductive technologies are framed discursively across a variety of approaches from feminist theory to science and technology studies. I use this analysis as a point of departure to question why many academic and common-sense conceptualisations of reproductive technologies are defined as sociotechnical and biomedical interventions that act on the reproductive body. I then build on this analysis to forge the concept of *technologies of reproductive regulation* as an analytic and a point of departure for conceptualising reproductive technologies ‘beyond the body’, and assembled outside of the realm of the bio-economy and fertility industry. I show how thinking with and through the analytic of technologies of reproductive regulation allows us to think outside and beyond bio-technical reproductive technologies towards conceiving of other macrological, as well as micrological processes (Murphy 2011) as reproductive technologies.

This reflection begins by asking the question, what is a “reproductive technology” and why do they matter for reproductive politics? An obvious and probably answer would be that reproductive technologies are bio-technologies that intervene in fertility, gestation and the reproductive body. But such is the currency of this understanding of reproductive technology in both academic and wider debates about processes of living being, gestating, parenting/not parenting and kinship that pause for thought about what this term encompasses and what, by extension, it excludes is timely.

Reproductive technologies, as Dion Farquhar (1996) details, include alternative insemination, cryopreservation, in-vitro fertilization, and ovarian stimulating drugs. These knowledges and practices were devised thanks to post-World War II advances in agribusiness and animal husbandry breeding techniques that arose in countries with large animal breeding industries such as England and Australia. Other technologies used to gain knowledge and insight into human reproduction flows such

as fibre-optics, ultrasound and microsurgery were instead derived from military weapons associations and their commercial application (Farquhar 1996).

Yet political questions of what reproductive technologies *are* and consequently how to understand their *uses* and *effects*, whether they should be used, appropriated or discarded depends on how they are discursively constructed. In other words, what constitutes a reproductive technology is far more complex and wide-reaching than the technoscientific knowledges and materials that they encompass. Particularly within the fields of anthropology, sociology and feminist studies, scholars have offered a broad array of perspectives and insights on how reproductive technologies bring to the fore new forms of materiality (Lam 2020), kinship structures (Franklin 2013), global fertility chains (Parry 2017; Vertommen 2017) and reproductive labour (Lewis 2019). Other scholars emphasize the way that reproductive technologies reinforce gendered, racialised and classed inequalities reifying women as reproductive agents (Mies and Shiva 2014), whilst also highlighting the relations between science and technology and the impact and legacies of imperial regimes and exploitative global relations (Nahman 2013; Pande 2010; 2016; Schurr 2017; Vora 2015).

These works are the inheritors of several strands of earlier scholarship on reproductive politics and technologies that are understood by scholars as liberatory, oppressive, liberal and finally socially constructed views of reproductive technology. I now turn to a discussion of these earlier works through the prism of these concepts in the hope that they can be a productive organizing device to what is a large and important body of literature. My aim is to explore what practices and knowledges are framed as reproductive technologies and how they are discursively conceptualized.

One of the most salient and often cited examples of a liberatory view of reproductive technologies was put forward by radical feminist Shulamith Firestone in her 1970 manifesto *The Dialectic of Sex* (1970; 2003). The manifesto lays out a framework for a radical feminist politics that envisioned a world where reproductive labour was re-distributed. Ending the oppression of child-baring, Firestone proposed, could be achieved by relying upon technological alternatives, such as artificial wombs. These

new technologies, according to Firestone (2003), are the key to a new way of life that would free women from their biology and would threaten the social unit that is organized around biological reproduction: the family. Reproductive technologies are understood, therefore, as the driver of a socialist feminist revolution where women would seize the means of reproduction and “children would be born to both sexes equally, or independently of either, however one chooses to look at it” (26). Through this technology of ectogenesis, the process of gestation occurring outside the body, Firestone (2003) sees the potential to not only free women from the tyranny of childbirth but also abolish the family.

Firestone (2003) describes reproductive technologies in quite loose terms, alluding to them as “potentials of modern embryology” (352), “artificial insemination”(340), and “artificial reproduction” (26). She also clearly indicates that the reproductive technologies she is envisioning will be an extension of already existing technologies like the contraceptive pill, “The old spanner-in-the-works intervention against conception (diaphragms, condoms, foams, and jellies) was only the beginning. Soon we shall have a complete understanding of the entire reproductive process in all its complexity, including the subtle dynamics of hormones and their full effects on the nervous system” (339). Moreover, “Present oral contraception is at only a primitive (faulty) stage, only one of many types of fertility control now under experiment. Artificial insemination and artificial in ovulation are already a reality”(340).

Firestone (2003) views reproductive technologies present and future, therefore, as having liberatory potential, with the important qualifier that, “in the hands of our current society and under the direction of current scientists (few of whom are female or even feminist), any attempted use of technology to ‘free’ anybody is suspect”(352). Reproductive technologies, for Firestone, like other technologies, “are liberating – unless they are improperly used”(339), and in the absence of a feminist socialist revolution could be used to further entrench systems of exploitation. As Sarah Franklin (2010) summarises, “Firestone envisaged technology both as an agent of, and a means of salvation from, social and environmental degradation, while constantly reminding her readers that science and technology could not achieve these ends in the

absence of radical social change”(43). Feminist revolution, therefore, was a necessary precondition to redefining an economic order that would overthrow sex and class oppression by uniting the productive and reproductive forces.

Firestone’s (1970s) position has been critiqued, along with other radical feminist contributions, for ‘technologically determinist and biologically essentialist views’ (Franklin 2010). While Firestone certainly roots sex/gender in biology, her view of technology is slightly more convoluted and contradictory than a straight-forward determinist view. She repeatedly cautions that technology alone will not pave the path towards liberation, instead there must be a transformation in the way sex-roles are understood, a transformation that can only take place if technology is used to give women choices other than childrearing. Firestone’s perspective in brief is that reproductive technologies is *potentially* liberatory (therefore not inherently bad or good), and a driver of historical change. Notwithstanding, the causal/temporal nature of this change is somewhat unclear.

This perspective contrasts sharply with other radical and socialist feminist positions that viewed reproductive technologies as inherently oppressive. From this perspective, reproductive technologies were viewed as making women more not less subservient to biology. From the late 1970s and 1980s, anti-technology celebrations of bodies and maternal power became more dominant (Ruddick 1983; Rich 1976). In the 1980s, networks such as the Feminist International Network of Resistance to Reproductive and Genetic Engineering (FINNRAGE), led transnational advocacy efforts for technologies based on female rather than male values. FINNRAGE members maintained that new reproductive technologies were just an extension of patriarchal, capitalist and racist power structures. The network’s advocacy efforts and discussions mostly centred on the development of Assisted Reproductive Technologies (ARTSs) such as in vitro fertilization, alongside genetic testing, sex predetermination and embryo evaluation.

These ‘new’ reproductive technologies, as Robyn Rowland (1987b) argued, exemplify male control over women’s bodies and, “it’s inevitable route to eugenics and genetic

engineering; and the issues of choice and control” (71). Barbara Ehrenreich and Deidre English’s (1979) work presents a historical analysis of what they perceived to be the gradual consuming of the birth process by a male-dominated medical profession. Radical feminist thus perceived reproductive technologies as “the interests of masculine science for control over women’s bodies” (Rowland 1987a, 70). In a similar vein, Sultana Kamal’s (1987) work highlights the eugenic nature of reproductive technologies in the light of different population control programs in countries in the ‘global south’. She argues that that if any women benefit from these technologies, it is at the expense of less privileged women, especially women of color.

Contrary to Firestone’s (1970) framing of technology as potentially liberatory, many radical feminist perspectives essentialised the ‘female’ body as well as presenting an essentialist view of reproductive technology as inherently patriarchal. Technology, was far from neutral and was deeply implicated in a capitalist and patriarchal project of the domination and control of women and nature. As Maria Mies (1987) argues,

“[t]echnical progress is not neutral. It follows the same logic in capitalist-patriarchal and socialist-patriarchal societies. This logic is the logic of the natural sciences, more exactly of physics, and its model is the machine. It is always based-not just in its beginnings-on exploitation of and domination over nature, exploitation and subjection of women, exploitation and oppression of other peoples (37)”.

As Judy Wajcman (2010) surmises, much radical and socialist feminist discourse on technology, and reproductive technology by extension, critiqued not only patriarchal monopoly of technology, but the way gender is embedded in technology itself. Western technology, like science, was seen as deeply implicated in this masculine project of the domination and control of women and nature. Crucially, these approaches took the debate about gender and technology beyond the use/abuse model, focusing on the *political qualities* of technology.

Liberal feminist standpoints (Rushing and Onorato 2003; Menning 1981), by contrast, were favourable to the idea and development of reproductive technologies on the basis that they would facilitate reproductive autonomy through *choice*. This formulation is the product of liberal discourses that draw on a free-market framework of value-neutral, objective high-technology medicine. In this model, people desiring to reproduce exercise their rights by shopping among available technologies and providers. As Dion Farquhar (1996) conceptualises, liberal feminist approaches maintained that reproductive technologies provided the possibility to overcome biological limitations to conceive and offer the opportunity of motherhood to previously ‘infertile women’, a new identity category for involuntary childless people. Furthermore, a liberal feminist position on reproductive technologies argues that it is up to the individual to determine which reproductive technologies they will use and under what circumstances (Menning 1981). Thus, from a liberal feminist perspective, reproductive technologies are neither inherently bad nor inherently good, but confer the possibility of ‘choice’. In this vein, liberal feminists argue knowledge of and access to reproductive technologies should be equally available to all (Rushing and Onorato 2003).

Over the last two decades, scholars of reproductive technologies have mostly theorised the relationship between society and repro-tech as one of mutual shaping. Much of this work explored the development of reproductive sciences and technologies, often honing in on a particular technology to analyse its relationship to gender politics. These works have focused on endocrinology and hormone treatments (Oudshoorn 1994; A. E. Clarke 1998), contraceptives (Oudshoorn 1994; A. E. Clarke 1998), infertility (Thompson 2005), and prenatal genetic testing and interventions (Rapp 1999). A crucial contribution of this literature is the notion that reproductive technologies have de-naturalized biologically determined or heteronormative understandings of reproduction (Franklin 2013; Mamo 2007).

Charis Thompson’s (2005) work on Artificial Reproductive Technologies (ARTs) and ART clinics in the United States, describes this complex assemblage as an ‘ontological choreography’, referring to “the dynamic coordination of the technical, scientific,

kinship, gender, emotional, legal, political, and financial aspects of ART clinics” (8). This ‘hybrid mess’, according to Thompson (2005) is actually a delicately balanced coming together of things that are generally considered parts of different ontological orders (part of nature, part of the self, part of society) that mix up body parts and instruments to make a pregnant person. Crafted together this assemblage not only produces parents and children but also everything that is required for them to be recognised as such. Sarah Franklin’s (2013) work on ARTs furthers this point of showing how reproductive technologies denaturalise kinship structures and problematise the notion that reproduction is a biological process. Franklin (2013) argues that ARTs are central to a growing acceptance of “biology as a technology”, arguing that many processes that we consider to be ‘biological’ such as conception, are in fact activated by social technologies such as of kinship. Franklin (2013), builds on Gell’s (1987) term “technology of reproduction” to argue that, “reproduction, like gender and kinship, must also be produced: it is not simply there to be presumed as a self-acting force” (184).

Transnational and political economic perspectives, moreover, shine light on the global politics of reproduction and its stratification, paying heed to the “transnational inequalities on which reproductive practices, policies, and politics increasingly depend” (Colen 1995, 1). These perspectives also analyse global power relations and the complex legacy of colonialism that undergird reproductive technologies (Briggs 2002; Bambara 1970; Davis 1983). Science and Technology Studies (STS) scholars working from a (post/settler) colonial perspective show how gendered and racialised notions are rephrased into highly stratified reproductive practices such as gamete donation and surrogacy (Rudrappa 2015; Lau 2018). Explorations of the ways that whiteness is reproduced, desired, and valued through racialized access to reproductive technologies and surrogacy markets are also central to this literature (Schurr 2017).

On a more (infra)structural level, for-profit biotechnologies and the ‘datafication’ of reproduction have given birth to an increasingly commercialised and transnational fertility sector. This has provoked a surge of scholarship in Science and Technology Studies that focusses on the creation of ‘biocapital’ or the ‘bioeconomy’, offering

political economic perspectives of the enmeshments between reproduction, biotechnologies and capitalism or what Sigrid Vertommen (2017) has called the reproductive-industrial complex. Building on what Charis Thompson (2005) dubbed the 'biotech mode of (re)production', work by Sarah Franklin (2013), Catherine Waldby and Robert Mitchell (2006), and Sunder Rajan (2020) analyses the changing meanings of capital, production, labor, value, and distribution in the context of biotechnology and reproduction specifically. Theorist of biocapital posit that organising and managing reproductive life is increasingly the concern of corporate enterprises that extract value and generate capital from biotic material and information (Helmreich 2008). Lucy van de Wiel's (2019) recent work provides an important additional perspective on the datafication of reproduction, "characterised by mergers resulting in larger fertility chains, online platforms organising fertility care and expanded portfolios of companies aiming to cover each step of the IVF cycle" (193). This literature offers important insights into the sheer scale of biocapitalist industries and their involvement in political projects of the state.

Returning now to the opening question of this discussion, 'what is a reproductive technology?', we are in a better position to provide some answers. For the most part, the 'reproductive' component of the term, refers to 'bio-social' (C. Roberts 2007) processes that happen in bodies but are a co-construction of the biological and the social, or the biological and the technological. This is a departure from the essentialism proposed by Firestone (1970) and others (Rich 1976). Rather, as Judith Butler (1993) has argued, sex and gender are produced through discourse and power as opposed to being naturalized or essential effects of the body. Many liberatory, radical, liberal and constructed perspectives, however, ontologize reproduction as tied to the biological processes of the body, with wider political, social and structural implications.

Conversely, the term 'technologies' in an empirical sense refers to bio-technologies such as Assisted Reproductive Technology (ART), Egg freezing and transfer, artificial insemination and contraceptives that intervene at the level of bodies, cells and genes. Conceptually, these 'technologies' have been discursively constructed as inherently

liberatory, inherently patriarchal or value-neutral. Within STS influenced literatures, they are conceptualized as assemblages or “choreographies” (Thompson 2005), of artefacts, practices, knowledges, humans and non-humans that (un)make parents, babies, kin. Important recent work also posits that the relationship between reproductive technology and society is one of mutual shaping. Moreover, important emerging perspectives particularly in feminist STS have de-naturalised binary and dualistic understandings of the relationship between the social/biological/technological.

In my view, however, and as Michelle Murphy (2011) points out, many strands of scholarship on reproductive technologies past and present retain a preoccupation with the body, understood as synonymous with the individualised reproductive agent. Moreover, while contemporary interventions have challenged the biological and technological essentialisms of earlier work, the focus still lies with theorising ARTs, surrogacy technology, contraceptives and many other knowledges and practices as *the* primary technologies that matter for reproductive politics and processes. These literatures, therefore, are undergirded by a tacitly accepted notion that reproductive technologies *are* a specific set of bio-technologies that intervene in fertility and gestation. This means that most academic and common-sense conceptualisations of repro-tech stop short of questioning what *other* processes could be conceptualised as reproductive technologies. In so doing, these approaches neglect and foreclose other (infra)structures and technologies that matter for reproductive processes and politics and are also implicated in (un)making babies, families, kin and communities.

Following others (Murphy 2011; 2013; Ross et al. 2017), I am interested in calling into question the understanding that reproduction is something that happens primarily in individualised reproductive bodies. Building on this, I am also interested in disrupting what counts as a reproductive technology. My hope is that shifting focus away from bio-tech and the fertility industries will open up a broader imagining of how other institutions, policies, technologies, human and non-human actors (technologies) intervene in collectivised processes of reproduction. In order to conceptualise this, I

now turn to a discussion of reproductive politics and processes that *exceed* the body and are constituted through structural processes.

2.2 Reproduction Beyond the Body

Feminist Marxist, critical race and decolonial conceptualisations have pointed to the fact that reproduction is also constituted through what Michelle Murphy (2011) has termed “macrological processes”, which are extensive in geographical space and historical in time. Reproductive processes extend beyond the individualised body to include labour, care, housing, differential wage gaps through processes known as social reproduction. In the 1970s, activists and scholars alike called attention to the daily and long-term gendered and racialised processes that reproduce the workforce and means of production. While social reproduction hinges at a basic level on biological reproduction, it calls attention to the uneven distributions of resources necessary to sustain a household. This includes many forms of unpaid work, such as purchasing household goods, preparing food, maintaining the home space, socializing children, providing care and emotional support, and maintaining kin and community ties (Glenn 1992). As Silvia Federici (2012), Mariarosa Della Costa and Selma James (1975) highlighted through their thought and activism, the economy relies on gendered unwaged care work that creates and sustains future workers but is also largely invisibilised. Moreover, this work is often performed in conjunction with waged labour outside the household placing a “double burden” on those doing housework. From this perspective, capitalism and labour relations are viewed as the drivers of gendered and classed forms of exploitation.

Other scholarship on social reproduction emphasise the ways that historically marginalized groups, such as women, enslaved people, their descendants, colonial and post-colonial subjects have performed the majority of the world's reproductive labour (Davis 1983; Glenn 1992; Bhattacharya and Vogel 2017). Angela Davis (1983) was one of the first critics to point out that in chattel slavery, Black women's labour was mobilized in the reproductive realm as well as in unwaged agricultural production long before discourses of the “double burden” emerged in white feminist thought.

Evelyn Nakano Glenn (1992) further points to the racialised as well as gendered patterns of domestic workers in the United States, where recent im/migrants, working class and women of colour were employed in households in order to relieve white middle class women of reproductive work. As Tithi Battacharya (2017) has emphasized, addressing the relationship between exploitation (normally tethered to class) and oppression (normally understood through gender, race, etc.) is necessary to understand the complexities of the ways in which labour lies at the heart of reproducing contemporary societies. Increasingly pressing issues for social reproduction are the criminalisation of the working-class through mass incarceration and the formation of a global “ex-lege proletariat” (Federici 2010) made-up of undocumented im/migrants and under-the-counter workers.

In this vein, Shellee Colen’s (1995) notion of “stratified reproduction”, describes the way that, “physical and social reproductive tasks are accomplished differentially according to inequalities based on hierarchies of class, race, ethnicity, gender, place in the global economy, and migration status and that are structured by social, economic and political forces” (78). Foregrounding the experiences of West Indian childcare workers in New York and their U.S born affluent employers, Colen’s (1995) conceptualisation captures how some categories of people are empowered to nurture and reproduce, while others are disempowered through transnational colonial, imperial and diasporic hierarchies that structure gendered labour relations (Ginsburg and Rapp 1995). Closely related to work on social reproduction, Colen’s (1995) analytic, and the subsequent work it inspired, draws attention to the socioeconomic conditions that drive reproductive labour movements. While the focus in much of this work starts with parenting and childcare, stratified reproduction as a framework offers an important ‘macrological’ analysis of the wide structural and infrastructural forces that determine reproduction beyond the body.

Reproductive justice scholars and activists share some of these concerns and arguably expand this structural analysis even further. This framing of reproductive politics with its roots in Black and Chicana feminist theory and movements (Combahee River Collective 1986; Anzaldúa 1987), draws attention to social justice issues such as state

violence, policing, gentrification, housing and welfare reform, immigration policies as well as just and equitable access to healthcare and reproductive technologies. The movement, founded by Black feminist grassroots activists in the south of the United States, was formulated precisely in response to the limitations of the strategies employed by the mainstream movement for reproductive rights. Reproductive justice organizers identified that for Black, Latinx, and Indigenous women, for people with disabilities, queer people and for working-class communities, freedom from sterilization abuse and reproductive control, access to housing, healthcare as well as freedom from environmental racism, structural oppression and state violence, were more urgent concerns than protecting the right to access contraception or terminate a pregnancy. The question of who is permitted to be a parent and to bring up their own children in a healthy and safe environment is contingent on race, gender, class, disability and sexual orientation, advocates argue (Davis 1983; Hill Collins 1991; D. Roberts 1997).

In Loretta Ross's (2017) words, "Reproductive Justice Theory (RJT) radically reconceptualises the politics of reproduction by speaking not only to how bodies are gendered but how they are racially and sexually identified to analyse hierarchical reproductive relations imposed by the ideology of white supremacy" (193). While there are many overlapping priorities, the focus of reproductive justice activists and scholars is to make visible the ongoing historical connections between colonialism, capitalism, white supremacy and reproductive oppression and exploitation (Gurr 2015; Ross et al. 2017; Smith 2005). The framework has led to vital contributions that have charted the entanglements of reproductive oppression with the criminal justice system (Silliman et al. 2002), welfare restriction (Romero and Agénor 2017), ongoing settler colonial violence and the reproductive oppression of Native American communities (Tallbear 2018), im/migration enforcement and policing (O'Leary and Simmonds 2017), gentrification (Ross and Solinger 2017), reproductive technologies (Roberts 2011) and disability (Jarman 2020).

Crucially, the re-conceptualisation offered by reproductive justice theory highlights the need for thinking about reproductive politics 'beyond biology'. This includes

analysing policies that, “move beyond biology to control communities in ways that re-rationalize eugenical thinking by advantaging the economically privileged” (Ross 2017). Loretta Ross (2017) points to the pivotal role of urban infrastructural inequality whereby, “the federal government today encourages urban gentrification through land use policies, tax codes, and subsidized finance that serve as forms of reproductive oppression but are seldom seen that way.” In turn, these strategies are intimately connected to the state’s objective of achieving key cultural goals, such as enforcing gender subordination and racial normativity, reproducing a white country, creating a no-cost (enslaved) or low-cost labour force, and producing sufficient people for work in the military forces (Ross and Solinger 2017, Ross 2017).⁵

Building on all of these conceptualisations, Michelle Murphy (2011, 2017) proposes the notion of ‘distributed reproduction’. This conceptualisation reframes reproduction as occurring *beyond bodies* within uneven spatial and temporal infrastructures, or “macrological” processes. Murphy (2011; 2017) draws attention to the fact that within certain infrastructures, some forms of life are promoted and others are averted. Infrastructures for Murphy (2013) encompass, “

state, military, chemical, ecological, agricultural, economic, architectural—that “assist,” alter, rearrange, foreclose, harm, and participate in the process of creating, maintaining, averting, and transforming life in inter-generational time. By infrastructure I mean more than the physical structures of waterway and pipelines. I use infrastructure to name the spatially and temporally extensive ways that practices are sedimented into and structure the world. Thus, a capacious sense of infrastructures includes social sedimentations such as colonial legacies, the repetition of gendered norms in material culture, or the persistence of racialization”.

⁵ These attempts to control reproduction through unequal distribution of resources alongside other forms of structural oppression have a long history. This is evidenced, according to Ross (2017) through the history of reproductive control. Turn of the century eugenicists, for example, did not only intervene in hereditarian biological processes, “[t]hey addressed a wide range of subjects, including immigration and demographics, economics, environmentalism, state surveillance, land use policies, scientific racism, the mental health and criminal justice systems, foreign policy, and militarism”.

Infrastructures, for Murphy (2013), are therefore material-semiotic formations in which material and discursive practices are inextricable.

Distributed reproduction hinges on an understanding of reproduction as a set of dispersed processes transformed through infrastructures such as technoscience, housing, criminalisation, labour relations, the nation state and much more. Charting the effects of chemical contamination and development initiatives, Murphy (2011, 2013) points to the importance of technoscientific engineering, industrialization and comparable data-sets as processes that structure reproduction. Within this ontology, distributed reproduction, “passes through the World Bank, microloans, feminism, girls, and Nike sneakers” (32). Equally, the technoscientific processes and social relations that create chemical pollution are a “material and altering presence in living being” (32). The resulting reproductive impairment caused by chemical injuries and development initiatives, demonstrate, according to Murphy (2011) how distributed reproduction is a, “processional exercise of power that is as necropolitical as it is biopolitical” (13). Encouraging us to think suspiciously about the body as the common-sense site of reproductive processes, Murphy (2011) constructs an ontological politics⁶ of reproduction that attends to, “how life is constituted through the infrastructures and political economies that exceed sexed and raced bodies”(27), thereby focussing our attention on the ways that technoscience and political economy do not simply converge on, but are *in themselves* processes of reproduction.

These conceptualisations of reproduction ‘beyond biology/the body’ and structured by infrastructures are important not only for complicating and disrupting the ontological

⁶ Ontological politics is Murphy’s terminology but nonetheless it requires clarification. I borrow from Anne Marie Mol’s (1999) discussion of ontological politics as I believe this explains the sense in which Murphy (2011) is using the phrase. Mol (1999) writes, “*Ontological politics* is a composite term. It talks of *ontology*—which in standard philosophical parlance defines what belongs to the real, the conditions of possibility we live with. If the term ‘ontology’ is combined with that of ‘politics’ then this suggests that the conditions of possibility are not given. That reality does not precede the mundane practices in which we interact with it, but is rather shaped within these practices. So the term *politics* works to underline this active mode, this process of shaping, and the fact that its character is both open and contested” (74-75). The term ontological politics, however, is originally an intervention made by John Law see Law (2002).

politics of reproduction, but also because they invite us to revisit our understanding of what 'technology' is (ontology) and does within this politics. While these frameworks seldom explicitly name technological apparatuses⁷, distributed reproduction, stratified reproduction and reproductive justice offer a fertile starting point for an analysis of technological infrastructures outside of the biotech and fertility industries that matter for reproductive politics and processes. Drawing Michelle Murphy's (2011, 2013) conceptualisation of infrastructures into conversation with reproductive justice's expansive vision of reproductive politics, it is possible to conceive of other sociotechnical systems and technologies as integral to reproductive politics and processes. This brings to the forefront the relevance of the infrastructures of the criminal justice system, border control, urban planning and the technical and legal instruments of healthcare structures. Following Murphy (2013), therefore, we can conceptualise infrastructures, social institutions and their sociotechnical systems as doing at a collectivized social level, the often-violent work of (un)making babies, parents and kin performed by 'repro-tech' at the cellular, molecular and bodily level.

What is at stake, then, in thinking suspiciously not only about the body as the supposed common-sense site of reproductive processes (Murphy 2011), but also questioning the individualised reproductive body as the site of intervention of reproductive technologies? If processes of reproduction are as much 'macrological' as they are anatomo-political, we might ask, what 'reproductive technologies' might there be beyond the socio-biological processes of gestation and fertility? What other socio-technical systems outside of the fertility and biomedical industry coalesce into reproductive processes and politics? I explore these questions in the following section.

2.1.2 Towards Technologies of Reproductive Regulation

Building on this important work that analyses human reproductive processes beyond the individualised reproductive body, my contention and what I explore in this thesis is that many other political and institutional processes that can be understood as

⁷ Murphy (2011;2013) refers to technoscience and infrastructures more broadly, I am referring to specific sociotechnical systems.

reproductive technologies that act on the body politic. I coin these processes *technologies of reproductive regulation*, conceived as sociotechnical systems⁸ and/or infrastructures that play a part in reproductive politics and processes. Technologies of reproductive regulation do not intervene in the individualised reproductive body, but instead they govern the terms, spaces and conditions of reproductive life, in keeping with the bio-necropolitical agendas of the state and adjacent actors.⁹ They are embedded in the infrastructures of the state, capitalism and architectural geographies. Moreover, in the information age technologies of reproductive regulation are increasingly co-produced with tech-industry infrastructures.

In Florida where this study is situated, political technologies that (directly or indirectly) regulate reproduction are deployed through policing and the inequitable distribution of (re)productive space and resources. These include policy and legal instruments that reduce access to reproductive healthcare and abortion services coupled with strategies by right-wing militant antiabortion activists that weaponise the web to build digital barricades around sites of reproductive healthcare. These attempts co-exist with state-wide initiatives that bolster federal immigration policing and surveillance strategies that cause family separation. These policing mechanisms proliferate the national border into the interior and are increasingly wearable, algorithmic and administered by corporate tech-enterprises. Moreover, as one of the fastest gentrifying areas in the United States (Feldman and Jolivet 2014; Gierczyk 2020), elected city officials in South Florida are annexing neighbourhood spaces for a tech and innovation hub by manipulating zoning regulations and turning

⁸ Sociotechnical systems are understood as “a seamless web of networks combining artefacts, people, organisations, cultural meaning and knowledge” (Wajcman 2020, 149).

⁹ As established, this analytic draws on feminist frameworks and thinking around reproductive politics and processes and owes a great debt to the thought and work of reproductive justice scholar-activists. I want to qualify, therefore, what the relationship is between my analytic and the term ‘reproductive oppression’ which is frequently used in reproductive justice literatures. As Loretta Ross (2019) defines it, “reproductive oppression is experienced by women of color as the exploitation of our bodies, sexuality, labor, and fertility in order to achieve social and economic control of our communities and in violation of our human rights” (94). As I understand it, the term captures the embodied *effects* and *consequences* of white capitalist heteropatriarchal power relations on the reproductive bodies and capacities of communities whose reproduction is marked as unwanted. By contrast, I forge technologies of reproductive as an analytic to name, substantiate and analyse a specific set of power relations and infrastructures that in turn cause reproductive oppression.

neighbourhood living spaces and sites of social reproduction into spaces of capitalist profit. This annexation of (re)productive space for the expansion of tech-capital is leading to the displacement and dispossession of residents and the destruction of local communities.

Working with and learning from the social justice movement in South Florida, I came to understand these processes not as separate instances of bio-necropolitical management or attempts to regulate collectivised bodies, borders, living spaces and processes of living being, but as intimately connected and fraught struggles that extended in space as well as time. Forging technologies of reproductive regulation as a framework and analytic allowed me to make sense of how these processes are connected, not only theoretically, but also historically, politically and empirically. Over the course of four years of research in a state/space constantly in flux, the travelling border, the neighbourhood and abortion clinic remained the key sites of gendered and racialised attempts to regulate reproductive spaces and resources. As I demonstrate in Chapter 4 of this thesis, this stems from their social and political importance as key sites for the reproduction of the settler state¹⁰.

Moreover, in the contemporary and as computation infrastructures become increasingly ubiquitous these processes have found novel expression through the digital and material architectures of the technology industry. Murphy's (2013) analysis of distributed reproduction reminds us of the vital role of state and military infrastructures, chemical industries, agriculture and the economy that assist, alter, rearrange, foreclose, harm, and participate in the process of creating, maintaining, averting, and transforming life in inter-generational time. Moreover, As Donna Haraway (1991) pointed out as early as 1991, communication technologies are crucial tools recrafting our bodies that enforce new social relations worldwide. As the fastest

¹⁰ Throughout this chapter, I refer to the United States as a settler state following Evelyn Nakano Glenn's (2015) work that argues that understanding settler colonialism as an ongoing structure rather than a past historical event serves as the basis for a historically grounded and inclusive analysis of U.S. race and gender formation. The term settler state refers to the ongoing histories of settler coloniality that shape power relations in the United States. This is discussed later on in the chapter with reference to other interventions.

growing global economic sector, 'Big-Tech' is reshaping the virtual and material landscapes we inhabit at a dizzying speed. And yet, tech-infrastructures or what is commonly referred to as the 'platform industry' are an under-researched, underestimated and yet increasingly important player in reproductive politics and processes.

Before proceeding to a more in-depth discussion of technologies of reproductive regulation, a qualification is necessary of what exactly is meant by 'technology' in this analytic. I understand technology as a form of power and a mode of managerial organization. This I borrow from Foucault (1988) and feminist and decolonial scholars who have built on this work (Mbembé 2003; Stoler 1995; Weheliye 2014). Foucault deploys the term technology throughout his work to describe the operations of political power. In *Society Must Be Defended* (2003) and *Discipline and Punish* (1982) Foucault suggests that discipline is a technology aimed at the individual body, and biopower is a "regulatory technology of life" (Foucault et al. 2003, 249). This conceptualization of biopower is further refined and developed in *History of Sexuality Vol 1* (Foucault 1978) and *Security, Territory, Population* (Foucault 2009) where Foucault proposes a juncture between biopolitical and security technologies. The concept refers to methods and procedures of governance rather than sociotechnical systems as they are currently conceptualised. Foucault's conceptualisation is therefore approximate to *Techné* (from the Greek), or the study and proliferation of techniques or 'practical arts', which doesn't necessitate the involvement of technical objects or 'machines', but neither does it exclude them.

Missing, however, from Foucault's *technologie* analytic, is an adequate account of race and gender. Beth Coleman (2009) extends the function of *Techné* to race, making the argument for considering race as technology. Race as technology, Coleman explains, "recognizes the proper place of race not as a trait but as a tool—for good or for ill—to reconceptualize how race fits into a larger pattern of meaning and power". Conversely, Ruha Benjamin (2016a) emphasizes that race as a technology creates parallel social universes and premature death. For Benjamin (2016b), positing race as a technology, "is an invitation to consider racism in relation to other forms of domination as not just

an ideology or history, but as a set of technologies that generate patterns of social relations, and these become Black-boxed as natural, inevitable, automatic”(83). Thus, while Coleman (2009) disconnects race from the biological and genetic systems that have historically dominated its definition, Benjamin (2016b) is concerned with how technoscientific practices coproduce racial classifications. Positing race as a technology proposes a re-fashioning of how we think about how inequalities and oppression are created and maintained, or, borrowing from Wendy Hui Kyong Chun (2009), “

Race as technology reveals how race functions as the “as,” how it facilitates comparisons between entities classed as similar or dissimilar. This comparison of race and technology also displaces claims of race as either purely biological or purely cultural because technological mediation, which has been used to define humankind as such (“man” as a “tool-using” animal), is always already a mix of science, art, and culture. (8)”

Gender also acts as a ‘technology’ of cultural definition and classification that can be deployed to naturalise a grammar of difference: binary, heterosexual, reproductive (Haraway 1991). Teresa de Lauretis (1987) explores the technologies of gender drawing on and critiquing Foucault’s “technology of sex”, arguing that like sexuality, gender is not a property of bodies but a set of effects produced in bodies and social relations, through the deployment of what Foucault termed “a complex political technology.” De Lauretis (1987) goes beyond Foucault’s conceptualisation however to, “think of gender as the product and the process of a number of social technologies, of techno-social or bio-medical apparati” (24). For de Lauretis (1987), the notion of ‘technology of gender’, can be thought of as the product (and also process) of a number of different social technologies. Gender is understood therefore as a construct, but also as an organising device.

Drawing on this work, ‘technologies’ of reproductive regulation are conceptualised not as objects or artefacts -digital or otherwise- but as co-constituted with social and political relations or as Bruno Latour (1990) surmises, technology as society made

lasting. Technologies cannot, therefore, be reduced to tools, but as Donna Haraway (1991) has argued are, “frozen moments of the fluid social interactions that constitute them that are also instruments for enforcing meanings” (164). Moreover, drawing from Foucault’s understanding of technology as a political and regulatory mode of organisation alongside feminist and critical race analyses, technologies of reproductive regulation are a form of power and a mode of managerial organization in which race and gender are a set of technologies that generate patterns of social relations and naturalise and sediment reproductive hierarchies and inequalities. Crucially, technologies of reproductive regulation, as I conceptualise them, work to (re)structure and naturalize entrenched dualisms against which the normative white middle-class American family asserts its reproductive and biological citizenship.

These discursive (semiotic) formation of technologies of reproductive regulation, as they interact with infrastructures of digital technologies and the technology industry, are the subject of analysis in this thesis. These are inextricable from the discursive and organising function of political technologies or techné, and encompass the sequential-codes, information architectures, devices, networks, human actors and materials (cables, servers, buildings) that constitute the infrastructures of the technology industry.

2.3 Bio-Necropolitics, The Settler State and Bordering

As already stated, technologies of reproductive regulation are undergirded by both biopolitical and necropolitical modalities. In what follows, I substantiate this conceptualisation with reference to Foucault and feminist, decolonial and critical race scholars who have drawn on, critiqued and extended the concept of biopower.

Foucault’s notion of biopolitics figures centrally in literatures on reproduction and reproductive technology (Inda 2002; Mills 2011; Murphy 2012; Rabinow and Rose 2006; Catherine Waldby and Cooper 2008). This is in part due to the way that reproduction and reproductive technologies and processes span both the anatomo-politics of the human body and the biopolitics of social groups and the social body. In other words, a

biopolitical frame permits an analysis of individualised reproductive processes and the way this relates to broader social, political and economic processes embedded in society, the nation state and geopolitics.

These connections are made particularly explicit in Jonathan Xavier Inda's (2002) analysis of the deliberate exclusion of undocumented pregnant people from reproductive healthcare. Inda (2002) sees the 'body of the undocumented migrant woman' as an important terrain of struggle, particularly as it pertains to the regulation of reproductive capacity through the prism of biopolitics. The analysis explores how the state, in order to fortify the health of the population routinely aims to eliminate those influences that are deemed harmful to the biological growth of the nation. Inda (2002) maintains that the exclusion of the 'migrant body' as well as their exposure to death is codified as an essential and noble pursuit necessary to ensure the survival of the social body. The policy, according to Inda (2002), conveys the message that the lives of undocumented people and their children are expendable. Inda (2002) frames this analysis through a reading of Foucault's biopolitics as explicated in *History of Sexuality Vol. 1* that modern power deals with living beings and exercises a power over life itself, whereby it is the management and optimization of life, more than the eminent threat of death that gives power access to the body. This power over life, or biopower, is apparent in the emergence of the population as an economic and political problem in the eighteenth-century. Biopower can be conceived as the convergence of disciplinary normalization and population management through systems of production and social control. Foucault (1978) explains, “

Governments perceived that they were not dealing simply with subjects, or even with a "people," but with a "population," with its specific phenomena and its peculiar variables: birth and death rates, life expectancy, fertility, state of health, frequency of illnesses, patterns of diet and habitation. All these variables were situated at the point where the characteristic movements of life and the specific effects of institutions intersected: States are not populated in accordance with the natural progression of propagation, but by virtue of their industry, their products, and their different institutions” (25).

The management of the population and the state's concern to reproduce a healthy and productivity species body became the main commitment and source of legitimacy of modern forms of government. This shift in governmentality also entailed a change in the sovereign right to kill from being a demonstration of force to an act which disallowed some life in order to nurture other life. In Foucault's (2003) words, “

“Beneath that great power, beneath that somber absolute power that was the power of the sovereignty, and which consisted in the power to take life we now have the emergence, with this technology of biopower, of this technology of power over “the” population as such, over men insofar as they are living beings. It is continuous, scientific and it is the power to make live. Sovereignty took life and let live. And now we have the emergence of a power that I would call the power of regularization, and it, in contrast, consists in making live and letting die” (247).

Thus, the sovereign right to take life and let live, according to Foucault, is replaced by an imperative to foster life or disallow it to the point of death. Biopolitics, therefore, has an evaluative logic at its core between those lives deserve to be lived and lives unworthy of being lived. Inda (2002) draws the conclusion from Foucault's formulation that within a biopolitical logic concern for the health of the population is indistinguishable from the fight against (and the necessity of eliminating) the enemy. This is how the modern biopolitical state in its most extreme expression, such as Nazi Germany, simultaneously claims to be protecting life while authorizing a holocaust. Inda (2002) explains that it is not just totalitarian states that operate according to a biopolitical rationality. Modern states, therefore, more typically multiply for some the risk of death and subject certain bodies to marginalization, expulsion and rejection.

It follows that the proposed anti-im/migrant policies in California in the 1990s demonstrate how the American nation state seeks to regulate the reproductive capacity of ‘unworthy’ (Inda's terminology) segments of the population in defence of the interests of the nation state. The act of denying care, Inda (2002) maintains, is

tantamount to exposing the im/migrant child and mother to death, or, at least to multiplying their risk of death. For Inda (2002), “It is thus in this space between life and death that it is possible to locate the present-day rejection of the migrant”. Finally, Inda (2002) locates the policy of denying reproductive healthcare as part of a continuation of policies designed to foster the ‘health of the social body’ through reproductive control of those deemed ‘unfit’ which stems from the eugenics movement in America of the early twentieth century.

Inda’s (2002) framing of the Californian policy in terms of biopower has conceptual and historical validity. I would also argue that the social and political instruments that Inda (2002) is describing are constitutive of what I call technologies of reproductive regulation. Reactionary and discriminatory policies that target im/migrant people and their reproductive capacity throws into relief the ongoing history of population control in the United States where attempts to suppress reproduction are intimately bound up in attempts to control the make-up of the social body.

However, framing the Californian policy as a form of biopower, following Foucault, leads to an eclipsing in this analysis of the significance of race and colonialism, alongside gender. These are fundamental aspects to understanding such a policy in the context of the United States which is both a settler colony and a neo-colonial power. As feminist, critical race, postcolonial and decolonial scholars researching reproductive politics have demonstrated, it is imperative to examine the ways subjects are targeted differently by reproductive policies by virtue of racialization but also how this relates to the mutually constitutive nature of the modern state and colonialism (Combahee River Collective 1986; Mbembé 2003; D. Roberts 1997). Crucially, framing the California policy through a biopolitical framework replicates the fundamental flaws of Foucault’s understanding of the relationship between raciality and coloniality. In turn, this ignores the fact that in the United States sovereign violence is an ongoing pervasive settler colonial technology of domination.

Despite its prominence in subsequent academic writing, the extent to which Foucault provided a comprehensive theorisation of biopolitics is, to my mind, debatable.

Comparative to the broader articulations of power and governmentality covered in his later lecture series at the Collège de France 1977-78 *Security, Territory Population*; and 1978-79 *The Birth of Biopolitics*, the concept of biopower remains much less developed and can plausibly be said to be subsumed by a broader framework of governmentality in later work. However, in *Abnormal, Society Must Be Defended* and to a lesser extent in *The History of Sexuality Vol. 1*, Foucault examines the significance of racism and colonialism in the context of biopolitics. Foucault poses the question of how a sovereign power directed towards the improvement and prolonging of life can enact the political power to kill. He maintains that this action is primarily justified through the deployment of racism. In Foucault's (2003) words, “

What in fact is racism? It is primarily a way of introducing a break into the domain of life that is under power's control: the break between what must live and what must die” (...) Racism also has a second function. Its role is, if you like, to allow the establishment of a positive relation of this type: "The more you kill, the more deaths you will cause" or "The very fact that you let more die will allow you to live more." I would say that this relation ("If you want to live, you must take lives, you must be able to kill ") was not invented by either racism or the modern State.(...)On the one hand, racism makes it possible to establish a relationship between my life and the death of the other that is not a military or warlike relationship of confrontation, but a biological-type relationship: "The more inferior species die out, the more abnormal individuals are eliminated, the fewer degenerates there will be in the species as a whole, and the more I—as species rather than individual—can live, the stronger I will be, the more vigorous I will be. I will be able to proliferate” (254-255).

For Foucault racism serves two functions: it is conceptualized as a discursive formation as well as a biopolitical device. Racism as a biopolitical device functions to demarcate an inferior-superior binary that justifies the political power to kill. By this logic, if the state wishes to exercise the old sovereign right to kill it must become racist. Racism is therefore a biopolitical tool that drives the operation of biopower and serves as an indicator of where the function of ‘making live’ should focus and where

the function of 'letting die' should focus. In the modern state, racism kills through a slow process of 'letting die' which is also punctuated by historical moments of racial genocide such as the holocaust which Foucault conceives as biopower in an absolute sense which has generalized the sovereign right to kill. The case of Nazi Germany, however, is an extreme case and Foucault provides the important qualifier that more broadly, 'killing' also extends to every form of indirect murder, "the fact of exposing someone to death, increasing the risk of death for some people, or, quite simply, political death, expulsion, rejection, and so on." (Foucault et al. 2003, 256).

Foucault also acknowledges that racism began in colonization. In *Society Must Be Defended* (2003) Foucault articulates the relationships between colonialism, biopower and racism explicitly,

"Whenever, in other words, there was a confrontation, a killing or the risk of death, the nineteenth century was quite literally obliged to think about them in the form of evolutionism. And we can also understand why racism should have developed in modern societies that function in the biopower mode; we can understand why racism broke out at a number of privileged moments, and why they were precisely the moments when the right to take life was imperative. Racism first develops with colonization, or in other words, with colonizing genocide. If you are functioning in the biopower mode, how can you justify the need to kill people, to kill populations, and to kill civilizations? By using the themes of evolutionism, by appealing to a racism" (257).

This acknowledgement, however, remains cursory and Foucault never explicitly theorises colonialism as a context of biopower. As Carlos Rivera Santana (2018) emphasises, this is because his primary concern lies with demonstrating how racism aids biopolitics in the context of Europe and not how racism began in colonization. In other words, he has little interest in race and racism itself, its relationship to colonialism and biopower, rather he is concerned with how it functions as a biopolitical tool to eliminate those constructed as 'undesirable' or threatening to the social body mostly in the context of European societies.

Conversely, Foucault also explicitly discusses the management of sexuality and fertility as a corner stone of biopolitical governmentality both in the *History of Sexuality Volume 1* and *In Society Must Be Defended*. Biopolitics, for Foucault (2003), is defined as a “power that took possession of life in the nineteenth century” (253) by way of technologies of discipline and technologies of regulation that, “lies between the organic and the biological, between body and population” (Foucault et al. 2003, 253). This new technology of biopower involved, “a set of processes such as the ratio of births to death, the rate of reproduction, the fertility of a population, and so on” (243). In the second half of the eighteenth century, therefore, biopower increasingly sought to gain knowledge of and control over these processes - the birth rate, the mortality rate, longevity, alongside a series of related economic and political questions. Foucault identifies this as the moment that the first demographers began to develop means of statistically measuring the population and became interested in identifying birth-control practices in the eighteenth century. In parallel to this, the shift towards biopower also marks the beginning of natalist policies and plans to intervene in all phenomena relating to the birth rate (Foucault 2003).

Statistical measurements that enables estimation, forecasts and overall measurements of the social body were therefore essential technologies of biopower and were deployed, according to Foucault, in order to intervene at the level of the population to lower mortality rates, to increase life expectancy or to stimulate the birth rate. This is paired with an increased concern with controlling sexuality as a ‘corporeal mode of behaviour’ because sexuality, as Foucault elucidates, exists at the point where body and population meet and as such is a matter for discipline as well as regularization. Alongside attempt to control individual sexual behaviours, therefore, Foucault’s (2003) perceives a broader interest in controlling sexuality because of its “procreative effects” on broad biological processes, “that concern not the bodies of individuals but the element, the multiple unity of the population” (151).¹¹

¹¹ Reading Foucault’s work on sexuality and biopolitics through the lens of reproduction reveals that in many instances where Foucault uses the term ‘sexuality’ he is in fact referring to reproductive processes. A comprehensive discussion of this can be found in Penelope Deutscher’s work see Deutscher (2017).

I propose this analysis to make a series of interconnected points. First, as other scholars have also articulated (Howell and Richter-Montpetit 2020; Santana 2018; Stoler 1995), Foucault's genealogy fails to theorize colonialism as a context for biopower and is therefore limited when it comes to conceptualizing biopower as a technology of reproductive regulation in the context of the United States, with its ongoing histories of settler coloniality. Second, Foucault discusses the biopolitical regulation of birth-rates and the management of sexuality only in a European context and predominantly through the prism of a biopolitics of *'faire vivre'*, to enhance the health, productivity and prosperity of the population. This is kept separate to the discussion of biopower, race and the right to kill or eliminate. Moreover, Foucault does not discuss technologies of biopower aimed at preventing procreation, restricting reproductive autonomy and the making of new life (i.e. birth rates, reproduction) for racialised and gendered social groups as a component of the sovereign right to kill or 'let to die'.

Thinking back to Inda's (2002) analysis, the policy of denying reproductive healthcare to pregnant im/migrant people does in effect increase their risk and exposure to death. However, policies designed to limit and control the reproduction of im/migrant people in the United States cannot be framed as expression of the right to kill or 'let die', as Inda (2002) maintains. This is because Foucault's work does not propose a biopolitical framework from which to analyse policies that seek to suppress reproduction (not 'let die' but 'prevent from being born'). We must therefore look beyond Foucault's work to conceptualise the entanglements of biopolitics, colonialism, race and gender that constitute technologies of reproductive regulation.

For the purposes of this argument, however, it suffices to say that within Foucault's formulation of biopolitics in HS1 and SMBD there lies a specter of a discussion of the importance of the reproductive control by way of sexuality which has important implications for our understanding of his conceptualization of biopolitics.

2.3.1 The Logic of Elimination, Necropolitics and the 'Human'

Building on Foucault's articulation of racism as a tool of biopower, Ann Laura Stoler (1995) argues in *Race and the Education of Desire* that racism, far from being a reaction to a crisis in which racial others are scapegoated for social ills, is a permanent part of the social fabric of the biopolitical state. As Stoler (1995) emphasizes, "Racism is not an effect but a tactic in the internal fission of society into binary opposition, a means of creating 'biologized' internal enemies, against whom society must defend itself" (59). Stoler (1995) argues that it is the constant purification and elimination of racialised enemies within the state that ensures the growth of the national body; "Racism does not merely arise in a moment of crisis, in sporadic cleansings. It is internal to the biopolitical state, woven into the web of the social body, threaded through its fabric" (69), Stoler explains. This analysis is congruent with the work of many critical, feminist and critical race scholars who have documented the centrality of settler colonialism and race in the histories of sexual violence and reproductive oppression in the United States (Smith 2012).

Settler colonialism can also be conceptualized as an ongoing wealth-accumulation process of emigrants permanently occupying territories and forming new communities while simultaneously displacing indigenous inhabitants through elimination, subjugation, containment and genocide (Wolfe 2006). As Scott Lauria Morgensen (2011) has pointed out, "white supremacist settler colonisation produces specific modes of biopolitics that sustain not only in settler states but also in regimes of global governance that inherit, extend, and naturalise their power"(52). By extension, reproductive control and the destruction of women and children are documentable strategies of settler colonialism in the United States and integral to what Patrick Wolfe (2006) identifies as its 'logic of elimination'. In other words, as Kanaka Maoli scholar and activist Haunani-Kay Trask's (1999) work shows, settler colonialism "has as one of its goals, the obliteration rather than the incorporation of indigenous peoples" (26).¹²

¹² A note on citational politics: Trask's (1999) conceptualisation is dated the same year as Patrick Wolfe's (1999) *Settler Colonialism and the Transformation of Anthropology* and proposes a very similar rubric to Wolfe's assertion that settler colonialism is a structure not an event guided by a logic of elimination.

Evelyn Nakano Glenn (2015) proposes an important framework that thinks about settler colonialism in the United States as a “race-gender project” (58). According to Glenn (2015), a racialised and gendered national identity that normalized male whiteness emerged from the settler state. Since white settlers sought to claim rights to the lands of indigenous Americans, they developed a racialised and gendered construct of indigenous peoples as lesser beings, justifying their dispossession and elimination. At the same time, settlers conceived of themselves as more advanced, bringing progress and enlightenment to indigenous people. Masculine whiteness, Glenn (2015) argues, became central to settler identity, a status closely tied to ownership of property and political sovereignty. Heteropatriarchal control over the family and settler wives was also vital to maintaining this identity. Crucially, Glenn (2015) highlights that settler-colonialism is a family-based colonization project that hinges on reproduction for its continuation and survival. In other words, because settler colonialism is an ongoing structure not an event, reproducing the family unit was vital to the continuation of the “race-gender project” (58).

Glenn (2015) also highlights, alongside other scholars, that the race-gender project of the settler state is driven by the impulse to gain sovereignty over land, bodies and labour by turning them into private property. This impulse affects other racialised groups in addition to Indigenous people, and settler colonial constructs of race and gender are mobilized to manage other ‘exogenous others’, including Black, Mexican and Chinese communities. Carefully qualifying that these forms of racialisation and exclusion are incommensurable, Glenn (2015) argues that they have a common origin in the settler-colonialist project. Thus, a continuation of the logic of elimination is also directed towards other non-indigenous communities racialised as exogenous through processes and technologies of reproductive subjugation and control. As Andrea Smith (2012) has also argued, given the perpetual objective of white-settler society to reproduce itself, indigenous as well as other racialised communities are framed as a

And yet, as others have noted (Arvin 2019), Trask’s (1999) theorisation grounded in indigenous scholarship remains comparatively under cited and under acknowledged.

presence that the state must constantly seek to control and eliminate. Consequently, as Jael Silliman and Anannya Bhattacharjee (2002) demonstrate, control over the reproductive abilities of racialised people is often framed and treated as a national security issue.

This 'logic of elimination' inherent in settler colonialism can be understood as a form of necropolitics, drawing on Mbembé's (2003) theorization. Achille Mbembé (2003) extends a parallel reinterpretation of Foucault by reading the colony as exception. By drawing on decolonial approaches, in particular the work of Franz Fanon, Mbembé reformulates Foucault's theorisation of biopolitics, in conversation with Agamben's (1998) notion of the state of exception, to propose a conceptualisation of 'Necropolitics', described as 'a contemporary form of subjugation of life to the power of death'. Mbembé (2003) draws on Fanon's analysis of colonial occupation as a reorganising of spatial relations that relegate the colonized into a "third zone between subjecthood and objecthood" (26), Such places, where sovereignty means defining who may live and who must die, show how *necropower* operates. Mbembe proposes this notion because Foucault's biopower is unable to account for contemporary forms of subjugation of life to the power of death.

Necropolitics attempts to explain the deployment of weapons of mass destruction and the "creation of death-worlds," forms of social existence where whole populations are subjected to "conditions of life conferring upon them the status of *living dead*" (Mbembé, 2003, 39-40). Mbembé (2003) therefore reformulates the 'let die' proposition of Foucauldian biopolitics into an imperative of 'make die' where the colony is conceptualised as a founding site of a biopolitical death-drive where the state of siege and the violence of the state of exception are deemed to operate in the service of "civilization". The past of necropolitics, then, with its historical origins in colonialism, informs present colonial occupations and accounts for the various ways in which in the contemporary world, weapons are deployed in the interest of maximum destruction of persons. Death-worlds are conceptualised as new and unique forms of social existence in which vast populations are subjected to conditions of life conferring upon them the state of living-dead. Mbembé (2003) writes,

“If the relations between life and death, the politics of cruelty, and the symbolics of profanity are blurred in the plantation system, it is notably in the colony and under the apartheid regime that there comes into being a peculiar terror formation I will now turn to. The most original feature of this terror formation is its concatenation of biopower, the state of exception, and the state of siege. Crucial to this concatenation is, once again, race. In fact, in most instances, the selection of races, the prohibition of mixed marriages, forced sterilization, even the extermination of vanquished peoples are to find their first testing ground in the colonial world. Here we see the first syntheses between massacre and bureaucracy, that incarnation of Western rationality.”
(22-23)

Thus, in necropolitics, race and racism are igniters of this technology of government. While for Foucault race is a technology of biopolitics, Mbembé’s (2003) formulation highlights instead that the plantation and/or the colony and the racialization of those colonised by the colonisers are themselves generative of a particular form of biopolitics that can be understood as constituted by necropower. Furthermore, Mbembé explicitly identifies in this passage that forms of reproductive regulation and violence are foundational to the necropolitics of ‘disposability’ (Giroux 2006) inherent in settler-colonial occupation.

Mbembé (2003) is not alone in pointing to some crucial problems with Foucault’s genealogy of biopolitics. As Alexander G. Weheliye (2014) conceptualizes in *Habeas Viscus*, Agamben’s (1998) bare life analytic and Foucauldian biopolitics misconstrue how profoundly race and racism shape the modern idea of the human, and overlook theorizations of race, subjection, and humanity found in Black and ethnic studies, allowing bare life and biopolitics discourse to imagine an indivisible biological substance anterior to racialization. In contrast to this Weheliye (2014) proposes the idea of racializing assemblages, “which construe race not as a biological or cultural classification but as a set of socio-political processes that discipline humanity into full humans, not quite humans and nonhumans” (4). Weheliye builds on Sylvia Wynter’s

(2003) work which argues that the construct of what it means to be human is structured by race and other axes of difference. Wynter posits that there are different 'genres' of humanity determined and naturalised through racialised, gendered, and colonial hierarchies. 'The Man', according to Wynter (2003), designates the modern, secular, and western version of the human which provides a pseudo-universal reference point against which 'nonhumans' and 'not-quite-humans' are defined. This process is predicated on anti-blackness.

Thus, Foucault's reliance on the idea of an unspecified (white) body, or "human", limits his ability to analyse not only the colonial sphere but also the internal power dynamics of the West (Howell and Richter-Montpetit 2020). The result is an erasure of racialised state violence (James 1996). Moreover, punitive sovereign violence persists as a technology of domination and destruction of colonized, gendered and racialised people. Foucault's claim that under biopolitics corporeal punishment has become a lesser utilized technology, ignores this persistent violence. As other scholars have shown, state practices of violence remain critical to the production, management and reproductive regulation of social groups deemed to be outside of the definition of 'human' (Briggs 2002; D. Roberts 1997; Smith 2016). To return to Mbembé's (2003) point, detention or incarceration, state-administered violence, sterilization and exposure to death are a constitutive element of the vital operations of biopower, not a by-product.

As Michelle Murphy (2012) illustrates, "Biopolitical formations do not only foster living-being as a site of efficiency, labor, sovereignty, value, safety, and so on; they also designate zones of 'lives less worth living,' less valued, more available to neglect, injury, precariousness, abjection, and open to violence not conventionally counted as such" (44). Murphy (2017) explores one such necropolitical dimension of reproductive politics through the concept of 'averted births'. Averted births is a calculative figure for both domestic and family planning programmes in the latter half of the twentieth-century designed to quantify devalued or 'wasteful' life to be prevented. This conceptualization allowed family planning programmes to explicitly orientate towards preventing life and spurned the sterilization initiatives and other forms of

reproductive coercion. In Murphy's (2017) words, "Instead of a ghost created by a life lost to death, averted birth named another kind of unliving that was an undead-never-alive. It named not a singular specter but the dense presence of aggregate devalued life"(49).

Murphy (2012) also reminds us that whiteness, "with its heralding self-possession, often works to displace attention from the necropolitical work of race in reproductive politics" (44). Crucially, it is precisely this necropolitical dimension of reproductive politics and the selective fostering of life and death that scholars such as Dorothy Roberts (1996), Andrea Smith (2015a), Angela Davis (1983), Jael Silliman and Annanya Bhattacharjee (2002), Michelle Murphy (2011; 2012; 2017) and Laura Briggs (2002) – to name a few - alongside reproductive justice activist-scholars such as Loretta Ross (2016,2017) aim to bring to the forefront.

I am emphasizing these discussions because conceptualising policies and technologies that intervene in reproduction exclusively from a Foucauldian biopolitical perspective (Inda 2002; McWhorter 2009) runs the risk of framing technologies of reproductive regulation as animated by exceptional forms of gendered and racialised violence, instead of being constitutive of the settler colonial state. Forms of reproductive oppression such as coerced sterilization, forced assimilation and the destruction of social units and communities through state-sanctioned violence, following Mbembé (2003) and others (D. Roberts 1997; Briggs 2002; Murphy 2013; Ross 2017), are instead driven by a politics where elimination and prevention of new life are turned into productive ends. As historian Laura Briggs (2002) demonstrates through an analysis of the colonization of Puerto Rico through militarism and reproductive abuses, white supremacy attempts to eliminate or at least contain the racially constructed other through differentiated values of reproductive bodies. Thinking with the work of feminist and critical race scholars of reproductive politics these are not, as Foucault would have it, instances of racialised violence that permit the sovereign right to kill but ongoing historical processes that are foundational to the modern (settler)colonial state.

In sum, technologies of reproductive regulation in the United States selectively foster life encompassing both bio and necropolitical forms of governance over processes of living being. Throughout this thesis I use the descriptor 'bio-necropolitical' to describe this spectrum. Fostering life and exposure to death, however, are not binary and mark the extremities of a spectrum of political and economic processes. In the contemporary, top-down political and economic agendas that regulate reproductive processes seldom use the overt measures of the past, such as sanctioned sterilization abuse. Instead, policies increasingly, "move beyond biology to control communities in ways that re-rationalize eugenical thinking by advantaging the economically privileged" (Ross 2017). Reproductive lives are made available to abjection or prosperity through a complex set of political, social and economic technologies that govern the terms, spaces, conditions and quality of reproductive life.

2.3.2 Bordering and Borderization

This discussion of bio-necropolitical logics and how they structure technologies of reproductive regulation builds on points raised by many others and is elaborated in full in this conceptual framework in order to substantiate and contextualise the use of this terminology throughout this these. What I aim to contribute to this discussion is an analysis of bio-necropolitical bordering regimes and borderization processes (Mbembé 2019) which are integral to the technologies of reproductive regulation documented in this thesis. Bio-necropolitical bordering regimes and processes of boundary making are analysed throughout the empirical chapters of this thesis (4,5,6 and 7) and I hope offer some novel insights into the ongoing histories of gendered and racialised reproductive regulation in the border state of Florida and in the United States more broadly.

As already discussed in the introduction, this thesis analyses and documents three important technologies of reproductive regulation in Florida where this study is situated. First, I analyse bio-necropolitical technologies of obstruction that aim to prevent pregnant people from accessing abortion clinics. Second, I examine how racialised and gendered reproductive anxieties fuel the development of complex

technological infrastructures that proliferate the national border and separate families and communities. Third, I examine the connections between reproduction, urban planning, zoning and housing policies. Each chapter highlights the ways in which these technologies of reproductive regulation socio-spatially organise people and/or communities as biopolitically worthy or necropolitically disposable.

This approach charts formations of power and struggle as they manifest at different geographical scales and the ways that discursive-material and spatialised boundaries produce insiders and outsiders. Working from this perspective I look beyond the politics of life and death towards the way that reproductive regulation is driven by a spatialised logic of containment of those coded as a reproductive 'risk' to the race-gender project of the settler state (Glenn 2015).¹³ In other words, obstructing access to abortion clinics, segregating and sequestering neighbourhood spaces and proliferating the national border into the interior of the country are all processes set in motion by technologies of reproductive regulation. Bordering and boundary making are deployed to maintain gendered, racialised and classed reproductive hierarchies and inequalities.

In what way, then, is urban planning a form of bio-necropolitical bordering? Patricia Hill Collins (1998) reflects on the racialised geography of neighbourhoods and housing in the United States, stating, "just as the value attached to actual families reflects their placement in racial and social class hierarchies, the neighbourhoods housing these families demonstrate comparable inequalities". Hill Collins (1998) likens the racial geographies of neighbourhood space to a 'mini-nation state' that the dominant group seeks to border. The desire to secure a neighbourhood space is thus parallel to nationalist and imperialist aspirations for a 'homeland'. Given that the United States pursues an ongoing settler-colonialist policy in order to acquire much of the land that defines its current borders, Hill Collins (1998) reminds us of how this history of conquest has structured the significance of property in relations of space, place, and territory. The protectionism over households and neighbourhood space from

¹³ To be clear, this coding is only possible because of bio-necropolitical governing of life/death, its distributions, forms, and likelihoods.

'outsiders' is therefore tantamount to maintaining the integrity of national borders formed as a pillar of U.S. foreign policy. Thus, the notion that families have designated spaces/places where they truly belong links gendered notions of family with constructs of race and nation. Gender, space, land and nation thus play a pivotal role in the construction of these bordering processes. Borders of all sorts become vitally important within this logic that everything has a designated place within a broader hierarchy, and segregated neighbourhood spaces are part of these bordering processes (Hill Collins 1998).

In the contemporary, a further bordering dynamic is brought about through processes of gentrification that (re)structure neighbourhood space. Gentrification technologies sequester land and spaces of social reproduction in analogous ways to the bordering processes that Patricia Hill Collins (1998) describes. As Elijah Adiv Edelman's (2014) theorises, gentrification is a modality in which necropolitics is articulated with space, and where "capital, as forms of monetary, ideological or cultural modalities of power, has the capacity to both create and destroy the value of space, and the bodies within it" (175). Gentrification thus carves out geographic spaces of exceptionality, where the management of sovereignty and sovereign bodies does not sit within the nation-state but rather is co-managed by the nation state, or localised forms of government and capital investors. Moreover, taxonomies of race, sexualised and gendered difference, created through bio-necropolitical technologies, serve to demarcate who is in and out of place. As explored in Chapters 4 and 7, urban planning, housing policies and gentrification matter for reproductive politics and processes in the United States, as they are used to stratify reproduction (Colen 1995; Ginsburg and Rapp 1995), by empowering white middle-class heteronormative families to reproduce through access to home ownership whilst disempowering racialised social groups.

Neighbourhood bordering and gentrification processes identified by Hill Collins (1998) and Elijah Adiv Edelman (2014) are pivotal to the delimitation and maintenance of reproductive spaces, hierarchies and inequalities which, as Hill Collins (1998) identifies, extends to the bordering of the nation state. These dynamics are explored in Chapter 7 of this thesis which looks at the proliferation of the borders and borderlands

into the interior of the country. Borderlands, as Gloria Anzaldúa (1987) theorises, are formations of discursive and material space. They are the geographical region of the U.S./Mexico border, but are also, “physically present wherever two or more cultures edge each other, where people of different races occupy the same territory, where under, lower, middle and upper classes touch, where the space between two individuals shrinks with intimacy”(xi). Moreover, as Anzaldúa’s (1987) writing suggests, borderlands are practices and spaces of social and structural exclusion imbricated in broader processes of gender-based state sanctioned violence, colonialism, racial capitalism and the carceral state. Borderlands, “[a]re set up to define the places that are safe from unsafe, to distinguish *us* from *them* (...) The prohibited and forbidden are its inhabitants” (3). This confers on the borderland the status of, “*una herida abierta*” (3)¹⁴, an embodied and simultaneously constructed entity. The border is thus both a colonialist construct and part of the identity of those that traverse its spaces. For all these reasons borderlands demand and elicit, creative and forceful forms of resistance and disruption from those seeking to dismantle oppressive structures.

Since Anzaldúa’s (1987) intervention, national borders have proliferated leading scholars to argue that bodies themselves are borders (Whitley 2015, Mbembé 2019, Brebenel 2020). For instance, Leila Whitley (2016) posits that internal migration policing based on racialised coding of a body’s belonging/non-belonging alters our understandings of what constitutes a border, such that a border can no longer be considered a geographic site, but something that is triggered in relation to the bodies it polices and controls. In this vein, Achille Mbembé (2019) describes contemporary bordering regimes as driven by a necropolitical logic of, “contraction, containment, incarceration and enclosure”, which drive the creation, “of all kinds of walls and fortifications, gates and enclaves” (9). Mbembé (2019) describes these practices of partitioning spaces as processes of borderization, that equate to the transformation of certain spaces into ‘uncrossable places’ for certain classes of populations, who are

¹⁴ Translates as, *an open wound*.

subjected to processes of containment and racialisation as a way to manage perceived risk, grant security, and safeguard 'identity'.

The use of 'borderization' processes to mitigate perceived risks to the identity of the 'nation space', highlights another reproductive partitioning. Reading these theories of bordering into a discussion of reproductive politics and processes, I argue that much like the neighbourhood is pivotal to the delimitation and maintenance of reproductive spaces, hierarchies and inequalities so is the national border. Chapter 4 of this thesis charts the origins of the Border Patrol, established in 1924, to eugenicist lobbyists who framed the policy as instrumental to defending the 'integrity' of the white American family-nation (Stern 2005). The Border Patrol has thus always been a technology of reproductive regulation designed to prevent people whose reproduction was considered 'undesirable' from entering into the United States. Im/migration policies permit on the one hand the entry of a low-cost labour force to cater to demands for domestic and reproductive labour, while preventing im/migrant communities from forming families and communities of their own. In the contemporary, racialised reproductive anxieties still fuel policies and technologies of family separation.

Finally, the politics and infrastructures of antiabortion groups in the United States can also be analysed through the prism of bio-necropolitical bordering. State policies that seeks to obstruct access to abortion care quite literally permit 'pro-life' protesters to barricade clinics. Antiabortion groups have also developed over the course of decades a complex infrastructure designed to deter seekers of abortion care through a variety of deceptive and obstructive strategies. As Sarah Franklin and Faye Ginsburg (2019) theorise, antiabortion politics in the United States are part and parcel of a "nativist reproductive imaginary", understood as "an overarching grammar of national belonging defined by the preservation of whiteness, biological men and women, heterosexual marriage, and the right to carry one's weapon of choice (4)".

Chapters 4 and 5 explore how technologies of obstruction and bordering are assembled by antiabortion groups in Florida. Building on Franklin and Ginsburg (2019) theory, I argue that these technologies are driven by an ideological imperative

to save individual fetuses and a biopolitical imperative to safeguard a fictional and imagined unborn racialised as white (Mason 2019). Antiabortion groups, therefore, link fetal salvation with rescuing America's future, a logic predicated on the idea of society as a biological whole. Infrastructures deployed by antiabortion groups aim to contain and deter the 'reproductive risk' posed by pregnant people - and white pregnant people specifically - who abdicate from their biological reproductive duties thereby posing a perceived 'threat' the nativist reproductive imaginaries and futurities of the country.

Throughout this thesis I explore these bio-necropolitical bordering regimes that are fuelled by, "settler colonial, colonial, or imperial ambitions and/or religious, class, ability, and race supremacy" (Smietana, Thompson, and Twine 2018, 117). In scholarly analysis, theorisations of bordering most often pertain to the national border, its proliferation and borderlands. While it is not my intention to dilute these important concepts, I am using bordering in a broader sense referring to processes and strategies of containment, immobilisation and boundary-making that matter for reproductive politics and processes and are bio-necropolitical in intent.

2.4 Theorising Digital Technologies and/as Infrastructures

To recapitulate, technologies of reproductive regulation are undergirded by bio-necropolitical governmentalities. Biopolitics and the necropolitical death and exposure to death effects of biopolitics intersect, overlap even, with distributed (Murphy 2011), stratified (Colen 1995), racialised and carceral (Ross and Solinger 2017, Roberts 1997) reproductive processes. Moreover, the 'regulatory' aspect of technologies of reproductive regulation is spatialized which serves as a form of bordering and boundary-making that spatially contains those hegemonically coded as 'reproductive threats' to the social body and the reproduction of the settler state. I now turn to a discussion of technologies of reproductive regulation as they manifest in the context of high-tech contemporary societies.

As discussed at the beginning of this chapter, in the information age technologies of reproductive regulation are increasingly co-produced with networked infrastructures and tech-capital. In Florida where this study is situated, virtual and material information architectures structure and are imbricated in antiabortion politics, family separation policies and are an increasingly important catalyst for projects of urban 'renewal', gentrification and housing insecurity. In other words, in Florida, as elsewhere, virtual-material information architectures and the tech-industry are imbricated in processes that avert, foreclose and control reproduction and processes of living being.

And yet, the importance of information technologies for reproductive politics and processes remains underexplored and, I would argue, drastically underestimated. While there are, of course, overlaps and continuities between bio-tech and information technology industries (Wiel 2019), scholarship that examines human reproduction and takes socio-biological processes as the starting point of analysis predominantly focuses on the design and development of reproductive technologies, the bio-economy and the infrastructures of the biotechnology industry. Equally, scholarship that looks at macrological processes of reproduction and is interested in the relationships between reproductive processes and infrastructures of various descriptions has yet to seriously contend with the digital-material infrastructures of tech-capitalism and contemporary digital society. A comprehensive examination of the ways in which virtual-material infrastructures of the technology industry matter for reproductive politics and processes is therefore lacking in both literatures on reproduction and on contemporary digital society.

The point of this thesis is to fill this gap in scholarship and to analyse the interplay between reproductive policies, machine codes, automation, state and non-state infrastructures, human-actors and tech-enterprise that constitute what I call technologies of reproductive regulation. Unlike bespoke forms of engineering (like contraceptive technologies or ARTs) that intervene in the biological-social processes of gestation and social reproduction, these fluid sociotechnical systems target the body politic. This ontological choreography (Thompson 2005) is assembled by power

structures and imbued with social relations in ways that (re)structure gendered, racialised and classed inequalities which deliberately or incidentally stratify reproduction by empowering some categories of people to nurture and reproduce while disempowered others (Colen 1995; Ginsburg and Rapp 1995).

Before conceptualizing the entanglements of technologies of reproductive regulation with the infrastructures of the high-tech society, I turn to literature that analyses the co-constituted relationship between society and the infrastructural, technical, and political economic processes that constitute what we refer to as networked digital technologies. The objective here is twofold. First, I aim to theorise how relations of power figure centrally within sociotechnical systems which are often characterised as 'value neutral'. Second, I discuss the importance of framing networked and digital technologies as infrastructures. In so doing, I explore the extent to which the language and infrastructures of network and digital technologies are gendered, racialised and integral to the imperial formations of Western technoscience. I introduce theories and frameworks from media and internet studies, feminist and postcolonial science and technologies studies because they underpin important reflections about the mutually constitutive relationship between technological infrastructures, gender, race, coloniality and capital that are relevant for this enquiry. This literature also offers an understanding that the articulations and manifestations of technoscience and culture are not neutral or universal but born from ongoing histories and power relations.

2.4.1 From Text to Tech-Infrastructures

As Achille Mbembé (2019) has pointed out, a key feature of our times is, "the extent to which all societies are organized according to the same principle – the computational" (9). Mbembé emphasizes that, "we are surrounded with ubiquitous computing, technologies that weave themselves into the fabric of our everyday lives, devices, sensors, things we interact with and which have become part of our presence in the world all the time" (7). Moreover, in the twenty-first century, the infrastructures of digital society and its prevailing digital economy are an increasingly hegemonic model, a mode of organisation and an ideological framework that permeates almost all

facets of society from socialising, working, travelling to new forms of governance. Nonetheless, defining what the internet is a challenging task. As the internet expands, capitalises and morphs, what the internet *is* and what it *does* or how it is *used* are an increasingly complicated set of questions.

Scholars have long been concerned with the cultural practices and politics of what people and communities *do* online, commonly surmised as cyberculture. Early conceptualisations of so called 'cyberspace' hailed the digital sphere as an escape from gender, race, class and other identity markers. Cyberfeminist perspectives that began to emerge in the 1980s and 1990s, looked optimistically upon technological innovation, imagining a world where gender would cease to be a constraint. Echoing the theories of other writers on cyber culture, many cyberfeminists believed that virtual spaces could be liberating because of the purported anonymity of the internet and its potential to lessen oppressions suffered as a result of gender, race, class, age, disability and sexuality (Luckman 1999; Plant 1997; Judy Wajcman 2004). And yet, as digital technologies proliferated, and social institutions became saturated with platforms, applications and digital computation, social inequalities persisted.

Early claims of the utopic possibilities of networked and digital technologies were critiqued and supplanted by critical perspectives that framed the internet and digital technology as a space for identity construction, representation and also as a potential source of inequality. This shift can be seen in Lisa Nakamura's (2000) early work which firmly articulates that, "race matters no less in cyberspace than it does 'IRL (in real life)'"(4). This insight is further developed in later work (Nakamura 2008), which shows how the visual culture of the internet complicates race and racism as users collaboratively produce digital images of the body in the context of racial and gender identity formation. This stands in direct opposition, Nakamura (2008) argues, to continuing discourses of colour blindness in terms of access, user experience and content.

In parallel to these critiques, policy makers and scholars were also increasingly preoccupied with measuring unequal access to digital media technologies across

gender, race and class lines (Servon 2002; Dijk 2005). Jan Van Dijk's *The Deepening Divide: Inequality and the Information Society* (2005) made a compelling case that the more information and communication technology is immersed in society and pervades everyday life, the more it becomes attached to all existing social divisions. A third and final vector of analysis uncovered the ways that digital computation and technology is underwritten and imbued with social values. As André Brock (2011) succinctly puts it, "the Western internet, as a social structure, represents and maintains White, masculine, bourgeois, heterosexual and Christian culture through its content" (1088). Rather than being a liberatory or neutral tool, then, digital technologies and the internet complicate, compound and reproduce gendered, raced and classed power relations.

Acknowledging these vital contributions of cyberculture theory, the aim of the following section is to conceptualise the digital-material structures of the information age in a way that accounts for their scale, scope and materiality. This analysis is driven by a need to conceptualise the digital-material architectures and structures of the information age in a way that goes beyond conversations about online representation and internet cultures of use. In other words, lacking from the afore described literatures are structural conceptualisations of power in the information age such as those offered by Manuel Castells (2000) or Donna Haraway (1991). As I substantiate in the discussion that follows, contemporary (infra)structural conceptualisations of the information age, however, that encompass historical, material, discursive and political economic considerations are lacking. Novel concepts and terms that account for the material infrastructures of the information age alongside social, discursive and historical flows are needed.

In response to this need, I adjoin a number of critical perspectives from feminist and postcolonial science and technology studies alongside other work at the intersections of critical race studies and feminist theory to theorise what I am calling *tech-infrastructures*. In so doing, I add to the ongoing robust conversation around platform capitalism, digital media and social inequality through the prism of reproductive politics and processes. This framing is also an attempt to respond to Jessie Daniels'

(2013) call for increased engagement in internet studies with the social construction of whiteness alongside the material structures and accumulation of capital brought about by structural inequalities and discrimination (Daniels 2013; Noble and Tynes 2015).

How, then, are infrastructures conceptualized in scholarship? Infrastructures are certainly ontologically unruly. When we think of infrastructures from a common-sense perspective, the term connotes big, durable, well-functioning systems and services, from railroads and highways to telephone, electric power, and the Internet (Edwards et al. 2007). Conceptually refined work on infrastructures can be found both in the fields of STS, geography and more recently in media studies. STS is broadly concerned with how societies and their technosciences are mutually shaping. Scholars focus on uncovering how science and society co-produce forms of knowledge while also highlighting the way that practices and social relations of technoscience go hand in hand with global and local capitalism. STS approaches look at the social, cultural and historical aspects of infrastructures in addition to their qualities and design. Case studies range from electric power grids (Hughes 1993) to communication networks (Graham and Marvin 2001) to scientific “cyberinfrastructures” (Edwards et al., 2007).

STS scholar Susan Leigh Star (1999), provides an important definition of infrastructures defined by a series of interconnected qualities. The first is transparency, in the sense that infrastructures do not have to be reinvented each time or assembled for each task, but invisibly support those tasks. The reach and scope of infrastructures is beyond a single event or a single site of practice. Star (1999) also posits that infrastructures are learnt as part of membership to a particular community and shape and are shaped by the conventions of a community of practice. Furthermore, modified by scope and often by conflicting conventions, infrastructures take on transparency by plugging into other infrastructures and tools. Star’s (1999) conceptualisation also emphasizes that the invisible quality of working infrastructures becomes visible when it breaks, for example when the server is down, the bridge is broken or the power is out. Finally, because infrastructures are large, layered and

complex, and because they are localised in different ways, they are never changed from above.

With this set of attributes in mind, Jean-Christophe Plantin, Carl Lagoze, Paul Edwards and Christian Sandvig (2018), argue that the internet, which includes the World Wide Web and cloud computing, exhibits all the features of an infrastructure. It is reliable, transparent and widely shared. Its many uses are learned as part of membership in contemporary society, they argue. It provides essential services, so commerce, government, work, and everyday life would be hugely disrupted should it collapse. Moreover, most governments regulate the internet, as they regulate other infrastructures. However, infrastructural studies of the internet, derived from STS, deploy the term not only as a descriptor but also as an analytic. Defining a set of dynamics and tensions common to all infrastructure is thus a major contribution of this body of work, alongside the ability to use these as an analytic to relate disparate technologies to each other (Sandvig 2013). Critical perspectives in STS have in this way helped to re-conceptualise the unruliness of information networks, devices, people while also emphasizing the ways that infrastructures are designed in ways that structurally exclude people (Edwards et al. 2007; Graham and Marvin 2001; Ribes and Finholt 2009).

An adjacent field of study that also takes an (infra)structural perspective are political-economic studies of the platform industry. This literature calls attention to the importance of addressing the entanglements of digital and material infrastructures and the ways they overlap rather than exist in distinct realms (Sassen 2002). Important and timely work by political economists and sociologists is increasingly drawing attention to the ways that capitalism has turned to data as a vital source of economic growth (Srnicsek 2017; Zuboff 2019; Vaidhyanathan 2012), which in turn has led to the unprecedented consolidation of power and knowledge (political, financial, and technological) in the hands of private high-tech corporate entities. According to Mbembé (2019), the ultimate aim of these transnational corporations is to be free of democratic oversight built on corporate sovereignty and government granted immunities. Algorithmic systems and computational regimes are thus powered by

rapidly expanding tech-industries that since the early 2000s have been perfecting the art of tracking users for financial gain.

As Shoshanna Zuboff's (2019) work shows, these industries are driven by a malicious form of capitalism defined by a logic of accumulation based on the exploitation of 'behavioural surplus data'. The system collects the data trails of people's comings and goings on the internet. These are harvested, analysed, aggregated into data-sets and exploited within a profit-driven system that Zuboff (2019) dubs, surveillance capitalism. Extractive mechanism then mine data in order to build 'predictive products' which anticipate human behaviour, traded and sold on 'behavioral futures markets' (8). The increasing rapprochement, and perhaps redefinition of, capitalist means of accumulation by tech corporations is an area of expanding concern to both scholars and activists seeking to grapple with increasingly nebulous structures of governance.

Political economic (Srnicsek 2016; Zuboff 2019) and infrastructural approaches are vital for conceptualizing the virtual and material political economic structures of tech-capitalism. As Paula Chakravartty and Miriyam Aouragh (2016) point out, these approaches make an important case for a metaphysical understanding of information systems as infrastructures. However, often lacking from these accounts is an analysis of the imperial histories that underpin these structures and by extension sufficient attention to racialised, classed and gendered dynamics. As intersectional technology studies scholars Safiya Umoja Noble and Brendesha Tynes (2015) note, "The study of the materiality of the internet includes thinking through the specific contexts of who is affected by the social, environmental, economic, and policy arrangements of the digital" (9). Building on this, I now explore how feminist, postcolonial science and technology studies scholars and intersectional technology studies scholars have theorised and explored tech-infrastructures and their social sedimentations. Recalling Langdon Winner's (1980) infamous question, 'do artefacts have politics?', I attempt to chart the politics of internet infrastructures and the platform industry. In defining how to conceptualised these infrastructures for this enquiry I explore how to think about scale, materiality and structure, alongside discourse and (ongoing) histories.

2.4.2 Scale and Materiality

Donna Haraway's (1991) analytic 'the informatics of domination' offers an important starting point for this discussion as it conceptualizes the semiotic material infrastructures of tech-capitalism and is germane in recognizing and naming the role of informatic infrastructures in the white imperialist capitalist patriarchy (hooks 2000) of the late twentieth century. Although the informatics of domination is a central concept to the *Cyborg Manifesto* it is much less analysed, celebrated and critiqued than the description of a cyborg of politics of resistance¹⁵. Originally written in the mid 1980s, Haraway's (1991) analytic is arguably one of the earliest conceptualization of heteropatriarchal racial techno-capitalism (Lewis 2017)¹⁶ and highlights the role of science and technology in restructuring social relations and reproducing inequalities.

For Haraway (1991) the 'informatics of domination' refers to the information-driven and networked society of late twentieth-century capitalism and the transition from an, "organic and industrial society to a polymorphous communication system" (160). Haraway (1991) insists that the systems are important to recognise and name because, "the actual situation of women is their integration/exploitation into a world system of production/reproduction and communication called the informatics of domination" (163). These systems have altered the structures and relations of the home, workplace, market, public arena and of the body itself with huge consequences for women and others. Haraway (1991) points to the fact that, "

¹⁵ Haraway's proposed 'cyborg politics' of resistance, which is not discussed at length here, proposes the cyborg figuration as an inclusive but non-totalizing feminist politics of solidarity and resistance. The cyborg is also mobilized as a mode of resisting the informatics of domination by dismantling oppressive dualism (e.g male/female, culture/nature) that have sustained Western cultural hierarchies and served to justify the domination of all constituted 'others' (i.e. women, people of colour, nature, workers, animals etc).

¹⁶ Given Haraway's more recent work that makes problematic inroads into the so called 'population debate', is it reasonable to ask why someone exploring the entanglements of reproductive politics, eugenic logics, patriarchal power and technocapitalism would discuss Haraway's work at all. I agree with Sophie Lewis (2017) and others who have pointed to the malthusian undertones of Haraway's proposition to 'make kin not babies' through a voluntary reduction of birth rates. This proposal contrasts sharply with the goals of reproductive justice. I am considering her earlier work here because of its importance as an early Marxist feminist conceptualisation of power and resistance in the information society.

there is a mundane, largely economic reality to support my claim that these sciences and technologies indicate fundamental transformations in the structure of the world for us. Communications technologies depend on electronics. Modern states, multinational corporations, military power, welfare state apparatuses, satellite systems, political processes, fabrication of our imaginations, labor-control systems, medical constructions of our bodies, commercial pornography, the international division of labor, and religious evangelism depend intimately on electronics.” (165)

Haraway (1991) paints a picture of home-based businesses and women-headed households, affluent market structures, marginal and feminized labour, continued erosion of the welfare state and increase surveillance and control. Imperialism and political power are increasingly mapped onto the divisions of information rich/information poor, the coupling of high-tech capital needs and public education, the intensification of reproductive politics and machine-body relations and the merging of electronic capital and religious institutions. This is why, Haraway argues, a socialist-feminist (cyborg) politics that addresses these relations of science and technology is urgently needed.

Thus, the ‘informatics of domination’ analytic conceptualises the wider power relations in which tech-capitalist enterprises of Silicon Valley develop remote tracking devices that are increasingly intensified and automated. The description of state surveillance systems, the securitized welfare state and multinational corporations dependent and restructured by machines are prescient of biometric databases, systems of state surveillance and the emergence of transnational corporate internet giants. These social relations of science and technology, Haraway (1991) argues, indicate that we are not dealing with a technological determinism, but with a historical system depending upon structured relations among people. Science and technology, therefore, “provide fresh sources of power, that need fresh sources of analysis and political action” (65). Haraway’s (1991) emphasis on the situated and constructed nature of technostructures speaks against technologically determinist

notions but also points to the importance of unpacking the social relations that constitute the ‘informatics of domination’.

Haraway’s (1991) analytic captures the scale, materiality and discursive (material-semiotic) function of these, “scary new networks and mobility of capital in the late twentieth century”. These ‘informatics of domination’ are conceptualised as a global system that is produced by and produces transformations in social structures.

Katherine Hayles (1993), refining Haraway’s (1991) analytic, provides a useful emphasis on how to conceptualise these infrastructures on a more localised scale. By informatics, Hayles (1993) explains, “

I mean the material, technological, economic, and social structures that make the information age possible. Informatics includes the late capitalist mode of flexible accumulation: the hardware and software that have merged telecommunications with computer technology; the patterns of living that emerge from and depend upon access to large data banks and instantaneous transmission of messages; and habits of posture, eye focus, hand motions and neural connections that are reconfiguring the human body in conjunction with information technologies” (122).

Hayles’ (1993) reworking of ‘informatics’ connects a conceptualisation of material infrastructures to Haraway’s (1991) analysis of ‘domination’ and the social sedimentations of racialised and gendered techno-capitalism.

2.4.3 Design and Architectures

The material, technological, economic, and social structures of tech-capital have developed significantly since Haraway (1991) and Hayles (1993) were writing in the late 1980s and early 1990s. Recent scholarship draws attention to the design of information infrastructures and digital technologies, highlighting that the infrastructures of the information age are the product of white Western power structures and social relations.

Thus, tracing the ongoing historical entanglements between capitalism, imperialism and the tech-industry are crucial to conceptualising tech-infrastructures. Global information architectures and company infrastructures that administrate the internet industry are not untethered a-historical entities but originate in the United States, specifically in California in the now renowned ‘Silicon Valley’ area (Daniels 2013). This rapidly expanding industry has transformed not only the lay out and socio-demographic make-up of the Silicon Valley region, but has also restructured the global economic system. Behind the tech-industries carefully crafted veneer of liberalism and ‘diversity’, lie the machinations of a system of both local and global exploitation lead by white men and a few white women and powered by migrant, outsourced and feminized labour, much of which is also in the ‘global south’ (Gajjala 2004; Zolniski 2000). As postcolonial cyberfeminist scholar Radhika Gajjala’s (2003, 54) puts it, “[i]t is important not to de-historicize digital contexts by erasing the complicity of Western technology and science in colonialist projects.” And yet, these structures are shrouded in a “rhetoric of human betterment” which camouflages destructive processes (Benjamin 2019, 364).

Benjamin (2019) and Atanasoski & Vora (2019), offer a critical understanding of the way that liberalism and benevolence as functions of whiteness are central to the discourses, design and content of digital platforms, tech-capital and information technologies. Specifically, these authors challenge the ways in which visions of technoscience rely on whiteness as a key site for the enactment of the liberating potential of technology (Hamilton 2018). As Benjamin’s (2019) work evidences, “Today the glaring gap between egalitarian principles and inequitable practices is filled with subtler forms of discrimination that give the illusion of progress and neutrality, even as coded inequity makes it easier and faster to produce racist outcomes (48).” Benjamin (2019) names this set of practices and technologies as, ‘the New Jim Code’, which “encompasses a range of discriminatory designs – some that explicitly work to amplify hierarchies, many that ignore and thus replicate social divisions, and a number that aim to fix racial bias but end up doing the opposite”(25).

These practices and “technological fixes” are more covert and yet equally as damaging as overt racial discrimination of the past. In Benjamin’s (2019) words, “This is not simply a story of ‘then’ versus ‘now.’ It is about how historical processes make the present possible; it is about the continuity between Jim Crow and the New Jim Code” (289). In other words, “Far from coming upon a sinister story of racist programmers scheming in the dark corners of the web, we will find that the desire for objectivity, efficiency, profitability, and progress fuels the pursuit of technical fixes across many different social arenas” (26). Discriminatory designs at the heart of technological innovations are thus constituted by social relations and are often proposed as value-neutral solutions to social problems. In this vein, one of the key vectors of intersectional technology studies work lies in de-bunking myths of techno-utopianism by unpacking the veneer of value-neutrality and hidden machinations of discriminatory designs entrenched by tech-capitalist structures.

Furthering this analysis, Neda Atanasoski and Kalindi Vora (Vora 2015; Atanasoski and Vora 2019) propose the concept of ‘technoliberalism’. This conceptualisation analyses “how historical forms of domination and power, encompassing but not limited to social categories and hierarchies of difference, get built into seemingly non-human objects and the infrastructures that link them, thus sanitizing digital media and a variety of other technologies as human-free” (1). Within technoliberal imaginaries, the authors claim, robotic and digital technologies are imagined to replace human bodies and functions advancing towards a ‘post-racial’ future by asserting a world in which all human social difference, is transcended by virtue of technological progress. However, this future-oriented aspirational humanity in which race, gender, and even labour are transcended, purposefully obscures the operation of the racialised and gendered grammars of technoliberalism that structure social relations. The authors caution that technoliberal imaginaries overwrite the historically conditioned (racialized and gendered) nature of subject–object and human–thing encounters through an emphasis on the seeming neutrality and rationality of technoliberal futurism.

Indeed, a closer look at the operations, design and use of specific platforms reveals that the ‘race-less’ approach of tech companies enables the spread of white

supremacist¹⁷ ideology whilst automating existing forms of oppression. Jessie Daniels (2018) argues that, “The rise of the alt-right would not be possible without the infrastructure built by the tech industry, and yet, the industry likes to imagine itself as creating a ‘race-less’ Internet” (62). By ignoring race in the design process, the tech industry leaves an opening for White nationalists who seek out opportunities to push the “Overton window,” defined as the range of topics tolerated in public discourse (Daniels 2018, 64). Algorithms and search results thus work to deliver confirmation to those who are searching through alt-right content, accelerating the circulation of white supremacist messaging. The most pressing point, as Daniels (2018) argues is that those with regressive political agendas rooted in white power connect across national boundaries via the Internet.

Daniels (2018) documents the way that white nationalists are being “innovation opportunists,” by exploiting the ‘race-less’ approach of platforms and finding openings and weaknesses in the latest technologies to spread their message through a myriad of strategies including ‘cloaked’ sites that disguise ideological messages. This approach is aided and abetted by the laissez-faire attitude to hate speech on platforms like Twitter, 4chan, and Reddit. This reticence to interfere has directly contributed to the spread of white nationalist symbols and ideas, themselves accelerated and amplified by algorithms. The design of such platforms places the burden on individual users to report harassers, allowing instances of harassment to promulgate. Moreover, “Twitter’s relatively hands-off approach when it comes to the often violent and hate-filled content of White supremacists actually benefits the company’s bottom line” (Benjamin 2019). The central issue, according to Daniels (2018), remains that racism is viewed as a ‘bug’ rather than a ‘feature’ of the system, in white techno-liberal imaginaries (Anatasoski and Vora 2019).

¹⁷ Daniels’ earlier (2009) work defines white supremacy in the United States as, “a central organizing principle of social life rather than merely an isolated social movement”. Moreover, its most recent iteration as the ‘alt-right’ is, according to Daniels (2018), “entirely consistent with earlier manifestations of extremist White supremacy, with only slightly modifications in style and emphasis”. Movement members aim to establish a White ethno-state, consistent with every other extremist, White nationalist movement and more than a few mainstream politicians.

On the contrary, race and gender are built into digital technologies and the tech-industry in myriad ways (Benjamin 2019; Everett 2002; Nakamura 2002). As Safiya Noble's (2018) work documents, algorithms and search engines reinforce oppressive social relationships, a process that Noble calls technological redlining. The term redlining, which typically refers to real estate and banking practices designed to maintain and exacerbate inequalities by discriminating against people of colour, is repurposed by Noble as an analytic to examine the ways that capital, race, and gender are factors in creating unequal conditions and algorithmic oppression. Specifically, Noble (2018) critiques the dominant narrative in tech that see personal liberties as realized through technology because of its ability to strip people of specifics and frame them as equal. We need only to look to the women of Gamergate and observe the ways that racist, sexist, and homophobic comments and trolling occurs on the web to ascertain the falsity of these claims, emphasizes Noble (2018)¹⁸.

Noble's (2018) 'technological redlining' analytic and Daniels' (2014, 2018) work are a productive starting point for thinking through the ways that alt-right groups that exploit tech-companies' laissez-faire attitude towards race and gender and weaponize informational infrastructures. The complicity of the platform industry in this politics lies in their tacit refusal to act against harmful behaviour and by designing algorithms that reinforce oppressive social relationships. Gender and race neutral "glitches" (Benjamin 2019) in technologies design allow for information flows to be assembled into technologies of reproductive regulation.

2.4.4 Material Structures

Scholars in the fields of geography and gentrification studies offer another albeit neglected infrastructural perspective. Vast networks of information architecture are only one side of the global infrastructural expansion of tech. As the platform industry globalized and grew so did the industry's need to secure spaces for the (re)production

¹⁸ Evidencing the ways that search algorithms reinforce and reinvent racialised and gendered stereotypes, Noble (2018) joins other scholars in critiquing the practices of corporate technology companies see also Nissenbaum and Introna (2006), Diaz (2008), Vaidhyanathan (2012), Pasquale (2015)

of tech-capitalism and its workforce. This expansion has been the catalyst for a remoulding of urban areas through gentrification and re-development projects, office space construction and shifting labour patterns. As Ruha Benjamin (2019) cautions, “fixating on barcodes has a way of barring more radical understanding of the social and political impact of science and technology” (10).

The (re)shaping of urban environments is one such overlooked aspect of the way social relations are co-produced with the technology industry. Silicon Valley’s rapid expansion has contributed to alarming rates of homelessness in predominantly Black and Latinx neighbourhoods of the Bay Area (Benjamin 2019; Ramírez 2020). Tech-entrepreneurs and real estate developers exploit their social and political connections to apply for zoning ordinances that designate neighbourhood spaces for development and single-family housing. Zoning changes accelerate the processes of gentrification and displacement while also limiting accessible and affordable housing units and are used as a loophole for discrimination in the Bay Area (Jumamoy et al. 2020) .

The seizure of urban space by tech-enterprise draws important connections between the gentrification of the Bay Area, data-colonialism and imperialist logics of capitalist accumulation. Erin McElroy (2019) analyses the rebranding of the General hospital in San Francisco from “The General” to “The Zuckerberg” as underscored by techno-imperialist logics that rename and claim urban spaces alongside extractive data practices. Much like other empires, techno-imperialism accumulates social and economic capital in its imperial hub of Silicon Valley. The thirst of tech-capital for material space and virtual data are framed by McElroy (2019) as two sides of a form of imperialism that deploys an array of extractive technologies such as racialised algorithmic surveillance that in turn map risk, suspicion and positive value onto geographical contexts.

Through the prism of the re-naming of the general hospital, McElroy (2019) shows how Facebook’s business model perpetuates ongoing systems of racialized, gendered, and class-based inequality of the Bay Area, which cause widespread housing insecurity and mental health crises. The company’s role in creating policing databases and facial

recognition software is another layer of techno-imperialism. These tools are leveraged by local police who surveil anti-gentrification protestors and those most affected by gentrification processes, namely Black and Latinx communities. Investing in health infrastructures is thus a 'blue washing' ploy to divert attention away from these policing, dispossession and data-extraction that bolster the company's growth models. Moreover, McElroy (2019) emphasizes that renaming space (toponym), gentrification and 'techno-imperialism' all rest upon (settler)colonial histories. On the one hand, toponym functions as a technology of erasure, negating indigenous people's right to the land while algorithmically driven biometric databases stem from ongoing histories of data-extraction and expropriation of racialised and colonized people.

Tech-speculative gentrification is therefore a literal form of 'technological redlining', a process where urban places are forcibly appropriated as a strategic site for the (re)production of tech-capitalism. The exploitation of digital lives and the dispossession of non-digital ones are thus inextricably connected through big-tech's models for capitalist accumulation. McElroy (2019) points out that, as with other imperial formations past and present, tech-capital expands by exploiting the digital-material spaces that people live in. These dynamics of the expanding infrastructures of tech-capitalism and the forms of exploitation and dispossession that they bring are under-researched and under-acknowledged. And yet these processes are integral to conceptualising the physical infrastructure of the technology industry as well as the way that, "practices are sedimented into and structure the world" (Murphy 2013).

2.4.5 Surveillance Practices

Finally, feminist and critical race surveillance studies scholars offer important (infra)structural considerations about the relationship between surveillance and digital and networked technologies. They examine the ways that surveillance practices and technologies are integral to foundational structures such as the modern state and serve to reproduce and normalise hierarchy and oppression. In other words they examine, "white supremacist capitalist heteropatriarchal surveillance" (Nakamura 2015, 7). As Haraway identified as early as 1985, enhanced surveillance capabilities are

a defining feature of tech-infrastructures. With the advent of platform capitalism and the creation of a political economic model predicated on the commercial exploitation of data, digital surveillance is much more than a by-product of the expansion of tech-infrastructures, it is integral to their political economic machinations.

Studies of surveillance often stem from the work of Michel Foucault (1982), who researched and theorised the birth of biopolitical regimes and the rise of the disciplinary society in the 19th century. Disciplinary societies, he argued, sought to enumerate, manage and regulate the population through institutions designed to make people more healthy and productive citizens. Foucault's analysis of the Panopticon prison is a frequently cited metaphor for surveillance practice. The panopticon, he argues, was specifically designed so that inmates could not see whether they were being watched by the guards, leading prisoners to self-discipline as if they were being perpetually scrutinised (Lau 2018). This conceptualisation bridged with Foucault's study of the genealogy of population and the pivotal role this concept played in the development of liberal modes of governance and of the nation state. Consequently, many subsequent surveillance theorists that drew on Foucault's work focussed predominantly on the Western liberal democratic state. These perspectives also highlight the intensification of both corporate and state surveillance practices following the advent of the internet (Haggerty and Ericson 2000; Lyon 2003).

However, placing emphasis exclusively on the bureaucratic state as the sole agent behind surveillance practices is too narrow a definition and focus. Surveillance has many faces in contemporary society, ranging from government and corporate initiatives to gathering data to forms of citizen surveillance driven by internet enabled mobile phones and social networking. As Heyney and Van der Muelen (2016) explain, "Surveillance is performed by states, corporations, police, employers, and schools and universities as well as individuals, and it serves a wide range of divergent and sometimes contradictory goals, which include managing populations, facilitating commerce, enabling security and maintaining interpersonal relationships" (3). This has led some scholars to theorise surveillance as an assemblage rather than a centralised form of power. Drawing on the work of Deleuze and Guattari (1987),

Haggerty and Ericson (2000) describe surveillance as being driven by a desire to bring different systems together. This tendency, they argue, allows us to speak of surveillant assemblages that aims towards an interconnected gathering of different forms of information. This form of surveillance when directed at the body breaks it down by abstracting it from its territorial setting and reassembling it in a different setting as data flow. The result is a decorporealised body or data-double.

Collecting and processing information and data, therefore, is recognised as an important hallmark of contemporary surveillance practices. David Lyon's (2003) intervention that seeks to understand surveillance as a means of social sorting provides further insight into what surveillance 'does' in the context of society. Surveillance, Lyon (2003) argues, sorts people into categories by assigning risk and worth to particular sub-groups in ways that impact equality and social inclusion. It is, therefore, not simply a matter of privacy but must be understood as a social justice issue. Lyon (2003) emphasizes that, "to consider surveillance as social sorting is to focus on the social and economic categories and the computer codes by which personal data is organised with a view to influencing and managing people and populations"(2).

However, as Yael Berda (2013) suggests, studies of surveillance inspired by Foucault's panopticism often omit the gendered, racialised and colonial origins of surveillance practices that pre-date and extend beyond the Western nation state (Smith 2017, Browne 2012). Feminist and critical race surveillance studies scholars trace the ongoing histories of monitoring practices back to organized forms of state violence such as settler colonialism, management of reproductive autonomy, regulation of sexuality and the institutionalized scrutiny of people living in poverty (Corinne L. 2016; Eubanks 2017; Heynen and Van der Meulen 2016; Smith 2015b). These approaches highlight how surveillance is foundational to many institutional structures and is inextricably linked to ongoing historical and systemic forms of oppression and state control (Browne 2012; Nakamura 2015; Monahan 2017) This offers a broader insight into the role of gendered and racialised surveillance practices as they produce 'normalized' or 'deviant' bodies (Heynen and Van der Meulen 2016).

In this vein, Simone Browne's (2012; 2015) work examines the inextricable relationship between surveillance and anti-blackness. For Browne (2015), surveillance should be understood not only through the prism of new technologies but also as an ongoing process undergirded and sustained through racism. Browne (2015) introduces the concept of racialising surveillance, a technology of social control where surveillance practices, policies, and performances concern the production of norms pertaining to race. Specifically, "racialising surveillance signals those moments when enactments of surveillance reify boundaries, borders, and bodies along racial lines, and where the outcome is often discriminatory treatment" (16). As Lisa Nakamura (2015) reminds us, surveillance serves two functions: to regulate, define, and control populations; and to create new gendered, racialized, and abled or disabled bodies through digital means.

The significance of these interventions for this thesis is two-fold. First, they provide an important corrective to claims such as Zuboff's (2019) that the rise of Silicon Valley has precipitated the age of surveillance capitalism. As Nick Mirzoeff (2020) has pointed out, claims that surveillance capitalism is young, "fail to account for its long role in generating and sustaining racial surveillance capitalism on stolen land in the plantation and the factory" (2). Moreover, "State gathered racialized "intelligence" is now being formulated into facial recognition, unmanned aerial vehicles (UAV) or drones, and border identification technologies, all still seeking an automated version of the perfect surveillance desired by the plantation overseer"(2). Second, this work provides an important framework for conceptualising surveillance as foundational and (infra)structurally embedded in (settler)colonialist as well as western liberal structures of governance. By extension, the digital surveillance practices embedded in the tech-industry's virtual-material infrastructures are a product of this ongoing history adjoined with forms of capitalist accumulation of the information age. These conceptualisation by surveillance scholars are thus vital infra(structural) engagements that help to frame and define power in the information age.

To conclude, this review traverses a wide array of (infra)structural approaches that conceptualise power and materiality in the information age. Formulations such as 'the

informatics of domination' (Haraway 1991), materiality (Hayles 1993) 'the New Jim Code' (Benjamin 2019), technological redlining (Noble 2017), techno-imperialism (McElroy 2019), techno-liberalism (Anatasoski and Vora 2019), alongside conceptualisations offered by feminist and critical race surveillance studies scholars conceptualise these power relations discursively, historically and materially. They bring to the fore the way that power relations are both coded into and are a product of the increasingly ubiquitous structures of the information age. This in turn highlights that there is little distinction between the design of a technology and the wider social and political frameworks that assembled and mobilize them. The term tech-infrastructures attends to these complexities. It calls attention to "the material stuff of cables and wires" (Chakravartty and Aouragh 2016, 564), the physical spaces of production and reproduction of the technology industry such as offices and city spaces, alongside the "social sedimentations" (Murphy 2013) of infrastructures. These include "colonial legacies, the repetition of gendered norms in material culture, or the persistence of racialization", as Michelle Murphy (2013) reminds us. In this thesis, I use the term 'tech-infrastructures' to refer to this capacious conceptualisation of infrastructures that describes the material, technological, economic, social and discursive structures that make the information age possible.

I now turn to the final discussion of this chapter that examines how the entanglements of reproductive politics and processes with networked and digital technologies are examined in contemporary scholarship with a view to mapping the gaps in this literature.

2.5 Reproductive Politics and Digital Technologies: Beyond Existing Scholarship

The entanglements of reproductive politics and processes with digital and networked technologies are examined in contemporary scholarship through two vectors of enquiry: the digitization of reproductive technologies and telemedicine alongside critical considerations of the impact of platform capitalism on reproductive labour. Fertility tracking applications are conceptualised as the 'newest' reproductive

technologies, offering novel forms and practices of knowledge production about reproductive bodies and processes. Fertility apps are commercially developed digital tool designed to record menstruation and signs of ovulation in order for the user to gain knowledge and insight into their fertility cycles to help prevent or enable conception. Other digital applications chart the stages of gestation and fetal development.

Scholarly engagements with digital reproductive technologies have point to the ways that fertility app use complicates the social cultural distinctions between assisted and natural conception by using digital data-driven fertility monitoring methods in order to aid 'natural' conception (Hamper 2020). The rise of commercially developed tracking apps and devices that monitor fertility and gestation is touted by scholars as congruent with an emergent neoliberal order that produce a subject whose 'performances' are quantified in line with the interests of global capital (Lupton 2015; 2016).¹⁹ The uses and abuses of data extracted from the 'digitized reproductive citizen' (Lupton 2015) for commercial exploit is a further concern raised by scholars and advocates alike, alongside the myriad ways that these applications configure particular versions of reproductive 'femininity' (Healy 2020).

Moreover, commercially developed fertility tracking apps marketed to individual consumers exist within a broader eco-systems of telemedicine developments that have implications for the design and delivery of reproductive healthcare. As Hamper (2020) posits, this proliferation of digital and networked tools ushers in a novel set of reproductive technologies involved in the continuously evolving intersections between bodies, technologies and reproduction. Notably, this literature is primarily preoccupied with reproduction as a socio-biological process of gestation, (un)making babies, parents and other forms of relatedness.

¹⁹ These interventions are timely and necessary when we consider, for example, that in 2018 a birth control application's algorithm and thermometer system were approved by the Food and Drug Administration (FDA) as a de-facto contraceptive.

In a slightly different vein, an adjacent body of work considers the ways in which the digital-material infrastructures of platforms re-configure forms of reproductive labour and care work, exacerbating inequality and subordination through the digitized mechanisms of the ‘on-demand economy’. As already discussed, reproductive labour is exploited as hidden, unpaid or underpaid labour which includes the domestic work of women and the labour of racialised people. It includes both the material work of domestic labour work and care work necessary for sustaining and reproducing those who sell their labour for wages (Fortunati 1995). In high-tech networked societies these gendered and racialised labour relations are invariably altered. As Haraway (1991) presciently argued, the ‘informatics of domination’ and mobility of capital in the late twentieth century create a “homework economy”, a world capitalist organizational structure that is made possible by the proliferation of new technologies. At the same time as the ‘global south’ becomes the preferred source of labour for corporate companies working in science and technology, computing technology is creating household economies where stable jobs become an exception rather than the norm.

These social and economic relations which in the twenty-first century are referred to as the ‘gig economy’, are mediated through online platforms with wide-ranging implications for the marketisation and commodification of reproductive and domestic labour. As reproductive labour and service work are increasingly outsourced by affluent households, algorithmic decision-making and labour allocation coupled with increasing levels of precarity extend the gendered and racialised histories of domestic work into the digital era (Aloisi 2015; Doorn 2017). Emergent technologies and platforms act as an intermediary service that connects subscribers with workers who will do domestic labour at times when the household space is empty. The innovation provided by these emerging platforms and technologies, as Atanasoski and Vora (2019) point out in their brilliant analysis *Surrogate Humanity*, is to erase contact between subscribers and domestic workers, who are made invisible through platform infrastructures. Platform infrastructures thus, “conceal the fact that other forms of ‘miserable’ work are still being done by humans”, whilst simultaneously “extracting work out of populations marked for elimination or extinction (factory workers and the racialized low-wage laborer)” (95). These analyses help to conceptualise the ways in

which reproductive labour is being recoded, intensified and invisibilised in the digital age.

This emerging compendium of scholarly work offers fertile ground for beginning a project of complicating our understanding of the ways that information technologies intersect and are constitutive of reproductive politics and processes. First, the involvement of corporate tech-enterprises in the design and distribution of fertility apps for the mass market signals the growing importance of the information technology industry for mass produced and consumer driven reproductive technologies. Moreover, social reproduction and reproductive labour are shown to be increasingly commodified in the information age. However, critical examinations of the entanglements of digital technologies with reproductive politics can be pushed beyond these concerns. Reading the analytic of technologies of reproductive regulation into an infrastructural conceptualisation of power in the information age highlights other ways in which tech-infrastructures intervene in reproductive politics and processes. This move allows a shift in focus away from purpose-built platforms and apps towards the ways that tech-infrastructures are *assembled* into processes that govern the terms, spaces, conditions and quality of reproductive life, in keeping with the bio/necropolitical agendas of the state and other actors.

In turn, this makes space for unearthing less obvious convergences between tech-infrastructures and reproductive politics and processes. These connections can be gleaned most frequently in existing scholarship that is not explicitly concerned with reproduction. For instance, Virginia Eubanks' (2017) work details how automated systems designed by companies such as IBM are increasingly the arbiters of access to social welfare provisions. Technologically integrated systems profile and rank recipients in ways that lead to support being discontinued, with life-and-death impacts. This analysis shows how predictive algorithms are deployed to forecast instances of child neglect and abuse, casting incorrect predictions based of gendered, racialised and classed indicators.

Upon closer inspection, however, we can also read the systems that Eubanks (2017) documents as bio-necropolitical technologies of reproductive regulation. Eubanks' (2017) study shows how the infrastructures of the state and automated systems designed and developed by corporate technology companies are assembled in ways that govern the terms, spaces and conditions of reproductive life. The automated determinations programmed by IBM are of course far from value neutral. On the one hand, technologically integrated or algorithmically determined welfare systems, that "police, profile and punish the poor" (Eubanks 2017), are part of the history of tech-capitalism and its incorporation into state infrastructure. On the other hand, these 'innovations' are part of a longer history of reproductive regulation where state and adjacent actors have utilized welfare provision as a mechanism to police the reproductive lives of low-income and racialised communities in particular.

A further example can be found in Ruha Benjamin's (2019) work, which evidences the ways that im/migration policing and family separation policies in the United States are scaffolded by networked database systems and electronic monitoring managed by corporate tech enterprises. Ankle monitors used by Immigration and Customs Enforcement (ICE) are given to release people from brick-and-mortar prisons so they can see their families. According to Benjamin (2019), this programme presents an opportunity to capitalise and control the, "[e]lectronic afterlives of imprisonment", where "companies that have federal contracts with Immigration and Customs Enforcement (ICE) and profit from immigrant prisons have moved into the ankle monitor business now that holding families seeking asylum has come under intense public criticism" (274). Although these initiatives are promoted as "humane alternatives to prisons", these are in fact profitable innovations that are not only part and parcel of racialised structures, they serve the purpose of obscuring relations of power (274-275). These programmes can also be read as bio-necropolitical technologies of reproductive regulation that work to obscure the ways that the United States government enacts policies to deter the settlement and reproduction of im/migrant communities.

A final example is located in recent work by scholars of gentrification. The eviction and bordering technologies documented by Eric McElroy (2019) and Maria Ramírez (2020) highlight the displacement and dispossession caused by the expanding technology industry. This recent work shows how Silicon Valley's rapid expansion has contributed to alarming rates of homelessness in predominantly Black and Latinx neighbourhoods of the Bay Area (Remírez 2019, Benjamin 2019). Zoning changes accelerate the processes of gentrification and displacement while also limiting accessible and affordable housing units and are used as "a loophole for discrimination" (Lopez, 2019; Nelson, Winling et al. 2020;). But these infrastructural changes that push entire communities into housing insecurity are also significant for reproductive politics and processes as identified by both reproductive justice activist-scholars (Ross and Solinger 2017) and scholars of social reproduction (Katz 2001; Lonergan 2015). Another way of framing tech-speculative gentrification, therefore, is to analyse its significance as a power struggle over (re)productive spaces and resources. Changes to zoning regulations, data exploitation practices and evictions can be conceptualised, from this perspective, as technologies of reproductive regulation where the driving forces of tech-capitalism sequester homes and neighbourhood spaces to ensure the (re)production of tech-capital.

In other words, the shadows of what I conceptualise as technologies of reproductive regulation can be seen in existing scholarship but have yet to be named or substantiated. Naming and substantiating these processes, then, is the pursuit of this thesis. This is important because the presence of 'Big Tech' looms large in a number of areas of paramount importance to reproduction from immigration policing, attacks on abortion access to the housing crisis. As evidenced by the example above, tech-infrastructures are increasingly co-constituted with bio-necropolitical agendas, be it of the state or other actors as they manifest in reproductive political agendas. Equally, these 'innovations' are part of a longer history of gendered and racialised reproductive regulation. And yet, tech-infrastructures are seldom conceptualised as important actors in reproductive politics writ large. To attend to this gap in knowledge and scholarship, I endeavour to answer the following questions: (1) In what ways are technologies of reproductive regulation co-constituted the tech-infrastructures of the

information age? (2) How can we conceptualise ongoing histories of reproductive regulation that pre-date but inform this contemporary expression?

In the following Chapter, I lay out the methodology devised for attending to these questions and researching, analysing and writing about technologies of reproductive regulation.

Chapter 3. Methodology: Critically Mapping Technologies of Reproductive Regulation

3.1 Introduction

In this chapter I address the question of how and where to research technologies of reproductive regulation and present an overview of the specific methods and methodological frameworks employed in this project. In its totality, this thesis is a structural analysis and a critique of ongoing historical dynamics and formations of power that I name as technologies of reproductive regulation as they manifest in the United States and specifically in the U.S. border state of Florida. Specifically, this thesis maps a set of ongoing histories and the ways these trajectories are recoded in the information age. Chapter 4 provides this historical overview, while Chapter 5, 6 and 7 examine how technologies of reproductive regulation are co-produced with what are defined in Chapter 2 as tech-infrastructures.

The methodological approach of this thesis draws inspiration from a number of existing works (Ginsburg and Rapp 1995; Murphy 2017; Thompson 2005) that examine reproductive politics, processes and technologies in a socially situated and historically specific context. This project upholds these feminist and postcolonial STS commitments to situated, contextualised and historicised work by locating this enquiry in the U.S. border state of Florida, and within ongoing histories of gendered and racialised reproductive regulation in the United States.

The methods outlined in this chapter are a way of documenting the historical, material, discursive, and technological flows that constitute technologies of reproductive regulation. Specifically, an (infra)structural analysis is undertaken to critically map these flows, and the tech-infrastructures they assemble, as they manifest in the Floridian borderland. Tech-infrastructures are defined in Chapter 2 as the material, technological, economic, and discursive structures that make the information age possible.

Data for this project was gathered by working and organising with the social justice movement, through site-specific observation, policy analysis, website content analysis and by conducting interviews with key political actors. Together these methods enabled a critical cartography of technologies of reproductive regulation. This approach follows feminist scholarly interests in charting formations of power and struggle as they manifest at different geographical scales and the ways that discursive-material boundaries produce insiders and outsiders (Mohanty and Alexander 2012).

Finally, the reflexive consciousness that guides this research is developed by adjoining a number of critical perspectives to do *witnessing* work. This thesis draws on Caroline McFadden's (2017) critical white feminism framework and reflexive commitment to centering race as a priority feminist issue, alongside a critical examination of the interconnectivity of white supremacy, patriarchy, capitalism, and other systems. Drawing on Haraway's (2000, 2018) figure of the Modest Witness I approach the study of technologies of reproductive regulation from a located, situated and fallible standpoint. This approach recognises that knowledge production is body-specific, site-specific and historically contingent. Furthermore, witnessing work as I conceptualise it, is a collectivised, relational form of learning and praxis that is inextricably bound up in responsibility and care work.

What follows is an exploration of the spaces of research, followed by an account of the specific methods employed for mapping technologies of reproductive regulation and discursive, material and technological infrastructures. I then offer a critical reflection on the ethics of this project and the reflexive consciousness that guides this enquiry.

3.2 Locating the Spaces of Research: From Archives to Field Site

This project's methodology is inspired by a number of existing approaches to the study of reproductive politics, processes and technologies. The first is Faye Ginsburg's (1989) landmark study of the American abortion debate, centred on the struggle over an abortion clinic located in the community of Fargo in North Dakota. Ginsburg (1989) writes, "although I did not select Fargo for its 'typicality', the controversy over the

opening of the first abortion clinic in North Dakota is representative of the shape of the conflict in the 1980s”(15). Charting the localised “clinic conflict” through the people and spaces in Fargo, Ginsburg (1989) attends to the specificities of the context, whilst also providing an intimate account that is part of a wider political moment in the United States. Ginsburg’s (1989) intervention is premised on the ways that practices work in a specific context and location, analysing how broader discursive and material apparatuses work in specific social, spatial and organisational contexts.

Scholars of reproductive technologies, meanwhile, frequently take fertility clinics as the locality and point of departure for social, political and economic commentary. Charis Thompson’s (2005) *Making Parents*, combines science and technology studies, historical and ethnographic data to reconstruct the “ontological choreography” at Assisted Reproductive Technology (ART) clinics. Thompson (2005) emphasises that “the dynamic coordination of the technical, scientific, kinship, gender, emotional, legal, political, and financial aspects of ART clinics”, that work to produce, “parents, children, and everything that is needed for their recognition as such”(8). On the subject of method, Thompson (2005) explains, the parameters of ART clinics are self-contained spaces, determined by regulatory, technical, economic and demographic currents making them ideal spaces for ethnographic analysis. Following the staff, dynamics and developments in clinics between the 1988 and 2004, Thompson combined ethnographic data with primary and secondary literature in reproductive science, biomedical ethics, feminist writings on ARTs and media analysis of breakthrough events.

More recently, Michelle Murphy’s (2017) *Economization of Life*, explores the violent historical legacies and connections between the “epistemic infrastructures”(6), of ‘population’ and ‘the economy’. Murphy (2017) uses archival methods to reconstruct and theorise the commodification of life that arises when biopolitical and necropolitical governmentalities are used to improve economic growth. Murphy (2017) emphasizes that the economization of life maintains conditions of precarity, while also managing “aggregate life” for nation-state economies by deeming some lives as productive that should be preserved, while others are deemed disposable and are

averted. The work then traces the racialised and gendered dynamics of how lives are counted and differentially valued through a series of infrastructures, from the cholera research site MatLab in Bangladesh to campaigns to invest in girls' education in the "developing" world.

These approaches employ a variety of methods ranging from archival work and historical analysis, ethnographic research, policy and media analysis and traverse different foci of reproductive politics, technologies and processes. However, these foundational studies are brought together here for what they have in common: they are all contextualised studies that attend to the importance of histories and context in order to understand how people, places and a variety of other actors shape and are shaped by reproductive politics, processes and technologies. That is to say, these works do not attempt to attribute truth or fixity to their areas of study, rather they identify and locate the complexities and dynamics that constitute them.

While the works cited above certainly fall under the feminist research commitment to provocation rather than proof (Murphy 2017), these studies are also situated (Haraway 1988) through their empirical context, histories and 'locatedness'.²⁰ In other words, the situated nature of Ginsburg (1998), Thompsons (2005) and Murphy's (2017) enquiries stems from the way they are contextualised and the specificities this confers. This attention to context and histories emerges from more than just attention to the chosen 'localities' of Fargo, ART clinics and the extended geographies of MatLab. Rather, it stems from a commitment to located and contextualised knowledge that uncover historical trajectories and their entanglements with technologies and the contexts that anchor them.

As postcolonial feminist STS scholars Deboleena Roy and Banu Subramaniam (2016) emphasize, "there can be no de-contextualised body or matter, be it human or non-

²⁰ I follow critiques raised by others that see 'locatedness' and context as sometimes lacking in Haraway's (1991) work. As other scholars identify, in spite of being the architect of 'situated knowledge(s)', Haraway's analysis of cyborg politics lacks context in a way that deny locatedness and historicity see Bordo (1990) and (Doane 1989).

human, organic or inorganic” (28). This point is particularly important because, “[T]he history of racial colonial science and medicine forcefully reminds us that we must not ‘decontextualize’ matter from natural and cultural contexts because it is the context that is central to the shaping of science as well as to the shaping of the material body” (29). Establishing the histories and context of an enquiry is thus in keeping both with a commitment to producing situated knowledge as well as attending to the ways in which this context shapes and produces technologies of reproductive regulation. In other words, space, place and historical trajectories are central to understanding the ways that technologies of reproductive regulation are co-constituted and co-produced with a specific social, political and cultural context. I now turn to an analysis of how the context and histories of this thesis were researched and chosen.

3.2.1 Archives

The first phase of research combined archival work with secondary source analysis in order to develop an understanding of the historical context of the enquiry. Initially this historical engagement was global, and I read widely into the transnational histories of the birth control and population control movement. The decision to focus on the United States stemmed from my own location as an American citizen by birth and because of the long and important history of racialised and gendered reproductive politics and struggles that are foundational to many of its institutional structures. I subsequently explored seminal works on the twentieth-century histories of the eugenics movement in the United States (Bashford and Levine 2010; Stern 2005), the birth control movement (Gordon 2002; Solinger 2005), racialised reproductive policies and oppressive structures (Roberts 1997; Silliman et al. 2002; Ross and Solinger 2017) and population control and global family planning initiatives (Connelly 2010; Hartmann 1987; Briggs 2002). Through this review of historical literature, I was able to map ongoing historical trajectories and themes of significance to reproductive politics and processes in the United States.

I spent a week in the Sophia Smith Collection, at Smith College in Massachusetts, which houses the institutional archives of many reproductive rights and justice

organisations in the United States, alongside the personal archives of key historical figures amongst them Margaret Sanger. The archive houses the Planned Parenthood Federation of America (PPFA) collections as well as the personal collections of many reproductive rights and justice advocates. My focus during this phase of research was on the Women's Health Collection, the Birth Control Collection, the Loretta Ross Papers, as well as the Planned Parenthood Federation material dating from the 1950s, 60s and 70s. I paid particular attention to the policies and external communication of mainstream Family Planning and Population Control organisations that dealt with biotechnologies, government policy and media during the post-war and population control era in the United States. Over the course of the week, I scanned and photographed material and literature that I thought relevant to the enquiry. At the time of researching, the majority of the Sophia Smith collection was stored in physical boxes and the finding aids were only available in hard-copy at the archive. This necessitated travel to the archive, which took place just before the first visit to the field site in Florida.

Time spent at the collection and analysis of secondary material also prompted a series of questions about what was lacking from historical reconstructions of reproductive struggles in the United States. In particular, I found many historical accounts elided the specificities of space and place²¹ and the importance of other institutions, policies and technologies for reproductive politics and processes. These reflections informed the research and writing of Chapter 4 of this thesis with its particular emphasis on infrastructures and spaces of bio-necropolitical reproductive regulation.

3.2.2 Florida's Political Landscape

After concluding work in the Sophia Smith archives, I travelled to Florida for the second phase of research in the field. The decision to locate this enquiry in Florida was taken because of its social and political location as a border state in the American

²¹ Historical accounts of reproductive politics that focus on a particular state or locality are not uncommon, see Shoen (2005). However, the co-construction of spaces with reproductive politics and processes is a less common lens of historical enquiry.

south and because of my own personal and professional connections to this space. I also felt it important to locate this enquiry in a precise social and political context, as Ginsburg (1989) did, in order to attend to local specificities whilst speaking to broader national and transnational political engagements. Studies located in the United States that speak to a broader national context can overlook differences between states, infrastructures, people and places and how these might connect to transnational issues. Simply put, choosing a specific space of research is important for attending to specificities and context because of the country's size and its political diversity afforded by the federal system.

Florida is a border state located in the American south. At the state level, Florida's population is counted at over twenty-one million and the median household income is around US\$ 55,600. Miami-Dade and Broward county where the majority of this research was conducted have three official languages; Haitian Kreyol, Spanish and English. According to the census, over fifty per cent of Miami-Dade County's residents are born outside of the United States. The Latinx population represents sixty-eight per cent of the overall and the county is also home to eighteen per cent Black and/or African American residents. Less populous parts to the north of the state follow a very different pattern. The inhabitants of Leon County, for example, home to the state capitol Tallahassee, are over sixty per cent white, with thirty-one per cent Black of African American residents, but a comparatively small Latinx population at only 6 per cent (US Census Bureau 2020).²²

Moreover, according to the American Immigration Council's most recent statistics that date from 2020, one in five residents in Florida reports to be an im/migrant, including 2 million women, over 2 million men, and nearly two-hundred and fifty thousand children, together comprising a quarter of the labour force. The largest shares of im/migrant workers are in the healthcare and social assistance, retail trade and agricultural industries. The top countries of origin for people born outside the US

²² Statistics, of course, are misleading. However, the only other way to give the reader an idea of the social and cultural make-up of the state would be to generalise based on personal experience which would undoubtedly be inaccurate.

are Cuba, Haiti, Mexico, Colombia, and Jamaica. Furthermore, over nine-hundred thousand people, and nearly five-hundred thousand US citizens in Florida live with at least one undocumented family member. Four per cent of the state's inhabitants are undocumented (American Immigration Council 2020).

Given these social and cultural complexities, Florida is a space of intense political friction between dominant socially conservative and white nativist factions and a radical and organised left-wing. Famous for its status as a 'swing state' and a space to watch in Presidential elections, the voting patterns in Florida reflect the variety of political and cultural affiliations in the state, which often coalesce into Republican and Democratic camps in complex ways. Florida has remained a Republican trifecta since 1998, meaning all three branches of the state government have been controlled by the GOP for the past twenty-eight years. At each annual legislative session anti-im/migrant, antiabortion, LBGTQ-exclusionary and carceral bills are proposed in Tallahassee. These legislative attacks are opposed by a cohesive social justice movement that organises against nativists, patriarchal and neoliberal policies.

In 2017, the Mayor of Miami-Dade county revoked the city's 'sanctuary' policy after increased pressure from the Trump administration. When a city or county takes up 'sanctuary' status, they do not cooperate with federal im/migration enforcement officials. Although officials in Miami-Dade County had resisted the 'sanctuary' label for a very long time, county jails had for many years been refusing to comply with federal immigration detention requests. The Trump administration attacks on sanctuary cities runs alongside the reinstatement of other legislation like the Secure Communities policy, which requires greater cooperation between local law enforcement and Immigration and Customs Enforcement (ICE).

Florida's geographical layout also means that almost the entire state lies within a 'constitution free zone' that spans one hundred miles from a land or sea border. Immigration officials enjoy broad - though not limitless - powers within this zone. Specifically, federal regulations give U.S. Customs and Border Protection (CBP) jurisdiction to operate immigration checkpoints within this space. According to the

American Civil Liberties Union (ACLU 2020), the one-hundred-mile border zone that has been in place since 1953 is becoming increasingly militarized and the CBP claims the authority to conduct random searches and install check points. The constitution free zone is a de facto expansion of the border into the interior and with this increased policing powers (ACLU 2020). This ‘borderland’ status enforced across most of the state is a crucial component of the specificity of the Floridian context.

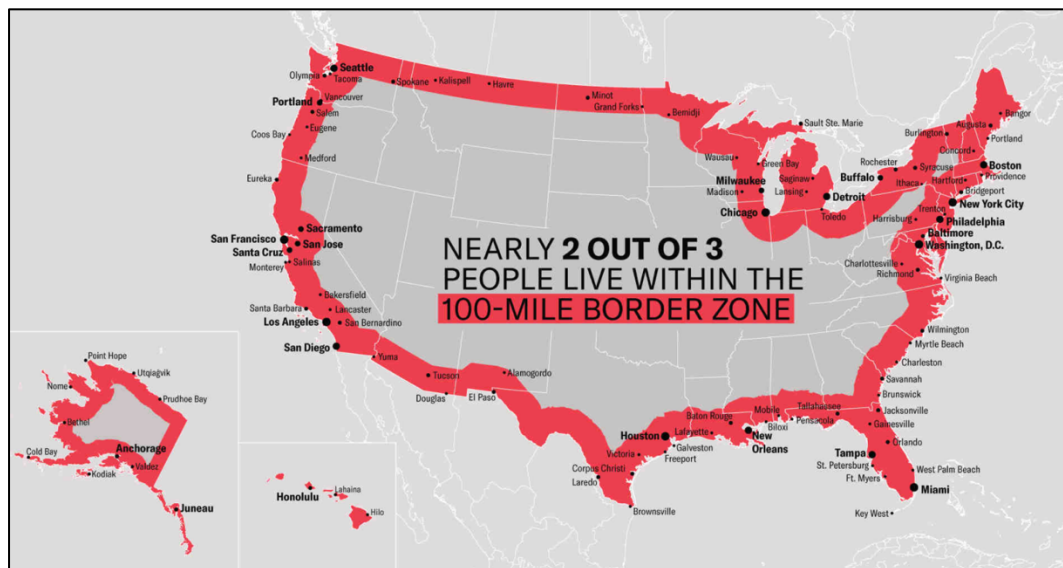


Fig 1. Map of the 100-mile border zone from the ACLU (2020)

Since its inception this borderland zone is a colonial boundary (Anzaldúa 1987) and is also intertwined with localised carceral geographies. The south of the United States has played a specific historical role in the creation of the for-profit prison system. In the 21st century, the region still has the largest concentrations of for-profit adult prisons in the World. Philip J. Wood’s (2007) analysis shows how from the 1990s where there was growth of private prisons, 35 adult for-profit facilities were located mostly across the “sunbelt” from Virginia to southern California. Only six private prisons were located elsewhere, in Washington, Illinois, New York, and Pennsylvania. During the heyday of privatization, which occurred from 1996 to 2000, 68 new private adult facilities were opened and the Sunbelt continued to dominate.

Political scientist Phillip Wood (2007) explains that the predominance of private prisons in the South of the United States (or Sunbelt), as driven by a racially

structured regional accumulation strategy and a commitment to the lowest levels of taxes and spending on social services. More than anywhere else in the world, Wood (2007) argues, powerful political coalitions appear dedicated to the expansion and privatization of prison systems in the American South. These histories are further evidenced by the lifetime disfranchisement of felons, a legacy of Jim Crow, that continues in several southern states, although recently amended in Florida.

The presence of numerous for-profit prisons and detention companies marks the Floridian political landscape. Local Democrat and Republican politicians accept generous contributions from for profit prison contractors such as GEO Group, which is headquartered in Florida and operates five of Florida's seven private prisons (Schorsch 2019). In addition to backing Trump's presidency in Florida, the for-profit prison lobby were backers of Governor Ron De Sanctis in 2018 and Senator Rick Scott, both Republicans. Reports from local news outlets from 2019 suggested that in spite of a ban on accepting money from for-profit prison industry PAC's, the Future Democratic Majority PAC, received a \$25,000 contribution directly from GEO on October 23, 2019 (Ianelli 2019). GEO Group's financial and political clout is also evident during the administrative sessions where they make consistent political and financial gains. In 2019, Lawmakers set aside an additional \$4.3 million to boost the per diem rate for incarcerated people and supplemented another \$3 million for so called 'offender rehabilitation programs' (Schorsch 2019).

Borderland and carceral geographies are overlaid with a localised landscape of healthcare and abortion care access. Florida is one of thirteen states that did not accept the Medicaid expansion in 2012. One of the most important provisions of the Affordable Care Act (ACA) is the expansion of health coverage to low-income families. In the 37 states across America that have expanded Medicaid, many of those who benefit are people working in low-wage jobs that do not offer health insurance. To date, close to a million Floridians that would be eligible for healthcare coverage under the ACA Medicaid expansion remain illegible. This affects access to vital reproductive health services like antenatal care and contraception, as Medicaid programs cover basic family planning services and supplies. Access to healthcare in Florida is further

complicated by the fact that citizenship and im/migration status affect access and eligibility to state and federal healthcare coverage and programmes.

As examined in Chapter 5 of this thesis, coverage plans offered in the state's health exchange under the Affordable Care Act only cover abortion in cases of life endangerment, rape or incest, unless individuals purchase an optional rider at an additional cost (Guttmacher Institute 2016). The lack of affordable access to healthcare compounds the many state-wide restrictions on abortion, which include parental consent for minors, a compulsory ultrasound before obtaining an abortion and state-directed counselling that includes information to discourage the patient from having an abortion.

Finally, after recovering from the Great Recession of 2008, many of Florida's urban centres are rapidly gentrifying (Feldman and Jolivet 2014; Gierczyk 2020). The cost of housing has spiked over the last ten years, particularly in Miami and Orlando, putting pressure on working-class, im/migrant neighbourhoods and communities of colour that have historically inhabited downtown areas. Struggles around space and access to housing are highly pronounced in these urban centres as progressive forces try to resist gentrification. Meanwhile, socially conservative and neoliberal agendas increasingly try to profiteer by developing and privatising whole swathes of the city. As examined in Chapter 7, the dual processes of climate change and tech-driven gentrification are putting further pressure on the landscape of affordable housing, pushing lower-income residents out in order to accommodate start-ups, businesses and wealthier residents. Access to housing is also a historically significant issue closely tied to social reproduction and the feminization of poverty in urban areas of the city.

3.2.3 Reproductive Politics in Florida: Mapping Spaces and Actors

As discussed in Chapter 2 of this thesis, the aim of this project is to think about reproductive politics and processes beyond individualised bodies and socio-biology, towards a more infrastructural understanding of reproductive politics and processes (Murphy 2013) at the collectivised level of communities, the social body and the body

politic. Working with and learning from the social justice movement in South Florida also informed this theoretical conceptualisation and reframed how I had originally thought about reproductive politics and processes.

Social Justice movements highlight important connections and concatenations between different struggles and power structures, tracing points of convergence that emerge from people's lives and political experiences. As already discussed, exploring literatures on social reproduction (Colen 1995; Ginsburg and Rapp 1995; Katz 2001), distributed reproduction (Murphy 2013; 2011; 2017), and reproductive justice (Ross and Solinger 2017; Ross et al. 2017) was vital to the conceptual framing of this project. However, learning from the political activities of key organisational actors in the South Florida movement was equally important because of the connections they articulate between reproduction, im/migration policing, gender-based violence, housing insecurity, the climate crisis, state violence and white supremacy. Participating in actions, working inside community-based organisations and attending organised advocacy trips to the state capital in Tallahassee was integral to the conceptual framing and methodology of this thesis and to the politicization of its writer.

While this project began as an exploration of more commonly charted terrains of reproductive politics such as access to reproductive healthcare and how this access is mediated by digital technologies, it shifted into an enquiry that explored what the most salient and urgent political issues in the state had to do with reproduction and tech-infrastructures. This shift in the research design and focus was prompted by important lessons and knowledge imparted from community activists and advocates whose work sought to bring different issues together, rather than separate them into academic silos. As detailed in the previous section, the time spent in different organising spaces brought to the fore the connections between reproduction, the ongoing housing crisis, im/migration policing and attacks on abortion care as they intersect with racialised, classed and gendered power relations. Learning from this work was also instrumental in forging technologies of reproductive regulation as an analytic for this project.

Between 2017 and 2019 I spent a total of six months doing fieldwork in Florida across four trips with long periods of reflection spent in the UK. I began the fieldwork for this project working with a community-based organisation located in Little Haiti that provides wrap-around services to the local community. FANM, recently renamed Family Action Network Movement, is an organisation led by life-long Haitian-American activist and community leader Marleine Bastien. The centre connects members of the community with healthcare services, support with citizenship and immigration advice, offers counselling services to survivors of domestic violence and also offers an afterschool programme. FANM staff also run a Haitian Kreyol language radio show. In addition to these activities, FANM also runs advocacy campaigns around issues pertaining to immigration and housing justice.

I also fostered a relationship and collaboration with the Florida chapter of the National Latina Institute for Reproductive Justice. The Latina Institute in Florida organises a network of Latinx reproductive justice activists, who advocate for reproductive healthcare access at the intersection of im/migrant justice at the state level. While they provide support to service organisations on the ground, the primary objective of the Latina Institute in Florida is to influence legislation and fight for recognition of the specific reproductive needs of the Latinx community. I ran a series of workshops whilst with Latina Institute and its members between 2018 and 2019 that explored concepts of privacy and surveillance coupled with a practical introduction to browser and social media security. Through the Latina Institute I also built a connection with Women Working Together USA, a state-wide Latinx domestic workers alliance.

Between 2018 and 2019, I made three separate trips to the state capitol in Tallahassee with a variety of activists and organisational actors for planned actions at the intersections of reproductive rights and justice, gender-based violence, LGBTQIA rights, im/migration policing, housing justice and racial justice. The actions, which revolve around visits with state representatives, press gatherings and political education workshops, allowed me to become acquainted with state politics, its key

actors and also learn about the most pressing political issues for the social justice movement in Florida.

I also planned and attended actions organised by the South Florida Circle of Protection, a loose network of community members and local activists that station themselves outside of detention centres and at other nodes of the detention and deportation system in Florida. They provide community support, connect people with lawyers and act as community observers of ICE check-in and detention facilities. The group was formed in 2018 after a sharp escalation in so-called 'silent raids', where people are disappeared from their check-in appointments and placed into detention and deportation proceedings. The group calls the attention of state representatives and local media to abuses of power perpetrated by ICE and their private contractors, calling for the closure of check-in and detention facilities.

During the third visit from February to April 2019, I spent less time in organisations and movement spaces, and focussed on interviewing activists and experts. I also spent some time outside of South Florida and Tallahassee, mostly in Orlando in central Florida, where a lot of the more militant antiabortion groups operate. I connected with a number of activists and actors who were resisting, in a variety of ways, efforts by the state legislature to make abortion care inaccessible. Specifically, I visited the Central Florida Women's Emergency Fund (CFWEF) and its director Stephanie Loraine Piñeiro, spent time interviewing and talking to clinic escorts and mapping Crisis Pregnancy Centre infrastructures. I also went to a clinic to observe the ways that antiabortion protestors convene outside and the deterrent tactics they employ.

Finally, I also spent time working with the Florida Immigrant Coalition (FLIC), an umbrella organisation that coordinates organisations fighting for im/migrant rights and justice in the state of Florida. Specifically, I worked closely with Laura Estefania Muños Quiñones who works with FLIC and is also the director of *Poderosa is her Power*, a grassroots community group that provides healing and support to Latinx victim-survivors of gender-based violence. During this time, I attended and worked at a number of citizenship clinics organised by Muños, that connect undocumented

people with lawyers in order to start asylum claims procedures. Over the course of three years of work in South Florida, Muños and I also developed a series of curriculums on gender-based violence and digital technologies, which have been used in the organisations outreach activities with Latinx and trans-Latinx youth.

3.3 Mapping Technologies of Reproductive Regulation: A Mixed-Method Approach

The principal methodological pursuit of this project is to document the historical, material, discursive, and technological flows that constitute technologies of reproductive regulation. Specifically, the objective is to critically map *tech-infrastructures* that are assembled by these flows, as they manifest in the Floridian borderland. As Michelle Murphy (2011, 2013, 2017) conceptualises, infrastructures are material and discursive formations comprised of physical structures and social sedimentations such as colonial legacies, processes of racialisation and gender norms. Infrastructures also “assist,” alter, rearrange, foreclose, harm, and participate in the process of creating, maintaining, averting, and transforming life in inter-generational time. Drawing on this, technologies of reproductive regulation are conceptualised not as mere objects or artefacts -digital or otherwise- but as co-constituted with social and political relations.

This bring us to the question of how to document and analyse technologies of reproductive regulation as they manifest in the everyday and through the prism of the Florida field site. A number of theoretical and methodological framings are important for this endeavour. First, as Deboleena Roy and Banu Subramaniam (2016) emphasize, a key project of feminist and postcolonial STS is, “to develop an approach where we recognise the natural and cultural worlds, science, society and politics as being inextricably interconnected, co-constituted and co-produced” (38). This also entails recognising, “how colonialism and patriarchy (and categories of sex, gender, race, class, sexuality, ability, nation) are imbricated in the development of dominant western sciences and thus its theories, methods and institutions”(39). While this thesis is primarily concerned with technologies and infrastructures rather than science

in the traditional sense, the material-semiotic approach and contextual commitment highlighted by Roy and Subramaniam (2016) are imperative for this enquiry. As is an understanding that technology shapes society, and society shapes technology through a set of social-material practices.

Thompson's (2005) and Murphy's (2013; 2017) work attends to these commitments by examining the ways that technoscientific social-material practices (un)make communities, parents, babies or avert collectivised forms of living being. Thompson (2005) employs an ethnographic approach, observing the daily operations of fertility clinics that sees both humans and non-humans as actors in the "ontological choreography" of making parents. Murphy (2017), on the other hand, uses archival material to reconstruct the technoscientific parameters of the economization of life, tracing its permutations through different infrastructures. Staying with these frameworks, this thesis maps technologies of reproductive regulation through a mixed methodology combining historical research, site-specific mapping and interviews. These forms of data-gathering are guided by what I call 'witnessing work' which will be discussed later on in this chapter.

Time spent organising with the social justice movement, site specific observation, policy analysis and interviews enabled a critical cartography of technologies of reproductive regulation. While geographers map critical cartographies through Geographic Information System-mapping (GIS) (Crampton 2011; Kwan 2002; Pavlovskaya 2016), the cartographies in this thesis follow feminist scholarly interests in charting formations of power and struggle as they manifest at different geographical scales. Specifically, I follow Chandra Mohanty and Jacqui Alexander (2012) in examining the ways in which cartographic rules and discursive-material boundaries produce insiders and outsiders. Locating myself in the Florida landscape allowed me to draw micro-geographies of power relations and reproductive regulation. These empirical observations derived from fieldwork were supplemented with policy analysis and interviews with activists who are attempting to dismantle these infrastructures. I now turn to the precise methods of site-specific observation, mapping, interviews and historical research.

3.3.1 Mapping and Site-Specific Observation

First, I researched and documented the tech-infrastructures of the antiabortion movement using a smartphone, mapping where Crisis Pregnancy Centres (CPCs) were camouflaging online as legitimate abortion clinics.²³ This exercise allowed me to understand the immense scale and size of antiabortion infrastructures in Florida and to see what the facilities looked like from the outside. Once I had identified which facilities were CPCs I reviewed their websites to see what services they were offering and the type of language that was being used in the information they provided. I repeated this exercise in Orlando and Miami. I did not, however, enter any CPC facilities or contact any prominent antiabortion advocates or groups that operate in Florida. This decision was taken following advice from reproductive rights and justice advocates. Given the ethical obligation of a researcher to disclose their identity and research intent, many advocates felt that direct contact with antiabortion groups could attract unwanted attention and provoke harassment. In hindsight, however, the research and writing of Chapter 5 where these issues are discussed could have been richer by engaging directly with antiabortion advocates. Further research with this aim could be undertaken at a further date.

Advocacy trips to the state capitol and historical research enabled an understanding of the wider contemporary and historical context of antiabortion politics in Florida and in the United States. The time spent in Tallahassee introduced me to the discursive framing of antiabortion politics and legislation and how these notions related to socially conservative and right-wing political formations more broadly. Moreover, mapping antiabortion infrastructures in Florida sparked questions about the history of extremist prolife and antiabortion organisations in the United States. Secondary texts were employed to trace the discursive-material continuities between New Right political formations and the efforts of contemporary antiabortion groups to obstruct access to abortion care.

²³ Disguising religious counselling facilities as abortion clinics is a longstanding tactic employed by the antiabortion movement who hope to lure in patients and dissuade them from having an abortion.

Second, working with a variety of organisational actors imbricated in the fight to dismantle the detention and deportation system I gained valuable insights into the dispersed tech-infrastructures of family separation in Florida. Specifically, actions with the Circle of Protection group outside of ICE facilities and talking to people waiting for their check-in appointments sparked a series of questions and observations that are the backbone of Chapter 6 of this thesis. Working with a variety of organisational actors from FANM to FLIC, I realised that little was known about the digitized back-end infrastructures of Immigration and Customs Enforcement (ICE). While it was clear that ICE and Customs and Border Patrol (CBP) had the ability to carry out targeted raids and traffic stops, the dragnet systems that informed these activities remained nebulous.

Policy analysis was also vital to understanding these expanding tech-infrastructures of family separation. While public policy on border enforcement and im/migration policing in the United States is challenging to locate, I collated a number of reports and policy briefs and also reviewed executive orders and publicly available legislation. Combining site-specific observation work with this analysis and research into company profiles, their products and histories enabled a tentative mapping of family separation infrastructures as they manifest in the Florida geography.

Finally, the months spent at Family Action Network Movement (FANM), located in Little Haiti allowed me to become acquainted with the neighbourhood and its rapidly changing landscape marked both by gentrification and the legacies of foreclosure. Working closely with FANM staff at the height of the Temporary Protected Status (TPS) crisis²⁴, I engaged also with members of the community who were advocating on a number of issues from im/migration reform to the housing crisis. Time spent at FANM and in Little Haiti allowed me to chart cartographies of power and resistance as they unfolded in neighbourhood space.

²⁴ The Trump administration ended Temporary Protected Status (TPS) that had allowed Nicaraguans, Haitians, Salvadorans, Sudanese, and Hondurans to legally reside in the United States. Stopping the protections would force thousands of people who have long resided in the United States to leave or be faced with the prospect of deportation from the country.

3.3.2 Historical Research

The sites and tech-infrastructures analysed through this mapping exercise are shaped and assembled by historical and discursive flows. In order to understand how the border, the neighbourhood and abortion clinics had historically become sites of intensified bio-necropolitical reproductive regulation, I consulted a wide array of secondary historical material in between visits to Florida. Tracing the continuities between racialised and gendered housing policies, the evolution of border control and New Right ‘pro-family’ policies across different literatures enabled a mapping of the historical trajectories that shape the technologies of reproductive regulation I was documenting in Florida. These secondary historical sources prompted me to research and write an alternative history of bio-necropolitical reproductive regulation in the United States. In the process, I shifted focus away from the materials that I had encountered in the archives at Smith. What began as an exploration of more commonly charted historical trajectories of reproductive control centred on family planning and healthcare, shifted towards an enquiry into the spatialities of the border, the neighbourhood and abortion clinics and their significance for reproduction. The intertwined histories are mapped out and discussed in chapter 4 of this thesis.

3.3.3 Interviews with Key Actors

I complemented this work by conducting around twenty interviews with key political actors.²⁵ The interviews were conducted almost exclusively during the last two visits between January and March 2019 and once again between September and October 2019. The aim was to incorporate the expertise of activists and leaders working to dismantle the structures documented in this project. Not all of these interviews are quoted or incorporated directly in the writing of this thesis. Restrictions of space and the diversity of subjects explored meant that I had to be selective with the interview material presented. However, I have chosen from the interviews cases that offer insightful analysis and are also illustrative of perspectives that I encountered more widely amongst activists and advocates.

²⁵ Please see Appendix B for a complete list of interviews conducted.

The objectives of these interviews differ from those of more traditional anthropological or ethnographic research. Given the challenges of documenting and analysing 'invisible' and inaccessible tech-infrastructures, the focus was on interviewees' knowledge and expertise rather than experience or life stories. Thus, the views and perspectives of advocates are included as a commentary on the social and political technologies analysed throughout this thesis and because of their expertise with the political landscape in Florida. These insights were instrumental in mapping technologies of reproductive regulation and tech-infrastructures.

The people that were interviewed as part of this project come from a variety of backgrounds but were all, without exception, active in political organising. The youngest person I interviewed was twenty-four and the oldest seventy-five. I sought out the expertise of both female and male identifying people who reflected the diversity encompassed in the social justice movement, including American citizens, Latinx activists, Black women community leaders, active Floridian retirees, social workers and im/migrant rights activists. I approached activists who had longstanding active roles in community organising and were affiliated with the groups outlined earlier in this Chapter. Half of the interviews were conducted in English and the remaining half in Spanish and took place at a location of the interviewee's choice. This was often either people's homes or in office spaces.

By the time I conducted interviews, I had been working with different groups and been present in organising spaces for over a year. I was therefore a known figure and had formed friendships and working relationships with most of the people that I interviewed during the research process. Moreover, as I continued to interact with interviewees long after the interview took place, I continued to learn from their expertise in many other ways. In this sense the interviews are snapshots of ongoing dialogues and learning processes that took place over years. Notwithstanding, negotiating my personal and social identity in the interview processes and during my time in Florida was of paramount importance for this project. I explore this question and other ethical considerations in the following section.

3.4 Research Ethics, Reflexivity and Witnessing

I applied for and was granted ethical clearance by the Goldsmiths' research ethics committee for the fieldwork component of this project. The ethics assessment consisted of a self-evaluation of the research project in line with the European Social Research Council Framework for Research Ethics. All participants in this research project gave written as well as verbal consent and the risks and benefits of the research project were explained and written in the consent forms²⁶. Equally, all participants were given the choice to withdraw from the study at any point and none of the questions violated the dignity or rights of any of the participants. In all spaces of research and activism, I always disclosed my identity as a researcher and explained what the project involved. All interviewees whose name appears in this project were also contacted during the write-up phase to verify they were comfortable with the direct quotes taken from recorded interviews and necessary amendments were made. In interviews, I never asked participants about sensitive or traumatic events, and only learnt about these incidents if they were divulged during our conversation.

Moreover, given the sensitive nature of some of the data that was collected during this research project, I took steps to guarantee the confidentiality and anonymity of participants by recording the interviews on an analogue device and making sure that the participants did not state their full name. I kept a separate excel sheet that was coded in a manner that only I could identify. All personal identifiers were removed from interview recordings, transcripts and notes and all original data is currently kept on a password-protected external hard-drive. These precautions were taken to comply with the confidentiality needs of research participants who are undocumented or involved in politically contentious campaigns. Furthermore, I did not take any photographs or videos outside of public settings. Given the increased use of social media tracking by Immigration and Customs Enforcement (ICE), I also turned off geolocation services on my smartphone while travelling to and from interviews and places of research.

²⁶ Please see Appendix A for a copy of the consent forms used in this project.

3.4.1 Reflexivity

These ethical guidelines for the project constructed along University standards were important for a reflection about risk and protecting the confidentiality of participants. However, the institutional ethics clearance procedure stopped short of asking important questions about reflexivity, conduct and consent that are imperative to ethical research practice. As Yasmin Gunaratnam (2003) reminds us, radical reflexivity in research involves rigorous attention to explicating the ways in which research participants and researchers are socially situated, whilst making research accountable to the past. This commitment draws on feminist standpoint theory (Collins 1997; Harding 1992; Narayan 1989; Sandoval 2004) and Haraway's (1988) situated knowledges formulation in order to trace how research is entangled in wider social and historical relations. Failure to examine how the research(er) is located runs the risk of replicating dominant power relations and underestimating the responsibilities that come with wielding power as researchers.

In *Situated Knowledges* Donna Haraway (1988) criticizes claims of scientific objectivity enquiry understood as impartial or a "view from above, from nowhere" (589), arguing instead for the embodied nature of all vision and knowledge production. Haraway (1988) argues that seemingly objective and seemingly neutral scientific perspective obscures power relations and hides a gaze that "signifies the unmarked positions of Man and White" (581), which Haraway calls "the god trick" (581). On the contrary, the perception of any situation is always a matter shaped by the social location of the epistemic agent. Situated knowledges therefore take into consideration the agency of the person producing the knowledge and the object of study. For Haraway, knowledge production is therefore body-specific, site-specific and historically contingent. Moreover, the process of acquiring and producing knowledge begins by assembling partial perspectives and specific ways of seeing.

Situated knowledge, then, is produced through reflexivity, a practice that identifies the political and social locations that inform an enquiry and all the limitations that this entails. It is of paramount importance to acknowledge, therefore, that the writer

of this thesis was born in the 1980s in Boston, Massachusetts, to white British parents. As a beneficiary of the 14th Amendment, I became a citizen of the United States at birth. As a white American-European researcher in the United States, present in many organising and community spaces beyond my own, developing a critical consciousness of power relations was paramount. This was affirmed by the fact that many people that I worked with expressed frustrations about past experiences with academics and the power differentials that allow researchers to appear as knowledge producers, and activists and people in the community as ‘objects’ of study.

Recognising my social location through gender, race, class, ability, nationality, or any other axes of difference was therefore of paramount importance to this project. However, acknowledging these power differentials without a sufficiently reflexive research process would end up reifying and reinforcing power relations by paying lip service to complex issues. Power relations are not addressed simply through an acknowledgment of their existence. Rather, as feminist geographer Farhana Sultana (2017) explains,

“What becomes important in undertaking reflexive research is to critically account for the research process historically, socially, and spatially. This enables upfront analyses of issues such as racialization, gendering, post/coloniality, geopolitics, and power relations that are intersectional. Being critically mindful of colonial legacies, imperialism and empire, politics of development, controversies of globalization, and other broader cross-scalar and historical issues enables researchers in ‘other’ places to locate themselves on a broader canvas that then enables more comprehensive understanding of situations and contexts”(3).

In keeping with this spirit, critical sociological research requires, in my view, a commitment to acknowledging these broader processes and power structures whilst also allowing them to inform and guide the research design. Specifically, Caroline McFadden’s (2017) Critical White Feminism framework for theorising reproductive justice has therefore been instrumental to this project’s methodology and focus.

McFadden (2017) proposes that white researchers and organisers involved in reproductive political struggles adopt a feminism that is critical of whiteness and white supremacy from a standpoint that recognizes our racial and imperial privilege. This means focussing on the ways that (infra)structures, organizations and collectives uphold whiteness and white supremacy, and, “are entangled with and buttressed by the racial, social, and economic oppression of communities of color” (394). Put differently, McFadden’s (2017) framework offers a pathway for theorising and excavating white supremacy’s role in reproductive injustices in ways that challenge white feminist theory.

McFadden’s (2017) commitment to continuously centering race as a priority feminist issue, alongside a critical examination of the interconnectivity of white supremacy, patriarchy, capitalism, and other systems lies at the core of this enquiry. This framework was also instrumental in shaping this thesis as a critique of power relations that aligns itself with social justice commitments. Perhaps most importantly of all, critically engaging with this framework, alongside questions of power and positionality, informed the chosen focus of this thesis which lies with infrastructures and technologies of power, not people. Given this project’s objective to study hegemonic technologies of reproductive regulation and the social location of its author as a white woman, I concluded that ethically its focus had to lie with documenting and challenging power structures and not with ‘studying’ communities or forms of activism. My hope is that this decision will help to address and mitigate objectifying and exploitative dynamics that can be present in contemporary sociological and anthropological research. Instead, the aim of this project is to capitalise on the platforms and access available through academia to expose the inner workings of white heteropatriarchal capitalist power and inspire further critique and action.

If the stated goal of this project is to document infrastructures not study communities, it would be reasonable to ask why interviews were conducted with people on the ground. After years of working with different groups and organisations in Florida it felt nonsensical to design a project that only included my own interpretations and

analysis. The decision to conduct interviews was taken in order to include activists, their voices and opinions not as 'objects' of research but as co-interlocutors and experts on the issues discussed and documented in this thesis. My hope is that this approach of studying formations of power, coupled with an inclusion of the voices of activists and experts can produce research that is neither objectifying nor erasing.

3.4.2 Witnessing

Building on this, the reflexive consciousness that guides this research was developed by adjoining a number of critical perspectives to do *witnessing* work. This methodological approach, following Haraway (2000), is about, "seeing; attesting; standing publicly accountable for, and psychically vulnerable to, one's visions and representations" (158). Haraway's (2018) 'Modest Witness' figure was developed to interrogate the experimental scientific method and its claims to objectivity.

Specifically, the figure of the Modest Witness draws on and critiques the experimental methods of seventeenth-century chemist and natural scientist Robert Boyle, narrated through the historical work of Shapin and Schaffer (1985). This seventeenth-century method relied on a form of 'witnessing', where observers were called to watch an invention or an experiment in action and were invited to report on its operation in a detached and descriptive way. This method established criteria and thresholds for what counted as 'objective' scientific knowledge and relations of cause and effect.

However, as Haraway (2018) points out, this form of 'modest witnessing' or observation was conducted by mostly wealthy, white English men. Crucially, "modest men were to be self-invisible, transparent, so that their reports would not be polluted by the body" (32). In turn, this detachment gave, "credibility to their descriptions of other bodies and minimize critical attention to their own" (32). Haraway reminds us that this self-invisibility, "is a crucial epistemological move in the grounding of several centuries of race, sex, and class discourses as objective scientific reports"(32). In addition to questioning how gender, race, social class, and nationality were central to how science, and 'facts' were constituted, Haraway (2000) also examines the gendered

histories of modesty concluding that, “female modesty has been about being out of the way while masculine modesty has been about being a credible witness” (159).

Haraway’s (2018) feminist ‘Modest Witness’ refigures this history and experimental scientific method into a situated (Haraway 1988), located and critical practice that does not speak ‘truth’ or produce ‘facts’, but attests to a partial perspective avoiding boundless relativism. Building on this, this project strives towards being a credible feminist witness which, as Haraway (2000) proposes, “is about a kind of immersion in the world of technoscience where you ask a hard intersection of questions about race, class, gender, sex with the goal of making a difference in the real, ‘material-semiotic’ world” (159). Paying attention to non-human as well as human actors is also crucial to this project. In other words, witnessing work attends to power structures, while also asking, what are socio-technical systems, artefacts and infrastructures doing? and in what ways can objects be understood as ‘material witnesses’? In so doing, witnessing work attends to the important question of what artefacts and sociotechnical systems can tell us about how they are structuring and structured by race, class, gender, ability and nationality.

It is important to note that witnessing as a methodology is not specific to feminist technoscience, but is also developed and used in Indigenous scholarship and pedagogies. Witnessing in this context is a situated praxis that draws on Indigenous collectivised forms of knowledge-making in order to preserve oral cultures. Indigenous two-spirit scholar Sarah Hunt (2018) develops a witnessing methodology from Kwagiulth systems of knowledge that is specific to research on gendered colonial violence. This approach frames witnessing as a methodology in which Indigenous researchers are obligated, through a set of relational responsibilities, to ensure frameworks of representation allow for the lives that have been witnessed to be made visible. In Hunt’s (2018) words, “At its heart, witnessing is about the persistent reintegration of voices of people who have been pushed to the periphery in processes of knowledge creation. It is about making visible and audible those members of our communities who are being silenced, forgotten, erased, and spoken over”(293). The duty of a witness is not, therefore, to tell their own story, but to recall what they have

experienced from their own perspective in order to validate someone else's actions, rights, or stories.

Moreover, witnessing occurs across Hunt's (2018) many roles as advocate, educator, researcher and relative in Indigenous communities. In turn, being present in these capacities defies a form of academic knowledge making centred on the individual researcher towards an Indigenous relational form of learning that insists, "on working in an intimate network of relations – an epistemologically distinct approach from this Western distancing" (288). Moreover, Hunt (2018) maintains that because of the stigma surrounding gendered violence and sex work, witnessing can become central to undoing the harms of colonialism by valuing sex-workers through acknowledgement of their stories and perspectives.

This project and its author make no claims to act as a witness *for* a specific community, as envisioned by Hunt (2018). Rather, I discuss Hunt's (2018) methodology here as a reminder that there are many different ways of acting as a witness, which in turn demands a qualification of how witnessing is understood in this enquiry. My approach to witnessing draws on Haraway's (2000; 2018) figure and is about being present and embodied, while attesting to what is seen in an interpretive, engaged, contingent and fallible way (Haraway and Goodeve 2000). Witnessing, as I understand it, is different to more traditional ethnographic methods of 'participant observation', employed, for instance, in Ginsburg's (1998) study. Participant observation captures lived experiences, narrativize their representation and often has specific communities or groups of people as the focus of study. Witnessing as I conceptualise it, by contrast, aims to learn from social justice work, to build a structural critique from these insights that names and holds infrastructures of non-humans/humans accountable through research and archiving work.

Moreover, for this project, witnessing it is also a commitment to unpacking the ways that technoscience is "black boxed" by investigating the social constructs and power relations behind tech-infrastructure and artefacts. As Bruno Latour (1999) explains, black boxes,

“are an expression from the sociology of science that refers to the way scientific and technical work is made invisible by its own success. When a machine runs efficiently, when a matter of fact is settled, one need focus only on its inputs and outputs and not on its internal complexity. Thus, paradoxically, the more science and technology succeed, the more opaque and obscure they become” (304).

Building on this, each chapter recounts an act of witnessing, an observation of a technological artefact or sociotechnical system in operation that prompts a critical investigation to, “Open the black boxes; examine the assemblies inside” (Latour 1999, 185). These moments ‘situate’ the epistemic agent and open up a broader critique of power structures that stems from this embodied observation. At the same time, I have taken the decision to ‘appear’ as little as possible as a subject in this research. This decision is deliberate and motivated by a desire to give all possible space to documenting and analysing technologies of reproductive regulation and to the commentary of people. My hope is that ‘seeing’ from this vantage point, and alongside the people I was working with, lends to critical and accountable knowledge production that speaks with and to pressing political issues and concerns.

Last, acknowledging the crucial differences between my approach to witnessing and Sarah Hunt’s (2018) methodology, I also understand witnessing as a relational form of learning and praxis that is inextricably bound up in responsibility and care work. As discussed earlier in this Chapter, a lot of fieldwork time in Florida was spent working with and in community-based organisations, making trips to the state capitol, collaborating with organising groups, developing trainings and lending expertise whenever it was asked for. It was also in these different capacities and doing different forms of work that I began to witness and build knowledge not as part of an individualised research process but in and amongst a set of collective actors. The responsibility inherent in this relational work lies, following McFadden (2017) and Sultana (2017), in an upfront analyses of issues of racialisation, gendering,

post/coloniality and other power relations. The decision to write from the ground and focus on technologies of power was taken for precisely this reason.

3.5 Conclusion

The following chapter provides a historical background to this project. This follows the commitment to historical context that is integral to feminist and postcolonial STS in order to locate the 'connectedness' of technologies and people/things in a specific material/social world.

Chapter 4. Ongoing Histories of Reproductive Regulation: Clinics, Housing, Borders

4.1 Introduction

In this chapter I historicize technologies of reproductive regulation in order to frame the empirical fieldwork findings of this thesis. As described in Chapters 1 and 2, technologies of reproductive regulation are discursive, material and technological flows that govern the terms, spaces, conditions and quality of reproductive life, in keeping with the bio-necropolitical agendas of the state, organised groups and other actors. The contemporary examples analysed in Chapters 5, 6 and 7 of this thesis explore how these technologies are assembled and recoded in the information age, focussing on three sites key of reproductive regulation: the neighbourhood, the national border and the abortion clinic.

The purpose of this chapter is to explain historically and empirically why these spaces are important for reproductive politics and processes and how they became sites of intensified bio-necropolitical reproductive regulation in the United States. What follows is not a comprehensive history. Rather, the aim of this chapter is to map a genealogy that starts with the moment that the state, organised political groups and individual actors began to regulate reproduction ‘beyond biology’ (Ross 2017). Equally, the intension is not to establish a simplistic causal relationship between past and present forms of reproductive regulation but to attend to the historic specificities of the context of this enquiry, as outlined in Chapter 3.

Important histories of the birth control movement, racialised reproductive control (Gordon 2002; D. Roberts 1997; L. Ross and Solinger 2017) and the population control era (Briggs 2002; Connelly 2010; Hartmann 1987) chart the ways that reproductive bodies and fertility have historically been subject to state, corporate and medicalised control. Linda Gordon’s (2002) exhaustive work *The Moral Property of Women: A History of Birth Control Politics in America* covers over a century of political struggles

over reproduction and reproductive technologies in the United States. At the heart of the matter for Gordon (2002) lies a deeply rooted opposition to gender equality and sexual liberation. By contrast Dorothy Roberts' (1997) *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty* takes a long view of gendered and racialised attempts to control Black women's reproductive lives. Making explicit the connections between gender, race and reproductive control in America, Roberts (1997) traces a trajectory from the economic stakes in enslaved women's fertility, early birth control policies and sterilization abuse of Black women during the 1960s and 70s, to the coercive use of long acting reversible contraceptives on teenagers and welfare mothers in the Reagan years. Denying Black reproductive autonomy, Roberts (1997) argues, served the interests of white supremacy. Equally important work by Laura Briggs (2002), Betsy Hartmann (1987) and more recently by Matthew Connelly (2010) exposes the centrality of fertility and population control for U.S. imperialism, international development initiatives and the global economy. The strength of these works lies in mapping the connections between hegemonic political agendas and fertility control.

While this project remains indebted to these works, this chapter draws attention away from policies and technologies that explicitly intervene in fertility and the individualised reproductive body to focus on less overt but equally important ways in which reproduction has been regulated in the United States. This endeavour is inspired by the work and writing of reproductive justice activist-scholar Loretta Ross (2017) who reminds us that proponents of eugenics and population control did not limit themselves to hereditarian biological processes, but addressed a wide range of subjects from immigration policing, environmentalism, land use policies and the criminal justice system. Analysing both primary and secondary source material, this chapter charts a history of reproductive regulation in the United States by incorporating perspectives not frequently used in this context: those of scholars of migration, urban planning, social reproduction and political history. This story begins with the Eugenics movement of the early twentieth century. At this time, medical practitioners, scholars and government officials began to utilize eugenic doctrine for the purposes of regulating and maintaining the so-called 'racial purity' of the national body.

While it is important to acknowledge that this period of reproductive violence is predated and informed by the bio-necropolitics of settler colonialism and chattel slavery²⁷, I begin this chapter with the early twentieth century because it marks the historical moment when reproductive regulation became systematized, biomedicalised and most importantly enshrined in legal provisions. The early twentieth-century eugenics movement is often cited by scholars and historians (Davis 1983; Gordon 2002; D. Roberts 1997; L. Ross and Solinger 2017) as a pivotal historical moment in United States history marked by heightened forms of reproductive violence and widespread state-sanctioned sterilization campaigns. However, eugenicists pursued a number of different policies designed to regulate reproduction by designing pro-natalist and anti-natalist strategies, housing policies and formalizing the U.S. Border Patrol. This chapter examines these lesser-known initiatives and highlights the ways that they regulated reproduction beyond individualised reproductive bodies and biology, stratifying reproduction through inequitable allocation of reproductive resources and by policing the national border.

This discussion of the eugenics movement serves as a point of departure for a broader investigation into the social, discursive, material and technological implications of eugenic policies throughout the twentieth century. In what follows of the chapter, I explore urban planning initiatives, immigration policing and the reproductive politics of the New Right through the prism of reproductive regulation. I also highlight how these policies relied on a variety of techno-scientific tools and knowledges that encompassed legal and policy instruments, urban planning, cartography and surveillance technologies alongside medical and reproductive sciences. The insight offered in this chapter is that alongside practices that have been historically acknowledged as overtly violent which controlled biological processes of

²⁷ European settlers used genocide and enslavement to colonize the United States and entrench ideas about sexuality, reproduction and “value”, establishing a political, economic, and cultural hegemony, that elevated the colonizer and privileged whiteness. European settlers also pursued a combination of pronatalist and antenalist strategies to encourage the reproduction of enslaved African Americans and discourage the reproduction of indigenous groups see Roberts (1997) Ross and Solinger (2017) Smith (2015).

reproduction, such as forced sterilization, reproduction in the United States was also regulated through historic demarcations of the neighbourhood, the border and abortion clinics as sites of intensified bio-necropolitical reproductive regulation.

4.2 The Spatialised Technologies of the Eugenics Movement

At the turn of the twentieth century, the doctrine of Eugenics spread across the globe thriving in places as diverse as Norway, Japan, China, Argentina and Canada. It stemmed from 19th century theories about evolution and population growth that took hold in colonial Britain and France following the works of Thomas Malthus, Charles Darwin and Francis Galton. Europe in the 19th century was also marked by the emergence of widespread nationalism, important technological changes and new ways of thinking about citizenry as a labour force and the generator of future fit populations. Specifically, techno-scientific measurement of the population by the state through instruments like the census and population recording, became increasingly common in the 19th century and these technologies of counting and accounting provided the movement with analysable data that could inform policies (Kertzer and Arel 2002). As Urla (1993) argues, the professionalization and regularisation of statistics-gathering became a uniquely privileged way of 'knowing' the social body and a central technology in diagnosing its alleged ills. Thus, in Europe and America, the pseudo-science of Eugenics emerged within these wider historical developments and concerns about the social and racial make-up of the body politic.

Eugenic doctrine that took hold in the United States between the late nineteenth and early twentieth century was deeply intertwined with a social and political ambition to preserve a white national identity (Kline 2010). Proponents embraced the theory that intelligence and other traits are genetically determined and therefore hereditary. Most historians of Eugenics and the early population control movement agree that their fundamental aspiration was to entrench the systematic regulation of human reproduction to bring about desired demographic change (Klausen and Bashford 2010). As Dorothy Roberts (1997) explains, this hereditary belief, coupled with the

reform approach of the progressive era, fuelled a campaign to remedy America's social problems by stemming biological 'degeneracy'.

Although eugenic notions of 'degeneracy' and corresponding policies of reproductive control gained political traction in the early twentieth century, the principles governing these policies had already been the subject of some few decades of research and discussion. In the United States, the history of eugenics is also located in the context of the country's dual and ongoing settler-colonial and neo-colonial history (Kline 2010). These processes, fuelled in part by the colonizing nation's implicit or explicit view of itself as superior, established the 'inferiority' of those being colonized, thus positioning them for "obliteration rather than the incorporation" (Trask 1999, 25). This not only served to undermine the status of the Indigenous populations and to legitimate their subordination, displacement and the theft of land and resources, it also entrenched ideas about sexuality, reproduction and "value", establishing a political, economic, and cultural hegemony, that elevated the colonizer and privileged whiteness (Smith 2015; 2016). Historians suggest that notions of biological racism, purity and reproductive control prefigured and helped generate the subsequent acceptance of eugenics as a serious scientific and increasingly social endeavour (Levine 2010).

In the early twentieth century, social and medical scientists re-phrased these logics into political projects that revitalized theories of racial betterment and superiority. Campaigns by advocates of Eugenic pseudo-science led to many states enacting involuntary sterilization laws directed at those deemed to be a social or financial burden to society, including people with physical and mental disabilities. Much of this pseudo-scientific research was produced by Harry Laughlin, the superintendent for the Eugenics Record Office based in Cold Spring Harbour, outside New York. In 1914 Laughlin produced a plan for sterilizing 15 million Americans over the course of two generations and drafted the blueprint for a model sterilization law to accomplish this. The bulletin advocates for a variety of violent reproductive measures including,

“Education, legal restriction, segregation, sterilization—these four eugenical agencies are of primary remedial value. If the first fail, apply the second; if it also fails, apply the third; if segregation ceases and the first two factors do not deter from parenthood the potential parent of inadequates, apply the fourth. Purify the breeding stock of the race at all costs.”(Laughlin 1914)

Laughlin’s research would later be used by the Nazi party as a template for their own sterilization laws and in 1936 he was awarded an honorary degree from the University of Heidelberg in Germany (Kline 2010). The eugenicist’s involuntary sterilization campaign culminated in 1927, when the United States Supreme Court validated involuntary eugenic sterilization through its landmark decision *Buck vs. Bell*, which upheld the legality of the sterilization of Carrie Buck by the State of Virginia. Over the next forty-five years, more than 65,000 people in America were sterilized without consent under state eugenics laws, 8,000 of those at the Virginia Colony²⁸. Many of the people sterilized were women released from psychiatric facilities or punished for ‘sexual depravity’, as well as women who became pregnant out of wedlock. Disproportionately used in the South of the United States, sterilization was also imposed on many Black Americans, Native Americans and white people deemed ‘feeble minded’ (Gordon 2002; D. Roberts 1997).

The sterilization campaigns and the connections with Nazi Germany meant that the Eugenics movement in America is often seen as synonymous with attempts to control and stem ‘degeneracy’ and with technoscientific processes that act on the reproductive body, such as sterilization. But eugenicists did not limit their scope to hereditary biological processes. As reproductive justice activist and scholar Loretta Ross (2017) reminds us, eugenicists addressed a wide range of subjects, including immigration and demographics, economics, environmentalism, state surveillance, land use policies, scientific racism, the mental health and criminal justice systems, foreign policy, and militarism. These processes were all integral to the science of controlling reproduction and rested on the recognition that controlling land, resources, and the national border

²⁸ The Virginia Colony was a state-run facility for those considered to be ‘feeble-minded’.

was integral to the eugenic mission of preserving not only a white national identity, but also white economic dominance. These latter processes can be understood as what James E. Bowman (1996) described as ‘passive eugenics’, or policies that regulated reproduction even while they do not openly discourage reproduction or target the reproductive body.

Controlling rural and urban land was key to eugenic political projects and materialized through ‘Alien Land Laws’. Beginning in the early twentieth century, eugenicists strove to manage racial and class interactions through alien land laws (Stern 2005), legal instruments designed to discourage or prevent Asian and other im/migrants from settling permanently in the United States. Beginning with California in 1913, many states passed alien land laws in the 1910s and 20s, with the specific aim to restrict im/migrants from owning land. According to Pido (2016), this legislation can be understood as an apparatus of racial formation that fundamentally shaped the boundaries of US citizenship and the enumeration of rights for non-citizens. After California, fifteen other states passed legislation preventing non-citizens from owning land. These laws were directly aimed at Japanese im/migrants, who were perceived as gaining undue economic power through agricultural holdings (Price 2000). Florida, in 2018, was the last state in the U.S. to repeal the alien land law written into the state constitution. Although largely obsolete and never enforced, the provision explicitly stated:

"All natural persons, female and male alike, are equal before the law and have inalienable rights, among which are the right to enjoy and defend life and liberty, to pursue happiness, to be rewarded for industry, and to acquire, possess and protect property; except that the ownership, inheritance, disposition and possession of real property by aliens ineligible for citizenship may be regulated or prohibited by law" (Florida Constitution 1968)²⁹

²⁹ A precedent to this early twentieth-century legislation can be seen in the Dawes Act of 1897, which sought to subdivide Native American tribal communal landholdings into allotments for heads of families and individuals. Principally, the act imposed a system of private property that obligated Native American to assume a proprietary relationship to land whilst also creating the provision for the sale of landholdings to non-Native Americans. The policy was designed to force Native Americans to

In the 1930s American Eugenicists also devised housing programs which they believed would encourage the 'fit' to have large families while simultaneously limiting the family sizes of the 'unfit' whose reproduction was coded as undesirable. Laura L Lovett's (2020) analysis of eugenic housing policies shows how housing developers, federal agencies, and real-estate associations drew on a eugenically informed racial hierarchy to justify zoning and offered the 'fit' preferential home loans, thus discriminating against African Americans and im/migrants. Lovett (2020) argues that racial and reproductive politics promoted by eugenicists lie at the heart of the history of housing policy in the United States, which can therefore be seen as a form of coercive reproductive regulation intentionally designed as a tool for discriminatory reproductive control.

The interest displayed by eugenicists in the American Eugenics Society (AES) in housing as a site of reproductive regulation stemmed from concerns about the alleged high birth rates and poor conditions in buildings that housed African Americans and new im/migrants. By contrast, white middle-class city dwellers who lived in better conditions were believed to be choosing to have fewer children. According to Lovett (2020), this motivated eugenicists such as Ellsworth Huntington to steer the American Eugenics Society toward suburban development as a form of eugenic intervention. Thus, race-based selection criteria were explicitly incorporated into housing policies and real-estate practices during the 1930s where "Anglo-Saxons" were placed at the top and African Americans and southern Europeans at the bottom based on the metric devised from the Army Intelligence tests. Lovett (2020) demonstrates how this hierarchy became part of the selection criteria for home loans administered by the Home Owner Loan Corporation. These selection criteria structured unequal access to housing and resources for many decades after. By allocating suburban housing to selected white families, they encouraged them to have more children while

'assimilate' into the rest of the country while their remaining territory was either leased by the government to enable for-profit farming and mineral extraction or sold to railroads, mining companies, ranchers, or other non-Native Americans. Although cloaked in a veneer of humanism, scholars attest that the Act was a continuation of settler-colonialist genocidal violence and was designed to separate Native Americans from their land and to force them to become independent farmers.

discriminating against African Americans and many immigrant groups by denying them housing that would make it easier for their families to grow.

As Selma Siew Li Bidlingmaier's (2019) study of the Tenement House Committee (THC) in New York city suggests, eugenicists who sought to implement segregated housing policies for the purposes of reproductive regulation made strategic use of technologies such as cartography, correlational statistics, and demographic methods to describe, categorize and justify the allocation of affordable housing. These methods were instrumental to urban design and reform in the Progressive era and were employed to devise an urban topography split between those deemed 'fit' and those deemed 'unfit'. Scientific philanthropy informed by colonial taxonomies of racial hierarchies, social Darwinist thought, environmental determinism, and eugenics were thus the analytics that organised the racialised partitioning and allocation of (re)productive space in many American cities which still persists in the contemporary landscape.

Eugenic doctrine, therefore, manifested not only in forms of biological control but also in forms of gendered and racialised spatiality, exclusion and confinement. This was also evident in the way that proponents of Eugenics were committed to enacting stringent and racialised im/migration policies. The first organized efforts to restrict im/migration on the ground of biological inferiority were supported by the Immigration Restriction League. One of the central objectives of the group was to pass punitive legislation that prevented im/migration from specific areas of the world, such as Asia and Southern Europe, on the grounds that they were inhabited by racially inferior people. In 1909 the Immigration Restriction League established a Committee on Eugenics and instituted the creation of the Eugenics Record Office in Cold Harbor Springs, which was charged with eugenic research (Haller 1984). The committee worked towards its objective of restricting immigration by building strategic alliances with well-disposed politicians whilst also producing research that falsely attested to the racial inferiority and feeble-mindedness of Jewish people, southern Europeans and people from Asia.

Influenced by the research and testimony of Eugenic lobbyists, the United States congress passed the 1924 National Origins Act which put in place a quota system that determined how many im/migrants were permitted to enter into the United States by country of origin based on the 1890 census. The Act was designed to engineer a code of racial hegemony that privileged whiteness (Sampaio 2015). This reform is widely understood to have been influenced by the research of the Eugenics Record Office, and in particular Harry Hamilton Laughlin's *Eugenical Sterilisation in the United States* (1922) published two years before the passing of the Act. On the subject of immigration Laughlin declared:

“The control of immigration is a matter of the greatest eugenical import, because whenever two races have lived for long periods of time in the same geographical range of personal acquaintances and contact, racial fusion to some extent has resulted. Therefore the laws controlling immigration have indirectly, and often remotely in time, but nevertheless very definitely a strong governing influence upon the quality of human reproduction” (349).

Historian Alexandria Minna Stern's (2005) work furthers this perspective by taking a close look at the implementation of medical inspections and immigration regulations along the U.S.-Mexico border. Stern (2005) argues that the Border Patrol, which was formed in 1924 thanks to the effort of eugenicist lobbyists, was an explicit regime of eugenic gatekeeping implemented with the mandate of protecting the putative purity of the white “American” family-nation. Formed on May 8 1924, the Border Patrol's creation was motivated by the same eugenic arguments that undergirded the quotas of the 1924 Johnson-Reed Immigration Act and was quickly granted the power to arrest, without warrant, anyone suspected of entering the country illegally or violating federal law. Stern's (2005) account shows how the Border Patrol played a critical role in the delimitation of the northern and southern boundaries of the U.S. state and also worked to racialize Mexican Americans and Mexican laborers who had migrated circularly for years into “illegal aliens” and suspected criminals.

The creation of the Border Patrol through eugenic legislation was also linked to the development of new surveillance technologies designed to extend the policing of the border into the interior. Stern (2005) shows how the Border Patrol coordinated their deployment over a wide geographical area to achieve maximum coverage whilst building communication channels between headquarters and patrolmen via short wave radio and other means of communication. This coordinated mapping, which broadened the border to include cities in the interior, from El Paso to Los Angeles, extended a racialized logic and practice of surveillance into the borderlands at large. This cartographical vision enabled through communication technologies allowed patrolmen to move quickly from the border to interior cities in and deport large numbers of people. For Stern (2005), this rapid professionalization and funding of the Border Patrol at the same time as the instatement of the national quota system points to the fact that this initiative was part of a larger eugenic movement rooted in anxieties about biological purity and the racial make-up of the United States.

In addition to violent sterilization campaigns, therefore, eugenicists forged a number of bio-necropolitical technologies of reproductive regulation designed to foster life and the reproduction of a white national identity and the settler state alongside increased exposure to death, injury and state-sanctioned violence for those whose reproduction was coded as a risk to this project. Moreover, as Angela Davis (1983) has pointed out, eugenic ideas were perfectly suited to the aspirations of young monopoly capitalists, and also justified imperialist projects in Latin American and the Pacific and the exploitation of Black and im/migrant workers. Taken together these policies show how the eugenics movement in the United States forged connections between reproductive control and social, political and cultural citizenship. As I show in the following chapters, the spectres of these strategies animated technologies of reproductive regulation throughout the twentieth-century.

4.3 Zoning and Redlining Reproduction

As explained, eugenic housing policies and land laws can be understood as policies of reproductive regulation. In the United States by 1914 the membership of town

planning, conservation and eugenicist groups often overlapped. Leading advocates of town planning were also often members of social hygiene groups and aimed to control reproduction among people living in tenements (Currell 2010).

Crucially, eugenic housing projects existed within a wider framework of legislation governing land ownership, racial zoning policies and access to loans which forged the ideological frameworks, economic logics, and racialized geographies that paved the way for projects such as redlining, restrictive zoning, gentrification, dispossession, and displacement throughout the twentieth century (Bidlingmaier 2019). The National Association of Realty Boards and the Federal Housing Administration promoted racial covenants in the early twentieth century (Brooks and Rose 2013). These actions favoured access to homeownership, employment, education, and political power for more affluent white people by supporting them through home loans. As evidenced in scholarship (Lipsitz 2011), these policies also created a segregated urban topography.

The first American racial zoning ordinance was passed in 1908. It was intended to displace Chinese residents of San Francisco from desirable downtown locations and confine them to under resourced neighbourhoods adjacent to polluting factories and toxic waste dumps. This was the first of many locally determined policies that implemented racial segregation by creating white-only neighbourhoods or instituting exclusionary zoning ordinances which prevent anything but detached single-family homes in certain neighbourhoods. In 1926 the landmark U.S. Supreme Court decision known as *Ambler Realty Co v. Village of Euclid* codified that zoning ordinances were a justified use of the state's policing power on the grounds that they protected the health and safety of the community (Wilson, Hutson, and Mujahid 2008). These emerging land-use laws were used by many US cities in the early 20th century to maintain racial segregation. The Supreme Court judgement of 1926 effectively defined homeowners' and developers' wishes to exclude lower-income residents, Black families and people of colour not as racially motivated but as a rational bureaucratic decision about property (Kosman 1993; Whittemore 2017).

Although private racial covenants were officially outlawed in 1948, suburban jurisdictions retained the option of legally restricting nearly all types of development through zoning regulation. So, while explicit racial zoning became illegal, cities could legislate the density, lot, and even home size of specific jurisdictions. Such restrictions could block access to particular neighbourhoods to all except those who could afford the mandated minimum development standards. According to contemporary post war observers these households were very likely white (Whittemore 2017). George Lipsitz (2011) posits that subsequent policies about land use, development, and taxation sought to protect the economic privileges and underlying spatial and racial logics of outlawed forms of overt discrimination. Even after direct references to race disappeared from federal appraisers' manuals, race remained the crucial factor in determining whether borrowers received federally supported mortgage loans. Lipsitz (2011) argues that the residential patterns and racial hierarchies that were created initially by restrictive covenants, racial zoning, redlining, and mob violence between 1880 and 1960 has continued to shape the subsequent contours of all-important planning policies in U.S. metropolitan areas.

This covert legislation, alongside the racial prejudice of real estate brokers, became the ethical and effective foundation of local incorporation, zoning, taxation, and redevelopment policies. Historical scholarship suggests that in the 1950s and 1960s, the federal government subsidized home mortgage loans and funded transportation and infrastructure projects that augmented the economic value of racially exclusive suburbs while locating means-tested public housing projects in inner-city neighbourhoods. As a result, exclusive suburbs for middle-class buyers who had left inner-city neighbourhoods sprouted up nationwide. This 'white flight' was a further vehicle of segregation which spatially and racially demarcated rural and urban topographies (Brooks and Rose 2013). At the same time, large post-war infrastructure projects such as Interstate Highways were pushed through inner-city Black neighbourhoods. By the 1960s federal highway construction was destroying around 35,000 housing units in low-income neighbourhoods each year (Mohl 2001).

Racial covenants continued to be written into titles until the Fair Housing Act (FHA) was passed in 1968. Prior to this, sales or rentals could be refused to minorities in white neighbourhoods (Massey 2005). Moreover, until the Equal Credit Opportunity Act of 1974, it was legal for financial institutions to discriminate in lending (Whittemore 2017). The FHA also outlawed policies known as ‘redlining’, a practice by which banks and other institutions refused mortgages or offered worse rates to customers in certain neighbourhoods based on their racial composition. Redlining was instituted off the back of a federally funded programme created in the 1930s to help homeowners refinance or access mortgages. The initiative was spearheaded by the Home Owner’s Loan Coalition (HOLC) and the Federal Housing Administration (FHA), and included what were called ‘residential security maps’ used to help determine which neighbourhoods would make secure investments and which should be off-limits for issuing mortgages (Hillier 2003). The key determinant for a neighbourhood being marked as ‘red’ (hazardous) and therefore ineligible for issuing mortgages, expressly written into policy, was the racial make-up of its inhabitants. Exclusion from home ownership and confinement in under-serviced areas, also meant that people were forced into long-term renting and so higher housing costs.

These practices were reversed in different but equally detrimental ways in the 1980s and 1990s. Persistent segregation combined with changes in the lending industry facilitated the creation of a structurally segmented mortgage market that offered separate and unequal loans to lower-income borrowers located primarily in Black and Latinx neighbourhoods through high-cost, “subprime loans” (Steil et al. 2018). As Laura Briggs (2017) argues, practices known as ‘reverse red-lining’ sought out female-headed households for mortgages, urging them to consider buying homes or to re-mortgage their houses. Racialised and gendered assumptions about which households were unlikely to pay off their debts or were ‘irresponsible’ fuelled the targeting of subprime loans to particular social groups in order to expand the reach and profit margins of mortgage brokers.

Keeanga-Yamahtta Taylor’s (2019) work shows that in contrast to overtly discriminatory practices of the past such as redlining, these predatory loans were

dressed-up as neutral colour-blind policies. However, by ignoring race, these new practices reinforced existing patterns of inequality and discrimination. Taylor (2019) argues that poor housing and neighbourhood conditions caused by earlier policies became the basis on which new lenders, in the new era of color blindness and an end to redlining, could continue to discriminate by attributing a 'subprime' descriptor to African American neighbourhoods. Thus, segregation and housing inequality set the stage for low-income female led households mostly in Black and Latinx communities to be both the targets of economic exclusion as well as targets for financial exploitation.

Finally, contemporary sociological scholarship also suggests that another historical factor that is shaping the gendered and racialised landscape of housing and urban planning in the United States is the large-scale 'redevelopment' or gentrification of inner-city neighbourhoods (Alvaré 2017; Curran 2019; Hightower and Fraser 2020). This process, which began in the 1970s, is a profit-driven racial and class reconfiguration of urban areas that have a history of disinvestment. While there is much scholarly debate around the precise definition of gentrification, broadly speaking the term indicates the influx of more affluent people into a particular area or the 'redevelopment' of a part of a city through infrastructural and capital investment. Gentrification is perhaps better defined by its consequences than its causes: large scale displacement, dispossession and community destruction as residents are slowly priced out of an area (Alvaré 2017).

Suleiman Osman (2017) charts four phases of gentrification in the United States. In the early twentieth century, a burgeoning middle-class renovated tenement blocks, townhouses and lofts adjacent to central business districts in cities like New York, Boston, New Orleans and Charleston. The next phase, which began in the 1950s and stretched well into the 1970s, saw young white college educated homebuyers migrate to working class white 'urban villages' near central districts and University campuses of many American cities that had a stock of desirable nineteenth and earlier twentieth century buildings. This process happened with limited support from the state and financial institutions and was instead driven by small-scale and decentralised new

arrivals. In the third wave, from the 1980s and 1990s, gentrification became a growth strategy for cities, and was supported by the state, financial institutions and the real estate sector, and produced, “mixed-use waterfront luxury redevelopment projects championed by cities as the best way to attract a progressive ‘creative class’ to the center city” (Osman 2017, 173).

These dynamics are reinforced by urban ‘regeneration’ projects that spatially restructure inner-cities to accommodate luxury condominiums, boutiques, and commercial real estate. ‘Regeneration’ initiatives are typically facilitated by private developers with the support of local governments. Re-zoning and up-zoning of whole swathes of cities enable previously residential areas to become more intensive, high density, high-rise and high-value generating urban space which ultimately makes it difficult and sometimes impossible for original residents to remain in their neighbourhoods. As economic geographers Andrés Rodríguez-Pose and Michael Storper (2020) argue, there is little evidence to suggest that changes in zoning improve affordability for lower-income households, but they definitively increase gentrification.

This latest chapter in the history of urban change processes is framed in recent scholarship in urban sociology and geography as intimately connected with analytics of colonialism, race, land and place (Bonds and Inwood 2016; Hyra 2017). As Peter-Kent-Stoll (2020) argues, settler colonialism, internal colonialism, and coloniality are important and yet under-theorised driving logics reinforcing gentrification projects. These frameworks make room for an understanding of gentrification processes beyond neoliberal and class frameworks to thinking about the commodification and redevelopment of city space as, “the spatial reproduction of white colonial desire and consumption facilitated by the racialized physical, cultural, and political displacement of Black, Indigenous, Asian, Latinx, and working class people” (13). This framework explains why gentrification targets negatively racialized people for spatial removal, Kent-Stoll (2020) argues, and targets those same spaces for the social reproduction of majority white middle-class gentrifiers.

Histories of housing inequalities and urban planning in the United States are often framed in scholarship as technologies of racial segregation and oppression. However, as this analysis demonstrates, the deeper historical trajectories discussed here link urban geographies and home spaces to reproduction and gender, through the prism of eugenics. As Patricia Hill Collins (1998) emphasises, the racialised and gendered geographies of neighbourhood spaces and housing in the United States are driven by differential values attached to families, which in turn reflect their placement in racial and social class hierarchies. These hierarchies, formed through the ongoing histories charted in this chapter, point to the ways in which urban planning and housing policies in the United States have also been tools and technologies of racialised and gendered reproductive regulation.

As Lovett's (2020) and Bidlingmaier's (2019) work suggests, discrepancies in access to home ownership and racialised and gendered spatialities of city spaces in the United States are the legacy of the reproductive politics of American eugenicists who sought to regulate reproductive decisions through housing and urban planning. Housing and urban planning can therefore be conceptualised as tools for (re)producing white middle- and upper-class values, a 'fit' labor force and citizenry. The (re)productive space of the home and the neighbourhood can be understood, following these insights, as historically configured contested sites of a bio-necropolitical power struggle over reproduction. These histories are analysed here to provide a broad historical backdrop to the dynamics explored in Chapter 7, that analyse the phenomenon of tech-driven gentrification in South Florida.

4.4 Reproducing the National Border

As I explore at the beginning of this chapter, early eugenicists formalised the Border Patrol and novel surveillance practices into a regime of eugenic gatekeeping put in place by the National Origins Act in 1924. The immigration quota system that accompanied these measures was not abolished until the mid 1960s. In 1965, Lyndon B. Johnson passed the Immigration and Nationality Act that removed the discriminatory quotas that had been in place since the 1920s and replaced it with a

system that permitted family reunification. Between the 1970s and the 1990s, these policy changes shifted the complexion of im/migration into the United States as people increasingly migrated from Latin America and Asia. Anna Sampaio (2015) explains that between 1965 and 1995, im/migration politics was dominated by three significant developments: broad-scale reform that ended the openly racist quota system, expanding globalisation in the Western Hemisphere facilitated by government programmes and trade agreements, and increasing attention to the question of border security with the increased militarization of the U.S.- Mexico border.

These processes led to a steady increase of unauthorized im/migration, coupled with increasing numbers of people migrating from Central America and Haiti. In response to these shifts, Reagan passed the Immigration Reform and Control Act (IRCA) in 1986, which regularised the status of almost 3 million undocumented im/migrants. The Act made it illegal to hire undocumented people and pledged to step up enforcement. The legislation was a compromise between enforcement advocates who wanted stricter controls and immigrant rights advocates who sought a path to amnesty and legalisation for millions of undocumented people living and working in the United States.

A few years later the Clinton administration established a new regime of im/migration policing, introducing legislation that criminalized the everyday existence of undocumented people and militarizing the border to make routes into the United States treacherous and deadly. In 1996, Congress passed three pieces of legislation: The Anti-Terrorism and Effective Death Penalty Act (AEDPA), the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), and the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA). Together, this legislation intensified restrictions on im/migration, subjected im/migrants to heightened forms of surveillance and targeted reproductive capacity and autonomy by limiting access to healthcare services and welfare. Under the terms of the PRWORA, noncitizens were denied access to most federal benefits, including retirement, welfare, disability, public or assisted housing, postsecondary education, food assistance and unemployment benefit as well as food stamps and social security income. According to

Sampaio (2015), “[t]he reforms initiated in 1996 continued practices of racialisation central to U.S. Immigration policy since its inception”(84).

Dorothy Roberts (1997) identifies that nativist im/migration policies in the 1990s both increased the militarization of the border and included efforts to restrict who might give birth to citizens with the nation’s boundaries. Roberts (1997) identifies two types of legislation that accomplished these ends, namely laws that limit access to reproductive health services and those that attempt to eliminate the automatic citizenship right of people born on U.S. soil. These forms of legislation, Roberts (1997) argues, are a concrete attempt to control the demographics of the country, designed to reduce the actual numbers of ‘disfavoured groups’ in the population, while sending a powerful message about who is worthy to add their children to the future community of citizens. In Roberts’ (1997) words,

“Modern day advocates of these anti-immigration policies may not espouse eugenic theory, but, like the former eugenicists, they fear not only the immigrants themselves but also their descendants (...) Nativist sentiments were inseparably intertwined with eugenic doctrine that held foreigners to be genetically inferior as well as culturally distinct” (212).

Roberts’ (1997) conceptualisation points to the ongoing important connections between eugenicist and nativist forms of reproductive control and citizenship. According to both logics, only those who are considered worthy of contributing to the future generations of citizens are permitted to live their lives free from reproductive control. Thus, controlling the reproductive body and controlling the border constitute two distinctive but intertwined grammars of white nativist reproductive politics that intensively regulate belonging and social, political and cultural citizenship.

The United States’ economy, however, remained highly dependent on im/migration for a low-cost labour force. It is therefore important to consider the productive (economic) as well as reproductive politics of im/migration enforcement and how they are connected. The so-called ‘immigration reforms’ of the 1980s and 90s created a

migratory workforce that was highly prone to deportation and detention, which separated parents from children, thus ensuring a precarious group for economic exploitation. Laura Briggs (2017) contends that the long view of im/migration deportation and labour policies in the past century and a half suggests that the United States has pursued a policy that clamps down on im/migration only to a certain degree because the economy requires a disenfranchised cheap labour force. Briggs (2017) writes,

“Although there are many crosscurrents and diverse agendas in policy conversations on immigration, the long view suggests that the effect of U.S. policy is not actually to deter immigration but to make it sufficiently difficult to ensure that immigrant labour remain cheap. As immigrants become, in their majority, female, the effect was particularly to make domestic labor cheap”.

(85)

According to Briggs (2017), im/migration is significantly a question of how household and child care work are getting done in the aftermath of the neoliberal push to get all mothers and other caregivers into the workforce. As an increasing number of middle-class households in the United States began adding domestic workers, im/migration policy was also making it ever more difficult for these same workers to have reproductive autonomy and families of their own. American householders were quick to exploit the situation, employing domestic workers for extremely low wages who would work to support their families in their country of origin without the responsibilities of care work towards physically present dependents. This set of policies, according to Briggs (2017), demonstrates that while the United States needs migrant labour, it does not want their children or their settlement. Domestic work thus became a source of exploitation, despite being seldom recognized as such because the labour force was devalued through its prescription as feminized and racialised (Briggs 2017; Toro-Morn, Guevarra, and Flores-González 2013; Gutiérrez Rodríguez 2011).

Other scholars concur (Gutiérrez Rodríguez 2011; Parreñas 2001; 2000) that starting in the mid 1980s, the numbers of female identifying im/migrant workers coming into the United States increased. Shifts in migration patterns should also be considered in the context of U.S. immigration law that allows any person born on U.S. soil to become a citizen, regardless of the nationality or im/migration status of their parents. This policy, coupled with family reunification patterns that developed as a result of legislation in the 1980s, increased the number of mixed-status families, in which one or both parents or guardians may have uncertain or no official immigration status, while their children are citizens from birth. These processes lead to the construction of a reproductive im/migrant 'other' in reactionary hegemonic discourses around im/migration. Racialised and gendered tropes about the hyper fertility of im/migrant mothers emerged with amplified volume in the 1990s. Elena R. Gutierrez's (2008) foundational work *Fertile Matters*, demonstrates that during this decade, the press began running stories about women crossing the U.S. border in order to give birth, then using their U.S. born children to pursue a pathway to citizenship. These narratives also served to justify new policies designed to restrict im/migrant families access to welfare.

In 1996, legislation was introduced that denied access to welfare for im/migrants (documented and undocumented) on the grounds that, "current eligibility rules for public assistance and unenforceable financial support agreements have proved wholly incapable of assuring that individual aliens not burden the public benefits system" (Kasich 1996). This legislation, introduced by the Clinton Administration, sought to reduce the number of people on welfare both by placing time limits on the amount of aid received and by strengthening work requirements. These policies were also motivated by nativist concerns around the changing racial make-up of the United States and access to public funds for noncitizens. The gendered impact of welfare restrictions and other categories created through im/migration policy, such as 'likely to become a public charge', led to the exclusion from welfare of low-income, people racialised as non-white and people of child-bearing age (Gutiérrez 2008).

In parallel to these developments, as Tanya Golash-Boza (2011) documents, the events of 9/11 led to a war on im/migrants under the auspices of the war on terror. At the turn of the 21st century, the security and technological apparatus developed as a result of legislation following the events of 9/11 dramatically expanded the scope of internal immigration policing and increased the numbers of families and communities separated in the interior of the country. As Anna Sampaio (2015) explains, threats to national security were understood to lie within as well as outside national borders. Race and gender figured prominently in the production of 'legitimate' and 'suspicious' subjects proffered by the state to legitimate and expand its authority. With the passing of the Patriot Act in 2001 and the creation of Immigration and Customs Enforcement (ICE) in 2003, the Department of Homeland Security (DHS) rolled out a string of new immigration policies that continued to racialise im/migrants, but also blurred the boundaries between documented and undocumented people. As Nicholas De Genova (2002) theorises, the development of this apparatus meant that im/migrant "illegality" was increasingly defined through a palpable sense of 'deportability', which is to say, the possibility of being removed from the space of the nation-state.

Scholarship from migration studies expands on these insights to offer additional understandings of the ways that gendered female im/migrants were constructed as threats to national security because of their reproductive capacity (Lugo-Lugo and Bloodsworth-Lugo 2014). White nativist challenges to the 14th amendment right of anyone born in the U.S. to claim citizenship fuelled the production of racialised notions of 'anchor/terror babies'. These conceptualisations are further evidence of the central place discourses of reproduction hold in debates over immigration policy. As Nira Yuval-Davis (1997) explains, women who are seen as 'belonging' to the nation are often articulated as the symbolic, cultural, and biological reproducers of that nation, while women who are considered 'abject' to the nation, on the other hand, are often characterised as symbolic, cultural, and biological reproducers of threat. Biological racism and the demonization of im/migrant children frame the reproduction of noncitizens as a question of national threat. These discursive framings are a step towards what Nathalie Cisneros (2013) terms, 'backwards uncitizenizing', a process that constructs 'illegal alien' as a sexually deviant and racialised subject in order to strip or

deny them citizenship. Cisneros (2013) argues that the expression “anchor babies”, which is used to refer to the children and/or fetuses of “illegal aliens”, functions in concert with norms surrounding race, sexuality and maternity and is constructed as an impure threat to national hegemony.

As explained at the beginning of this Chapter, the contemporary apparatus of border policy has expanded considerably from the systems put in place by turn of the century eugenicists. The historical evolution of the border patrol, framed here as a technology of reproductive regulation, has important implications for how the border is conceptualized in relation to reproduction. As many scholars have pointed out, the militarization of the U.S. border over the course of the twentieth century has worked in concert with efforts to propagate and proliferate the border into the interior, through internal policing mechanisms. However, the border remains a technology that demarcates the national body and space, rendered white, and intensively regulates social, political and cultural citizenship. While this regime is complicated by the need for a low-cost work force to perform reproductive labour alongside other work, border control coupled with restrictions on access to vital resources such as reproductive healthcare persists in the contemporary as strategies to safeguard a white national identity and reproduce the settler state. The evolution of these mechanisms are analysed in Chapter 7 of this thesis, through the prism of the Florida field site.

4.5 ‘Pro-Family’ Politics and the Antiabortion Movement

So far this chapter has charted the genealogies of the social, political and spatial legacies of the eugenics movement and continuities of these policies as they inform welfare provision, urban planning and border control. It has further connected these to the chapters that follow in this thesis. I turn now to examine the so-called ‘pro-family’ politics of the New Right.

In the 1970s and 1980s, a political formation commonly referred to as the ‘new right’ consolidated many of the policy strands discussed above into an overarching ideology that coalesced pro-segregation, anti-welfare, anti-immigrant and antiabortion beliefs

into a protectionist discourse about 'family values'. The ideological linchpin of many organisations that comprised this conservative, Christian and white nativist political formation became the fight against legalized abortion. New Right political formations were fuelled primarily by the politicization of religious conservatives, especially evangelical protestants. In the 1980s, as religion became a powerful force for mobilizing new constituencies, evangelical Christians built right-wing pressure groups such as the Moral Majority and Focus on the Family. The movement comprised a motley group of free market enthusiasts, libertarians, anti-communists, and social conservatives (Blee and Creasap 2010).

Historians show that the politics of the family, sexuality, and reproduction became a primary vehicle through which right-wing politicians achieved their ascent to state power in the late 1970s and the 1980s (Petchesky 1981). The New Right strategically directed public attention to manufactured myths of teenage mothers, welfare queens and abortion politics, while fundamentally reshaping government under a neoliberal guise. Racialised and gendered reproductive grammars were embedded in the New Right's 'moral' offensive. Racialised tropes that cast women of colour as irresponsible parents and welfare scroungers gained further traction under the Reagan administration. As Patricia Hill Collins (1991) argues, racialised images of welfare mothers fulfilled a political function of stigmatizing Black women through the 'welfare queen trope', suggesting that they were responsible for their own poverty thereby shifting the focus away from poverty's structural causes.

As Loretta Ross (2016) posits, the myth of the underserving welfare mother of colour was used to facilitate the expansion of the neoliberal economic system by justifying the destruction of the social safety net. Laura Briggs (2017) expands on this analysis to show how the Reagan administration began to propagate racialised myths of undeserving welfare mothers of colour as part of a wider project that laid the groundwork for decimating the Aid to Families with Dependent Children (AFDC)

policy³⁰. The New Right's objectives behind racialising welfare recipients was thus twofold; it served as a justification for reproductive control and it delegitimized social welfare as an institution. This paved the way for restrictive welfare reforms introduced by the Clinton administration in the mid 1990s that resulted in no parenting person could receive benefits for more than five years and that to receive benefits for themselves and their child they had to participate in work activities for up to forty hours a week (Briggs 2017; D. Roberts 1997; L. Ross and Solinger 2017).

Alongside the anti-welfare backlash, the New Right also attacked abortion rights. Following the Supreme Court's landmark decision that legalised abortion in 1973, *Roe vs Wade*, the New Right joined forces with and usurped the 'right-to-life' movement to push for other right-wing goals such as racial segregation, welfare cut-backs, and militarisation. According to Rosalind Petchesky (1981), the antiabortion movement was the main vehicle through which the New Right really crystallized and developed its base and ideology. The 'right to life' movement, which predated the New Right, laid the groundwork for and provided the existing right wing with the perfect issue to polarize the political process into an absolute struggle between good and evil.

While religion provided a framework which validated moral absolutism, the content of this framework was expressly political: it was concerned with how and by whom power is exercised in the economy, the state, the family and churches. The role of organised religion for the New Right movement was to act as a grass-roots organisational infrastructure or institutional network, both nationally and locally, which gave the New Right access to an organised mass-constituency. Both Catholic churches and fundamentalist Protestant churches, particularly those affiliated with the Moral Majority, comprised this organisational infrastructure. Within the New Right movement, the most politically crucial function of churches was their contribution to the "right-to-life" electoral strategy, that mobilised votes against 'pro-

³⁰ Aid to Families with Dependent Children (AFDC) was established by the Social Security Act of 1935 as a program that enable states to provide cash welfare payments for children in single-parent households.

abortion', overwhelmingly Democrat, candidates (Petchesky 1981; Blee and Creasap 2010).

From the late 1970s, the religious 'right-to-life' movement was concerned primarily with protecting the so called 'unborn' and saving souls. Eventually this movement was all but co-opted into the New Right political strategy to inspire and appeal to Christian voters. The movement consolidates different arenas of capitalist white supremacist patriarchal power and analogized perceived threats to the family, property and state sovereignty as one and the same. 'Pro-life' Catholic and Protestant clergy thus became deeply involved in electoral politics, using their position as religious leaders to condemn political candidates targeted by antiabortion 'hit lists' and thus influence voting. Appeals against abortion were therefore married to other forms of conservative political objectives. According to Petchesky (1981), by focusing on realms that appear the most 'private' and 'personal' in American culture, like sexuality, abortion, and the relations between parents and children, the New Right has been able to achieve a certain ideological legitimacy for its racist and sexist policies.

The efforts of the antiabortion movement also led to the Hyde Amendment being passed by the Supreme Court in 1976. This blocked federal Medicaid funding for abortion services. Though this decision occurred in the larger context of economic crisis of the 1970s, it was clearly in line with the New Right's agenda for huge cutbacks in social services and welfare provision. While abortion services remained legal, the introduction of the Hyde Amendment meant that individual states would decide whether or not to allocate funding to cover the cost of abortion care. At the time of writing, only thirteen out of fifty states elect to provide this support. As Angela Davis (1983) explains while abortion was unaffordable to many, sterilization continued to be federally funded and free on demand. As a result, those seeking reproductive autonomy without the economic means to access abortion or contraception, many of whom were people of colour, were forced to revert to dangerous illegal abortions or sterilization as the only viable alternatives to preventing pregnancy.

Antiabortion forces in the 1980s and 1990s also worked hard to cut public funding for birth control. New regulations proposed by Reagan to Title X funding of birth control in the 1980s not only prohibited funding of family planning projects that offered abortion counselling, referrals and services, but also no longer required that they offer a broad range of acceptable and effective family planning methods. Instead, they defined family planning as ‘natural’ family-planning methods, adoption, infertility services and abstinence, with contraception as a last resort (Gordon 2002).

Alongside these watershed legislative challenges, antiabortion groups developed and honed grassroots tactics that aimed to obstruct access to abortion clinics. These ranged from militarized strategies and premeditated murder to softer and more covert approaches. From the 1970s onwards, ‘pro-life’ groups assembled and proliferated antiabortion infrastructures comprising networks of religious actors, surveillance mechanisms, religious clinics, propaganda networks, law makers and state policies. To date, 11 people have been killed in attacks on abortion clinics in the United States since 1993 and militant and militarized antiabortion groups continue to threaten abortion clinics, staff and patients with deadly violence in the name of fetal salvation (Franklin and Ginsburg 2019).

From the early 1960s, the most common form of antiabortion organising took place through Crisis Pregnancy Centres (CPCs). CPCs are typically not for profit organisations committed to persuading pregnant people not to interrupt gestation. As historian Karissa Haugeberg (2017) documents, the CPC movement set up clinics staffed predominantly by white middle-class women that supplied medically incorrect and distressing information to patients to deter them from seeking abortion care. Although largely invisible from public discourse until the 1970s, the CPCs movement gradually built facilities, infrastructures and information networks across the United States. Although CPCs are often portrayed as the ‘softer’ arm of the organised antiabortion movement, they played a pivotal in the regulating and managing unmarried pregnant people’s reproductive choices, especially if they were white, middle-class and became pregnant out of wedlock. As Haugeberg (2017) work shows, this typically took the form of brokering adoptions through coercive and forceful

tactics. In the 1980s and 1990s, CPC clients reported being coerced into giving their children up for adoption. This culminated in over a dozen people filing a law suit against Care Net, a network of CPCs affiliated with the Christian Action Legal Council because of these unethical and coercive practices. CPCs are estimated by some critics to have facilitated as many as 10,000 adoptions per year by the mid 1990s (Haugeberg 2017).

This historical scholarship suggests that antiabortion infrastructures overlaid and attempted to disrupt geographies of abortion access. The long-standing pro-life practice of barricading abortion clinics with obstructive bodies and signage exemplifies this strategy. These strategies operate in concert with ‘fake clinic’ infrastructures, often positioned strategically close to reproductive healthcare facilities and abortion clinics to lure people into alternative infrastructures and practices (Haugeberg 2017; Hussey 2013). Moreover, CPC infrastructures in traditionally conservative states are often supported by state legislatures, which divert funding away from reproductive health organisations and towards crisis pregnancy networks and antiabortion organisations.

Scholars and activists hold diverging opinions on how conservative family values, right-wing politics and the antiabortion movement are socially and culturally embedded in the United States. Political scientist Rosalind Pollack Petchesky (1984), who wrote one of the foundation texts on the subject, tracks the continuities between privacy, conservatism, antiabortion politics and the rise of the New Right in the United States. Historically, from the founding of the American republic, the concept of privacy for American conservatives included not only ‘free enterprise’ and ‘property rights’ but also the right of the white male property owner to control his wife and his children. Petchesky (1984) hypothesizes that forms of patriarchal control are closely related to conservative ideas and values around local and state power structures. State power and corresponding ideas around privacy are what permits control over the family and the accumulation of private wealth by providing a buffer to federalism and any other perceived meddlesome evils that go along with it. Any claim to a meaningful

existence outside of patriarchal ‘protection’ is therefore met with attacks on feminism, federally sponsored welfare programmes and communities of colour.

These logics crystallized in the Hyde Amendment and the 1989 Supreme Court decision *Webster vs. Reproductive Health Services*, both legal provisions designed to deprive those most in need of financial assistance for abortion care. Petchesky (1984) suggests that New Right attacks on financial assistance for abortions provided a moral as well as fiscal argument for social service cuts. Abortion was framed as ‘evil’ not only because it allowed pregnant people to selfishly abdicate from their procreative ‘duty’, but also because in New Right thinking it represented an avenue through which biologically constructed women could ‘get away with something’. This, Petchesky (1984) argues, is why antiabortion policy is not a pro-natalist doctrine but a strategy for restoring and maintaining the traditional patriarchal family and the authority of men within it. This should be understood as a different strategy to the decades long policy of state sponsored population control among the poor and communities of colour.

Others, including many reproductive justice scholar-activists, highlight the connections between the antiabortion movement and the far-right more generally. Reflecting on the movement’s activities in the late 1980s, Dázon Dixon (1990) remarked, “It should not be a surprise to us that the same people protesting against women’s rights usually are protesting against civil rights, gay and lesbian rights, and the rights of the poor and homeless” (186). Others still highlight the ways pro-life ideology dovetails with white nationalist pro-natalist strategies to ensure white demographic dominance. Reproductive justice activist-scholar Loretta Ross (2018) argues that restrictions on birth control, abortion, and evidence-based sex education crystallized in the politics of the New Right and far-right groups and grew into purposeful strategies to engineer an increase in white births to counter declining fertility levels among middle-class white social groups.

While this might be construed as a somewhat paranoid reading, covertly pro-natalist white supremacist rhetoric was pervasive in the 1980s. As historian Kathleen Belew’s

(2019) work on white power movements highlights, social issues related to white women's sexuality, reproduction, and motherhood appealed well beyond the white power movement. Opposition to busing, abortion, contraception, welfare, and im/migration, typically described without explicitly racist terminology, extended to the mainstream New Right base and mobilized suburbanites in the political center. Belew (2019) argues that the continued focus on policing white women's sexuality and reproduction in the post-Vietnam War era indicates the presence of white supremacy in many social issues of importance to the New Right in the 1980s and 1990s.

Thinking with Sarah Franklin and Faye Ginsburg's (2019) 'nativist reproductive imaginary' analytic sheds some light on the role antiabortion ideology in wider political agendas. The authors argue that U.S. right-to-life groups have for more than three decades maintained a campaigning strategy that powerfully links traditional gender roles and family values, opposition to gay marriage, the right to gun ownership, and opposition to abortion within an overarching white settler narrative of lost American greatness. As the name of Operation Save America suggests, "For anti-abortion activists, prolife politics linked fetal salvation to rescuing America's future. Making America great again, white again, and 'right' again became a culture war in which militarization was not only an idiom but an explicit code of practice" (4).

In summary, New Right political ideologies mapped abortion and abortion clinic sites onto wider political projects concerned with the preservation of Christian morality, a white national identity and white economic dominance. Abortion became a placeholder for a broader reproductive grammar predicated on so called 'family values', the preservation of traditional gender roles and anti-immigration, pro-segregation policies. In pursuit of these political ends, well-organized and funded antiabortion groups built complex infrastructures to control the landscape of abortion access in the United States. This review of historical scholarship draws attention to the ways in which the politics of gender, race and nation are bound up in this reproductive model that ties the salvation of 'unborn' fetuses to the reproduction of white Christian patriarchal structures. The act of barricading abortion clinics by 'pro-life' protestors and the propagation of infrastructures of deceit can be understood,

from this perspective, as a technology of reproductive regulation with its ideological roots in eugenic pro-natalist imaginaries.

4.6 Conclusion

In 2016 Donald Trump was propelled to the presidency on the promise to, “make America great again”. Restricting access to reproductive healthcare, increasing family separation through im/migration policing and the implementation of discriminatory housing policies were key pillars of this strategy. The administration took a hatchet to federally funded reproductive health programmes, separated countless people from loved ones and children at the border and rescinded regulations intended to combat discriminatory housing practices and segregation in the suburbs. While these policies were met with uproar and cries of unprecedented cruelty, they are also heightened manifestations of ongoing histories of reproductive regulation, a “tragically familiar grammar grounded in a distinctly American legacy of white Christian nationalism and its highly racialized reproductive politics” (Franklin and Ginsburg 2019,4). Thinking with and through this analytic and the histories recounted in this chapter enables us to draw connections between these policies and their importance for reproductive politics and processes: they are all political technologies designed to control vital spaces of reproduction in ways that socially and economically privilege whiteness and ensure the reproduction of the settler state. These three pillars are expanded upon in chapters 5, 6 and 7 of this thesis.

This chapter charts a genealogy of technologies of reproductive regulation in order to frame and historicise the empirical fieldwork findings of this thesis. Technologies of reproductive regulation, as theorized in chapter 2, are bio-necropolitical discursive, material and technological flows that govern the terms, spaces and conditions of reproduction ‘beyond biology’. The insight offered in this chapter is that throughout the twentieth century, alongside political attempt to control socio-biological processes of reproduction, discriminatory housing policies and zoning practices, policing the national border and the pro-family policies of the New Right were important technologies of reproductive regulation that acted on the species body.

Neighbourhood space, the national border and the abortion clinic emerged through historical processes of the twentieth century as key sites of bio-necropolitical reproductive regulation, ontologized through technologies of race and gender.

In addition, therefore, to more commonly charted forms of reproductive control such as the birth control movement, sterilization abuse and population control era, this chapter proposes that a comprehensive genealogy of reproductive regulation and its technologies must also include an analysis of housing policies and urban planning, im/migration policing and government surveillance. Viewed through the lens of the histories of the eugenics movement and through the analytic of technologies of reproductive regulation, these policies and processes can be read as constitutive elements of the reproductive grammars of white nativism in the United States. These are ongoing histories that remain embedded in latter day policies, as evidenced by Trump's white nationalist reproductive policies.

I turn now to the main empirical and conceptual project of this thesis, namely investigating how technologies of reproductive regulation manifest in the digital age. As discussed in Chapter 3, this analysis departs from a national/transnational context and situates this enquiry in the U.S. border space/state of Florida, a key site of contemporary bio-necropolitical struggles around reproduction.

Chapter 5. Technologies of Obstruction: The Digitized Reproductive Grammars of the Antiabortion Movement in Central and South Florida

5.1. Introduction

In 2016, people waiting in reproductive health clinics across the United States began to receive unsolicited advertisements on their smartphones from antiabortion organisations persuading them to visit a religious Crisis Pregnancy Centre (CPCs). These targeted advertisements were the work of a Boston based marketing company, Copley Advertising, which had pioneered the use of sophisticated mobile surveillance technology to follow people's activities and find out who might consider having an abortion. The company deployed data-gathering technologies and a practice known as mobile 'geofencing' to compile profiles of so called 'abortion-minded women' and offered them for sale to antiabortion clients. The large datasets gathered by Copley Advertising included information about the person's gender, race, age and online shopping habits, all acquired through their smartphone ID. The company claimed to have 'pinged' nearly three-million cell phones on behalf of antiabortion clients across five U.S. states with the specific intent of dissuading seekers of abortion care (Coutts 2016).

Geofencing is a practice commonly used in commercial advertising and marketing that creates a virtual border around a location. The geofence records when a respondent crosses the virtual perimeter either to enter or exit the fenced location and gathers other available data about the person, which in turn triggers an advertisement or a survey (Poynter 2015). In digital advertising, marketers tailor their ads to very specific groups of consumers by compiling "personas" based on aggregated data sets that reveal their online activities. Copley Advertising's plan to geo-fence abortion facilities as well other facilities like methadone clinics mimicked these strategies and was attractive to antiabortion groups because of its ability to target people who were suspected to be 'abortion-minded women' (Coutts 2016).

The strategy devised by Copley Advertising and sold to antiabortion organisations is emblematic of the way that the landscape of abortion politics in the United States is evolving alongside and with information infrastructures and the platform industry. The capitalist logic that drives Copley Advertising's strategy is dictated by prediction models³¹ and consumer profiles that ordinarily are used to understand and predict consumption patterns and geographical movements. Placed in the hands of antiabortion groups, digital marketing technologies are used to define an abstracted 'abortion-minded woman', a placeholder for a predicted futurity and reproductive behaviour to be identified and contained. Moreover, this strategy developed by a corporate tech-company and sold to antiabortion advocates is a form of technologically mediated obstruction. The geofence can be conceptualised as a virtual expansion of the offline obstruction and surveillance practices that antiabortion advocates have practiced in person outside of abortion clinics in the United States for decades. These obstructive tactics are thus re-phrased through algorithmic and digital technologies into targeted messaging that aims to lure patients away from abortion clinics and into a religious counselling facility.

It stands to reason that harnessing the powers of data-extraction, targeted marketing and the reach afforded by networked and digital technologies is an attractive enhancement to the well-funded and organised antiabortion movement.³² Since the 1970s, access to abortion care has been obstructed through conservative law making, antiabortion protestors discouraging the use of abortion clinics³³ and harassment of care providers. The antiabortion movement has, since the 1970s, invested in the

³¹ There is a large body of literature that looks at predictive modelling under capitalism and the way that these practices rely on creation of specific types of digital subjectivity and constructed 'personas'. See Goriunova (2019) and Mackenzie (2015).

³² To be clear, the critique in this chapter of the deceptive tactics of antiabortion groups does not extend to those who hold prolife opinions. The decision whether or not to seek abortion care, and the belief that abortion is a moral or amoral act is uncontested, as this comes down to individuals. What is being critiqued here is a particular form of politics that is organised and overtly coercive.

³³ The National Abortion Federation recorded an escalation of hostility in 2018, with incidents of obstruction rising from 1,700 in 2017 to 3,038 in the following year (National Abortion Federation 2017). In addition to intended physical obstruction, researchers have also documented that protestors cause psychological distress to clinic users (Foster et al. 2013).

construction of technologies of reproductive regulation and a shadow infrastructure that mimics the structures of normative reproductive healthcare. Information networks, propaganda, fetal imagery, ultrasound technologies and the infrastructures of Crisis Pregnancy Centres were assembled over time as a web of networks combining artefacts, people, organisations, cultural meaning and knowledge that attempt to redefine the geography of abortion access (Haugeberg 2017).

As argued in Chapter 4 of this thesis, the shadow infrastructures of the antiabortion movement, increasingly supported by state legislatures, are a vital technology of reproductive regulation forged from New Right pro-segregation, anti-welfare, anti-immigration and antiabortion political ideologies that were woven into a protectionist discourse about 'family values' (Petchesky 1981; 1990). Fuelled by a heterogenous set of beliefs ranging from religious convictions, social conservatism to white nativism, political technologies assembled by the antiabortion movement are underscored by imagined ideological connections between human reproduction and the social, racial and 'moral' reproduction of the United States as the preservation of a white Christian patriarchal national identity. Many U.S. right-to-life groups have for more than three decades linked fetal salvation to rescuing America's future (Franklin and Ginsburg 2019), forging a reproductive model that is predicated on the preservation of a white national identity, which in turn is linked to the biological and political reproduction of the settler state.

This chapter expands on this analysis by examining how the political technologies of antiabortion groups are co-produced with tech-infrastructure in the information age. The advent of the internet and the proliferation of digital devices has driven antiabortion groups to expand their shadow infrastructure into the digital realm and with this devise novel methods of gatekeeping. Targeting messaging strategies like the one developed by Copley advertising, data-intensive technologies and cloaked websites are increasingly common tools deployed by the movement for the purposes of deception, obstruction and coercion (Daniels 2009). This chapter analyses how struggles around space in abortion politics play out at the online/offline nexus and

how antiabortion groups are developing digitally enhanced processes of bordering and methods of gatekeeping.

Site-specific observations, witnessing work, and in-depth interviews with activists structure this research into the fast-growing digital infrastructures of antiabortion groups in Florida and beyond. Through these methodological approaches, this chapter aims to reconstruct the technologies of reproductive regulation of the antiabortion movement, conceptualised as discursive, material and technological flows. I argue that in addition to deception, these growing tech-infrastructure are assembled into biopolitics strategies that have the effect of bordering access to reproductive healthcare facilities. This is driven by the desire to obstruct access to seekers of abortion care who are coded as an ideological and biological 'risk' to the reproduction of the settler state. In contrast to the other examples discussed in this thesis, the emphasis of this chapter lies on the biopolitical, rather than necropolitical dimensions of antiabortion strategies. It charts how these political modalities seek to control reproduction and collective processes of living being act on the social rather than the individual body.

Conceptually, the aim of this chapter is to discuss how the technologies of reproductive regulation of the antiabortion movement steeped in histories of eugenic gatekeeping are co-produced with tech-infrastructure. I explore how liberal discourses of 'privacy rights', alongside free-speech rhetoric and gender and colour-blind attitudes undergird the information technology and platform industries but are equally foundational principles of nativist reproductive political agendas. This chapter attempts to map the ways that coercive reproductive politics and the gatekeeping strategies of antiabortion groups are enabled by the technology industry. This is achieved by examining the co-construction of these discursive-material formations and denouncing a value-neutral view of information technologies.

5.2 White Supremacy, Reproductive Regulation and Managing “Risk”

The antiabortion movement in Florida, as elsewhere and across the United States, is a heterogenous network of actors, organisations, and technologies that stretch from state legislatures to private foundations, militarised factions, Crisis Pregnancy Centre (CPC) networks and individual actors. The state of Florida in particular has been a historic site of planned militarized attacks by the antiabortion movement. On Christmas day in 1984, an abortion clinic and two physician’s offices in Pensacola were bombed by antiabortion activists, an act described as a “gift for Jesus on his birthday” by the four people responsible for the assault (Verhovek 1994). In court the defendants openly confessed to having planned and executed the bombing and the defence attorney framed the act as heroic, comparing the abortion clinic to concentration camps in Nazi Germany (Blanchard and Prewitt 1993). The city of Pensacola, home to 55,000 people, housed the only licensed abortion clinic in a broad swath of North Florida stretching from Tallahassee to the Alabama line. Over the following decade, Pensacola became a key site of power struggles between both abortion access and antiabortion advocates alike. The Ladies Clinic in Pensacola where the bombing took place became the site of the fatal shooting of Dr. John Britton and clinic escort James Barrett in 1994, and was firebombed once more in 2012.

Alongside the overtly violent tactics of the militarized faction of the movement, CPC networks have built up a large infrastructure across the state over the course of many decades. As already discussed in Chapter 4, CPCs have been active since before abortion was legalised in 1973 (Ginsburg 1998). CPCs are religious advice centres for pregnant people that disguise themselves as legitimate abortion clinics. There are over 3,500 CPCs across the United States, most of which are backed by well-funded antiabortion organisations including Care Net, Heartbeat International and the National Institute for Family and Life Advocates (Bryant and Swartz 2018). Activists estimate that there may be as many as 192 CPCs operating in the state of Florida, outnumbering abortion providers by a ratio of two to one (Weintraub 2019). Studies of CPCs, mostly conducted at a national level and before the proliferation of mobile

devices and widespread access to the internet, suggest that many of these centres act as a softer branch of the antiabortion movement that provides financial and material support to pregnant people. Many authors contrast their 'softer' and more socially conscious approach with the overtly violent tactics of the militarized wing of the antiabortion movement (Hussey 2013; Munson 2008).

Although the intention behind some CPCs may be more socially inclined, their role as information and counselling providers is compromised. A recent study that analysed the websites of directory listed CPCs across twelve states found that eighty per cent of them contained misleading or inaccurate information (Bryant et al. 2014). While religiously and culturally informed counselling facilities undoubtedly have an important role to play in supporting service users, most CPCs use coercive tactics and mask their ideological agenda behind the presumed neutrality of the information they provide. Journalists, advocates and academics who have investigated these expanding networks conclude that they pose significant threats to the health and well-being of patients (Rosen 2012). Florida is one of the few states that provide public funding to private CPCs (Fanarjian 2017). Florida lawmakers introduced the 'Florida Pregnancy Support and Wellness Services Bill' in 2017, which requires the Department of Health to contract with the Florida Pregnancy Care Network, a non-profit that runs over one hundred CPCs throughout the state. While the precise amount of yearly funding the state of Florida puts towards this network is unknown, the figure is hypothesized to stand at around four million dollars of tax-payer money (Weintraub 2019).

Access to abortion care in the state of Florida is also hampered by repeated legislative challenges to access. Requests for parental notification and consent and abortion bans linked to the time of gestation (for example eight-week abortion bans) are presented and debated yearly at the state's legislative session. In 2019, two 'heartbeat bills' were filed in the Florida legislature with the aim of criminalising abortion. The bills proposed to make the procedure a third-degree felony for any doctor who performs an abortion after a fetal heartbeat is detected (Gerrand 2019). State-level restrictions that impede or provide barriers to access include compulsory parental notification for minors and a patient must receive state-directed counselling that includes information

designed to dissuade the patient from having an abortion. Moreover, abortion providers are legally obligated to conduct an ultrasound before the procedure and must offer the patient the option to view the image (Guttmacher Institute 2016). Florida is also one of the twelve states that has not opted for a Medicaid expansion, leaving around 1.5 million people uninsured. At the time of research, Trump's domestic gag rule had just come into effect which mandated that any facility receiving family planning funding through the Title X³⁴ programme could not provide abortion care or refer a patient to a clinic that offers the service.

This constellation of actors that coalesce into what is known as the “pro-life” movement aim to control the landscape of abortion politics through a variety of methods ranging from organised militarized violence to coercion and deceit. While the more militant factions make no secret of their objective to physically destroy clinics and injure personnel, the majority of antiabortion actors and groups frame their actions as benevolent and “woman-centered” (Mason 2019). As Jennifer Denbow (2015) notes, state actors frequently justify restrictive abortion laws and practices by appealing to the notion of autonomy. Ultrasound mandates, for example, purport to provide relevant information about abortion and thereby enable informed consent and personal autonomy, even though what motivates them is the desire to increase surveillance and control over reproduction. CPC operators also claim to provide information or “abortion education” to pregnant people so they can make an informed decision about their pregnancy (Saurette and Gordon 2018). By appropriating liberal feminist discourses around autonomy, privacy and choice, state legislators and antiabortion groups create distance with the militarized factions of the movement and position themselves as legitimate actors with humanitarian intentions (Denbow 2015).

³⁴ Established in 1970, Title X provides affordable birth control and reproductive health care to people with low incomes, who otherwise can't afford to access health care services.

5.2.1 Camouflaging Antiabortion Politics as Social Justice

Localised and state-level iterations of the antiabortion movement in Florida are assembled within the wider political objectives of the antiabortion movement in the United States. Before proceeding to a more detailed examination of these technologies of reproductive regulation, this section traces the ideological underpinnings of the antiabortion movement so as to make sense of these technologies and strategies. To achieve this, I shift focus momentarily to the ‘macroscopic’ (Ginsburgh 1998) aspects of the antiabortion movement and a brief discussion of its political motivations.

As explored in Chapter 4 of this thesis, the antiabortion movement in its current formation stemmed from the ‘pro-family’ policies of the New Right. Moreover, the political movement and its adjacent actors continue to be explicitly motivated by biopolitical agendas with reproductive politics at its core. Scholars suggest that while undoubtedly multifaceted, the antiabortion movement in the United States cannot be read unilaterally as either motivated by political opportunism or as an earnest political or moral expression by conservative, Catholic, and evangelical Christians (Mason 2002; 1999). A prominent strand of feminist critique reads the motivations of the antiabortion movement as motivated by patriarchal gender oppression and the desire to strip “women” of their autonomy (Gordon 2002; Lerner 1986). This view was corroborated by some of the reproductive rights and abortion access advocates interviewed for this research – controlling the landscape of abortion access, interviewees argued, is inextricably intertwined with patriarchal control over gendered female reproductive bodies (Schwartz 2019; Weintraub 2019).

However, this analysis privileges the role of gender and draws on more individualized framings of the fetus which in turn downplays the significance of race and white supremacy within this politics. Other abortion access advocates interviewed for this project, alongside reproductive justice advocates, allude to the fact that abortion politics is also bound up in what Loretta Ross (2018) describes as a ‘majoritarian insecurity’ of white supremacy that views a steady or increasing number of white births as fundamental to retaining political and economic dominance. Abortion

politics, therefore, are not simply motivated by the prevention of an irreligious or un-Christian act, nor by the patriarchal control or domination over ‘women’s bodies’. Rather, as Carol Mason (2002) posits, “shifting attention away from analysing individual fetuses to scrutinizing the collective unborn reveals how racial and reproductive politics have become inextricable in white supremacist enclaves as well as among pro-life extremists” (160).

In white supremacist and white nationalist political circles, antiabortion rhetoric is frequently connected to replacement theory, a conspiracy informed by demographic nationalism and pro-natalism (Krause 2018). The doctrine holds that white women are not producing enough babies and that the settler nation state will eventually be “replaced” through increasing numbers of people who im/migrate. These views are openly espoused by American right-wing politicians. In 2019 Florida State Senator Dennis Baxley, commended Alabama’s governor for ratifying one of the strictest abortion legislations the state had ever seen. Baxley stated,

“When you get a birth rate less than 2 percent, that society is disappearing, and it’s being replaced by folks that come behind them and immigrate, don’t wish to assimilate into that society and they do believe in having children. So you see that there are long range impacts to your society when the answer is to exterminate.”(WLRN 2019)

This articulation draws on historic processes of racialization that seek to link citizenship with whiteness and connections between race, reproduction and nation that are foundational to white nationalist reproductive imaginaries in the United States (Denbow 2016). Unsurprisingly, these policies gained more traction and fervour under the Trump administration. Pursuing what Elisa Andaya (2018) describes as a reproductive politics centred on ‘walls and uteruses’, Trump and followers publicly lauded Hungary’s “procreation not immigration” policy, which opposes im/migration and seeks to subsidize nuclear heteronormative family households in order to encourage their reproduction. This rapprochement with Viktor Orban converged with the administration’s own revival of “family values” discourses and voicing of

nationalist and racialized demographic anxieties. The Trump administration's slashing of funding for reproductive healthcare and the construction of the wall along the U.S. Mexico border can thus be read as a re-phrasing of this politics within American political policy (Siegel and Hosie 2019).

While references to replacement theory by politicians is increasingly common, antiabortion advocates and groups distance themselves from overtly white-supremacist rhetoric. Instead, as Carole Mason (2002) documents in *Killing for Life: The Apocalyptic Narrative of Pro-life Politics*, the myriad of actors that describe themselves as "pro-life" have since the 1960s described abortion as an apocalypse, a revelation of how amoral America has become. For those who champion the 'pro-life' cause, abortion represents – even more so than slavery in the United States and genocide in Nazi Germany – the ultimate of human atrocities. Mason (2002) argues that this apocalyptic narrative is what gives ideological coherence to the vast variety of individuals and institutions that describe themselves as "pro-life". Championed by Ronald Regan, apocalyptic framings that draw analogies between abortion, slavery and genocide originated in the 1980s and persist in latter-day rhetoric (Paige 1983).

Antiabortion advocates amplify these analogies to fuel claims that abortion is in fact a form of state-sanctioned racialised murder: on their websites and in their literature, antiabortion groups frequently include details about Planned Parenthood's racist past, populated with quotes from Margaret Sanger engineered to frame the history of birth control as a genocidal mission. In so doing, antiabortion groups unapologetically appropriate and evoke the historic trauma of communities who have endured centuries of oppression and scientific racism, in a bid to link abortion with the most egregious of historical injustices (Mason 2019). This appropriation can also be seen in antiabortion groups' claim that sex- and race-selective abortion is widespread in the United States and must be outlawed on the grounds of racial and gender justice. Jennifer Denbow (2016) demonstrates how these proposed bans frame race- and sex-selective abortion as anathema to American values. Supporters of these bans also liken abortion to slavery, emphasizing prohibition and condemning slavery as anti-American.

As activists and scholars have pointed out, while the eugenic histories that undergird the birth control movement are undeniable, this ploy is not designed to genuinely champion the cause of racial and gender justice. As writer and reproductive justice activist Renee Bracey Sherman (2018) explains, “They do this because they know that slavery is one of the most egregious things in United States history (...), they do this because they are just trying to stir up a base and get people upset, but then they literally lift up people who are holocaust deniers” (Sherman 2018). Sherman (2018) also points out that most of the time those invoking these comparisons are white conservative antiabortion advocates who would never support any real cause of racial justice.

Jennifer Denbow (2016) offers another perspective, pointing out that antiabortion groups that cast sex- and race-selective abortion as “barbaric” and “uncivilized”, associate the practices with Asian women and other women of colour. The proposed bans therefore create and draw on the historic racialized distinction between civilized America and uncivilized outsiders. In so doing, supporters of the abortion bans “draw on and reproduce the notion of national purity and civilization that undergirded eugenic policies in the twentieth century” (605). In this articulation, women of colour emerge both as a danger to the nation in their capacity to perpetuate “anti-American” values and, as potential reproducers and carriers of innocent fetal life, an essential to nation building. Like eugenics, therefore, the analogies built by antiabortion groups between abortion and genocide relies on the eugenic principle that reproduction should be controlled for the sake of the greater social good (Denbow 2016). Feigned concern for the fate of fetuses is mobilised in this way to whitewash the movement’s eugenic motivations and their desire to control the fertility of people read as threatening to the reproduction of the settler state.

These moral apocalyptic narratives and the drive to ‘save Christian America’ from impending moral doom are also employed to justify the murderous actions of key actors within the antiabortion movement. As Corinne Mason (2019) explains, “Claims of abortion as a holocaust have inspired the most lethal abortion foes who took aim at

doctors in the 1990s” (683). The people who killed Dr. John Bayard Britton and his escort James Barrett in Florida 1994, killed and maimed Alabama clinic workers in 1998, and fatally shot Dr. Barnett Slepian in 1999 all believed they were halting a holocaust and repeated racialized, apocalyptic rhetoric that situated themselves as defenders against a “holocaust”. According to Mason (2002), these murders were often imbued with anti-Semitic and racist sentiments. In spite of this, many of the U.S. abortion militants who committed homicide in the name of “life” were in fact Holocaust deniers even as they rallied to fight the so-called holocaust of the unborn. This points to a concatenation of beliefs that are profoundly at odds with a politics of fighting against abortion on the grounds of racial and gender justice.

Antiabortion groups that adopt the language of racial and gender justice, touting abortion as a racially motivated genocidal project, also frequently portray the fetus as white (Mason 2002). As Nicola Beisel and Sarah Lipton-Lubet (2002) show through their analysis of seminal antiabortion texts from the 1980s, abortion is equated to genocide, slavery and the holocaust and yet the visual references in these texts reinforce the image of abortion as an act of white women. This framing is reinforced in latter-day antiabortion publications and imagery. References to abortion as a ‘white problem’ persist in more recent writings by pro-life extremists. Eric Robert Rudolph, a Floridian who was convicted of bombing two abortion clinics in the late 1980s and killing two people, persists in framing contraception and abortion as a ‘white problem’ when he wrote in 2014 that “a stronger case could be made that birth control and abortion have negatively impacted whites far more than blacks, or any other racial group (...), the black share of the U.S. population is steadily increasing, while the white share is decreasing” (Rudolph 2014).

What belies the social justice rhetoric, therefore, is a narrative spun by antiabortion advocates of lost American greatness which is in turn equated with fears of white racial decline and replacement. For advocates who regard themselves as demographically and culturally ‘endangered’, the fetus not only refers to one unborn life lost, but to the loss of a fictional and imagined unborn racialised as white (Mason 2002). Antiabortion activists thus conform with white supremacist desires to

transform the United States into a Christian republic in which racial identities, sexual identities, economic roles, and gender roles conform and champion what they consider to be Christian morality.

Moreover, these ideological framings also appear in a more muted form in latter-day rhetoric of the 'softer' arm of the antiabortion movement that increasingly frames itself as 'woman-centered'. These factions purposefully distance themselves from the militarised parts of the movement and the replacement theory doctrine they espouse. However, as scholars concerned with abortion politics have noted, gendered female white 'women' and girls also figure centrally in these narratives, albeit portrayed as victims of moral, financial oppression and sexual coercion. The so-called victims of abortion (when not exclusively seen as the so-called unborn) are depicted visually as white women or statistically as "women", the universal category that is framed as white by default (Mason 2002; 2019; Saurette and Gordon 2016, 260). As Corinne Mason (2019) posits, "US antiabortion rhetoric increasingly redeploys colonial and civilizational narratives about white women as victims" (667).

While this doesn't negate the fact that individual members or organised groups may indeed believe antiabortion struggles to be a form of social justice, it points to a broader trend within the movement characterised by disassociation with New Right and far right groups and the approximation (or alignment) of themselves with racial and gender justice struggles. In this vein, those who champion antiabortion activism on social justice grounds also frequently appropriate the language of abolitionism to validate their actions, and mask the fact that conservative Christian groups and the religious Right have a long history of antipathy to civil rights concerns while also supporting anti-im/migration and anti-welfare policies (Joyce 2010). This has the effect of obscuring their wider politics and the similarities between antiabortion activists, the New Right, and the far right (Mason 2019).

In sum, antiabortion groups deliberately reject white supremacist replacement theories that are openly embraced by right-wing politicians. This serves the purpose of camouflaging the antiabortion movement as a politics driven by social justice issues

about the sanctity of life and personhood. Beneath this veneer of humanitarian concern and social justice rhetoric, however, lie nativist fears of a decline in white births (Mason 2002) and a drive to exercise control over the fertility of women of colour (Denbow 2016). Reflecting on the political motivations of antiabortion movement, Renee Bracey Sherman (2018) explained in interview, “It all bears down to White supremacy, (...) white women are often fully complicit in white supremacy but also white supremacy is dependent on patriarchy and it still needs the subjugation of white women through their reproduction”. Equally, “if you force people to have kids when they are not ready they will be living in poverty and are easier to control” (Sherman 2018). Following Sherman (2018), the ideological underpinnings of the movement are driven by a logic of selective pronatalism on the one hand, and fertility control, on the other. Together, these ensure the reproduction of a white national identity and conservative Christian values.³⁵

Viewed through this lens, the strategies employed by the antiabortion movement to border and obstruct access to reproductive healthcare can seek to identify and contain those who are coded as a risk to the preservation of the family, a white national identity and with these the reproduction of the settler state. The technologies of reproductive regulation assembled by antiabortion groups, and analysed in this chapter, are thus tied to the wider conceptual framework of this thesis outlined in Chapter 2 because they are structured by bio-necropolitical logics that aim to safeguard and foster some forms of life in aid of the “race-gender project” of the settler state (Glenn 2015,58). In other words, extremist antiabortion politics exist in consort with and are informed by ongoing historical trajectories that normalise masculine whiteness as central to settler identity, with its close ties to property ownership and control over the family. In turn, the role of white settler women in this structure, as Sherman (2018) points out, is to reproduce the heteropatriarchal domestic space. From

³⁵ To be clear, the issue at hand is not that the far right and the antiabortion movement in the United States are underscored by the same ideologies or that they are one and the same. Rather, abortion figures centrally in nativist reproductive imaginaries (Franklin and Ginsburg 2019), in keeping with ongoing histories of gendered, racialised and ableist reproductive control.

this perspective, abortion is a rejection of this role and an existential threat to the white heteropatriarchal domestic arrangement.

5.3 The Infrastructures of the Antiabortion Movement in Florida

There are eighty-six operational abortion clinics across the state of Florida. Many of these facilities are regularly barricaded by protestors. Large intergenerational crowds gather holding up graphic images of fetuses, shouting slogans into megaphones and trying to divert traffic away from the clinic entrance. So great are these disturbances, that organisations such as Planned Parenthood employ clinic escorts who volunteer to accompany people into the facility and act as an emotional and physical barrier to the protestors. Well-funded groups across the state are also equipped with RVs containing ultrasound machines that are stationed on the perimeter of the facility. Group members actively attempt to steer patients into the van under the pretext that they need to conduct an initial ultrasound and pregnancy test (Weintraub 2019). Almost every week, the same group of protestors face off against clinic escorts and patients, that battle their way through the crowd (Schwartz 2019).

These scenes are unfortunately as common today as they were thirty years ago when the antiabortion movement galvanised in opposition to the legalisation of abortion by the Supreme Court in 1973. Since the mid-1980s, antiabortion groups have pushed antiabortion politics through legislative challenges around foetal viability (Saurette and Gordon 2018; Solinger 2001; 2005) and coercive uses of technology and imagery (Petchesky 1987). During these decades, as other scholars have shown, the antiabortion movement developed into an organized and well-funded national movement (Lewis 2018; Munson 2008). Recounting events in 1990, abortion access advocate and scholar Marlene Gerber Fried recounts the scene outside of an abortion clinic:

“Our goal was to enable women seeking abortions to get inside. We knew antiabortionists from Operation Rescue³⁶ were going to blockade; we did not know where. By 8:00 a.m. their target was clear, and most of us were directed to that clinic where pro- and anti-forces shoved and chanted. Pro-choice demonstrators made a human chain reinforcing police barricades set up to create an access corridor. Police on the inside of the barricades had, in previous Operation Rescue assaults, permitted the antiabortionists to effectively block clinic doors. We were there to prevent the Operation Rescue people from crawling under, going over, or breaking through the barricades, and we did whatever was necessary to keep the corridor open. This included pushing, kicking, and verbal abuse. Escorts pushed women through the hostile blockers to get them to the clinic. We were literally squeezed between the cops and the antiabortionists” (Fried 1990, 1).

While legislation was instituted in the 1990s³⁷ that prohibited the use of physical force or physical obstruction to injure, intimidate or interfere with any person who is accessing reproductive health service, antiabortion groups have developed sophisticated strategies that toe these legal limits. The specific tactics used in Florida today are shaped by the fact that the antiabortion movement is led predominantly by white women. Barbara Schwartz, a dedicated reproductive rights activist, described in great detail in an interview how the tactics of antiabortion protestors in Florida have evolved over time. Schwartz (2019) has worked for Planned Parenthood in Central Florida in various capacities since 2014, including for many years as a clinic escort. Years of experience accompanying patients from the parking lot to the clinic entrance has given her a unique insight into tactics and behaviours of antiabortion protestors in Florida.

³⁶ Operation Rescue is an extremist antiabortion group founded in 1986 that today are known by the name Operation Save America.

³⁷ The Freedom of Access to Clinic Entrances or FACE act was signed into law in 1994 and prohibits the use of force or threats of force that block access to abortion clinics in the United States.

Schwartz's (2019) descriptions of how protestors threatened to expose clinic users are harrowing. First, they try to locate anything identifiable about the person that could be turned into an appeal. Upon arrival at the clinic, Black patients or patients of colour are offered a sensationalised description of Planned Parenthood's racist past. If a patient has a crucifix hanging from their car, protestors try to appeal to them from a Christian perspective. Recounting countless examples of racialised and religious profiling, Schwartz explains, "Anything about them that is identifying they try and turn into a personal appeal. People feel like they are being stalked. Again, the implication is that they will out you to other people. I remember when one person drove his partner to the clinic in a marked van from his employer and they told him that they were going to call the employer and tell him what he was using the car for" (Schwartz interview 2019).

These stories of clinic escorts that chronicle years of encounters protestors, volunteers and patients are fraught but also intimate. Many of the escorts know the protestors by name, and they keep logs of exactly which antiabortion advocates barricade the clinic and on what days. Strategic openness is another tactic used by women anti-choice protestors, who approach clinic patients, introducing themselves by their first name often also accompanied by their children. When personal appeals fail, antiabortion advocates escalate to a strategy of invoking wider questions of 'responsible' motherhood, gender roles and even genocide. Male partners waiting outside abortion clinics are accused by antiabortion protestors of not being 'real men' as a real man wouldn't allow their partner to enter the facility. Children of protestors are trained to scream out 'don't kill me' as patients enter the clinic. Schwartz (2019) also reveals that reference to the holocaust and likening abortion clinics to Nazi death camps is not uncommon amongst protestors.

Schwartz (2019) also explains that she often carries a large golfing umbrella when escorting patients to the clinic. I assumed the umbrella was for covering patients from the heavy Floridian rains, but its actual purpose is to shield patients from protestors using cameras and smartphones to take pictures and film them as they get out of their cars and approach the building, "people feel like they are going to be outed", explains

Schwartz (2019). Although clinic escorts mitigate these attacks, this tactic of harassment is compounded by the use of smartphones and cameras, video recording, live streams and the possibility of photos making their way onto social media. Thus, the threat and possibility of exposure are joined to the physicality of harassment. Patients who already fear judgment or exposure are more likely to be affected by this particular strategy and some may be deterred altogether. Although Schwartz says she believes that the intrusive use of technology is just an intimidation tactic, analysis of the personal websites of antiabortion activists across Florida suggests that these images do make their way into the public domain. Although the images may not include close-ups of people's faces, security guards, clinics escorts and some patients are featured on the personal blogs of anti-choice activists.

Technological enhancements of historic antiabortion strategies are equally prevalent in the Crisis Pregnancy Center (CPC) movement. For decades, CPCs have intentionally set up shop next door to abortion clinics and stationed a persuasive onlooker outside to try and usher patients into the facility. However, much less is known about how these fake clinics masquerade on the internet and harness digital marketing technology to extend their infrastructures into the digital realm. I began to map the shadow infrastructures of the antiabortion movement in Florida in 2018. The mapping began with a simple search through a smartphone browser that would allow a geolocation of the facilities. Typing 'abortion clinic' into the browser I charted the location and route to the closest clinic indicated through a web mapping service, on foot, in order to get a sense of what it was like to access the clinic without a car. The scale of the fake-clinic infrastructures, and the strategic use of Search Engine Optimization (SEO) optimisation meant that more often than not, the search results for an abortion clinic lead directly to a CPC.

Growing CPC infrastructures in Florida, and across the country, are a rising concern for advocates fighting for abortion access. Most of the clinics across the state are backed and fronted by evangelical and catholic churches, in addition to the money they receive from the state (Weintraub 2019; Anonymous A 2019). The continuities of New Right strategies from the 1980s that consolidated the so-called 'pro-life'

movement continue to finance and support the expansion of its shadow infrastructures. These connections also provide important avenues into the local community and sediment recruitment channels for people to join the movement. This combination of financial and human resources fuels advocacy efforts at the state capital, it provides funds to purchase and develop clinic infrastructures and also to develop digital skills and tools that the movement is so eagerly embracing. Furthermore, CPC volunteers are often contracted by state-counties and cities to administer the sex-education portion of the school curriculum further lining their pockets with tax-payer money (Anonymous A 2019).

From my own mapping exercise, I had discerned the near impossibility of identifying a CPC from the outside. Frequently, as one advocate undertaking oppositional research on the CPC movement confirmed (Anonymous A 2019), this strategy of camouflage is bolstered by offering free pregnancy tests, and sometimes an ultrasound, to anyone in need. In the context of Florida, a state that opted out of the Medicaid expansion, free access to much-needed reproductive healthcare that the state denies is a powerful draw. Abortion access and reproductive justice advocates have investigated the operations of fake clinics by sending staff in to test their services.

Amy Weintraub (2019), Reproductive Rights Program Director and Deputy Communications Director for Progress Florida³⁸ explains that when patients enter a fake clinic and start the consultation process, it becomes apparent that the clinic is a faith-based counselling centre that exists to deceive them and dissuade them from accessing abortion care. Instead of using medical information to help someone make an informed decision, CPC operators use persuasion and ideological rhetoric to convince patients that continuing the pregnancy, parenting or adoption are the only viable options.

³⁸ Progress Florida is an umbrella organisation of reproductive rights and reproductive justice organisations operating across the state.

CPC operators have developed an arsenal of tried and tested methods of deception. “They have a lot of tactics that they use, I mean so many”, Weintraub (2019) explains: “they will have the woman or girl change into an exam gown - again she thinks she is in a clinical settings - and then once she has changed they will have her move to a second room leaving her belongings behind in the first room so that once she figures it out it will be hard for her to leave because she doesn’t know where her stuff is”. These strategies are coupled with practiced lies such as telling the patient that if they have an abortion they will suffer permanent psychological damage, become infertile or that they will get breast cancer. Moreover, if a patient calls to schedule an appointment, CPC operators will try to schedule it as far down the line as possible. “We are on the clock”, explains Weintraub (2019), “the longer you wait the more expensive it is to get an abortion, perhaps the more challenging it is legally. So they employ a lot of delay tactics in the so called services they provide”. Other advocates corroborate these observations, highlighting that CPCs openly admit that the best patient is someone who thinks they are going to have an abortion and are sufficiently impressionable or isolated that they rely on CPC operators for advice and support (Anonymous A).

These covert strategies that unfold in the confines of CPCs contrast sharply with the public barricading of abortion clinics. While protestors outside abortion clinics seek hyper-visibility and to shock onlookers with displays of graphic imagery, the camouflage of CPCs leads to a muted and covert strategy of deceit. Abortion access advocates and reproductive justice organisers agree that these deception tactics are the most insidious (Weintraub 2019; Anonymous 2019). Public demonstrations outside of clinics and on university campuses that resort to public shaming and graphic imagery are legible by many as invasive and violent. “Extremism often sparks something in people, even if they are maybe neutral they see that and they think this is wrong, like, why are you doing this, because it’s so violent?”, an advocate explains, “but when it’s in a more subdued tone, I feel like that is also when it’s even more dangerous because it makes people questions things” (Anonymous A 2019). The CPC movement is also attempting to intervene at a very early stage of gestation, unlike picketers of abortion clinics who are pushing for a last-minute change of heart. As one

abortion access advocate urges, “when someone is vulnerable and is going to seek counsel or options trying to find out if they are pregnant, a lot of the time people are young, they are low-income, they are going there to get a free pregnancy test and then they are preyed upon and indoctrinated with this straight up false science, lies and shame” (Anonymous A 2019).

The sophisticated camouflage of brick and mortar CPCs is reproduced online through what Jessie Daniels (2009) terms “cloaked websites”. Many CPC sites linked to facilities mapped in the South and Central Florida area disguise their political agendas, as Daniels (2009) identifies, by choosing non-religious domain names and by offering what appears to be comprehensive and medically accurate information about abortion services. Domain names such as *‘pregnancy help medical clinics’*, or *‘pregnancy options Miami’*, appropriate language commonly associated with legitimate reproductive health services by emphasising that they are ‘medical’ and willing to explore a pregnant person’s ‘options’ (‘Pregnancy Help Medical Clinics’ 2019; ‘Pregnancy Options Miami’ 2019). The content of the clinics’ websites also include abortion as an ‘option’ offered to pregnant people promising, “judgment-free care and fact-based information about the various abortion procedures, the risks, and what goes into the cost of an abortion”. Dedicated information pages on abortion care describe the procedures using medical terminology, referring to Food and Drug Administration (FDA) regulations and academic sources. A close reading of this content, however, reveals its political inclinations through the use of terminology. The Pregnancy Help Medical Clinics site, for instance, describes the initial consultation as the moment when, “the woman is given pills to cause the death of the embryo (human being in early stages of development)” (‘Pregnancy Help Medical Clinics’ 2019).

These websites are associated with CPCs that fall under the Florida Pregnancy Care Network, the umbrella organisation that receives funding from the Florida Department of Health and aims to “coordinate and enhance the efforts of local pregnancy resource organizations to increase the availability, quality and awareness of pregnancy support services that promote and encourage childbirth” (Florida Pregnancy Care Network 2019). The Pregnancy Services Support bill passed through

the Florida legislature in 2017 requires that CPC services in receipt of state funding, “must be provided in noncoercive manner and may not include any religious content” (Toledo 2018). However, the same bill requires that the network subcontract only with providers that promote and support childbirth and nowhere does the legislation legally oblige the network to provide medically accurate information. Legislators and CPC operators collaborate, therefore, to allow the propagation of brick-and-mortar fake-clinics and the spreading of CPC information online through legislative loopholes and generous funding packages (Weintraub 2019; Anonymous A 2019).

This exercise in virtual camouflage is integral to the expansion of the antiabortion movement’s shadow infrastructure because it enables search engine optimization (SEO) of CPC websites and the tagging of fake-clinic facilities on web mapping services. SEO is a process of enhancing the visibility of a website or webpage in a search engine’s unpaid results and is intimately connected to information architectures and algorithms made by Google (Brin and Page 1998). The search engine ‘crawls’ or reads the website’s content and algorithmically evaluates whether it is relevant to what the searcher is looking for. The results are then indexed by relevance so as to appear in an order that supposedly matches the searcher’s query. However, far from being a value-neutral indexing exercise that strives for ‘accuracy’, as companies claim, search engines are a site of power where discourses about gender, race, and technology are circulated and reproduced (Noble 2018; Sweeney 2017). In the case of antiabortion groups, search engine algorithms that ‘crawl’ CPC cloaked sites hone in on keywords such as ‘abortion’ or ‘medical’ and rank them as if they were legitimate reproductive health facilities.

In addition to optimized search results, antiabortion groups also make use of ad-tech to reconfigure the geographies of abortion care, using advertisements to displace prospective patients. CPCs advertise through Google, the most-used online search engine. According to a research report conducted by reproductive rights organisation NARAL (2015), CPCs take out keyword-based advertising campaigns on search engines and bid on keywords such as “abortion”. Instead of getting information about legitimate health clinics, prospective patients are taken to the websites of CPCs

through what they describe as a “bait-and-switch tactic”. National organisations such as Care Net and Heartbeat International are known to spend more than \$18,000 per month on pay-per-click advertising campaigns, placing bids on more than 100 keywords, including “abortion”, “morning-after pill”, and “women’s health clinics” (NARAL 2015). While the exact figure of how many pregnant people are misdirected by Google ads and searches to fake clinics in the United States is unknown, CPC operators view Google searches and ads, and social media platforms, as vital to reach the demographic they describe as ‘abortion-minded women’.

Pressure mounted on search engine companies like Google from advocates and reproductive rights organisations has led to companies taking some action to monitor and remove false advertisements from CPCs (Levin 2018). In 2019, Google updated its policy on advertising for abortion care for the United States, the UK and Ireland in the wake of increasing criticism. Advocates argued that the company failed to act decisively against ads that clearly violated the company’s own rules against deceptive advertising. Google’s policy states that “advertisers who want to run ads using keywords related to getting an abortion will first need to be certified as an advertiser that either provides abortions or does not provide abortions” (Google 2019). An automatically generated in-ad disclosure for the facility would then be added on the basis of this certification stating whether or not they provided abortion care. However, CPC operators were quick to identify and exploit a loophole in the policy that meant that if users searched other terms, like “free pregnancy test” or “pregnancy symptoms”, no in-ad disclosure about whether the facility was a CPC would appear. This led many advocates to accuse Google of paying lip service to the problem without offering any meaningful scrutiny of the conduct of CPCs.

Web mapping services, such as Google maps, are another virtual battle ground. In spite of changes to advertising policies, CPCs continue to misdirect people to fake clinic facilities (Anonymous A 2019; Schwartz 2019; Kotting 2018; Sherman 2018). While other companies such as Yelp took decisive action and manually reviewed over 2,000 businesses and recategorized clinics that don’t provide abortions as “faith-based crisis pregnancy centers”, Google failed to allocate resources to solve this pressing

issue (Schmidt 2019). The effects of this on the ground are palpable. As Weintraub (2019) explains, “When people look at google maps trying to find an abortion provider, these fake abortion clinics have positioned themselves online where they pop up first instead of a real abortion provider. So sometimes people get fooled into going to their website, to calling and making an appointment because they popped up when a woman searches for abortion”.

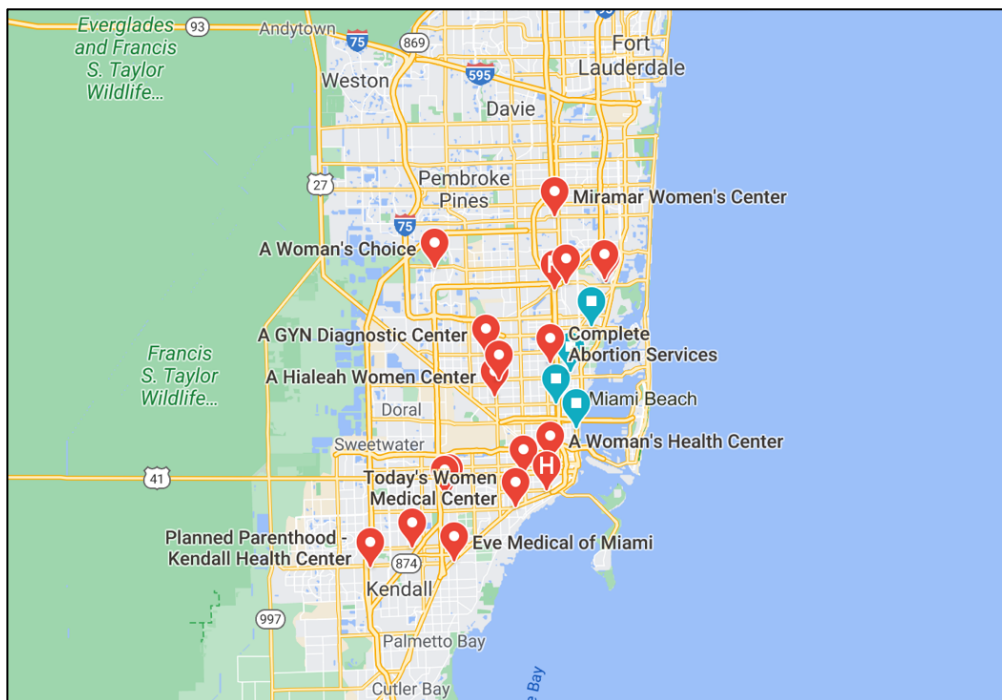


Fig. 2 Google Maps search for “abortion clinic” in the greater Miami area shows both Crisis Pregnancy Centers (e.g. A Woman’s Choice) and Planned Parenthood clinics

CPC networks are also increasingly developing their own in-house training programmes in order to increase the reach of the movement. Digital training sessions and skill swaps in digital marketing strategies are now permanent fixtures at national and international conferences for CPCs. Transnational organisations like Heartbeat International, a network of over 2,700 CPCs across 60 countries, also offers training courses to affiliates in SEO, Google Ads and online marketing strategies (Privacy International 2019).

Technologies of reproductive regulation deployed by the antiabortion movement are amplified and facilitated, therefore, by ineptly designed algorithms that promote

rather than discourage the propagation of incorrect information. Shielded by the inaction of tech-companies who profit from paid advertising and web-traffic, the antiabortion movement skilfully manipulates algorithms and uses data-intensive technologies to expand its shadow infrastructures. These technoscientific practices are constitutive of the bio-necropolitical strategies of the antiabortion movement, comprised of discursive, material and technological assemblages that obstruct access to reproductive healthcare facilities for seekers of abortion care. In turn, these strategies are developed and shared not only at a localised level, within states like Florida, but within a well-funded and coordinated national and transnational movement seeking to dominate material and virtual landscapes of abortion access.

5.4 Harassment and Targeting Abortion Access Infrastructures

As discussed, in addition to the biopolitical management and control of prospective patients, assaults on clinic infrastructures and personnel have long been a tactic of the more hard-line factions of the antiabortion movement in the United States. In the digital age, prominent advocacy groups and individual advocates are targeted by antiabortion advocates through digital tools and hacks. In addition, therefore, to threats of physical violence and assault, public facing abortion access and reproductive justice advocates, along with progressive organisations, are subjected to stalking, harassment and doxxing³⁹ by antiabortion advocates over the internet. While this phenomenon has yet to be formally studied and therefore lacks empirical data, all five activists that I interviewed, as well as three members of staff in abortion access organisations, spoke of their experiences with different levels of online harassment and cyber-attacks. These included infiltrations of closed groups and sexist and racist memes being made with their photos and then spread online. All interviewees described these forms of harassment as common and widespread (Anonymous 2019; Schwartz 2019; Kotting 2018; Sherman 2018; Staples 2018). While these tactics are distinct in forms and effect to organised shootings and clinic bombings, death threats and digital violence – coupled with Distributed Denial of Service (DDOS) attacks that

³⁹ Doxxing is the practice of finding private and identifying information about someone and making it public over the internet.

debilitate abortion access organisations – are a permutation of these destructive strategies carried over into virtual spaces.

Smaller-scale actors in the landscape of abortion access in the United States are more vulnerable. Small abortion funds, often staffed by volunteers and with very little organisational infrastructure, are targeted for both physical and cyber-attacks from antiabortion groups. Abortion funds are charitable organisations run and maintained by activists and are a small but more radical part of the abortion access movement. They provide direct assistance to cover the cost of an abortion as well as related costs like transport and childcare. Although abortion funds pre-date the legalisation of abortion in the United States, they became a frontline resource as abortion became less financially accessible to lower-income people from the late 1970s onwards. This was largely due to the approval of the Hyde Amendment in 1976 that prohibits the use of federal funding to cover the cost of abortion care except under life-threatening circumstances of when the pregnancy arises from rape or incest. The Hyde Amendment alone is estimated by researchers to have impeded abortion access for over one million people since its inception in 1976 (Boonstra 2008; Dennis, Blanchard, and Córdova 2011; Jackson 2007).

In Florida, The Central Florida Women's Emergency Fund (CFWEF), and abortion fund in the NNAF network, has been raising money to support people who need to access abortion care since 1996. Like many abortion funds across the United States, the CFWEF has a low profile, in spite of the invaluable support it provides. Abortion Funds are a more radical branch of the abortion access movement advocating for reproductive justice and foregrounding broader access to healthcare, racial justice and economic concerns as cornerstones of the fight for affordable and accessible (as well as legal) abortion care. They differentiate their advocacy work from broader reproductive rights organisations by focussing explicitly on access rather than legality, repealing the Hyde Amendment and centring economic and racial justice. In spite of the invaluable service they provide, abortion funds are under-researched compared to other larger organisations in the abortion rights and access movement.

The CFWEF, like many of the original funds, was set up by white affluent Floridian women to provide support to those who needed to pay for abortion. Stephanie Loraine, the CFWEF Board Vice President and National Liaison in 2019, explains that since the 1990s the fund has gone through various changes, including a conscious shift towards intersectional and reproductive justice orientated care and diverse staffing. Born in Puerto Rico and a social worker by profession, Loraine became involved with the local abortion fund because of all the structural and financial barriers to reproductive healthcare that persist in Florida, many of which she had faced herself. The fund in Orlando supports local abortion clinics quarterly and has done so since its inception. Money from the fund is allocated to local abortion clinics specifically to cover the cost of having an abortion. Loraine (2019) explains that local abortion clinics reach out to the fund directly in special circumstances, for example to cover the costs for travel or housing for destitute or undocumented patients. “For these cases, we piece the money together”, Loraine (2019) says, “but it really shouldn’t be this hard”. The correlation between being uninsured and increased need to access abortion care is well documented (Ely et al. 2017). Abortion funds are not only covering the cost of abortion left uncovered by the state, but are also making up for the cost brought into existence by the state’s absence of funding for contraception to prevent unwanted pregnancy.

The fund is targeted by antiabortion activists despite not having an office and only a limited online presence. Publicly supporting reproductive justice agendas makes the fund’s staff and infrastructure especially susceptible to harassment and attacks. “It’s a lot about being in control of reproduction, and people not having a say in what happens to their body”, explains Loraine (2019), “there is also a lot about the preservation of the white race and being anti-abortion for the sake of why are we killing white babies”. Loraine explains that the fund is sent white supremacist and eugenic messaging by post, which arrives at her address, alongside regular messages on social media. Security concerns for abortion activists in Florida are therefore very real. “We don’t have an office to worry about, thank god”, Loraine explains, “but one of our priorities is to secure our website and social media”. Being vocal or visible in a public and political sense has a cost. The Central Florida Women’s Emergency Fund,

like many other funds, has to balance the urgency of fundraising while remaining discreet and flying under the radar of much better-funded antiabortion groups that threaten their staff and infrastructure.

Moreover, the increased availability of personal data for purchase, including a person's address, means that antiabortion activists can quite easily obtain information about the whereabouts of potential targets, their employment records and commercial purchases. When you register to vote, Lorraine explains, your information becomes publicly available: "When it comes to the US, they sell all your voter data; once you register to vote all your information about where you live is out there. When you buy stuff online, everyone sells your data. But what does that mean? I have moved twice." (Lorraine 2019). Furthermore, advocates located in more conservative states such as Florida are more likely to see the virtual abuse they receive materialising offline, given their physical proximity to organised and generously funded antiabortion groups and networks.⁴⁰ To combat this, Lorraine attempts to avoid intrusion by not using her full name, although she says that this is a decision she is reconsidering.

These lateral surveillance (Andrejevic 2004) practices and digital mechanisms of debilitation are deployed in an attempt to contain and immobilize abortion access advocates. The violent histories of the antiabortion movement of targeting and murder of prominent abortion rights and access advocates make these threats credible and menacing. As one advocate expressed in an interview, "I really think about it a lot of the time, do I have the most dangerous job in this building? I'm probably on some list. When we are talking about these organisations that are doing this work in Florida, there are only so many of us in these spaces. So I'm sure they have that list, just by looking on our website". In spite of this, advocates insist that abortion access activism has to be public (Anonymous 2019) and express determination not to concede space to antiabortion groups and conservative politicians. "Our purposes is to disrupt that and

⁴⁰ Florida's privacy legislation, which enshrines the right to abortion in the state of Florida, fails on the other hand to protect the privacy of those who advocate for it.

that means we have to put our faces out there. That means we put our physical bodies out on the line”, Loraine (2019) insists.

Online/offline harassment and violence is understood by abortion access advocates as part and parcel of the infrastructure in place to control the geographies of abortion access in the United States (Anonymous 2019; Sherman 2018; Loraine Piñeiro 2019). Moreover, antiabortion activists often act with impunity on digital platforms whose moderators make very little effort to curtail harassment and stalking. “The accountability isn’t the same”, Lorraine (2019) explains,

“Alt-right or Far Right trolls post white nationalist stuff and they don’t get banned or they just create a whole other profile. When we are thinking about the systems of power that are in place, especially online, who are the people who run and moderate these systems? Are they cis-white men who spend a lot of time online and who may not have a clue about what reality looks like? So if these are the people who control our online spaces, who do they give more space to? When you talk about accountability in real life, I’m gonna call the cops and do what? The cops are just going to tell me to stop posting, and stop feeding the trolls. But my existence feeds the trolls. So am I just supposed to not live a digital life because people are going to harass me?”.

Renee Bracey Sherman (2018) also notes a correlation between the levels of online harassment and the activist’s location, gender and race. During our conversation, Sherman shows me an image that was sent to her on social media of Pepe the Frog⁴¹, dressed as Hitler, holding a cup with a swastika on it. She had reported the incident to Twitter, but had been told the image was not a violation of the platform rules.

These descriptions of online/offline power structures that work actively or passively to ring-fence and control spaces of progressive politics are important for thinking

⁴¹ Pepe the Frog is a cartoon frog and meme that originated on the Website 4Chan. In 2016, the anti-defamation league added it to their database of hate symbols (BBC 2016).

through the ways that reproductive politics and the politics of the internet converge. These struggles over abortion politics in cyberspace show that the internet itself is a battleground. Exploiting the fact that privacy regulations protect some more than others, antiabortion groups stalk, harass and threaten to expose activists and their supporters with relative impunity. In a reflection of the politics of the offline world, antiabortion activists perpetuate violence aided and abetted by the protections afforded by the infrastructures of the internet corporatocracy.

Similar intimidation tactics and digitally mediated forms of obstruction were used by antiabortion activist against the umbrella organisation that The Central Florida Women's Emergency Fund (CFWEF) is part of. This network for abortion funds in the United States is known as the National Network of Abortion Funds (NNAF), founded in 1993, which includes over 70 independent member abortion funds across the country. The original vision of NNAF's founders was to create a network of funds that could collectively advocate for rescinding the Hyde Amendment. Throughout its history the NNAF has focused on supporting and developing its member funds by offering technical assistance, trainings, networking and securing a group to facilitate the process by which member funds could apply for tax exempt status. It offers grants to increase awareness and access to Emergency Contraception and for advocacy projects. It has also worked to increase the racial and age diversity in the national organization and member funds (Kotting 2019; Staples 2019). Today, the network describes itself as a network that "builds power with members to remove financial and logistical barriers to abortion access by centering people who have abortions and organizing at the intersections of racial, economic, and reproductive justice" (NNAF 2020).

In 2016, a fundraising initiative of NNAF was targeted by antiabortion advocates through a Distributed Denial of Service (DDoS)⁴² attack that sequestered the personal information of those who had donated to the network and sent them antiabortion

⁴² A Distributed Denial of Service (DDoS) attack is an attempt to disable an online service by overwhelming it with traffic from multiple sources (Ging and Siapera 2018).

propaganda from NNAF's email address (Kotting 2019, Staples 2019). A well-known tactic employed by hacktivists of any political persuasion, this technology is designed to disable the cyber-function of a service by overwhelming the page with traffic.⁴³ The attackers targeted the NNAF's annual online fundraising event, the Access Bowl-a-Thon, a grassroots fundraising campaign lead by the network with approximately forty of its members located across the United States (Kotting 2019). The money raised through the fundraiser, collected via credit card payments, is used to cover the costs of abortion care for people who cannot afford to pay for the procedure themselves, alongside other expenses such as transportation, accommodation, childcare, translation and doula services.

The legal complaint filed by the NNAF details an on-going and sophisticated operation launched by antiabortion groups to derail the fundraising events. The Network had hired a third-party company by the name of Blue Sky Collaborative, LLC whose product would run the online fundraising effort. The DDoS attackers searched for vulnerabilities in the business application and placed malicious code within it which disabled the platform on the final day of fundraising. The code made the fundraising website appear to receive \$66 billion in fraudulent donations during a distributed denial of service attack (DDoS) which caused the Bowl-A-Thon website to crash altogether, resulting in a disruption to the fundraising efforts and substantial losses for the abortion funds. The NNAF was able to preliminarily connect the DDoS attack to messages sent from a twitter handle believed to be managed by a religious antiabortion activist with a background in technology and coding, alongside other unknown accomplices most probably located in Florida (Kotting 2018; O'toole 2019).

In addition to this disruption, people registered to take part in the fundraiser began receiving emails alerting them to donations made by user "Adolph Hitler". The email sent by "Adolph Hitler" contained the following violent white supremacist message: "I

⁴³ One of the first known DDoS attacks took place in the late 1990s. The Electronic Disturbance Theatre developed a simple Java applet designed to rapidly reload a webpage. It was deployed against the Mexican government in 1998 in support of the Zapatista uprising.

believe that the Aryan race is the Master Race; the purest human genetic strain currently available. Consequently, it tickles me to fund abortions for the lower races, (...) I am indebted to feminism and this new opportunity it has provided to cleanse our future generations. Keep it up, NNAF!”.⁴⁴ Some registrants also received an email with a picture of a fetus that said, “I hope I grow up big enough to go bowling someday” (O’toole 2019). Following the disruption to the fundraising activities and white-supremacist messaging, the hackers accessed the third-party fundraising website to steal the personal identifying information – including names, mailing addresses, email accounts, and phone numbers of 2,705 participants and 14,333 donors to NNAF in addition to 435 credit card numbers (O’tool 2019, Kotting 2018, Staples 2018).

Mirroring the ways in which individual advocates are stalked and surveilled through their data trails and activities online, the NNAF attack is a recoding of a particular brand of antiabortion politics in the context of networked and digitally mediated social relations. Drawing a direct comparison between this cyberattack and the planned bombing of clinics and killing of staff may appear reductive and incommensurate. However, the destruction and disablement of infrastructure, the targeted nature of the hack, its threat of exposure alongside the comparison drawn between the activities of the NNAF and The Third Reich are longstanding tactics recoded through information architectures and the figure of the antiabortion hacker. The predecessors of this DDoS cyberattack are not, as in other cases, strikes, work slowdowns, blockades, occupations, and sit-ins (Sauter 2014), but a long history of racialised reproductive politics, white supremacy and biopolitical regulation.

The cyberattack on the NNAF is also framed by legal experts as a digitally mediated form of obstruction. The legal complaint filed by the Network alleges that in addition to the Computer Fraud and Abuse Act, the DDoS attack violated the Freedom of Access to Clinic Entrances (FACE) Act. The FACE Act, as discussed earlier in this chapter, protects patients and providers from any use of force or obstruction that

⁴⁴ The original email communication has been redacted in order to not reproduce hate speech. Please see the NNAF legal complaint for a complete transcript of this communication.

blocks access to an abortion clinic. The legislation was passed precisely in response to a rise of militarized violence against abortion providers and staff in the 1990s. The DDoS attack can be understood, therefore, as a recoding of ongoing historic antiabortion strategies through tech-infrastructures: bordering regimes put in place by antiabortion extremists are proliferated through the digital realm with the specific intention of deterring seekers of abortion care and dismantling abortion access infrastructure.

5.5 Antiabortion Politics and Tech-Infrastructures

This investigation into the expansion of the infrastructures of the antiabortion movement reveals that digital platforms and data-intensive technologies are leveraged in aid of the biopolitical management of ‘abortion-minded women’. This constructed persona serves as a placeholder for gendered bodies and data sets that signify the ‘reproductive risk’ of pregnant people, and white pregnant people specifically, who abdicate from their biological reproductive duties. In turn, data-intensive technologies, ad-tech and internet-enabled devices are weaponised to border and obstruct access to clinics and healthcare infrastructures. In so doing, the antiabortion movement governs the terms, conditions and means of reproductive decision-making by socio-spatially reorganising the landscape of abortion access. I now turn to the final reflection of this chapter, namely a discussion of how the technologies of reproductive regulation of the antiabortion movement with its histories of eugenic gatekeeping are co-produced with information infrastructures.

Conducting interviews with advocates and mapping infrastructures in the state of Florida pushed me to question how these digital exploits were permissible or indeed legal. Expert use of targeted advertising, smart-phone surveillance and online harassment by antiabortion groups suggests that they are effectively exploiting “weaknesses” in the infrastructural architecture and the anonymous character of the web. As one advocate explained in interview, well-funded and organised pro-life groups are much more adept at harnessing digital tools and information technologies than their progressive counterparts, which comes at a great cost to service users and

abortion access advocates alike (Anonymous A 2019). But can this really be attributed to antiabortion groups exploiting loopholes and honing expert knowledge in digital marketing strategies or is there something more fundamental at play?

From its design, materiality, and codes of conduct, the architectures of the web are encoded within gendered, racialised, classed and ableist power relations. In other words, as explored in Chapter 2 of this thesis, the material and virtual information architectures of the web are not value neutral tools but infrastructures that produce and are produced by whiteness, capitalism, patriarchy and neo-imperialist exploits (Benjamin 2019; Brock 2011; Daniels 2013; Dubrofsky and Magnet 2015; Haraway 1991; Gajjala 2004; Noble and Tynes 2015; Noble 2016). The effectiveness of antiabortion strategies, therefore, is altogether unsurprising because antiabortion politics and the information infrastructures of the tech industry are produced within the same set of power relations. The proliferation of cloaked websites, smartphone surveillance, ad-tech, online harassment and cyberattacks is not simply attributable to the skill of antiabortion groups, it is actively enabled by permissive modernist and liberal values that are coded into tech-infrastructures.

Protections afforded by privacy and freedom of speech rights coupled with the 'gender-less' and 'race-blind' attitudes of tech companies produce tech-infrastructures tailored to the objectives of antiabortion groups. For decades the antiabortion movement has mobilized First Amendment rights⁴⁵ to maintain and proliferate their sophisticated, expansive, and multi-layered informational apparatus (Queen 2020). As many abortion access and reproductive justice advocates explained in interview (Anonymous 2019; Sherman 2018; Weintraub 2019), the legality of CPC methods has been tested at all levels of the U.S. legal system and found to be lawful. In response to this, reproductive rights groups advocate for CPC regulation, by focussing primarily on obliging operators to indicate whether or not they are licenced to provide medical services. This approach strives towards passing legislation that would legally oblige

⁴⁵ The first amendment to the United States constitution protects freedom of speech, the press, assembly, and the right to petition the Government for a redress of grievances.

fake clinics to be transparent about the services they are offering (Ahmed 2015). While the rights of speech, assembly, and petition of pro-choice and antiabortion protesters are protected by the First Amendment, for the most part the courts have been sympathetic to the claim made by those resisting regulation that these mandatory disclosures are in violation of First Amendment rights. As Aziza Ahmed (2015) has pointed out, courts frequently prevent legislatures from regulating CPCs as they simultaneously permit informed consent laws designed to dissuade abortion.

This refusal by the courts to regulate the conduct of CPCs is amplified by the laissez-faire attitudes of tech companies who justify their lack of platform regulation by mobilising freedom of expression and privacy concerns. Search engine companies that refuse to correctly label fake clinics on web mapping services coupled with the failures of social media platforms to respond to harassment and abuse enable antiabortion groups to proliferate their infrastructures and obstruct access to abortion for millions of people. But this, of course, is no accident. The same liberal and conservative values that structure the legal system also scaffold the information architectures of the web and are coded into its algorithmic decision making. As Safiya Umoja Noble (2018) notes, this commitment to issues of “free speech” and “free expression” for the user base on commercial social media sites and platforms is always counterbalanced by a profit motive; if a platform became notorious for being too restrictive in the eyes of the majority of its users, it would run the risk of losing participants to offer to its advertisers. This explains the commitment that platform companies have to a “cyberlibertarian ideology” which they also deploy to prevent any form of oversight or externally imposed constraints that either limit the content on their platforms or their algorithms produced by machine operations (Zuboff 2019).

Digital and networked technologies reflect the dominant imagination of what it means to speak freely and are produced within gendered, racialised and class power relation. Race and gender, alongside capital, are built into digital technologies and the tech-industry in myriad ways (Benjamin 2019, Nakamura 2002, Everett 2002). As Safiya Umoja Noble (2016) argues, conceptualizations of white supremacy must expand to include “how global flows of capital from US corporations and Silicon Valley structure

labor markets and material infrastructures that are part of an oppressive system of digital technological engagements, largely hidden from view in the consumerist model of technology adoption” (Noble, 2016). The co-production of antiabortion technologies of reproductive regulation and the tech industry demonstrates this. The architectures of the web are harnessed by antiabortion activists to further inscribe the politics of race, gender, and nation that together constitute a distinctly racialised and gendered reproductive model (Franklin and Ginsburg 2019).

Algorithms, search engines and ad-tech thus reinforce oppressive social relationships (Noble 2016). Many abortion access and reproductive justice advocates interviewed for this thesis plainly articulated that antiabortion activists perpetuate violence by manipulating the protections afforded by the technology sector (Loraine Piñeiro 2019; Sherman 2018). Their descriptions of how online and offline power structures, controlled by tech-corporations in the United States, work actively or passively to ring-fence and control spaces of progressive politics, points to the fact that reproductive politics and the politics of the internet are mutually constituted. When the harassment and deceit enacted on prospective patients and abortion access advocates is recoded and arguably amplified in the virtual sphere, the same liberal permissive structures that have allowed for the proliferation of antiabortion violence in offline environments are reproduced. This is evident in the ways that the design of such platforms places the burden on individual users to report harassers, or when algorithms reproduce antiabortion deception tactics and propaganda, allowing instances of harm to promulgate. These are the subtle ways in which gender and race neutral “glitches” (Benjamin 2019) in technology design allow for information flows to be assembled into technologies of reproductive regulation.

Just as first amendment rights discourses are mobilized to safeguard and reproduce patriarchal structures and the organising logics of whiteness, so too are privacy rights. As explored in Chapter 4 of this thesis, privacy is a cornerstone of New Right political ideology. The concept of privacy for American conservatives included not only ‘free enterprise’ and ‘property rights’ but also the right of white male property owners to control the domestic sphere, their spouse and children. Moreover, privacy doctrine

was mobilised by the New Right to provide generous financial subsidies to white middle-class heteronormative families to encourage their growth and prosperity. As Rosalind Petchesky (1981) hypothesises, these doctrines were born from conservative ideas and values around local and state power structures. State sovereignty and power, conceived as a form of ‘privacy’, permitted control over the family and protected private wealth by creating a buffer to federalism, its laws and taxation policies.

Privacy doctrine also structured conservative Christian and antiabortion ideologies, as well as the strategies of liberal feminists whose campaigns for reproductive rights culminated in the landmark *Roe vs Wade* decision that legalised abortion.⁴⁶ The 1973 Supreme Court legislation designated abortion as a ‘private matter’ between a physician and patient. As Fried (1990) explains, “*Roe vs Wade* was not the first step of a feminist agenda of reproductive control; it turned out to be the only step, defended by appeals to the right to privacy – the importance of keeping the government out of our personal lives – and religious tolerance” (6). In other words, the reproductive rights movement that had fought for decades to bring “women’s issues” out of the private sphere and into politics made recourse to the same set of legal principles that mobilised the New Right to maintain gendered and racialised reproductive hierarchies.

The shortcomings of this strategy allowed antiabortion groups and religious conservative actors to make the claim that if abortion was indeed a “private” matter, it should not be publicly funded (Davis 1983; Fried 1990; L. Ross and Solinger 2017). This strategy culminated in the introduction of the Hyde Amendment in 1976, prohibiting the use of federal Medicaid funding for abortions except in cases where the life of the

⁴⁶ Couching legal abortion in privacy law is very revealing of the strategies of the early pro-choice movement that culminated in *Roe vs. Wade*. Marlene Fried (1990) has argued that *Roe vs. Wade* itself reflects the nature of the early abortion rights campaign and how its strategy was shaped in accordance with the concerns of white middle-class women. The strategy of the early movement relied on those in power to effect change rather than pushing more radical grassroots strategies that linked the issue of abortion to other social, economic and racial forms of injustice. All in all, the liberal feminist strategy to frame the issue in terms of privacy and rights rather than in terms of justice and a broader spectrum of reproductive needs, revealed that legality over equal access was ultimately the objective. See also: Angela Davis (1993), Dorothy Roberts (1997), Gordon (2002), Ross and Solinger (2017).

pregnant person is at risk. Alongside this, as Dorothy Roberts (1997) points out, liberal notions of privacy conceptualised as freedom *from* government interference were actively denied to welfare recipients, many of whom were low-income people, Black women and people of colour raising children. This loss of privacy, according to Roberts (1997) permitted state intrusion into the reproductive lives of welfare recipients and conditions placed on welfare benefits. Historically and currently, therefore, privacy has been a tool of bio-necropolitical reproductive regulation employed by the state and adjacent actors.

In the digital age these logics are recoded through digital devices, targeted and misleading advertisements, online harassment and Doxxing. Liberal notions of privacy and freedom of expression permit this recoding and the proliferation of antiabortion infrastructures into the digital realm. As feminist and critical race scholars (Petchesky 1981; Roberts 1997) identify, privacy is foundational to hegemonic political agendas of reproductive regulation. However, it is equally central to the machinations of technoliberalism and tech-capitalism (Atanasoski and Vora 2019). Recalling the accounts given by activists and their failed attempts to report users who harass and publish their personal information online, invoking privacy rights yields nothing from the moderators of platform companies. Some branches of scholarship insist that these abuses are attributable to a flaw in the way that privacy rights are appropriated and applied (Allen 2000). These arguments claim that the problem lies not with the concept of privacy *per se* but with its definition and application.

As privacy and surveillance scholars have argued, emerging digital and database technologies pose new and important surveillance challenges. Evidenced by the conduct of antiabortion groups, these technologies have implications for informational privacy defined as “the claim of individuals, groups or institutions to determine for themselves when, how and to what extent information about them is communicated to others” (Kerr, Steeves, and Lucock 2009, xxvii). A reliance, however, on liberal frameworks of autonomy that seek “freedom from” harm ignores the fact that privacy, as discussed, is not granted equally to all. Privacy concerns, as Rachel Hall (2015) notes, have often failed to safeguard communities exposed to gender-based

violence and capitalist exploitation, and is evidently the case for patients and advocates. This is why, as Hall (2015) argues, the objective must be to identify and combat new forms of discrimination that are practiced in relation to categories of privilege, access and risk.

5.6 Conclusion

This chapter documents and discusses the first technology of reproductive regulation identified in the Floridian landscape. It argues that antiabortion politics in the U.S. write large are driven by an ideological imperative to save individual fetuses and the bio-necropolitical imperative to safeguard a fictional and imagined white unborn (Mason 2019). Infrastructures developed by antiabortion groups thus aim to contain and deter the ‘reproductive risk’ posed by pregnant people - and white pregnant people specifically - who abdicate from their biological reproductive duties thereby posing a danger to the reproductive futurity of white America and the reproduction of the settler state (Franklin and Ginsburg 2019).

Building on this analysis of discursive and historical flows, I also make the case that the technologies of reproductive regulation of antiabortion groups are co-produced with tech-infrastructures. As evidence by research conducted in Florida, in the information age antiabortion groups and individual actors increasingly assemble bio-necropolitical bordering regimes that obstruct access to abortion care aided by computational technologies. This is evidenced through site-specific mapping, interviews, website content analysis and secondary academic sources. Specifically, this chapter uncovers the ways that pro-life extremist groups harness data-intensive technologies, targeted digital advertisements, hacking and online harassment campaigns to debilitate infrastructures of abortion access in the United States. It also highlights how tech-infrastructures are employed by antiabortion groups to digitally and spatially reorganising the landscape of abortion access, camouflaging as legitimate facilities in online/offline spaces.

Finally, I argue that common discursive and historical underpinnings structure both liberal/conservative reproductive frameworks and tech-infrastructures. This chapter invites the reader to consider the ways that liberal values orientated towards privacy and freedom of speech are mobilised to enabled the bio-necropolitical bordering regimes of antiabortion groups. This serves to legitimize the violent tactics of antiabortion groups, chalking up their actions to freedom of religious expression while de-legitimising the right of advocates and patients to be safeguarded *from* technologies of obstruction and harassment. Meanwhile, tech-infrastructures and technology companies capitalise on privacy and freedom of speech rights alongside ‘gender-less’ and ‘race-blind’ attitudes to digital technologies to evade responsibility and oversight. This produces tech-infrastructures tailored to the objectives of antiabortion groups.

The following chapter analyses the second technology of reproductive regulation documented in the Florida field site. In so doing, I shift the focus of this enquiry to look at tech-infrastructures that sustain im/migration policing and family separation policies in Florida and the United States more broadly.

Chapter 6. Bordering Technologies: Emerging Technological Practices of Policing, Surveillance and Family Separation

6.1 Introduction

Located thirty minutes drive from Miami, the Miramar check-in site looks like any other office or government building you might come across in South Florida. The site is shrouded by leafy trees, nestled not far from a commercial housing complex and a Publix supermarket amongst other amenities, in a quiet and unmarked enclave just off a freeway. The building's faceless anonymity and remote location obscures the large line of people that assemble outside. Check-in centres are facilities run by Immigration and Customs Enforcement (ICE), where asylum-seekers, people with Temporary Protected Status (TPS) and those with required check-ins go for regular immigration appointments with a deportation officer. In the past, these encounters were mostly uneventful meetings. Under the Trump administration, however, the reality was somewhat different. Since the definition of deportable offences was broadened to include all undocumented people living in the United States⁴⁷, people across the country reporting at ICE facilities for a routine check-in started to disappear.

The Miramar check-in centre is no exception. On numerous occasions people from across Florida who attend an appointment with a deportation officer have been disappeared by ICE's deportation machine. The steady increase of these disappearances, often referred to as 'silent raids', alarmed the activist community in South Florida who organised support and decided to monitor the situation at Miramar in 2018. This group, called the Circle of Protection, meets every Wednesday outside the facility where its members set up tables and chairs on the banks opposite the

⁴⁷ See Executive Order. 2017. Enhancing Public Safety in the Interior of the United see (Executive Office of the President 2017)

building and provide food, information and refer people to trusted legal advisers. The group, which is made up of a range of local activists and campaigners, is sometimes paid a visit from sympathetic lawmakers and representatives but for the most part the circle is run by a few concerned community members, their allies and representatives from local activist groups.

The events outside the Miramar check-in centre in Florida are a localised representation of the machinations of a eugenic national bordering regime, formalised in the early twentieth century. As explored in Chapter 4 this thesis, the Border Patrol was formalized by American eugenicists as a national policy to defend the ‘integrity’ of the white American family-nation (Stern 2005). Throughout the twentieth century, racialised and gendered tropes about the hyper fertility of im/migrant childbearing people informed bordering regimes. These policies, motivated by nativist concerns around the racial make-up of the United States and access to public funds for noncitizens, fuelled the construction of negative notions of citizenship such as the ‘anchor/terror baby’ (Cisneros 2013; Gutiérrez 2008; Yuval-Davis 1997). Border control in the United States, from its genesis to the present day, can be understood from this perspective as a technology of reproductive regulation deployed to ‘safeguard’ the racial makeup of the settler state.

This chapter examines the evolution of these bordering processes in the information age and through the prism of the Florida field site. Specifically, this discussion charts how tech-infrastructures sustain policies that separate im/migrant families and communities at the border and the interior of the country. As already discussed, punitive legislation has historically structured the reproductive lives of people living in America, while attempting in various ways to associate whiteness with citizenship (Ross and Solinger 2017). This chapter adds to this analysis by investigating discursive-technological infrastructures and processes that are increasingly integral to the machinations of border regimes in the United States. This chapter also evidences how the detention and deportation machine is a technology of reproductive regulation, that supplies corporate tech companies across the country with lucrative government contracts that drive contemporary for-profit infrastructures of family separation.

Conceptually, this discussion highlights that analysing border policing mechanisms in the United States through the prism of reproduction permits an analysis of how reproduction, as well as gendered, racialised and classed power relations structure bordering regimes and their technological infrastructures. This remains a comparatively under-theorised and yet vital perspective for understanding national bordering regimes. In order to analyse how tech-infrastructures of family separation operate from the ground up and manifest in the everyday, this chapter uses site-specific observation, witnessing, policy analysis, interviews and snapshots recounted from fieldwork experiences in Florida as the point of departure for a structural analysis of the tech-infrastructures deployed by Immigration and Customs Enforcement (ICE) and the for-profit technology sector.

6.2 Family Separation, Reproductive Regulation and the Travelling Border

State-level iterations of national bordering regimes that take place in Florida are a localised manifestation of this wider infrastructure. Before proceeding to a situated analysis of these technologies of reproductive regulation, the following section explains the wider discursive, material and technological flows that animate bordering regimes at a national and transnational level.

As already explained, border control in the United States, from its genesis to the present day, can be understood as a technology of reproductive regulation deployed to gatekeep the racial makeup of the settler state. From the early 2000s, as part of an increasingly militarised security regime, the Department for Homeland Security began allocating substantial funds to develop its technological infrastructures. Federal tax dollars were used to build networked database technologies that were employed to collect and preserve people's personal data, especially those residing in the United States.⁴⁸ Legislation was introduced that created provisions for information sharing and making databases interoperable across federal departments, agencies, and U.S.

⁴⁸ The expansion of the Enhanced Border Security and Visa Entry Reform of 2006 provided, for more security related technology and personnel see The United States Congress, Enhanced Border Security and Visa Entry Reform Act of 2002, H.R.3525 (Sensenbrenner 2002)

law-enforcement jurisdictions. This gradual integration and sharing of information also created new modes of data management and more efficient systems of tracking and control. While the United States government had always relied on the subcontracting of private sector companies to administrate, for example, detention centres, the drive to technologically integrate the mechanisms of im/migration policing ushered in a new set of corporate partners: global tech enterprises.

After the events of 9/11 and the passing of the Patriot Act, the federal expenditures of homeland security rose dramatically and a wide range of private industries were poised to benefit from these policy changes, including tech corporations. The involvement of commercial information technology experts and contractors such as Accenture marked the introduction of what some have termed, the ‘biometric border’ (Amoore 2006). Risk profiling was integrated into technological systems. Digital and networked technologies became tools for constructing ‘illegitimate’ mobilities and a “securitized subjectivity” that framed migrant and travelling bodies as a threat to the state (Marchand and Runyan 2011). Shared databases containing biometric data and enhanced surveillance technologies at the border were also to enforce racialised im/migration policies and expand bordering regimes (Sampaio 2015).

As a result, family separation in the United States increased exponentially from the 1990s.⁴⁹ In particular, information collection and sharing coupled with legislation that empowered state law enforcement to act as border patrol agents, led to an increase in the number of people apprehended in the interior of the country through workplace and site-specific raids (Aldana 2008). The introduction of further legislation in 2005⁵⁰

⁴⁹ Legislation like the Intelligence Authorization Act for Fiscal Year 2003 created new federal agencies, centres and databases to monitor the activities and finances of groups thought to be connected to terrorists, however defined. In addition to this, several acts passed by congress between 2001 and 2008 facilitated the creation of new databases of information pertaining to visas, admissibility of people seeking entrance, and deportation. New forms of legislation created provisions for information sharing and making databases interoperable across federal departments, agencies, and U.S. law-enforcement jurisdictions. This gradual integration and sharing of information created new modes of data management and more efficient systems of tracking and control.

⁵⁰ See United States Congress. 2005. Border Protection, Antiterrorism, and Illegal Immigration Control Act of 2005 H.R. 4437 (109th) see (Sensenbrenner 2006)

also brought about a steady increase in the numbers of people detained and deported who identify as women (American Civil Liberties Union 2019).

Data from ICE also reveals that the agency deported a total of 87,351 people between 2015 and the end of 2017 who reported they had at least one U.S. citizen child (Buiano 2018). In addition to causing huge distress and disruption to families and communities, many children whose parent or guardian is detained or deported end up in the child welfare system. A 2015 report from the Urban Institute suggests that an estimated five thousand children in foster care in the United States had a detained or deported parent (Capps et al. 2015). What is more, very limited mechanisms are in place to safeguard the parental rights of people in detention. Given that U.S. federal law mandates that parental rights be terminated if a child has been out of a parent's custody for fifteen of the prior twenty-two months, detained or deported parents find it near impossible to comply with these requirements.⁵¹ Although current ICE policy mandates that parents may request release from detention in order to care for their children, very little guidance is given on how this should be carried out.

In spite of this long history, the term 'family separation' has come to denote a particular historical moment when the Trump Administration instituted a policy that separated children from their parents at the U.S./Mexico border. In April 2018, Attorney General Jeff Sessions and Director Thomas Homan announced that the Trump administration would adopt a 'Zero Tolerance' policy that pledged to criminally prosecute all those who were attempting an unauthorized crossing into the United States. The policy marked a considerable shift in procedure as previously families detained at the border were typically released into the United States while their immigration cases were processed, especially if they were applying for political asylum.

⁵¹ United States Congress, *Adoption and Safe Families Act of 1997* (AFSA) H.R. 867 (105th), Pub. L. No. 105-89, 111 Stat. 2115. The state child welfare department is directed to petition the dependency court for the termination of parental rights in certain situations, including if a child has been out of a parent's custody for 15 of the last 22 months. *Id.* § 103(a)(3) see (Camp 1997)

The Trump administration's Zero Tolerance policy, however, mandated that all adults be sent to prison or long-term indefinite detention while their asylum requests or removal orders were processed. The interaction of this policy of prosecuting adults with other regulations that apply strict limits on the length of time that children can be held in custody by the federal government,⁵² led to a political and humanitarian crisis where children were forced into government custody without their parents or guardians (Savage 2018). Even though the Zero Tolerance policy was only in place for a few months, thousands of people were separated at the U.S. Mexico border and both adults and children died during this time in ICE custody (Cheng 2018). Amidst mounting pressure, Trump signed an Executive Order in June 2018, replacing the policy of separating families with one of incarcerating them together.⁵³ The order retained the policy of criminally prosecuting undocumented people who cross the border, and also did not offer a concrete plan to reunite the more than 2,300 children who had been separated from their families.

Feminist scholar Leandra Hinojosa Hernández (2019) posits that the Zero Tolerance policy is a form of reproductive violence, motivated by the perceived threat im/migrant people's reproductive capabilities pose to nativist and ethno-nationalist political factions. Writer Tina Vasquez (2020) extends this perspective arguing that, “

Reproductive injustice occurs when families are separated at the border; when mixed-status families live in daily fear of family separation (otherwise known as deportation); when women facing deportation are forced to give birth in sanctuary churches out of fear of being taken by ICE at the hospital; when parents are apprehended in immigration raids; and as pregnant people continue to be targeted for prosecution and suffer some of the most severe consequences for migrating”.

⁵² U.S. Supreme Court. 1993. *Reno v. Flores*, 507 U.S. 292 see (Supreme Court of the United States 1993)

⁵³ Instituted through Executive Order. 2018. *Affording Congress an Opportunity to Address Family Separation*, E.O. 13841 see (Executive Office of the President 2018)

Although the Zero Tolerance policy and family separation at the U.S./Mexico border is a subject of more recent analysis, scholars have long argued that family separation is an intended consequence of America's historic racially motivated assimilationist policies (Briggs 2017; Gurr 2015; Lira and Stern 2014; Roberts 1997; Ross and Solinger 2017). As Laura Briggs' (2017) work suggests, the long view of im/migration and labour policies in the past century and a half suggests that the United States has pursued a policy that clamps down on im/migration only to a certain degree because the economy relies on a disenfranchised labour force to do reproductive labour and care work. At the same time as the United States depends on these forms of migrant labour, it does not welcome their children or their settlement.

For these reasons, it is important to contextualise the Zero Tolerance policy, and the ensuing family separation crisis within the wider history and policies of U.S. bordering regimes. While the forced separation of children and family members under the Zero Tolerance policy was unspeakably cruel, the mediatised and sensationalised framing of the Trump administration's policy as the epitome of reproductive violence towards im/migrant communities can also obscure wider ongoing structural processes of separation brought about by internal im/migration policing. This wider political context informs the findings presented in this chapter, researched and written when the Zero Tolerance policy was in effect between 2018 and 2019. What follows, however, is an investigation into tech-infrastructures as they scaffold bordering regimes in the state of Florida and their significance for reproductive politics and processes.

6.3 Electronic Detention and Gendered Technologies of Benevolence

Community activists that I worked with in Florida conceptualise bordering regimes and family separation policies as fuelled on the one hand by ethno-nationalist ideologies, and on the other hand by neoliberal economics. This interplay between profiteering, political gain and ethno-nationalist ideology that fuels im/migration policing and family separation is conceptualised as the 'immigration industrial complex' (Trujillo-Pagán 2014). Political economists and scholars of migration who

originally coined the term used it to encapsulate the converging interests of the corporate elite, bureaucrats, politicians, and other actors that criminalized undocumented migration through law enforcement and the promotion of ‘anti-illegal’ rhetoric (Golash-Boza 2009). These processes are in turn driven by an increased interdependence of state and corporate actors that mutually benefit from criminalization and im/migration enforcement. The term builds on the conceptualisation of the Prison Industrial Complex (Davis 2003; 1998; Flateau 1996; Gilmore 2006; Goldberg and Evans 2003), forged by academics and activists to describe the for-profit prison infrastructure in the United States, its ties to the state and racial capitalism.

In an interview, Thomas Kennedy, at the time political director of the Florida Immigrant Coalition (FLIC), described the localised interplay between nativist ideology, policing infrastructures and capitalism in the state of Florida. It is worthwhile to cite the interview at length, “

A good characterisation is the Homestead detention facility for children here in Florida. It’s technically a federal facility, but everything within the camp is contracted out to a private company called Comprehensive Health Services, that’s part of a parent company called Caliburn. It’s a for-profit-entity and holds a 340 million-dollar contract with Department of Health and Human Services. Caliburn recently wanted to open up a 100 million-dollar IPO on wall street - I have always just seen Wall Street as a giant casino - so that people could make money off the detention of these children, and adding insult to injury John Kelley who is Trump’s former chief of staff, decorated general, whatever, he actually sits on the board of the company. So the same people that institute immigration, detention and deportation policies later go to the private sector and profit off of them. It’s not just immigration, they do this with every single private policy. Whether it’s detention, deportation, immigration. It’s a revolving door (...) Another element is that these people are ideologues too. Steven Miller, Donald Trump, Steve Bannon, some of them are in the administration, some are not, but they believe this idea of white genocide and

replacement theory. They believe that the country will become more diverse and that their political power will be diluted. But I think it's part of a policy to deter immigrants from coming, to create fear. Like the Zero Tolerance policy, I think it's just a way to deter people from coming here because they fear that as a race they are being replaced. We can't forget that there is always money involved. But it's so much hassle and damaging politically that the family separation policy's primary motivation is cruelty in order to deter people from coming "(Kennedy 2019).

Kennedy's (2019) description highlights that U.S. bordering regimes and discursive-material infrastructures geared towards reproductive regulation (by separating families, kin and preventing mobility) are serialized into an industrial complex that reaps profits for private firms. Moreover, as Kennedy notes, as a U.S. border state and a Republican trifecta with historic ties to the for-profit prison industry, Florida's political and physical geography is marked by the presence of the immigration industrial complex (Golash-Boza 2011). Not only is Florida the only state that allows for-profit child detention facilities to operate, it is also the birth-place and home of the one of the largest global outsourcing companies in the for-profit detention business, GEO Group.

Located just off 12550 Biscayne Boulevard is a place referred to by local activists as the 'GEO shackle shop'. Much like the Miramar check-in centre, the shackle shop is an anonymous building that looms on the outskirts of the city of Miami and is a crucial node of the detention and deportation system in Florida. On a daily basis, groups of around twenty people wait outside the building for a security guard to signal that they may enter for their appointment. The shackle shop, as the name suggests, serves the purpose of servicing electronic ankle monitors that are fitted to people who have been released from brick-and-mortar detention facilities, many of whom are applying for asylum in the United States. Commonly referred to in Spanish as a '*grillete*', or shackle,

ankle monitors are a key part of ICE's Alternative to Detention Programme⁵⁴, a scheme that allegedly facilitates the release of 'low-risk' people from detention, instead tracking their whereabouts electronically.

In 2019, the Circle of Protection expanded their actions to include visits to the GEO Group building. Following a similar protocol to the one established in Miramar, the group engages with people waiting outside the building to refer them to support services and lawyers. Attending actions outside the shackle shop, I learned how people came to be in the line outside of the GEO Group building. Many waiting to have their ankle bracelets checked had been released from Broward Transitional Centre (BTC), a for-profit detention centre run by GEO Group in Florida. The ankle monitors, that are much larger than they appear in photographs, are cumbersome and many complained of physical discomfort. The appointments scheduled at the anonymous corporate building enable deportation officers to check the devices for evidence of tampering. Many of the people waiting in line had been living and working in the United States for more than five years when they were located and detained by ICE.⁵⁵ The majority of them also identified as women. Moreover, people placed in the Alternative to Detention programme are required to cover the cost of their electronic monitoring, which can amount to five dollars a day, as a condition of their bail release from detention.

These infrastructures of for-profit detention centres and the deportation system that organises them within the Florida landscape are integral to bordering regimes. As Mbembé (2019) emphasizes, bordering infrastructures are no longer merely brick and mortar structures but are also the coded networks that connect and proliferate them. Mbembé (2019) describes these systems as, "physical and virtual barriers of separation,

⁵⁴ The technical name for the Alternative to Detention programme is the Intensive Supervision Appearance Programme III or ISAP III.

⁵⁵ Immigration and Customs Enforcement (ICE) is the branch of the Department of Homeland Security (DHS) charged with enforcement and the operation of detention facilities. ICE was formed in 2003, as part of other measures introduced after September 11, 2001 that were instrumental in re-shaping the US government's security regime alongside other measures such as the creation of the Department for Homeland Security in 2002. While Customs and Border Patrol (CBP) is charged with issues related to border patrol, customs, and review of traffic in ports of duty, ICE is primarily charged with policing the interior of the country.

digitalisation of databases, filing systems, the development of new tracking devices, sensors, drones, satellites and sentinel robots, infrared detectors and various other cameras, biometric controls, and new microchips containing personal details”(9). Borders are thus, “increasingly mobile, portable, omnipresent and ubiquitous” (9), and aim to control movement and speed by sorting, recategorizing, reclassifying people in order to determine who should and who should not be there in the name of security. Ankle monitors as Mbembé (2019) and others have said (Benjamin 2019; Gómez Cervantes, Menjívar, and Staples 2017), are integral to this assemblage of “borderizing” infrastructures, extending “uncrossable spaces”(8) into the interior of the country.

GEO Group, like many government contractors, is a catalyst for these changes by diversifying its infrastructures to include tracking devices, sensors and biometric controls. As one of the largest global outsourcing companies in the for-profit prison and detention business, GEO Group operates facilities in the United Kingdom, Australia, and South Africa in addition to North America. The company operates 130 prisons and detention centres worldwide, employs approximately twenty-three thousand people and grossed a total of \$2.5 billion in annual revenue in the year 2020 (GEO Group 2020). It was originally founded in Boca Raton, Florida, in 1984 under the name Wackenhut Corrections Corporation. In 2019, GEO Group’s operations were still headquartered in Florida and the company held the contract with ICE to hold detainees that are considered to be of low-security needs. Among these are young adults, pregnant people, the elderly and asylum-seekers who are held at Broward Transitional Centre (BTC), a detention centre in Florida that has been operational since 2002 (Americans for Immigrant Justice and Southern Poverty Law Centre 2019).

Remote monitoring through ankle bracelets and the Alternative to Detention programme are an extension of these so-called ‘low-security’ policing mechanisms and until 2010 were contracted out to an electronic monitoring company by the name of Behavioural Interventions Inc (BI). In 2010, GEO acquired BI Inc, based in Boulder, Colorado, for the sum of \$415 million (Businesswire 2011). The acquisition brought technologically mediated remote monitoring systems in-house as a way of securing future federal government contracts. This investment and expansion into

technologically mediated forms of incarceration, also known as ‘e-corrections’ signalled the companies shift into in-house electronic moderating programmes. Ankle monitors and other forms of GPS tracking technology were originally introduced as part of an initiative within ICE’s Alternative to Detention programme which began in 2004. Since the acquisition of BI Inc in 2010, the ATD has been outsourced entirely to Florida’s GEO Group.

The Alternative to Detention programme is designed to provide supervised release and remote monitoring for people placed into the detention system and for those who are ‘subject to removal’ from the United States. Most people placed in the programme have been released on bond or parole from im/migration detention, are deemed to not be a ‘threat to national security’, and often are not statutorily obliged to stay in ICE custody (Americans for Immigrant Justice and Southern Poverty Law Centre 2019). The people enrolled in the programme are subjected to varying levels of supervision by a caseworker through a combination of face-to-face and telephone check-in meetings, unannounced home visits, scheduled office visits, and meeting alerts. People placed in the programme are also enrolled in various technology-based monitoring services offered by BI Inc. including telephonic reporting (TR), GPS monitoring (location tracking by an ankle bracelet), and through a recently introduced smart phone application (SmartLINK) that uses facial recognition to confirm identity (Singer 2019).

Policies concerning the operational details of the remote supervision programmes run by GEO and BI Inc. are not publicly available, as they fall under the protections afforded to government contractors of the Department of Homeland Security. However, figures available through the Congressional Research Service (Singer 2019) show a 283% increase in the number of people placed in the programme between 2015 and 2019⁵⁶. By contrast, there is no public declaration of how ICE uses the data collected through the electronic monitoring program, which other entities have access

⁵⁶ There were 101,568 active participants enrolled in ISAP III,49 which is a 283% increase over the 26,625 enrollees in FY2015 see (Singer 2019)

to the data, and how long it is stored by the government (or private contractor) and for what purpose. A close look at BI Inc.'s most recent product catalogue, however, provides some insight into how complex technological systems are being assembled and deployed, and the social and political discourses around their use.

BI Inc.'s 2019 product catalogue displays a range of hardware and software products designed to be used in conjunction with one another.⁵⁷ The first technology presented in the catalogue is SmartLINK, advertised as a “mobile application that places all the tools in the hand of the offender, increasing their ability to comply”(BI Incorporated 2019). The app has two interfaces; one for the caseworker, the second for the so-termed ‘offender’. The catalogue boasts that SmartLINK’s enhanced functionalities enable caseworkers to manage their workload on the go through any web-enabled computer, tablet or smartphone. The app is also designed to facilitate with reporting by automatically collating client activity and caseload status. Through a plug-in with Google Maps, the SmartLINK also allows the caseworker to ‘build zones and track client movements’ (BI Incorporated 2019).

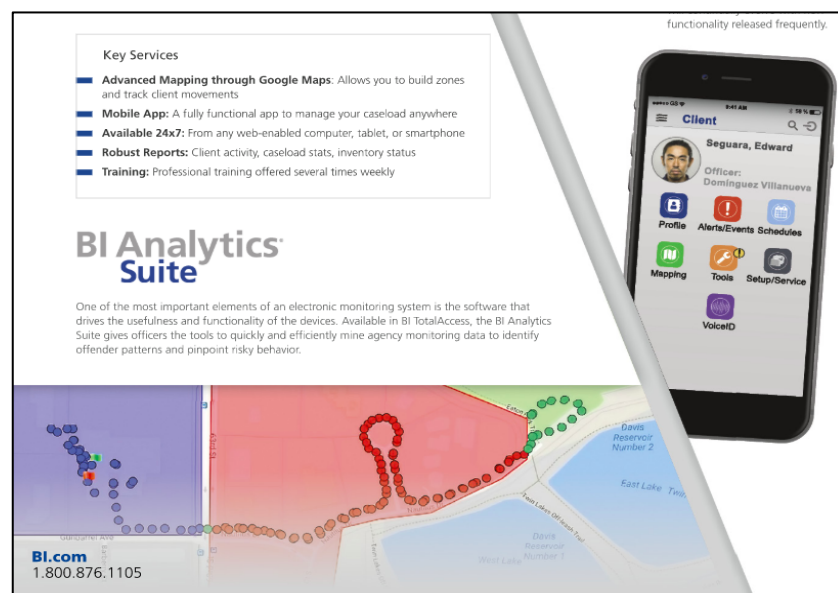


Fig 3. Screenshot from BI's Product Catalogue 2019

⁵⁷ BI's tracking products are used in the criminal justice system as well as in the im/migration detention system.

The ‘check-in’ functionality verifies the identity and location of the detainee using biometric identification and voice recognition software. An in-app messaging service allows the caseworker to communicate with the detainee, with all the content of the conversation captured by the software and time-logged. The catalogue claims that, “Placing the tools clients need to be successful in the palm of their hands increases positive outcomes and enables officers to manage their time and caseload with fewer in-office visits” (BI Incorporated 2019).

All of the information captured from the interactions over SmartLINK, including the GPS tracking functionality is fed into the BI TotalAccess platform and the BI Analytics suite. BI TotalAccess is described as, “a single software interface that includes intuitive case management, analytical tools, and a dynamic mobile app, enabling officers to seamlessly transition workflow between desktop and mobile applications” (BI Incorporated 2019). The Analytics Suite is designed to organise the data collected from tracking devices. A promotional video on the company’s website explains that BI Analytics,

“Gives community corrections professionals a suite of powerful tools. Our software is analysing millions of data points, organising offender movement, and identifying patterns to assist you in drawing conclusions and making inferences so you can take action, by identifying changes in offender behaviour and managing alerts more effectively... Call your officer now!” (BI Incorporated 2019).

The catalogue shows the interface, complete with an example ‘offender’ profile and photograph of one ‘Edward Seguara’,⁵⁸ gendered male and racialised as non-white. Text and images illustrate how the analytics suite captures geo-locations and movement patterns to pinpoint so-called ‘risky behaviour’. These products are designed to capture and collate data from the ‘BI Loc8’, the company’s latest iteration

⁵⁸ BI’s product catalogue for 2020 took a different approach to the visual depiction of the ‘offender’ choosing instead a nameless white and male presenting person.

of ankle monitoring technology that records data-points every six seconds, has a built-in tamper detection system and cordless charging. Finally, the BI product catalogue from the year 2020 includes the addition of biometric voice recognition software that promises an automated client supervision tool that uses biometric voiceprints to monitor large case-loads.

ICE's wearable technologies and algorithmically driven monitoring systems speak to what Shoshana Zuboff (2019) calls the 'prediction imperative'. Monetizing prediction, Zuboff (2019) argues, is at the core of Silicon Valley's technology objectives. Companies like Google, Facebook and Microsoft actively developed predictive behavioural surplus garnered from the unshackling of the internet, from personal computers and smartphones and its integration into everyday objects. This apparatus, to use Zuboff's (2019) term, enables real world activity to be, "continuously rendered from phones, cars, streets, homes, shops, bodies, trees, building, airports, and cities back to the digital realm, where it finds new life as data ready for transformation into predictions" (201).

These same predictive logics are coded into the ATD programme and used not only to track detainees, but to make assumptions about and predict patterns of behaviour. Although it is not stated anywhere in official ICE policy, activists and community organisers in Florida hypothesize that ICE analyses available data for patterns of movement that suggest that a someone is travelling to and from a workplace. These behavioural patterns are then used to justify a search warrant in order to conduct a workplace raid on the ground. This use of monitoring technologies to plan ICE site-specific raids has been confirmed in other locations in the United States. In 2019 it was reported that Federal authorities tracked an undocumented worker to a processing plant in Mississippi through an ankle-monitor. ICE then used the data to plan a targeted raid on the plant which led to the arrest of nearly 700 people (Silva 2019).

Through these mechanisms, the Alternative to Detention programme and its technologies are deployed to criminalise and racialise those enrolled in the programme. Emphasis on geolocation tracking technology and technological

provisions that allow for the algorithmic coding of 'risky' behaviour by geographic zone, begs the question of what criteria are being used to determine this designation. What is more, the choice by the company to present an example 'offender' profile under the name 'Edward Seguara' is an even more explicit attempt to associate their programmes and technological products with a specific social group. The catalogue is reflective and generative of a racialised construction of the gendered male 'criminal' or 'risky' body (Sampaio 2015).⁵⁹

Moreover, as Robert Koulish (2015) points out, ankle-monitors and 'alternatives' to detention programmes criminalise im/migrant people but are not legally forms of official custody. People placed under electronic monitoring are therefore denied access to an immigration judge after seven days, and to habeas corpus relief⁶⁰ in the federal courts primarily because they are perceived as not being in custody and because the courts perceive technological constraints as unimportant. Alternative to Detention programmes through electronic monitoring thus introduce a scenario in which detained people have neither been arrested nor charged with a crime, nor are they in official custody. Yet they are forced into a criminal-like process without an official judicial review. This process institutes what Koulish (2015) terms a governmentality of exception, where the judicial reviews that legally legitimise control technologies such as electronic monitoring are circumvented. Electronic monitoring initiatives are thus part of a larger enforcement spectacle that Nicholas De Genova (2007) argues involves a staging of presumptive 'guilt' which produces culprits.

And yet, the Alternative to Detention programme and wearable tracking devices for so called 'low risk' detainees are peddled by government agencies and private companies alike as a more cost-effective and humane technological intervention to physical detention (Gómez Cervantes, Menjívar, and Staples 2017). Although some may argue that being subjected to electronic monitoring is preferable to being detained in immigration jail, the allegedly more 'humane' approach offered by e-carceration is

⁵⁹ This trope was particularly re-enforced by the Trump Administration. See (Love 2017)

⁶⁰ habeas corpus is a fundamental right in the US Constitution that protects against unlawful and indefinite imprisonment.

hardly an ‘alternative’ to detention. As others (Alexander 2018; Benjamin 2019; Kaminski, Nellis, and Beyens 2013; Kilgore 2015) have pointed out, technologically mediated monitoring is a contemporary extension of carceral and bordering regimes that in effect substitutes physical confinement and supervision with a networked and digitized information capture and storage system. Electronic monitoring technologies, therefore, are not a substitute but an extension brick and mortar facilities. As Michelle Alexander (2018) explains, e-carceration is simply the newest Jim Crow,

“Even if you’re lucky enough to be set “free” from a brick-and-mortar jail thanks to a computer algorithm, an expensive monitoring device likely will be shackled to your ankle (...) You’re effectively sentenced to an open-air digital prison, one that may not extend beyond your house, your block or your neighborhood.”

In the context of U.S. immigration law, where claims can take years to process, people can be subjected to electronic monitoring for an extended period of time.

Furthermore, discussion about what form of incarceration is more or less “humane” detract from the primary issue at hand, namely how the state and private corporations unaccountably restricts movement and monitor people in order to expand its bordering apparatus (Koulish 2015). The introduction of allegedly more “humane” technologies purposefully diverts the attention and discourse away from wider systems of racialised policing and surveillance. As Ruha Benjamin (2019) argues, ICE ankle monitors can be conceptualised as a form of ‘technological benevolence’. Systems seemingly aimed towards a greater good, actually create vertical realities - surveillance and control for racialised others, and security and freedom for the rest.

‘Benevolent’ Initiatives like the Alternative to Detention programme are also profitable innovations that are not only part and parcel of racialised structures, but also serve the purpose of obscuring relations of power. Ankle monitors used by ICE, according to Benjamin (2019) are therefore nothing but a “racial fix” that must continually emphasize its benevolence by “conjuring the noble-sounding ambitions of

technoscience” (294). All the while the Alternatives to Detention programme extends racialised bordering regimes into the interior of the country, securing territorial boundaries and creating new “uncrossable places” (Mbembé 2019,9), in the interior under false humanitarian pretences.

The important question remains, however, of *who* exactly is considered sufficiently ‘low-risk’ to be placed in an Alternative to Detention programme and subjected to electronic monitoring. Racialised and gendered discourses around im/migrant criminality, aided and abetted by government policy, associate the use of electronic monitoring with managing the constructed criminality of predominantly Black and/or Latino im/migrant men (Sampaio 2015). However, most people that I had spoken to in Florida who were enrolled in the programme identified as women. Figures provided by the Congressional Research Service not only confirmed these anecdotal observations, but also reveal that the majority of people placed in Alternative to Detention programmes in the United States and subjected to electronic monitoring are, in addition to identifying as women, part of a family unit that has roots in the United States (Singer 2019).⁶¹

This is of course no accident. As ICE spokesperson Sarah Rodriguez explained publicly, the programme accommodates, “special populations, such as pregnant women, nursing mothers, families with very young children” (Bajak 2017). Scholars argue that electronic monitoring, presented as an ‘alternative’ to detention and a more humane policy, is produced, in part, by essentialist and patriarchal protectionist discourses around “women” and motherhood (Gómez Cervantes, Menjívar, and Staples 2017). As discussed in Chapter 4, after 9/11, social groups racialised as threatening to America were often cast as being destroyers of ‘western’ civilization and democracy (Lugo-Lugo and Bloodsworth-Lugo 2014). Im/migrant women and children were paradoxically constructed as ‘deserving’ of the patriarchal protectionism of the

⁶¹ Figures obtained from ERO show that of the 87,384 enrolled in ISAP III on August 31, 2018, approximately 61% were female and 56% were members of family units (at least one adult with at least one child). Approximately 61% of participants were between the ages of 18 and 34, another 38% were 35-54, and 2% were 55 and older. (Singer 2019)

American state, while simultaneously being denied access to vital services and harmed by im/migration policing (Sampaio 2015; Lind and Williams 2013). what is more, western liberal discourses around “women’s rights” produced by the security regime after 9/11 justified the so-called war on terror and increase in im/migration policing partly on the grounds of ‘protecting’ women from situations so perilous they warranted an illegal war in the Middle East (Khalili 2011).⁶²

An analogous logic undergirds the Alternative to Detention programme: discourses of liberal patriarchal protectionism and concerns for family values are deployed as a means to expand bordering regimes. As Ruha Benjamin (2019) notes, “companies that have federal contracts with ICE and profit from detention facilities have moved into the ankle monitor business now that holding families seeking asylum has come under intense public criticism” (274). In other words, the apparatus of the Western liberal democratic state deploys ‘benevolent technologies’ to signal commitment and compliance to women’s rights and family reunification. As Andrea Gómez Cervantes, Cecilia Menjívar, and William G. Staples (2017) emphasise, this subtle and benevolence-signalling discourse evoking ‘family’, ‘motherhood’, and the care of children masks the harsh ‘business as usual’ tactics and obscures the bio-necropolitical bordering regimes put in place by the state and corporate actors.

On the one hand, white supremacist and ethno-nationalist fears of the constructed im/migrant ‘other’ motivates family separation at the border, detention and deportation of family members. Conversely, fear of public disapproval and criticism from the international community about gendered reproductive violence and family separation spurns initiatives like the Alternative to Detention Program. Framing ‘low risk’ e-carceration systems as protectionist towards women, children and family

⁶² From this perspective the Alternative to Detention programme can be read into other U.S. policy provisions such as the 1994 Violence Against Women Act (VAWA) that extend relief to gendered female bodies under the guise of state patriarchal protectionism. The 2004 Violence against Women Act (VAWA) provides a pathway for so called “battered aliens” or “battered immigrants”, who are noncitizens victim-survivors of domestic abuse to obtain immigration relief and apply for a visa for permanent residence in the United States. Meanwhile, the U.S. government continued to militarize the U.S. Mexico border, a process proved to have disproportionately negative consequences for women, children and trans people.

integrity provides companies like GEO Group (amongst others) with the justification and funds to develop sophisticated monitoring and algorithmic technology in house. The same companies that are profiteering from developing programmes and technologies of ‘benevolence’ are at the same time putting those profits back into a system that incarcerates and separates families across the United States. As Ruha Benjamin (2019) concludes, ankle monitors are not just technologies of containment but lucrative devices of racial capitalism⁶³ that claim humanistic concern.

6.4 Tech-Infrastructures of Family Separation and the Homestead Temporary Shelter for Unaccompanied Children

What infrastructures of family separation, then, are obscured by the Alternative to Detention programme and its benevolent technologies? As mentioned by Thomas Kennedy (2019) in interview, Florida houses the only for-profit detention centre for children in the United States. The Homestead Temporary Shelter for Unaccompanied Children is the largest facility of its kind in the country and is run by a private contractor: Caliburn International, for the Office for Refugee Resettlement (ORR). The facility was originally opened under the Obama administration to serve as a temporary shelter for minors who crossed the border without a parent and were claiming asylum in the United States.

Child detention in the United States is technically illegal, with strict restrictions placed on the amount of time that a minor can be held in government custody. However, by giving Homestead the status of “emergency and temporary influx center,” the federal government circumvented the national child care standards that “permanent” shelters must adhere to, which, under the 1997 Flores Agreement,⁶⁴ are

⁶³ The discursive, economic and technological infrastructures of family separation described in this chapter could be discussed very productively through the lens of racial capitalism (Bhattacharyya 2018; Robinson 1983). However, I have chosen not to introduce this important framework at this point in time because it deviates somewhat from the wider empirical and conceptual argument of this thesis.

⁶⁴ Detention of a minor must not exceed twenty days in the United States under the terms of the Flores agreement see U.S. Supreme Court. 1993. *Reno v. Flores*, 507 U.S. 292 see Supreme Court of the United States (1993)

required to provide children with basic necessities and can legally hold a minor for a maximum of twenty days. This loophole leaves children unprotected from the harms of indefinite detention, and the facility is the nation's only site not subject to routine inspections by state child welfare experts, who don't have jurisdiction to access a federal facility.

Following the implementation of the Trump administration's Zero Tolerance policy, large numbers of children were separated from loved ones and relatives at the border, and the number of children being placed into detention by the Department of Homeland Security increased dramatically. This led to reports of serious overcrowding at Homestead, with the number of children in custody rising from 1,200 to 3,000 over the course of three months, drawing considerable national and international media attention as well as public scrutiny of the facility (Miriam 2019). A researcher from Amnesty International described the facility as, "an industrial processing line for children who are waiting to be reunified with their parents, with their families, and who are seeking safety here. It truly is a warehouse, and it's not child-centric care". (Shammas 2019). Countless other politicians and organisations also spoke out publicly to condemn the facility (Associated Press 2019).

The tireless efforts of local advocates, activists and community organisers led to the closure of the Homestead facility on October 8th, 2019. The federal government announced it would not renew its contract with Caliburn, the private prison company running Homestead, and at the end of November the facility effectively shut down. Persistent efforts by local organising groups that drew attention to the connections between the private contractor Caliburn and a former Whitehouse official, raised the public profile of the facility, drawing criticism from across the political spectrum. In March 2021, however, the Biden administration announced that the facility would be re-opening.

I attempted to map the tech-infrastructures of the facility by interviewing two South Florida based activists acquainted with the facility, alongside policy analysis. These conversations revealed the significance of networked digital systems to the centres

operations. “One of the problems with the centre”, explained one activist, “is that the children were seen like numbers, things to be processed” (Anonymous B 2019). This process of rigorous documentation in the facilities digital system served a very clear function. ICE, in cooperation with the Department of Health and Human Services, was enforcing a policy of transferring children from the Homestead detention facility to Broward Transitional Centre (BTC), on the day of their eighteenth birthday (Anonymous B 2019; Anonymous C 2019). In addition to being transferred from a children’s facility to an adult correctional facility while still so young, aging out of ORR custody also meant that the children would lose the few protections afforded to them as minors. Coming of age and being transferred to an adult detention facility also made the teenagers automatically eligible for deportation. Federal government departments that were in charge of documenting the intake at the Homestead facility made sure to amass a set of biographical data so as to be able to enforce this policy. Local news outlets in Florida began to cover this practice in order to highlight the plight of teenagers held in Homestead (Elfrink 2018).

Interviewees also confirmed that problems at the Homestead facility escalated when the number of children increased, following the Zero Tolerance policy, as did the amount of time they were being held in custody. “They are not supposed to be there for more than 20 days, explains one interviewee, “but they were there for 300, 120, 90 days and this is very difficult. Also, they didn’t know when they would be able to get out. It’s very difficult for a traumatized child to be in those strict conditions for months” (Anonymous C 2019). They also explained that although the children in the centre are classified in the ORR/DHS system as ‘Unaccompanied Alien Children’ (UAC), very few of them cross the border alone, and are often accompanied by grandparents, siblings, cousins, aunts, uncles, or other kin.

However, given that U.S. immigration policy only recognizes biological parents as legitimate guardians, many children who came with relatives were categorized as ‘unaccompanied’ when they were processed at the border. In many cases, the children in Homestead have a family member or guardian who is incarcerated elsewhere in the system that they have been separated from. Alternatively, children who cross the

border alone do so in order to reach a loved one who is already located in the United States. This process of reunification, however, is complicated and dangerous for all parties. Interviewees described the regulations and requirements that were imposed on sponsors who came forward for the children. As one activist explained in interview, people who wanted to claim custody of the children were asked to submit themselves to a very rigorous screening process, which included fingerprinting, in order to gain custody, “if you had roommates or people in the house everyone had to do to a background check so most people did not want to subject themselves to this” (Anonymous C 2019).

This policy of placing biometric verifications and background checks for sponsors is another technology of reproductive regulation developed and deployed by the Trump administration, as a way to ring-fence the family reunification process. A leaked memorandum from 2019 revealed the Trump administration had instituted these biometric background checks in order to use detained children to arrest and detain undocumented people who came forward to sponsor them, even while explicitly acknowledging that this would prolong the detention of the children. The leaked document explicitly instructs, “CBP and ICE to work with the DOJ to significantly increase the prosecution of family unit parents when they are encountered at the border”, alongside provisions to, “conduct background checks on sponsors of UACs⁶⁵” (SLPC 2019). The memorandum also indicates that ICE would colluded with other government departments and share information about sponsors.

Furthermore, the Office of Refugee Resettlement (ORR) signed a memorandum of agreement in April 2018 with the department of Department of Homeland Security, whereby ORR agreed to share the information gathered during the family reunification petition process about sponsors and others living in the household with ICE (Southern Poverty Law Centre 2019). The decision to share information is veiled in the policy as a measure to protect children from trafficking. And yet, no explanation is given as to how this information would be used to prevent this from occurring. The

⁶⁵ UAC is a shorthand and stands for Unaccompanied Alien Children.

policy states, “ORR will provide ICE with the name, date of birth, address and fingerprints (...) and any available identification documents or biographic information regarding the potential sponsor and all adult members of the potential sponsor’s household” (Office for Refugee Resettlement and Department for Homeland Security 2018). By requiring that any sponsors or family member of detained children that came forward to offer custody be fingerprinted, sponsors and family members were deterred from coming forward for fear of arrest and deportation, and far more children were forced to remain in ORR custody (Ianelli 2019).

Overcrowding, mounting pressure from public opinion, and the failure of Caliburn International to produce an adequate hurricane preparedness plan, led to the decision that the children should be moved elsewhere. After being instructed by the Department of Health and Human Services (HHS) to empty the facility in the summer of 2019, the outsourcing company Caliburn International began the process of transferring around three thousand children from Homestead to other locations. During this time, the local press obtained a series of so-called, ‘internal population spreadsheets’ created by Caliburn International (Ianelli 2019). The information management sheets, which a local journalist confirmed were part of an internal digital system, showed how Caliburn and HHS were using biographical and numerical data to make calculated decisions about the lives and futures of the children at Homestead.

Census Daily Report				7/26/2019	
8:23:56 AM					
Homestead North - Cleared					
	UAC-F	UAC-M	SUBTOTAL		
North - Daily Living	0	0	0		
North - Daily Living Medical	0	0	0		
North - Daily Living Offsite Hospital	0	0	0		
Homestead North - Non Cleared					
	UAC-F	UAC-M	SUBTOTAL		
North - Non Medically Cleared	0	0	0		
North - Non Medically OnSite - Medical	0	0	0		
North - Non Medically Cleared - Offsite Hospital	0	0	0		
Homestead South - Cleared					
	UAC-F	UAC-M	SUBTOTAL		
South - Daily Living	250	504	754		
South - Daily Living Medical	5	8	13		
South - Daily Living Offsite Hospital	3	4	7		
Homestead South - Non Cleared					
	UAC-F	UAC-M	SUBTOTAL		
South - Non Medically Cleared	0	0	0		
South - Non Medically OnSite - Medical	0	0	0		
South - Non Medically Cleared - Offsite Hospital	0	0	0		
Total Homestead					
	UAC-F	UAC-M	TOTAL		
Total in Care Daily Living	258	516	774		
Total in Care Non Medically Cleared	0	0	0		
Total in Care HHS Homestead CHSI	258	516	774		

Fig 4: Internal data-management spreadsheet from Caliburn retrieved by the local press⁶⁶

One local activist explained in an interview that in July 2019, there were approximately 700 children remaining in the facility of which 400 were about to reach their eighteenth birthday. This group of children were therefore edging towards being eligible for transfer to adult detention. Some staff were concerned that this cohort was deliberately being held in the facility until they came of age so that they could be transferred to BTC or Krome adult im/migration detention centres in other parts of Florida. Internal spread sheets leaked to the local press corroborate this view, showing that many children in this older cohort had been at Homestead more than 80 days, and ten children had been there for more than 100 days. Given that orders had been issued to empty the facility, these testimonials and documents suggest that those who ran Homestead had calculated that by simply waiting until their eighteenth birthday, the children would fall under ICE jurisdiction and could therefore be detained as adults.

⁶⁶ See Ianelli (2019b).

In addition to this, staff expressed concerns about the way the transfers were being processed in the system. As a local activist explained in interview,

“the fear was that the kids would be transferred to adult detention and there would be no record in the system, because they wouldn’t necessarily mark down in the system where they were being transferred. How are you going to guarantee that you can re-unite four hundred kids with their sponsors? Or that they won’t actually force them to sign a voluntary deportation notice, because they are children and will believe what they are told?” (Anonymous B 2019)

The interviewee also highlighted the extent to which these cruel policies were also incentivised by private sector profiteering, “you have to question, they [Caliburn International] have a 340 million-dollar contract with the government and they get \$755 per day per kid that’s in that centre, so do they really have an interest in releasing that kid? No, they don’t, that’s a lot of money!” (Anonymous B 2019).

Internal networked database systems, such as the information management system run by Caliburn, permit state agencies like the ORR and ICE to first abstract and define a ‘population’, and secondly to govern this entity from a managerial vantage point. The image above that reproduces the tables from Caliburn’s system reveals the construction of ‘UAC-F’ and ‘UAC-M’ and their total aggregation into a ‘census’ report. Upon entering a child’s biographical information into the system, and categorizing them as an ‘Unaccompanied Alien Child’, U.S. government data management systems reify and racialise subjectivities into fixed data points that are designate as ‘other’ but also labelled as ‘unaccompanied’, severing the ties many of them have with extended family and kin. In so doing, data management systems regulate, define, and control populations and create new gendered, racialized, and abled or disabled bodies through digital means (Nakamura 2015). Once in the information management system, strategic calculations can be made about how to maximise profits and calculate how to keep them within the confines of carceral geographies.

In the case of Homestead, however, tech-infrastructures were also allowed to fail in strategic ways. The concern expressed by one of the activists interviewed, that vital data was not being inputted into the system, suggests that while Caliburn was carefully accounting for the age and whereabouts of children when they were in the facility, they were not mindful of documenting where they were being sent. Although the motivations behind allowing children to ‘digitally disappear’ from the system are unclear, the asymmetries in calculations reveal which forms of counting matter, and which do not. Tech-infrastructures of enumeration are used to serve the purposes of companies and state agencies to ‘manage’ cohorts of children, but not to facilitate the reunification of these same children with their families and kin.

Localised tech-infrastructures such as the ones described above are part of a wider rapprochement between the corporate technology industry and bordering regimes. As the example of Homestead shows, information sharing systems, biometric technologies and databases power the back-end of the immigration industrial complex (Golash-Boza 2009), but also reproduce processes, “by which certain spaces are transformed into uncrossable places for certain classes of populations, who thereby undergo a process of racialization” (Mbembé 2019, 9). Making biometric fingerprinting a condition of claiming custody of a child is a clear indicator of the ways in which tech-infrastructures proliferate ‘borderization’ processes (Mbembé 2019), or bordering regimes, in ways that are profoundly intertwined with carceral geographies. In so doing, these infrastructures discursively and materially (un)make and avert collectivised processes of living-being, producing racialised and gendered subjectivities and spaces.

And yet, the growing interdependence between corporate technology companies and U.S. border enforcement agencies has received relatively little attention thus far in academic scholarship. While some activist groups have made vital headway investigating how the immigration industrial complex is evolving in the digital age (Mijente et al. 2018; Privacy International 2018), a vast amount remains to be understood about the connections, future plans, and impact of tech-firms on the political landscape in the United States. Although connections between Silicon Valley

firms and federal government agencies date back to the early 2000s, The Department for Homeland Security is spending unprecedented amounts of tax-payer's dollars on developing and maintaining data management systems, like the one used by Caliburn.

Recent research indicates that, over the course of time, the role of tech-corporations has shifted from supplying data and information to government agencies to building information architecture and processing systems that house biometric and biographical data for the purposes of immigration enforcement. Amazon Web Services (AWS), along with big data analytics contractor Palantir, have been highlighted by academics and activists as playing a particularly egregious role in the expansion of the detention, deportation and criminalisation of im/migrant communities (Mijente et al. 2018). Palantir, founded in 2004 by PayPal Co-Founder Peter Thiel, a close advisor to the Trump campaign with authoritarian political leanings, collects and analyses information from disparate data sources obtained from social media, financial documentation, mobile phone records, and license plate information in order to search for allegedly incriminating connections (Fleury-Steiner 2019). Thanks to healthy government contracts with the U.S. Department of Health and Human Services, The FBI and the Department of Homeland Security, Palantir is now one of the largest data-mining companies in the world.

Palantir's spread across these different government agencies is no coincidence: local law enforcement departments use the same Palantir-created data systems as ICE. This cross over enables seamless data integration, ensuring that all information inputted by law enforcement is fed through to ICE for use in targeted raids and other immigration enforcement operations. Both Palantir's Integrated Case Management (ICM) and FALCON Search and Analysis (FALCON-SA) systems ensure these capabilities, allowing for more pinpointed actions. Through this mechanisms, local police can easily access federal data to build profiles of individuals that are then used by ICE. Federal immigration agents, on the other hand, have access to local police information, like license plate data. According to Benjamin Fleury-Steiner (2019), these alliances between tech-corporations and branches of the US Government conceal the far-reaching role large platform surveillance companies play in facilitating ICE's violent

and oppressive actions on the ground, and disguise the fact that the U.S. federal government is paying billions of dollars in secret contracts to large corporations such as Amazon.

Amazon's role, on the other hand, is to administrate a massive cloud-based platform that facilitates the interoperability of contracted tech intelligence companies such as Palantir Technologies that are providing data analytics to state agencies. A detailed investigative report put together by Mijente, the National Immigration Project, and the Immigrant Defence Project, documents the surveillance capabilities of Palantir's Integrated Case Management (IMC) and FALCON-SA platforms developed for ICE. This allows immigration agents to build individual people's profiles, and profiles of their friends and family based on both private and public information (Mijente et al. 2018). In addition to large companies like Palantir, many other small to mid-sized corporations are competing to build information-sharing platforms and software programs for ICE and other US government agencies.

The Department for Homeland Security (and ICE by extension) also strives towards networked information dominance as a way to quash localised forms of resistance. Interoperable databases effectively make protective and sanctuary policies in cities and states impossible to implement. By forcing local law enforcement departments to use the same Palantir data systems as ICE, all information inputted into the systems is shared between law enforcement and border enforcement agencies. This huge consolidation of power in the hands of the federal government is justified on the grounds of 'progress', the need for state agencies to be 'agile' and the virtues of adopting algorithmic and predictive policing tools that tech ventures advertise as free from bias, racism, and profiling (Kundra 2011). In turn, the government's huge investment and commitment to migrating DHS's entire IT portfolio of full personally-identifiable data to the cloud has led to multimillion-dollar cloud contracts with Adobe, Amazon, IBM, Oracle, Salesforce, Zoom, and other Silicon Valley companies.

As Simone Browne (2015) reminds us, "racialising surveillance signals those moments when enactments of surveillance reify boundaries, borders, and bodies along racial

lines, and where the outcome is often discriminatory treatment”(16). As the tech-infrastructures of bordering regimes expand and become interoperable, a seamless web of devices, data-flows, code and databases amass information that structure ICE’s profoundly objectifying and dehumanising “managerial gaze” (Murphy 2017). As Murphy (2017) also identifies, infrastructures of population control facilitate this gaze that in turn optimises life and death through entwined histories of colonialism, governmentality, and capitalism. By way of these infrastructures, abstracted data bodies (Haggerty and Ericson 2000) and racialising surveillance practices become bordering regimes in and of themselves. These processes are also monetized by tech companies, the emerging corporate players in the “immigration industrial complex” in a process that can be described as racialised surveillance capitalism (Mirzoeff 2020). These processes, as Nick Mirzoeff (2020) highlights, do not begin and end with Silicon Valley, rather they are ongoing structures, linked to the systemic erasures of colonized terrain and the “conquering” gaze of the race-gender project (Glenn 2015) of settler-coloniality.

6.5 Conclusion

If, as Haraway (1991) proposes, technologies are frozen moments of the fluid social interactions that constitute them, then the tech-infrastructures of family separation documented in this chapter are the ‘frozen moments’ of ongoing eugenic bordering regimes. Chapter 4 of this thesis charted the development of surveillance technologies in the early twentieth century, deployed by the Border Patrol as part of a regime of eugenic gatekeeping. These histories, alongside other twentieth-century policies, assemble ICE’s electronic monitoring programmes and the back-end digital infrastructures of family separation. There is a stark and violent circularity between the surveillance technologies of the eugenic Border Patrol and contemporary bordering regimes of family separation. Then, as now, borders are complex technological infrastructures that mediate reproductive anxieties and are deployed to reproduce the settler state and its national identity imagines as white.

As evidenced through fieldwork conducted in the U.S. border state of Florida, tech-infrastructures mediate racialised and gendered reproductive anxieties on the one hand, and liberal concerns about family unity and “women’s rights” on the other. This produces a landscape where gendered female im/migrant bodies in particular are fitted with ankle monitors so they can leave brick-and-mortar detention centres to do reproductive work. At the same time, the state of Florida houses the only for-profit child detention facility in the country. Technologies of reproductive regulation, therefore, are assembled on the one hand by eugenic nativist reproductive grammars that seek to preserve a white national identity. On the other hand, tech-infrastructures are deployed to signal the benevolence of the western liberal nation state and its concern for “women’s rights”. The latter technology obscures power relations. However, as the wider infrastructures of family separation and ongoing eugenic histories suggest, bio-necropolitical regimes of reproductive regulation are foundational to border control in the United States.

Borderlands, as Gloria Anzaldúa (1987 famously described, “[a]re set up to define the places that are safe from unsafe, to distinguish *us* from *them* (...) The prohibited and forbidden are its inhabitants” (3). Through partnerships with technology industries much of the bordering Anzaldúa (1987) describes also happens away from the political border through data and electronic monitoring systems. In other words, bordering processes are not confined to the space officially recognized as the border. Reading Mbembé’s concept of ‘borderization’ with Anzaldúa’s (1987) borderlands analytic through the prism of reproduction captures the entanglements of complex contemporary technological infrastructures with the racialised and gendered logics of eugenic bordering. In the information age borderlands and processes of borderization (Mbembé 2019) are proliferated and augmented through technologies, designed to fragment the human body in order to recompose it for the purpose of securitisation, and the ‘neutralisation’ of those perceived to be a reproductive risk to the settler state. The contemporary tech-infrastructures that avert collectivised processes of living-being and (un)make parents, families, kin, are also emerging forms of racialised surveillance capitalism. As private tech-corporations integrate into the existing brick-

and-mortar landscape of bordering regimes, they expand its digital reach proliferating tech-infrastructures of separation.

Chapter 7. Eviction Technologies: Reproduction, Dispossession and Tech-Speculative Gentrification in South Florida

7.1 Introduction

The neighbourhood where I lived in Miami is known as Buena Vista West. It consists of evenly spaced one-story houses, fronted by patches of lawn that are typical of the Floridian landscape. Once a working class and predominantly Black neighbourhood, it is now being rapidly gentrified. Many of the large properties that looked like they previously housed families, are now managed by young entrepreneurs who rent individual rooms at inflated prices through online marketplaces to tourists and spring-breakers. Buena Vista is also home to a new commercial development project known as the Miami Design District, which was still under construction when I first arrived in 2018. This complex of restaurants and designer retail outlets sits at the very bottom of the Little Haiti neighbourhood but the outlets and eateries are unaffordable to anyone but the most-wealthy tourists and locals.

Ten minutes drive north, the streets of Little Haiti house the Haitian Cultural Centre, the Haitian bookshop and a bronze statue of General Toussaint Louverture, the father of the Haitian Revolution, that stands tall on North Miami Avenue and 62nd Street. The neighbourhood is located near I-95 and NE Second Avenue to the west and east and 54th and 79th Streets to the south and north. It sits in a highly desirable area nestled just above the downtown business district but also immediately adjacent to the bridge that connects Miami to the infamous South Beach tourist spot. The hallmarks of gentrification and 'redevelopment' are noticeable across this landscape. On street corners the shadowy presence of new builds and obtuse housing development projects encroach on sites of neighbourhood heritage. Gutted lots, boarded up small businesses and the gradual erasure and smoothing over of the signifiers of neighbourhood life are strikingly reminiscent of the changes to neighbourhoods I know in London.

Family Action Network Movement (FANM), a community-based organisation that provides wrap-around services to the local community can be found right at the heart of the neighbourhood. I arrived to work with FANM for three months in 2018 just after ‘Shithole Gate’, the indelible moment when Donald Trump declared in a stream of social media posts that the Deferred Action on Child Arrivals (DACA) deal was void, adding unambiguously racist statements about Haiti, El Salvador and other countries. At this time, the Trump administration’s attack on the Deferred Action for Childhood Arrivals (DACA) and Temporary Protected Status (TPS) programmes threatened the right to remain in the United States for thousands and pushed over a million people into uncertainty about their status in the country.

FANM staff and director Marleine Bastien were coordinating advocacy efforts with other local groups to put pressure on state politicians. After an advocacy rally that FANM had held, I was charged with posting a picture on the organisation’s Instagram account. I uploaded the picture, set the chosen location to ‘Little Haiti’ and published the photograph and caption. Once public, however, the post did not display the organisation’s location that I had inputted; instead, the post was geolocated in the ‘Miami Design District’. An algorithm set to work in the background had automatically changed the chosen location, erasing the name of the neighbourhood whilst claiming its imagery for the virtual geographies of the commercial Design District.

Drawing on this observation, this chapter presents the final study of this thesis and maps connections between reproduction, tech-capitalism and neighbourhood gentrification in Little Haiti, South Florida. The previous chapters explore technologies of reproductive regulation and their bio-necropolitical discursive, material and technological flows in the context of antiabortion politics and family separation policies. This chapter complements this analysis by examining how the expansion of the tech-sector in South Florida is perpetuating structural inequalities that account for the way that reproduction is stratified (Colen 1995; Ginsburg and Rapp 1995) in the United States. Moreover, while the previous chapters focus primarily on devices, information architectures and the virtual geographies of tech-

infrastructures, the aim of this discussion is to provide some insight into the ways that tech-infrastructures also co-opt physical and urban spaces in addition to weaponizing the virtual geographies of the web. As described at the beginning of this discussion, commercial actors and developers are harnessing the power of social media to virtually erase and sequester Little Haiti neighbourhood space. This observation, read alongside the material and infrastructural changes that were taking place in the neighbourhood, prompted an enquiry into the impact of the expanding technology sector in South Florida and its connection to issues of reproduction.

Specifically, the array of extractive technologies and discourses, through which tech-capital colonises urban spaces, is analysed by taking a close look at the Magic City Innovation District project; a multi-billion dollar innovation and tech-hub proposed for development in Little Haiti, Miami. The project, advertised as “a community that houses an entire start-up ecosystem, supporting entrepreneurs with incubators, accelerators, venture capital financing and mentoring programs” (Magic City 2019), is the first hub of its scale and size to be proposed and approved in South Florida. The proposed project sparked a large controversy between activists, community leaders, city commissioners and the project developers. The events later became the subject of academic analysis (Gierczyk 2020) and were also well documented by the local press. This analysis provides an additional examination of the project through the prism of the expansion of the tech and start-up industry and reproductive politics.⁶⁷

This analysis draws on a number of critical perspectives discussed in Chapter 2 and Chapter 4 of this thesis. The first is Elijah Adiv Edelman’s (2014) theorisation of gentrification as a modality in which necropolitics is articulated with space, and where “capital, as forms of monetary, ideological or cultural modalities of power, has the capacity to both create and destroy the value of space, and the bodies within it” (175).

⁶⁷ The topic and focus of this chapter stemmed from a three-month period of working with FANM in 2018, where I learnt about the connections between housing, reproduction and gentrification. This prompted an investigation and structural critique of the Magic City Innovation District project, researched by reviewing the videos and transcripts of Miami City Commission public hearings in 2019 that are available as a public record through the City of Miami online archives.

Edelman's insights inform this analysis, alongside the important reflections of Peter Kent-Stoll (2020), explored in Chapter 4 of this thesis. Kent-Stoll (2020) argues that in order to understand the racial colonial capitalist logics that shape gentrification processes in the United States, it is necessary to foreground settler colonialist histories because they shape the ideologies and technologies of property and space. In turn, property and space structure capitalistic accumulation and target negatively racialised people for spatial removal, while targeting those same spaces for the social reproduction of majority white middle-class gentrifiers. In turn, Erin McElroy's (2019) 'techno-imperialism' analytic explored in Chapter 2 is vital to this discussion because it adjoins many of these insights into a study of the expansion of the information technology sector in urban centres in the United States, and the dispossession it ensues.

As discussed, technologies of reproductive regulation are material, discursive and technological flows that govern the terms, spaces and conditions of reproductive life. Chapter 4 of this thesis proposes that historically, eugenic housing policies, racialised zoning practices alongside more recent projects of urban 'regeneration', can be understood as a tool for (re)producing white middle and upper-class values, a 'fit' labour force and good citizenry (Bidingmaier 2019). Conversely, these policies actively undercut the ability of communities marked as 'other' to reproduce socially, biologically and politically. For all these reasons, both reproductive justice scholar-activists and scholars of social reproduction highlight that housing insecurity compromises reproductive autonomy (Ross and Solinger 2017), and is also a containment strategy to 'manage' surplus labour (Katz 2001).

Building on this analysis, this chapter critically examines what Manissa Maharawal (2017) terms 'eviction technologies' deployed by developers who aim to redefine and sequester urban space for the (re)production of tech-capitalism under the auspices of profit and technological progress. While the Magic City developers make claims to neighbourhood space by asserting the inevitability and importance of technological development, those who opposed the project expose the false promises of Magic City's visionary future of innovation and technology, drawing attention to the material

dispossession and erasure the hub would undoubtedly cause. I conclude this Chapter by exploring the geographies and contours of reproductive citizenship, drawn by the bordering processes of tech-speculative gentrification, and justified through the promises of technological progress and development.

7.2 Little Haiti, Gentrification and Tech

In May 2016, the Little Haiti neighbourhood was given an official place on the map by the Miami-Dade County Commission, after years of campaigning to be recognised as the hub of the Haitian community in Miami. The neighbourhood became the home of the Haitian community from the late 1970s onwards when Haitians started to arrive to the Miami area. Haitian-American Scholarship (Laguerre 1984; Zéphir 2004) shows that Haitian refugees, most of whom were Black and spoke Kreyol, suffered exceptional discrimination in the U.S. political and legal system, which created advantages for other groups, such as Cuban refugees who also sought asylum during this same time period⁶⁸. The Haitian community established various community organisations to assist new migrants with asylum claims in the area of the city now known as Little Haiti. This migration had a significant impact on local residential patterns as Haitian residents began concentrating in the area. This led to the creation of a self-sustaining local economy in the neighbourhood, which in turn gave rise to a distinctive architecture and style (University of Miami Office of Civic and Community Engagement 2016).

Winning the struggle to be officially named 'Little Haiti' was a victory that exacerbated existing tensions between the Haitian community and their allies, and other people present in the neighbourhood. In particular, the name change embittered some local developers in the area who claimed that it was a-historical, and eclipsed the original character of the neighbourhood that had historically also been home to blue-collar workers most of whom were also white Americans. This struggle over the cultural

⁶⁸ Edwidge Danticat's (2008) work, *Brother I'm Dying* exposes the discrimination faced by Haitian refugees seeking to enter the United States, and Florida specifically. Charting the arrival of grandfather to Florida in 2004, Danticat describes the machinations of a system that eventually caused her grandfather's death in U.S. government custody.

identity of the Little Haiti neighbourhood persists in various forms. Local residents of Little Haiti and surrounding neighbourhoods often express that developers have shown an unusual interest in the neighbourhood in recent years. Neighbourhood changes are also increasingly visible: on street corners the shadowy presence of new builds and obtuse housing development projects encroach on sites of neighbourhood heritage. But what really lies behind the peaked interest of developers in this particular area of the city?

Gentrification in the United States can be understood as a profit-driven racial and class reconfiguration of urban, working class neighbourhoods that have a history of disinvestment (Justa Causa 2014). It is a process primarily driven by private developers, landlords, businesses and corporations with the support of local government. Gentrification also goes hand in hand with racialised policies and practices designed to “clean up the streets” through so called ‘revitalisation programmes’ (Danewid 2020). In Miami, and South Florida more broadly, gentrification processes have been underway for decades, and more recently local developers have had their sights set on turning downtown neighbourhoods into high-rise real estate commodities.

The increased interest in neighbourhoods like Little Haiti is contextualised within a broader history of restrictive covenants and exclusionary zoning which worked to spatially confine working-class communities of colour to particular areas of the city. Raymond A. Mohl (2001) and N.B.D Connolly’s (2016) work on the history of urban development in South Florida shows that government agencies, private contractors and landlords played a powerful role in creating and sustaining racially separate and segregated housing and zoning. As Mohl’s (2001) work evidences, over the course of the twentieth Century, the City of Miami legislated a series of racially motivated public policy decisions on racial zoning, redlining, public housing, urban renewal, private housing developments for African Americans, and the building of the interstate expressway I-95 which together effectively imposed residential segregation on the physical landscape of the city.

Today, the same neighbourhoods that were in part created through the City's racialised zoning practices are the primary targets of local developers. Social justice activists attribute this heightened interest in Overtown, Liberty City and Little Haiti to "climate gentrification". Climate gentrification is understood as a process driven by rapidly rising sea-levels in South Florida that are predicted to decimate whole areas of the low-lying city (Keenan, Hill, and Gumber 2018). Research shows that as the climate warms, sea-level are projected to rise by six inches in the next fifteen years alone, posing significant challenges to Miami and other cities throughout Florida (Page et al. 2019). In turn, the climate crisis is reducing property value growth rates in coastal areas while property values in higher-elevation neighbourhoods such as Little Haiti are increasing. Responding to these immanent changes, local developers are encroaching on these areas hoping to buy real estate to accommodate wealthier residents and prospective businesses. In the process, the residents of neighbourhoods like Little Haiti, who are overwhelmingly Black and Latinx, are being forced out of an area they built up themselves into climatologically vulnerable parts of the city.

However, there is another important economic driver at play. Higher-elevation neighbourhoods like Little Haiti are not only threatened by rising sea levels and the capitalist real-estate speculation this causes. They are also at the centre of a wider change that is re-configuring major cities in the United States: the expansion of the tech and start-up industry. In South Florida business actors and city officials, such as Cuban entrepreneur Manny Medina and Major Francis Suarez, are spearheading the city's start-up ecosystem. In 2014, Medina founded eMerge Americas, a tech and innovation conference hosted yearly in Miami with the aim of, "transforming Miami into the tech hub of the Americas by partnering with the entire tech and entrepreneurial ecosystem, from government to higher-ed, startups to investors, corporate enterprises to media" (eMerge 2019). Much of the interest in Miami as a prospective location for burgeoning tech enterprises is due to its position as the primary link between markets in Latin America and the United States. Emerge Americas provides a vital platform for building cross-sector connections between entrepreneurship and technological activity in the United States and Central and South America.

The transnational expansion of the tech-industry, alongside the increased perforation and integration of digital and networked infrastructures into urban environments, has hyper-localised consequences. Cities need to physically house a growing tech start-up ecosystem and those that work in these relatively high-paid and specialised jobs. As a result, commercial and residential properties and land are required to accommodate the growing sector. The expansion of Silicon valley tech and its offshoot enterprises has already radically reconfigured the urban landscape of the San Francisco Bay Area (Stehlin 2016). The burgeoning scholarship that examines tech-speculative gentrification in this part of the United States shows how this process is not a mere redevelopment of a place, but a form of racialised dispossession fuelled by ‘tech speculation’: practices in which future real estate value is premised upon the desires of those imbricated in techno-capitalist economies (McElroy 2019).

This results in the displacement of entire communities, predominantly in working class, Black and Latinx geographies, whilst simultaneously amplifying other forms of structural violence, such as increased policing (Ramírez 2020). Although South Florida is lagging behind the accelerated pace of gentrification in the Bay Area, the climate crisis and the start-up ecosystem⁶⁹ are mounting pressure on a city that already faces an affordable housing crisis. According to a recent report from the Miami Urban Future Institute, 6 in 10 employed adult residents of Greater Miami spend more than 30 per cent of their incomes on housing—the highest rate of any large metropolitan city in the U.S., and low-income service workers, who make up more than half of the region’s workforce, bear the greatest burden of all (Florida and Pedigo 2019).

7.3 The ‘Magic City’ Innovation District

Struggles to stave off gentrification in Little Haiti reached new heights in 2016, when a consortium of developers began to shape a billion-dollar proposal for the so-called

⁶⁹ Miami was ranked first on the Kauffman Foundation’s 2017 Index of Startup Activity, a measurement of new business creation in the country’s 40 largest metro regions see Kauffman Foundation (Morelix et al. 2017)

Magic City Innovation District. Spearheaded by Tony Cho, a Floridian native originally from Vero Beach, the project envisioned a 17-acre site that would house an innovation and tech-hub for Miami, situated in Little Haiti. The proposed project included on-site accommodation, a 30,000 square-foot studio, a 15,000-square-foot innovation center for start-ups, retail spaces as well as 2,670 units of housing in buildings of up to twenty-five stories tall. Cho's consortium of investors and developers notably included Silicon Valley entrepreneur Robert Zangrillo, billionaire Cirque du Soleil founder Guy Laliberté and local real estate partners, Neil Fairman, Anthony Burns and George Helmstetter. In 2018 the group applied for a Special Area Plan (SAP), a provision of the City of Miami which allows property owners who assemble more than 9 acres of land to build projects outside of zoning codes in exchange for providing benefits to nearby communities. Notably, without the Special Area Plan the Magic City group would only be allowed to develop structures of five stories and far fewer overall units across the site. The project alarmed social justice organisations, service providers, local residents and community leaders alike who organised in response to the proposed project to protect community interests .

The process of approving the Magic City development project and Special Area Plan took place at a series of City Commission hearings between November 2018 and June 2019. Present at each hearing were the elected city commissioners by district, the developers and their legal counsel, concerned residents, social justice activists, supporters of the project and members of the general public. The tense meetings, negotiations and planning of the project spanned a year and a half as the developers, city commissioner and local community members locked into power struggles over the size, character and impact of the project on the local community. While the developers painted an elaborate picture of renovated urban space and prospects of employment in the area, throughout the hearings opposers of the project highlighted the inadequacy of the proposed community benefits package and the inevitable displacement and community destruction that the project would cause. Keon Hardemon, the district city commissioner for the area, very clearly erred on the side of enabling the Magic City Innovation District project to go ahead, despite being the alleged broker between the community and the developers.

Commissioner Hardemon initially pushed back during the first city commission hearing in November 2018 and instructed the consortium to work out a more comprehensive community benefits package that extended beyond the 14 per cent and 7 per cent of housing units dedicated to workforce and affordable housing respectively. However, between the first and second reading, Hardemon seemingly circumvented efforts by the local community to put pressure on the developers by brokering a back-door deal with the consortium that replaced the affordable housing quotas with a thirty-one million-dollar community trust fund. According to this proposal, Magic City would provide thirty-one million dollars, paid over 15 years, to the Little Haiti Revitalization Trust presided over by a five-person board which included one person appointed by the Miami City consortium, and the other four named by the city commissioner for District 5 at the time Keon Hardemon. After three long and contentious city commission hearings, the Magic City Special Area Plan was approved around one o'clock in the morning of the 28th of June, 2019.⁷⁰

Meanwhile, local activists, architects and residents voiced opposition to the project on numerous grounds, ranging from the environmental impact of the project, the changes it would make to the historical and cultural character of the neighbourhood and the inevitable displacement it would cause. The most significant legislative challenge to the project was presented by the Family Action Network Movement (FANM), a community-based organisation in Little Haiti, with the support of attorneys from the Community Justice Project who requested that the commission grant their members intervenor status. FANM, whose mission is to strengthen and support moderate to low-income families in Little Haiti, had been supporting members of the local community threatened with eviction. Intervenor status, granted to a person who is adversely affected by the proposed development in a greater manner than other members of the general public, would have halted the proceedings and obligated a more thorough community consultation to take place.

⁷⁰ The Commission hearings were held on the 28th February 2019, 28th March 2019, 27th June 2019.

Lawyers from the Community Justice project, comprising the legal counsel for FANM, gathered evidence of the disproportionate effect of the project on two residents located near existing Magic City property in Little Haiti. However, the legal team was never afforded the opportunity to fully present the evidence collected and the request was denied by the city commission at the third and final hearing in June 2019. Ultimately, FANM's intervenor status could have parlayed a seat at the table for community members to have greater say in the allocation of benefits through a more open and transparent process.

In addition to being a space of political legislation and decision-making, the hearings provided a forum for all parties to voice grievances, concerns and also make a case for the merits of the project. Notably, these tense encounters also offered the general public, journalists and researchers an avenue to hearing the rationales and justifications voiced by the developers themselves, as well as understanding the reasons of those opposing the project. An analysis of the arguments and rationales of those supporting the project help to contextualise the Magic City development project within the wider forces of tech-speculative gentrification that (re)make urban topographies in ways that further entrench ongoing systems of racialized, gendered, and classed inequalities.

7.4.1 The Technological Imperative

The first hearing at the Miami city Commission for the proposed Magic City project SAPs in November 2018 was well attended by a swathe of supports for the project, most of whom came from elsewhere in the city and represented a variety of interested parties ranging from local artists, real estate developers and people working in the city's burgeoning tech industry. Mayor of Miami Francis X. Suarez opened the first City Commission hearing on November 15th 2018 voicing support for the innovation district proclaiming,

“as mayor one of my major platforms has been to bring technology to this city, to bring a vibrant tech hub to Miami. We saw Amazon just this week decide to

re-locate two head-quarters creating 25,000 jobs in each location at a significant public subsidy. What this project purports to do is create approximately 11,500 jobs with no public subsidy. This is a visionary project by a visionary ownership group” (Suarez 2018).

This was the first of many statements during the hearing which framed the initiative as a sorely needed project to make South Florida a real contender in the technology industry. During the lengthy public comment session, a local real estate developer was one of many to highlight the projects growth potential, “What I love about this project is that we are looking to create a tech hub for Miami which is what Miami needs. We all know that the future of the U.S. job market is in tech and right now given the favourable tax climate we have in Florida a lot of tech companies would like to come to Florida, they just don’t have a place to call home” (Public Comment 2018). The local real estate developer was joined by many other proponents, some donning purple T-shirts with *Yes to Magic City* lettering, that identified themselves to the commission as small business leaders, local artists and employees of the burgeoning South Florida tech industry. The statements of support during the hearing were often punctuated by the familiar grammars of tech-capitalism, extolling the project as ‘innovative’, ‘cutting-edge’ and ‘visionary’.

The discourse around the promises and virtues of the Magic City innovation and technology hub shifted during the course of the three hearings, arguably because of articulate push-back from activists and members of the local community who pointed to the fact that the project remained inaccessible to many people in the neighbourhood. An activist from the Community Justice Project pointed to the disproportionate rental prices of the affordable housing in Magic City and contrasted this with the false promises of the tech-hub saying, “If we are looking into a visionary future of innovation and technology, who actually gets to be part of shaping that vision and who gets to be part of it once it is there?” (Public Comment 2018). In response to this push back, Robert Zangrillo, one of the four business partners and a Silicon Valley entrepreneur, made a point of highlighting the technical training programmes for young people living in Little Haiti that were allegedly offered by the

technology partners of Magic City. Zangrillo also mentioned an internship programme initiated by the Magic City technology partners made available to high-schools students saying, “we are providing hope to the community” (Zangrillo 2018).

The stark structural discrepancy of a multi-billion dollar tech and innovation hub located in an under-resourced neighbourhood with little technological infrastructure and few tech training opportunities gradually became an issue of greater focus. By the second and third hearing, animated discussions were taking place amongst the commissioners and the Magic City development group about training programmes and access to tech jobs for the local community. Both Commissioner Manolo Reyes and Commissioner Wifredo “Willy” Gort voiced concerns about how the project was going to fulfil its commitment to employing people from the Little Haiti community - who are predominantly working class - when the tech and innovation hub required people with specific skillsets and job profiles. Waving his smart-phone at the city commission galleries Gort stated, “this is very important. Today if you don’t know how to handle any of this you are not going to get a job; you are not going to get a high-paying job. And this is where it all comes together” (Gort 2019). These cursory acknowledgements of the structural inequalities and injustices that the project would exacerbate came to a head in the final hearing when commissioner Hardemon obtained a commitment from the developers to set up a scholarship fund for one of South Florida’s historic Black colleges. During an exchange between Hardemon and the Magic City partners, Neil Fairman proposed to allocate the scholarship specifically for students interested in studying technology in order to facilitate a pathway to employment in Magic City (Fairman 2019).

As those whom opposed the project pointed out in the final hearing, these gestures of top-down benevolence would do very little to curtail displacement and dispossession in a neighbourhood where the average annual income is around 25,000 dollars and the majority of people are renters and not property owners. Money alone would not make the development useful or inclusive for the community because it centred the economic interests of those spearheading the project. One of the two Little Haiti residents who applied for intervenor status alongside FANM framed the development

as the 'Tragic City' project and testified in front of the city commission that the promises of training and employment were empty gestures. "The employment and training is not guaranteed", they explained, "when we had the appeasement meeting in the community they said that they could not guarantee that because it would be up to the contractor or sub-contractor so that was a lie". Conversely, others who spoke out against the project continued to highlighted the long-term effects of gentrification, including a member of the public who reminded the city commissioners that, "the US cities with the most innovative I.T. industries are the cities with the greatest concentration of homelessness. San Francisco, Seattle, Los Angeles and New York have seen explosions in their respective homeless population" (Public Comment 2019).

7.4.2 'Putting Little Haiti on the Map'

The framework of top-down progress described above reinforces the problematic notion that 'development', brought about through the innovation and technology hub, is both inevitable and necessary for Little Haiti to prosper. This discourse around innovation and technology intersected with another prominent claim made by advocates for the project that the development site would revitalize the area and 'put little Haiti on the Map'.

The most poignant expression of this notion came in a public statement made by Cirque du Soleil co-founder Guy Laliberté. During the first hearing in November 2018, Laliberté rationalised his choice to build the Magic City Innovation District in Little Haiti through a recollection of his time in Montreal. Laliberte explained to the city commission that when the city of Montreal had offered Cirque du Soleil a number of prime sites in the city he had chosen to build the headquarters on top of a large open dump, which was located next to the second poorest neighbourhood in Canada which, as Laliberté explains, "happened to be the biggest Canadian Haitian Community (...), everyone was telling me that I should build a fence because this is a dangerous neighbourhood, because there is crime and all these things, but I said No!" (Laliberté 2018). Through this story, Laliberté seemingly establishes his credentials as a

benevolent capitalist and an investor whom time and time again brought development to under-resourced communities. To this effect he explicitly states, “I think that there is an opportunity to define a personality for Little Haiti in this context of a new neighbourhood. The question is not if, it’s when this neighbourhood will have to go through growth. This is a cycle of urban development, we all know that!” (Laliberte 2018).

Through this narrative, Laliberté not only convinces the audience to accept the inevitability of the development, he also frames the project as having the potential to ‘define’ the neighbourhood. This statement reveals an underlying assumption by the investor that Little Haiti lacks a social and cultural identity, or rather, lacks an identity worthy of recognition. Moreover, Laliberté, a Canadian billionaire, frames himself as the benevolent patriarch with the entitlement and means to shape a ‘personality’ for a working-class Black immigrant neighbourhood through the ‘growth’ and ‘potential’ of innovation and technology. What is in fact a process of erasure is deployed by Laliberté to justify the innovation district which in turn would make the neighbourhood legible (and visible) through tech-capitalist grammars. Statements from many supporters of the project during the public comment sessions of the first hearing echoed this process of erasure by claiming that Magic City would help the neighbourhood to ‘grow up’, ‘evolve’ and not be ‘technologically obsolete’ (Public Comment 2018).

These paternalistic gestures were also juxtaposed with attempts to invisibilise the people of the community and paint a picture of an empty and derelict site in an under-resourced neighbourhood. One supporter of the project claimed,

“This is a really good opportunity for young entrepreneurs to come in and build up companies, maybe we will have the next Google or the next Uber coming out of Miami. This is a very exciting project and, you know, it’s really going in an area that is just vacant warehouses. It’s not displacing anyone living there” (Public Comment 2018).

These statements were later rebutted by activists who explained that the property in question was previously a mobile home park that housed numerous families all of whom were displaced to make room for the development.

A similar vision of empty lots and abandoned buildings ripe for ‘rejuvenation’ was articulated by Neisen Kasdin, the Magic City Innovation District Lawyer, during his presentation of the Magic City project to the city commission. Waxing lyrical about the historical significance of the Magic City site, Kasdin establishes its connection to Henry Flagler, an American industrialist who is well known for his role in developing the Atlantic coast of Florida and was also the founder of what became the Florida East Coast Railway. Harking back to this time, Kasdin bypasses the contemporary identity of the Little Haiti neighbourhood retracing its connections to white settlers with no mention of the historical significance of this area for Haitian people or others of Latinx and Caribbean origin and descent. Similarly, ongoing histories of settler colonialism, displacement of indigenous Tequesta and Seminole peoples and Flagner’s use of convict leasing⁷¹ are omitted. Kasdin concludes by highlighting the desirable location of the neighbourhood saying, “if we are going to repurpose these abandoned warehouse districts and look for a place to create jobs, and where people can live where people do not live today, it is this ridge first discovered by Henry Flagner over 125 years ago where that would happen” (Kasdin 2018).

These claims that the project would give the neighbourhood meaning and value, on the one hand, coupled with the refusal by the developers and commissioners to acknowledge neighbourhood residents and their inevitable displacement, on the other, are components of the same strategy of erasure. The development’s name Magic City stands as an epitaph to the old name given to the City of Miami in the late nineteenth-century. The name marks a period of increased industrialisation and development of the City (Mohl 2001). Kasdin’s historical account and description of

⁷¹ Convict leasing was a system prevalent in the Southern states that permitted prisoners, most frequently Black men, to be leased to private railways, mines, and large plantations. States and enterprises profited greatly from this system, while working prisoners earned no wages and faced dangerous work conditions.

the site, alongside claims made by others, are reminiscent of what Michel-Rolph Trouillot (1995) calls, “formulas of erasure and banalization” (96), understood as narrative devices used to trivialize or omit facts that do not conform to a specific version of the past, and in this case the present.

Moreover, characterising the Little Haiti neighbourhood as obsolete and needing to ‘evolve’, reads racialised tropes that constitute certain communities as dependent and less-than-human (Weheliye 2014; Wynter 2003) into a recognisable grammar of tech-capitalism and its technologies. Through this association, white patriarchal rhetoric of technological obsolescence and poverty is deployed to marginalise those who are not ‘productive’ to the consumerist economy. Those who refuse this imposed ‘development’ and the obligation to become ‘innovators’, producers and consumers are made expendable; pushed to more climatologically vulnerable areas of the city to occupy the socio-political borderlands of non-citizenship. These discourses are also designed to persuade the audience of the irrefutable growth potential of technological innovation, whilst characterising those who oppose the inevitable change as against social and economic progress.

These forms of erasure were named and countered by activists and members of the local community. FANM’s request for intervenor status held symbolic as well as political valence, forcing the commission to examine cartographies of displacement and dispossession whilst simultaneously intervening in the legislative decision-making process. Marta Gierczyk’s (2020) analysis of the Magic City controversy provides an important insight into the strategies of local woman of colour organisers. Drawing on Sara Ahmed’s (2017) work, Gierczyk terms women of colour advocates as ‘Magic City Killjoys’, who galvanize opposition and clout in order to shift the narrative away from the benevolent intentions of the developers towards a discussion that centered community needs and the perils of gentrification and displacement.

As Gierczyk (2020) points out, local organisers tirelessly lobbied the developers and the commission to include residents of Little Haiti in the planning process in order to highlight, “how the zoning codes and dollars translate to the actual livelihoods of

people, to the well-being of families, and prosperity of businesses” (Gierczyk’s 2020: 14). Building on this analysis, the embodied presence of residents, organisers and members of the local community in the city commission hearings challenges the formulas of erasure presented by the development team and their supporters. By showing up in a public forum as collective, the presence of advocates and residents destabilised the hegemonic narrative through their mere presence.

Community advocates also deconstructed the veneer of benevolent paternalism propagated by the development team, pointing to the structural racism that undergirded the community consultation process and the attitudes of the city commissioners. Throughout the hearings the Executive Director of FANM, Marleine Bastien, repeatedly highlighted the contempt of the developers for the local community and their lack of commitment to a transparent and democratic consultation process. Speaking to the racialised and classed dynamics of the hearing process, Bastien challenged the city commissioners by citing their decision to place a moratorium on another Special Area Plan in a predominantly white area of the city. Recalling how the residents of the neighbourhood had voiced their concerns at a community hearing attended by the commissioners, Bastien asked, “why is there a double standard in the treatment of these two neighbourhoods? So the white home owners spoke against and expressed concerns about a mega-development in their neighbourhood and you listened to them but when the residents and business owners of Little Haiti spoke you ignored their voices?” (Bastien 2019a).

Bastien’s retort cited above was made in the context of the final hearing where FANM’s request for intervenor status was formally denied by the commission. The request was denied partly on the grounds that the residents who had presented their grievances were renters and could therefore not claim financial damage. This denial of personhood through the rubric of ownership reveals the historic links between property and land-ownership with the concept of citizenship in the United States. The notion of white property, enshrined in early legislation such the Homestead Act and the Indian Removal Acts of the 1800s, which provided land to white settlers of the American west, is also integral to how white supremacy shapes and is shaped by the

production of racially ordered spaces and land-ownership (Bonds and Inwood 2016; Collins 1998; Kent-Stoll 2020). Comments made by commissioner Hardemon intimated that intervenor status should be tied to property ownership sparked a heated response during the public comment session. One local activist addressed the commission saying,

“I want to start by making a few things clear that I can’t believe I have to make clear in America in 2019 but clearly I do because of the way we have been treated tonight, and the way we have been treated in the past. Renters are people, and equal citizens under the law. Young people are equal citizens under the law. Black people are equal citizens under the law. Some of the arguments I have heard tonight remind me of the shock I had in school when I learnt for the first time that at the beginning if this country only land-owners were allowed to vote. Apparently only land-owners have a voice in the City of Miami” (Public Comment 2019).

References to systemic racism and America’s settler colonial history punctuated the statements made by social justice activist and people who stood with FANM as tensions mounted in the final two commission hearings. One advocate told the commission, “what we are seeing today is the result of decades of neglect by the city of some of the most vulnerable communities that is a result of systemic racism and frankly, in an immigrant town, of explicit anti-blackness” (Public Comment 2019). This shift in language, prompted in part by the treatment of Marleine Bastien by Kasdin and commissioner Hardemon, served as a powerful corrective to the often patronising and paternalistic promises of ‘hope’ put forward by the Magic City Innovation District team. By citing the historic, economic and socio-spatial production of inequality, many social justice activists present at the commission hearings called attention to how urban geographies not only reflect processes of racialisation but also produce them. In so doing they persuasively reframed tech-speculative capitalism and development as the cause and not the solution of social injustice.

7.4 Ideologies of Technological Progress and their Links to Capitalism, Colonialism and the Patriarchy

As identified by many social justice advocates, the power struggles at the intersections of technological development, property and land-ownership, economic growth, and social and political citizenship with its ties to personhood, pre-date gentrification. They connect back to the race-gender project of the settler state (Glenn 2015). Applying this framework of analysis to the discursive claims and eviction technologies put forward by the Magic City Innovation District developers, reveals the articulation of settler heteropatriarchal narratives (Glenn 2015). The latter is articulated with respect to control over property and land, and through a self-appointed ‘civilising mission’ to bring progress, development and technology to an allegedly technologically obsolete and impoverished neighbourhood. I now substantiate this point in specific reference to the Magic City hearings and in reference to studies of tech-speculative gentrification.

Scholars that focus on the expansion of the technology sector in the Bay Area suggest that gentrification is an eviction technology deployed to enable the expansion of tech capital (Maharawal 2017). In this vein, Erin McElroy (2019) forges the concept of ‘techno-imperialism’ as a framework for understanding Facebook’s gentrifying role in San Francisco and the company’s multi-scalar impacts on the city. McElroy (2019) explains,

“the data colonization of racialized bodies has long been constitutive of imperialism. While premised upon the accumulation of new forms of increasingly intimate data, and while tethered to racial dispossession through gentrifying effects, techno-imperialism is only made possible through settler logics as they code and re-code understandings of private and extractible space and bodies” (830).

McElroy’s analytic thus builds on other conceptualisations of contemporary technologies and data as a form of capitalist expropriation (Couldry and Mejias 2019;

Thatcher, O'Sullivan, and Mahmoudi 2016; Zuboff 2019), while also extending these frameworks to include the urban dispossession brought about by these processes as they are animated by settler and neoliberal logics. The Magic City Innovation District joins these other examples to illustrate how tech empires are (re)shaping the brick-and-mortar environments of cities, as well as co-opting and weaponising the infrastructures of the web. As anthropologist Sareeta Amrute (2019) cautions, "this complexity is important as over-reliance on the issue of data colonialism obscures the complicated welter of colonial relationships that cut across technological infrastructures and the imaginaries of person, place, and power that accompany them" (Amrute 2019).

This claim that techno-imperialism rests upon settler colonial and imperialist histories can be discussed in relation to the propositions and justifications of the Magic City Innovation District. The first point concerns the naming of this development as the 'Magic City' in a neighbourhood that was only recently officially recognised as Little Haiti. This re-naming of space, alongside Guy Laliberté's self-professed mission to 'define a personality for Little Haiti', and other claims that the project was taking up an empty space is emblematic of a logic of *terra nullius* or 'no one's land/empty land'. This follows an ontology of (settler) colonialism premised on a notion of its boundlessness in the face of allegedly empty space.

As Carole Pateman and Charles W. Mills (2007) explain, defenders of colonization in North America invoked the doctrine of *terra nullius* in two sense: first to claim that the lands were uncultivated wilderness, and therefore were open to appropriation; second, they argued that the inhabitants had no recognisable form of sovereign government. The assumption embodied in the notion of *terra nullius* is the erasure of people through a logic that de-humanises them into invisibility. It is also one of the stepping stone towards spatial sequestration which is integral to what Patrick Wolfe (2006) has termed the settler colonial 'logic of elimination'. Indeed, David Lloyd & Patrick Wolfe (2016) identify the continuation of settler colonial logics within the parameters of neoliberalism and latter-day strategies of racialised spatial confinement. Wolfe (2015) suggests that this continuation can be seen in blatant racial zoning of

large cities and the penal system which fall back on settler-colonial strategies of spatial sequestration. This is not to suggest an analogy or comparison between colonial racialised violence towards Indigenous people, Black people and other racialised groups in the United States. Rather, as Evelyn Nakano Glenn (2015) theorises, racialised violence and dispossession in the United States are linked through the foundational dimensions of settler colonialism, its project of acquiring land and exploiting the land through the exploitation of people.

The claims made by Laliberté and others that the project would give the neighbourhood meaning and value coupled with their refusal to acknowledge the existence of local residents and their organisational structures can be located as part of this historical trajectory. These eviction technologies use dispossession as a means of denying social, political and legal personhood in the United States.⁷² The act of naming the site the ‘Magic City’ whilst making claims of *terra nullius* should be understood, however, in relation to the notion that innovation and technology would ‘re-define’ Little Haiti. As already discussed, Magic City’s biggest calling card was its promise to bring tech-companies and technology jobs to South Florida. Widespread enthusiasm for the project was shared by elected officials and local entrepreneurs who explicitly wielded the promises of tech-capitalism and economic growth for the city and as an important corrective to what were portrayed as Little Haiti’s economic failings. This discourse speaks to another imperial formation: the modernising potential of technology. Specifically, this indicates that the notion of ‘technological superiority’ is still an integral part of modern tech-capitalist ideologies that support or justify its imperialist expansion.

These observations can be refined through insights from postcolonial and feminist Science and Technology Studies (STS) that document the centrality of science and technology to the colonising mission of imperial powers and its subsequent iterations in modernisation discourse (Subramaniam and Pollock 2016, Baber 2007, Escobar

⁷² Racialised spatialities and their relationship to colonial occupation are also extensively explored in postcolonial scholarship. Frantz Fanon describes the spatialization of colonial in the *Wretched on the Earth* (1963) and conceives of colonial occupation as driven by the division of space.

2011). Warwick Anderson (2002) argues that a postcolonial analysis reveals the complicated durable dichotomies, produced under (neo/settler) colonial regimes, which underpin many technoscientific practices and their hegemonic claims. These binaries still operate in a variety of ways, including in terms of global/local, Western/Indigenous, modern/traditional and developed/underdeveloped.

These dichotomies are evident in the hegemonic discourse around the Magic City Innovation District and its 'modernising potential'. The shamelessness with which proponents of the project characterise the Little Haiti neighbourhood in disparaging terms reveals the ongoing validity ascribed to these frameworks of technological development. Conversely, framing the Magic City Innovation District as the "solution" to economic deprivation speaks to what Sandra Harding (2008) has called the exceptionalism and triumphalism of 'western' science and technology. The project, portrayed as 'exceptional' by its supporters, reinforced the notion that only tech-driven economic growth could save the neighbourhood and make it economically relevant. This is further reinforced by the triumphalist assumption that its introduction into the neighbourhood can have no significant downside and that increasing gender, race, and class inequalities are the consequences of other social and political ills.

Postcolonial feminist technoscience scholars reminds us that Western science and technology are at the heart of ongoing imperialist political ideologies and institutional structures, and that gendered and racialised social relations are always implicated within colonialism and imperialism. Subramaniam and Pollock (2013) explain that technoscience, which was always central to the operations of colonial government, played a critical role in naturalising logics of difference and structuring gendered, racialised and classed hierarchies. These are also central to the production of the settler state and its ongoing projects of spatial sequestration.

The settler state is therefore built on tropes of modernity versus tradition, the former gendered as a male project of bringing Christianity, capitalism, technology, the nuclear family, rational enquiry and patriarchy to 'modernise' the lands and peoples of

the Americas (Reardon and TallBear 2012; Subramaniam et al. 2017). As Sandra Harding (2008) has emphasised, these binaries continue to shape public policy and typically frame the needs and desires of marginalised people and women in particular as irrational, incomprehensible, and irrelevant—or even a powerful obstacle—to ideals and strategies for social progress. Harding (2008) also notes that the excellence ascribed to objectivity, rationality, real science, social progress, civilization and by extension technology are all measured in terms of their distance from whatever is associated with the feminine and the ‘primitive’.

These same dichotomies structure the Magic City Innovation District discourse of growth and progress. Key to the strategies of the developers, who are without exception white male billionaires, is persuading the all-male City Commission that they alone hold the technological key to unlock Little Haiti’s potential and ‘modernise’ the neighbourhood. This same discourse works to frame those who vociferously opposed the project - predominantly women of colour organisers - as against social and economic progress. Thus, technology and innovation are central to a discourse that serves to naturalise techno-scientific, gendered and racialised hierarchies. This is deployed, in turn, for the purpose of expanding capitalist ownership over the spaces (buildings, land) required for the production and reproduction of tech-enterprises.

Although the Magic City innovating district project is a hyper-localised example, it demonstrates how colonial ontologies have been ‘recoded’ within contemporary techno-scientific frameworks (Subramaniam and Pollock 2016). Tech-speculative gentrification is thus shaped by ongoing histories of spatial sequestration for capitalist gain, on the one hand, justified through technological superiority on the other. Conversely, those who are fighting against the developers and the elected officials that support them are far from passive victims, organising collectively to resist, engage and build structures of dissent in their community albeit in a context marked by staggeringly unequal power relations.

7.5 Housing Insecurity, Reproduction and Community uses of Technology

The previous section argues that the hostile takeover over of neighbourhood space by developers and Silicon Valley entrepreneurs is motivated by a need to acquire ownership of buildings and land for the (re)productive of tech-capital. What then is the relationship between tech-speculative gentrification and reproductive inequalities and injustice? And how does this connect to other form of social injustice and inequality? These questions can be addressed through the prism of the work of Family Action Network Movement (FANM), the community-based organisation that led the opposition to the Magic City Innovation District.

7.5.1 Family Action Network Movement

The offices of Family Action Network Movement (FANM) - formerly known as Fanm Ayisyen Nan Miyami – are located in the heart of Little Haiti. The community-based organisation now occupies what was once the Little River post office, just off the highroad that bisects the neighbourhood. FANM was founded in 1991 under the name Fanm Ayisyen Nan Miyami, Inc or Haitian Women of Miami. Since its inception, FANM's goal was to strengthen moderate to low-income families. The centre's primary purpose is to provide wrap-around services to the Little Haiti community. FANM's services are designed to meet the needs of women and family members at all stages of their lives. The centre's parenting classes, access to reproductive healthcare, the afterschool programme for local children, computer classes and advocacy against gentrification and immigration policing are all fundamental pillars that support reproductive autonomy and community health. The team includes specialised community therapists and service experts that work at the intersections of immigration services, domestic violence, welfare support and community education.

The organisation is comprised of members that FANM organises around pressing issues for the community including affordable housing and immigration reform. FANM made the decision in 2018 to adopt the name Family Action Network Movement in order to reflect the expanded scope of its services and to include all low

to moderate income families in the Little Haiti area as well as people of Haitian origin and descent. The community-based organisation is primarily female run and was founded by Marlene Bastien, a Haitian American community advocate and clinical social worker. Although the organisation has a situated local setting and reach, its staff and members also organise at the state and national level particularly on matters related to im/migration and climate gentrification.

7.5.2 Housing and Reproduction

FANM's leadership role in the fight against the Magic City Innovation District is driven by their longstanding commitment to preserving the social, cultural and (re)productive infrastructures of the Little Haiti community. Executive Director of FANM, Marleine Bastien, emphasises the severity of the social, cultural and material displacement of people in the neighbourhood explaining,

“The most pressing issue was immigration. And immigration is still a big problem, but now it's mainly affordable housing, good paying jobs, homeowners fighting to keep their homes, fighting predatory developers and mega developments in residential neighborhood on steroid. Those who came in the late 70s and bought their homes, as a result of climate gentrification and climate change, are unable to keep these homes. The taxes are increasing, and they don't have a high-level paying job. While the price of housing has skyrocketed salaries remain stagnant. So now it has created an imbalance and people are losing their homes left and right. Haitian women are really affected. Those who were lucky enough to be accepted in affordable housing eventually found out that the affordable housing was only in name so that developers could get free land from the Miami City Commission, but then they start adding fees. Affordable housing is then not really that affordable.” (Bastien, Interview 2018).

Bastien's analysis highlights numerous important points. The first is that gentrification is a gendered - as well as a racialised and classed - issue. As gentrification scholars

have determined (Curran 2017), housing insecurity affects social groups that play a central role in care work, reproductive labour and are more likely to be precariously employed on lower wages. Black feminist and women of colour feminist writings provide crucial perspectives on the significance of housing inequality and insecurity in sustaining racialised and gendered inequalities (Ritchie 2000). As Beth Ritchie (2016) explains, historically and currently gentrification has had disastrous consequences for low-income people, disenfranchised people and women of colour.

These points are echoed by Reproductive Justice activists and scholars who emphasize how policies that shape access to housing and cause gentrification also impact reproductive autonomy and decision making. Ross and Solinger (2017) demonstrate how availability of affordable housing and the safety of the neighbourhood that people live in is likely to be a determining factor in someone's decision to parent. Ross (2017) also emphasises that gentrification through land use policies facilitated by racialised zoning regulations are forces that contribute to reproductive oppression despite seldom being framed or understood in this way. These perspectives are important to understand that while the colonisation of Little Haiti by the Magic City Innovation District was not primarily motivated by a political agenda of reproductive control and oppression, the resulting fragmentation of community, displacement and eviction of people to climatologically vulnerable areas the city have a marked impact on people's ability to access services, make autonomous reproductive decisions and staying connected to their care networks increasingly difficult. This perpetuates structural inequalities that account for the way that reproduction is stratified in the United States.

The second point made by Bastien, which is closely related to the first, points to the political and economic causes of housing insecurity principally brought about by cooperation between developers and the city to turn a profit. These processes of privatising public infrastructures speak to what Cindi Katz (2008) describes as neoliberal imperatives and attempts by the state and capitalists to divest from infrastructures that are crucial for people and communities to reproduce themselves. Gentrification projects like Magic City build on these relationships between capitalist

entrepreneurs and elected politicians to transplant an entirely new tech-capitalist ecosystem comprised of offices and apartments - infrastructures of production and reproduction – for high-waged workers that gradually occupy community spaces. As gentrification creeps up on the landscape of Little Haiti, accelerated by the Magic City Innovation District, the harms caused by increasing commodification and precarity in housing are a source of economic and political profiteering for developers and political officials. Furthermore, this profiteering from the depletion and dispossession of households and the annexation of space by Magic City is guided by the assumption that the reproduction of Little Haiti as a neighbourhood, and the lives and livelihoods of those within it, are expendable.

FANM's work and activism shows how gentrification is one of many processes that impact the reproductive lives and decision making of people and communities. It is but one of many political and economic processes that cause the destruction of meaningful access to the full spectrum of social, cultural and economic resources that are necessary for (un)making and sustaining new human life and communities. These connections between housing, access to services and reproduction are articulated through the advocacy efforts and service provision that FANM provides to the local community. Thus, parenting classes, facilitating access to reproductive healthcare together with fighting the encroachment of developers and immigration policing are all integral to preserving the social and cultural identity of the community whilst striving towards reproductive justice for those in it.

7.5.3 Gentrification and Community uses of Technology

A notable component of FANM's strategy to strive for the social, political and economic empowerment of families in Little Haiti is to offer digital literacy training and computer classes. FANM runs free in-centre computer courses for the community since 2007. Given the importance of computer-skills in order to connect people to the services they need to access, be it welfare, healthcare or employment possibilities – all vital services for social and biological reproduction - FANM has expended resources

for years attempting to bridge this gap. Speaking to the structural inequalities that breed the need for such a programme, Marleine Bastien explains,

“ It is easy to see the disparity in the schools, when you visit schools in the well to do neighborhoods, they are beautiful, well equipped and full of resources to stimulate learning. Then you come to schools in areas of Liberty City, Little Haiti, and Overtown, you see schools in need of repairs with scrapping paint and dirty walls. It is like moving to a different world” (Bastien 2018).

While identifying the crucial importance of access to technology and tech-education, in interview Bastien also cited gentrification as one of the causes of these inequalities, conceptualised as a purposeful attempt to deny the community vital resources (Bastien 2018). This connection traced by Bastien between the under-resourcing of schools in Little Haiti, tech-education and gentrification speaks powerfully to the contradictions and outright deception of the ‘trickle down’ tech-driven rejuvenation promised by Magic City.

First, the promises made by the Magic City team that hold the key to ‘empowering the youth of Little Haiti’ by providing much needed technical training bypasses and erases the work that FANM has already been doing for decades. Indeed, the saviourism that the Magic City team proclaims is fuelled by the assumption that the community is incapable of addressing its own needs and therefore require the intervention of an outside party. FANM’s activities prove otherwise. Second, FANM’s computer programme conceptualises the uses of technology as a means to connect the community and its people to services and employment. The computer skills programme, mostly attended by women, is a far cry from the tech-capitalist vision articulated by Magic City and Commissioner Hardemon where people from the community would join the ranks of corporate employees in tech-enterprises.

Last, Bastien is also signalling that under-resourcing is what creates the social and economic conditions that lend credence to the claims made by developers that the neighbourhood needs to ‘revitalised’. Magic city’s notion of ‘rejuvenation’ through

development elides the fact that discrimination and under-resourcing from the City, undergirded by systemic racism, are deliberate processes of debilitation (Puar 2017). Read together, these issues emphasise the absurdity of the idea that a multi-billion-dollar innovation and tech-hub built in a community where schools are denied basic computer equipment would bridge structural inequalities that have been bread for decades.

These radically different visions about the purpose and significance of technology tie into Magic City and FANM's broader objectives. As Bastien articulates, technology is an important resource for communities (Bastien 2019b). FANM's computer skills programme is therefore devised, like many of FANM's initiatives, to build a gateway for people from the community to access knowledge, employment and services. Access to tech-devices and knowledge of the internet are therefore conceptualised as a tool to combat structural inequalities and facilitate social and reproductive justice. Conversely, Magic City's technologies of eviction (Maharawal 2017) and erasure, fuelled by claims of *terra nullius* and the prophetic 'modernisation' potential of tech-enterprise, aim to colonise and sequester neighbourhood space with the infrastructures and resources required for a techno-capitalist ecosystem to flourish.

7.6 Conclusion

This discussion of the Magic City innovation district invites the reader to consider the connections between urban redevelopment, housing, reproduction and tech-infrastructures through the rubric of technologies of reproductive regulation. Drawing on the work of reproductive justice scholars and activists (Ross and Solinger 2017) and scholars of social reproduction (Katz 2001), this chapter explores how the intersections of techno-imperialism (McElroy 2019), the climate crisis, dispossession and housing insecurity do not merely reflect racial patterns, but are fundamental components of processes of racialisation, boundary making and containment (Bonds and Inwood 2016). Tech-speculative gentrification, moreover, is an important emerging force that impinges on urban landscapes, pushing communities into housing insecurity and merits attention in scholarship on reproduction as well as scholarship concerned with

the information age. This chapter also calls attention to an under researched aspect of tech-infrastructures, namely the physical spaces of (re)production of tech-capitalism and their social sedimentations. Through witnessing work, interviews and mapping this chapters shines new and important light on both the discursive material flows of tech-capitalism and its significance for reproductive politics and processes.

This chapter suggests that while gentrification is primarily motivated by spatial sequestration for economic gain, it is no accident that it occurs in working-class neighbourhoods of colour whose cultural, social and biological reproduction is hegemonically coded as expendable (Kent-Stoll 2020). In the case of Miami, a city imminently threatened by rising sea levels caused by the climate crisis, this also leads to communities being displaced to areas that are more climatologically vulnerable. As Elijah Adiv Edelman (2014) argues, gentrification carves out geographic spaces of exceptionality, where the management of sovereignty and sovereign bodies does not sit within the nation-state but rather is co-managed by the nation-state, or localised forms of government and capital investors. Moreover, taxonomies of race, sexualised and gendered difference, created through bio-necropolitical technologies, serve to demarcate which processes of living being are supported, and which are averted.

I argue that the promises of technological progress mobilized by the Magic City developers and tech-entrepreneurs, alongside the sequestration of neighbourhood space, are shaped by the race-gender project of the settler state (Glenn 2015). Techno-imperialism, as McElroy (2019) suggest, is only made possible through settler logics as they code and re-code understandings of private and extractible space and bodies. Although the Magic City innovating district project is a hyper-localised example, it demonstrates how settler colonial ontologies have been 'recoded' within contemporary techno-scientific frameworks (Subramaniam and Pollock 2016). Tech-speculative gentrification is thus shaped by ongoing histories of masculine whiteness and spatial sequestration for capitalist gain, on the one hand, justified through promises of technological progress on the other.

Chapter 8. Conclusion: Reflections on Technologies of Reproductive Regulation

8.1 Introduction

This final chapter revisits the question of what is at stake in analysing obstruction to abortion care, gentrification and im/migration policing through the prism of technologies of reproductive regulation. By way of historical analysis and fieldwork, this thesis has argued that revisiting the genealogy of reproductive regulation and its technologies in the United States reveals that hegemonic nativist reproductive grammars also entail spatial displacement, dispossession, confinement, and exclusion in addition to more commonly charted forms of reproductive control. In the present, this manifests through the allocation of space and access to (re)productive resources and the proliferation of the national borders of the settler state into the interior.

This project invites the reader to think of these discursive, material and technological processes as *technologies of reproductive regulation* that operate in the shadow space of capitalism, nativist and patriarchal political and social policies. This conceptual framing brings into relief the interplay of gender, race and class whilst showing how tech-infrastructures produce, and are assembled by policies that sustain nativist reproductive imaginaries (Franklin and Ginsburg 2019), and the gender-race project of the settler state (Glenn 2015). Not only is this perspective paramount for de-bunking the myth of technological ‘neutrality’ detached from human agency and accountability, it also traces the historical connections between contemporary techno-structures and ongoing histories of racialised and gendered reproductive regulation that are foundational to the United States.

This chapter revisits some of the theoretical engagements elaborated in Chapter 2 and discusses these points in relation to the historical and empirical research findings. The aim is to re-situate the three examples of technologies of reproductive regulation explored in Chapters 5, 6 and 7 and discuss their historical and conceptual commonalities. Chapter 2 of this thesis posed the following questions: (1) In what ways

are technologies of reproductive regulation co-constituted the tech-infrastructures of the information age? (2) How can we conceptualise ongoing histories of reproductive regulation that pre-date but inform these contemporary processes? What follows is a reflection on how these queries have been addressed throughout this project and how the preliminary findings, as discovered in the thesis, might be taken further.

8.2 Reconnecting the Abortion Clinic, the Neighbourhood and the Border

This project has been driven, in part, by the desire to contextualise and name specific practices by the state, the technology industry and organised groups as what they really are: bio-necropolitical bordering/borderization regimes (Mbembé 2019), boundary making and forms of eugenic gatekeeping (Stern 2005). The examples of reproductive regulation in Florida presented in this thesis illustrate these bio-necropolitical bordering processes and are prefigured with a ‘macroscopic’ (Ginsburg 1998) historical analysis that substantiates this claim. This historical overview given in Chapter 4 evidences why the neighbourhood, the national border and the clinic are important for reproductive politics and processes and how they became sites of intensified reproductive regulation in the United States.

In the first instance, these dynamics can be seen through historical continuities between eugenic housing policies, zoning practices and recent projects of ‘urban regeneration’. These connections reveal the centrality of reproduction to urban planning, zoning and housing policies in the United States. Urban eugenic logics, I argue, are recoded in the information age, which I evidence through a discussion of the design and development of a tech and innovation hub in the city of Miami and specifically in the Little Haiti neighbourhood. The project led to a power struggle between developers who aim to appropriate and redefine urban space under the auspices of profit and technological progress and local activists and members of the local community.

While Magic City developers made claims to neighbourhood space by asserting the inevitability and importance of technological ‘progress’ and economic (re)production, those who opposed the project drew attention to the material dispossession and erasure it would cause. In turn, tech-speculative gentrification defined the contours of reproductive citizenship by bordering neighbourhood spaces through zoning changes and ‘redevelopment projects’. These processes were justified by those in power through promises of prosperity and technological development. The array of extractive technologies and discourses deployed to expand and proliferate tech-infrastructure, sequestered urban spaces for the (re)production of tech-capitalism, I argue, are rooted in capitalist, settler colonialist and patriarchal frameworks.

This thesis also charts how the Border Patrol established in 1924 by eugenicist lobbyists proliferated into the interior aided by complex technological systems. Eugenicists framed these policies as instrumental to defending the ‘integrity’ of the white American family-nation (Stern 2005), by preventing people whose reproduction was considered ‘undesirable’ from entering into the United States. Eugenic legislation that created the border patrol also catalysed the use and development of new surveillance technologies designed to extend the policing of the border into the interior. In the contemporary, racialised reproductive anxieties still fuel the development and deployment of interconnected surveillance systems that proliferate the border. These processes are enabled by digital data collection, new modes of information management and increasingly invasive tracking systems. What is more, such digitized systems of the im/migration industrial complex are ushered in and administered by a new set of corporate partners: global tech enterprises.

As evidenced through fieldwork conducted in the U.S. border state of Florida, complex technological systems mediate racialised and gendered reproductive anxieties on the one hand, and liberal concerns about family unity and “women’s rights” on the other. This produces a landscape where im/migrant women in particular are fitted with ankle monitors so they can leave brick-and-mortar detention centres and be with their families. At the same time, the state of Florida houses the only for-profit child detention facility in the country. Complex technological systems of reproductive

regulation, therefore, are assembled on the one hand by nativist reproductive grammars that border the settler state and prevent im/migrant people from building communities and families. On the other hand, sociotechnical systems are deployed to signal the benevolence of the United States government and their concern for human rights and women's rights.

The final example charts the formation of the New Right in the 1980s and their consolidation of many allegedly "pro-family" policy strands into an overarching political ideology premised on pro-segregation, anti-welfare, anti-im/migration and socially conservative beliefs. The ideological linchpin of many organisations that comprised this conservative, Christian and nativist political formation became the fight against legalized abortion. These histories prefigure the analysis offered in Chapter 5, of the digitized infrastructures assembled by the antiabortion movement in Florida. In this example it becomes evident how complex infrastructures are mobilized as technologies of reproductive regulation designed to deter people from accessing abortion care and to obstruct access to spaces of reproductive healthcare. Within Christian right-wing nativist anti-abortion politics, I argue, fetal salvation is read into a broader reproductive grammar of rescuing America's future and ensuring the reproduction of a white Christian country (Denbow 2016, Mason 2019,).

In addition to these ongoing historical continuities, the technologies of reproductive regulation researched in this thesis are bound by a shared topography. Although discussed in separate chapters, the neighbourhood site, abortions clinics and ICE's detention and policing infrastructure are all located within the geographical space of South and Central Florida. These sites of power are mutually compounding. Gentrification in Little Haiti, as McElroy (2019) posits in the study of San Francisco, ushers in a heightened policing and im/migration policing presence. These digitized networks of the immigration industrial complex are increasingly administered by privately owned tech-corporations, many of which would flourish in the infrastructures provided by Magic City. The same technologies and topographies are harnessed by antiabortion activists in their mission to barricade sites of vital reproductive healthcare.

Moreover, upon closer inspection, the technologies of reproductive regulation charted through Chapters 6,7 and 8 are assembled and operationalised by a shared web of actors. While the specifics of whom and what is involved varies from case to case, the convergence of state legislatures, local forms of government, independent organisations and corporate tech enterprises remains a defining feature throughout. Moreover, while this project has stopped short of investigating the effects of these interlocking infrastructures on people's everyday lives, they are nonetheless interconnected hegemonic forces that feature daily for those living in the spaces describes in this thesis. In other words, the reproductive pressure exerted by these discursive, material and technological infrastructures that sequester neighbourhood space, separate families and obstruct access to vital reproductive health services exist contemporaneously in time and space.

8.3 Bio-Necropolitical Bordering Regimes

Chapter 2 of this thesis conceptualises the bio-necropolitical governmentalities that animate reproductive politics in the United States. These governmentalities, I argue, are born from ongoing histories of settler colonialism, eugenic regimes and liberal forms of governance. These historical dynamics have been framed and analysed by many scholars through Foucault's theorization of biopolitics (Foucault et al. 1976; Foucault 1978; 2009). As many scholars note, reproductive politics and technologies act simultaneously on both poles of biopower, the anatomo-politics of the individual human body and the biopolitics of collectives and/or populations (Clarke 2008; Rabinow and Rose 2006). Foucault's conceptualisation of biopolitics describes a technology of power that emerged in the second half of the eighteenth century that was directed at the social body or population. Specifically, Foucault charts a shift away from sovereign power premised by the imperative to make die and let live, towards a new form of power that seeks to administer, secure, and foster life (Foucault 1978). The significance of race, according to Foucault, is that it serves as a device to differentiate who in the population must live and who by contrast is let or made to

die. In other words, racism fulfills the function of legitimating death in an economy of biopower (Foucault et al. 1976; 2003).

My contention is that Foucault's analytic alone is inadequate for theorizing forms of power and governance that drive reproductive politics in the United States. This is because Foucault's genealogy fails to theorize colonialism as a context for biopower and is therefore limited when it comes to conceptualizing biopower as a technology of reproductive regulation of the American settler colonial state. In Chapter 2, I argue that conceptualising reproductive processes and technologies exclusively from a Foucauldian biopolitical perspective (Inda 2002; McWhorter 2009) runs the risk of framing technologies of reproductive regulation as animated by exceptional forms of gendered/racialised reproductive regulation, instead of being *constitutive* of the "race-gender project" (Glenn 2015) of the settler state. Drawing on the work of Achille Mbembé (2003), Anne Stoler (1995), Alexander Weheliye (2014), Andrea Smith (2015) and Evelyn Nakano Glenn (2015) I emphasize the perpetual objective of white-settler society to reproduce itself, framing indigenous as well as other racialised communities as a presence that the assemblages of the western liberal state must constantly seek to control and contain. Technologies of reproductive regulation, as conceptualized in Chapter 2, encompass and are animated by both bio and necropolitical forms of governance over processes of living being.

The term bio-necropolitics is used throughout this analysis to denote this formation of power, which I came to understand as foundational whilst researching and organising in the United States. This governmentality is the 'ongoingness' of settler coloniality and its forms of gendered and racialised violence fused with the now established infrastructures of the western liberal nation state. These logics determine which people are socio-spatially organised as biopolitically worthy or necropolitically disposable. The principle pursuit of this thesis has been to examine these logics through the lens of reproductive politics, processes and tech-infrastructures. Following Michelle's Murphy (2011; 2013; 2017) conceptualisation of distributed reproduction, alongside the expansive vision of reproductive politics articulated by scholar-activists of reproductive justice (Ross and Solinger 2017), this project

endeavoured to trace the ways that tech-infrastructures are instrumental in promoting some forms of life, and averting others.

Many other scholars have made the argument that reproductive politics and technologies are animated by bio-necropolitical governmentalities (Clarke 2008; De Zordo and Marchesi 2016; Inda 2002; Mills 2017; Murphy 2012; Rabinow and Rose 2006; Waldby and Cooper 2008). What this project adds to these conceptualisations is a study of socio-spatial bordering processes and boundary making. Moreover, the histories and examples traced in this thesis look beyond forms of biological control towards the ways that reproductive regulation is also driven by a spatialised logic of containment or immobilization. In other words, the technologies analysed in this thesis are all examples of bio-necropolitical bordering regimes that play an important part in reproductive politics and processes. Technologies of reproductive regulation, as I define them, avert, foreclose and control reproductive processes through bordering and boundary making. These processes are structured by the bio-necropolitical agendas of the state and adjacent actors and their primary purpose is to govern the terms, spaces and conditions of reproductive life to maintain gendered, racialised and classed reproductive hierarchies.⁷³

Gender, race, space and nation play a pivotal role in the construction of these bordering regimes. For example, the eviction technologies deployed by the developers of the Magic City tech and innovation hub alongside city officials sequester neighbourhood spaces in order to ensure the reproduction of tech-capital. In so doing, tech-speculative gentrification defines the contours of reproductive citizenship, bordering neighbourhood spaces through zoning changes and ‘redevelopment projects’. Moreover, as Patricia Hill Collins’ (1998) reminds us, gendered and racialised neighbourhood geographies in the United States have a long history. Likening the

⁷³ Another way to think about this is through Franklin and Ginsburg’s (2019) term “nativist reproductive imaginary” that describes, “an overarching grammar of national belonging defined by the preservation of whiteness, biological men and women, heterosexual marriage, and the right to carry one’s weapon of choice”. As Elisa Andaya (2019) has pointed out, this vision of national belonging results in the disinvestment from individuals and communities marked as “Other”, and in the undercutting of their ability to reproduce households, communities, and political citizenship.

protectionism over households and neighbourhood space from ‘outsiders’ to maintaining the integrity of national borders formed as a pillar of US foreign policy, Hill Collins (1998) draws attention to ongoing historical processes of socio-spatial segregation. Neighbourhoods in the United States, Hill Collins (1998) argues, are bordered by dominant groups much like a ‘mini-nation state’.

Neighbourhood bordering processes, according to Collins (1998), are intimately connected to ongoing settler colonial histories of sequestration that structure the significance of property in relations of space, place, and territory. Within this logic, borders of all sorts become vitally important to maintain structures of hierarchy and ownership (Hill Collins 1998). In the same vein, the Magic City innovation district sequesters and borders Little Haiti neighbourhood space. Zoning changes and discourses of technological progress are deployed to dispossess and spatially displace community residents to other more climatologically vulnerable areas of the city. Thinking through McElroy’s techno-imperialism analytic, we can conceive of the annexation of neighbourhood space by developers as a capitalist, imperialist and patriarchal project of spatial sequestration and bordering. As Patricia Hill Collins’ (1998) argues, the protectionism over households and neighbourhood space is rephrased in the information age into a different kind of bordering and demarcation of space, one driven by the expansion of the technology industry. Magic City’s eviction technologies can be understood, therefore, as a tool for (re)producing tech-capitalism and its necessary labour force while actively disempowering those whose biological, social and political reproduction is coded as disposable.

Chapter 6 of this thesis traces another bio-necropolitical bordering regime, one made possible through the development of mobile tracking technologies that proliferate the national border into the interior of the country. As Elena Gutierrez (2008) and others (Yuval-Davis 1997; Sampaio 2015) indicate, racialised and gendered reproductive anxieties and tropes about the fertility of im/migrant childbearing people are a major motivator these policies. Interconnected surveillance systems that police the border and the interior of the country can be conceptualized, from this standpoint, as a technology of reproductive regulation deployed to ‘safeguard’ the racial makeup of the

settler state. According to Achille Mbembé (2019) these systems transform the border through “physical and virtual barriers of separation, digitalisation of databases, filing systems, the development of new tracking devices, sensors, drones, satellites and sentinel robots, infrared detectors and various other cameras, biometric controls, and new microchips containing personal details”(9).

Bio-necropolitical bordering regimes are thus, “increasingly mobile, portable, omnipresent and ubiquitous” (Mbembé 2019, 9), and are driven by a logic of, “contraction, containment, incarceration and enclosure” (p. 10). Mbembé (2019) describes the practices of partitioning spaces as processes of ‘borderization’. This signifies the transformation of certain spaces into ‘uncrossable places’ for certain classes of populations, who are subjected to processes of containment and racialisation as a way to manage perceived risk, grant security, and safeguard ‘identity’. I argue that processes of ‘borderization’ deployed to mitigate perceived risks to the identity of the nation space highlight another reproductive partitioning.

Infrastructures of white supremacy that manifest as borderization processes spatially contain those coded as a ‘risk’ or ‘superfluous’ to the reproduction of the settler state and a white national identity. In so doing, tech-infrastructure are increasingly integral to a system that breaks families and kin and expose people to death and injury through the detention and deportation system.

Analogous bordering and boundary making processes animate the reproductive politics of antiabortion groups in the United States and their mission of fetal salvation. As discussed in Chapter 5, “pro-life” groups in Florida and across the country are driven by an ideological imperative to save individual fetuses and the biopolitical imperative to safeguard a fictional and imagined unborn racialised as white (Mason 2019). Antiabortion groups, therefore, link fetal salvation with rescuing America’s future, a logic predicated on the idea of society as a biological whole. Infrastructures deployed by antiabortion groups aim to contain and deter the ‘reproductive risk’ posed by pregnant people - and white pregnant people specifically - who abdicate from their biological reproductive duties thereby posing a danger to the reproductive futurity of the settler state. Pro-family and antiabortion politics, therefore, are integral

to nativist reproductive frameworks and imaginaries built on anti-im/migration, anti-welfare, pro-gun and pro-segregationist policies.

Technologically mediated bordering processes put in place by the anti-abortion movement mirror, even if inversely, the bordering of neighbourhood and national spaces. Tech-infrastructures are assembled into biopolitical strategies designed to obstruct access to reproductive healthcare facilities through deception, intimidation and harassment. Chapter 5 reconstructs these technologies of reproductive regulation assembled by the antiabortion movement in Florida, conceptualised as discursive, material and technological assemblages. The analysis provided in the chapter reveals that targeted messaging strategies, data-intensive technologies and cloaked websites (Daniels 2014) are common digital tools deployed by the antiabortion movement to achieve these political goals. The advent of the internet and the proliferation of digital devices, therefore, has driven antiabortion groups to expand their infrastructures into the digital realm and with this have developed novel methods of gate-keeping.

Technologies of reproductive regulation, as I conceptualise, are constitutive of the processes of bordering, obstruction and spatialised dispossession that (re)structure and naturalize entrenched reproductive hierarchies and dualisms. Moreover, all the bordering regimes documented in this thesis are motivated by a bio-necropolitical reproductive grammar that aims to contain those whose reproduction is coded as undesirable, disposable or threatening to the reproduction of the settler state. The clinic, the border and the neighbourhood are presented here as key locations and evidence of this claim. These sites, I argue, are constituted through regimes of reproductive regulation embedded in gendered and racially ontologized demarcations of space. As a result, my analysis critiques understandings of eugenics as a spectre of the 'past', and moves towards thinking through the ways that eugenic logics are embedded in contemporary spatialities and bordering processes.

8.4 Technologies of Reproductive Regulation in the Information Age

The third and final vector of analysis concerns the ways that technologies of reproductive regulation are co-produced with tech-infrastructures. Throughout this thesis, the term ‘tech-infrastructures’ is used to describe the material, technological, economic, social and discursive structures that make the information age possible. This term conceptualises the “the material stuff of cables and wires” (Chakravartty and Aouragh 2016, 564), the physical spaces of production and reproduction of the technology industry such as offices and city spaces, alongside the social sedimentations (Murphy 2013) of these infrastructures. These include “colonial legacies, the repetition of gendered norms in material culture, or the persistence of racialization” (Murphy 2013).

Drawing on these conceptualisations, this thesis examines how tech-infrastructures are assembled and intervene in reproductive politics and processes. It forms an empirical and theoretical contribution that pushes contemporary literatures on reproduction and digital technologies beyond concerns with coded reproductive health apps, wearable medical devices and the commodification of reproductive labour by the platform industry. By contrast, thinking with and through technologies of reproductive regulation as an analytic makes space for unearthing less obvious convergences between tech-infrastructures and reproductive politics and processes. It allows a shift in focus away from purpose-built platforms and apps towards the ways that tech-infrastructures are *assembled* into processes that govern the terms, spaces, conditions and quality of reproductive life, in keeping with the bio-necropolitical agendas of the state, organised political groups and the individual actors that comprise them.

Chapters 5, 6, and 7 of this thesis examine how technologies of reproductive regulation are co-produced with networked informational infrastructures and tech-capital. I adjoin a number of critical insights from sociologists and science and technology studies (STS) scholars to emphasize that racialised and gendered power

relations structure reproductive politics and tech-infrastructures alike (Atanasoski and Vora 2019; Benjamin 2019; Haraway 1991; Hayles 1993; Noble 2016). I argue that by examining the co-construction of these discursive, material and technological formations and denouncing a value-neutral view of information technologies, we can begin to map the entanglements of reproductive politics and agendas with the technology industry. The aim of this exploration is to offer an understanding of the ways that manifestations of technoscience are not neutral or universal but born from ongoing histories and power relations. This analysis yields a number of important points. First, it reveals the interplay between reproductive regulation, machine codes, automation, state and non-state infrastructures, human-actors and tech-enterprise that constitute technologies of reproductive regulation in the information age. Second, the respective chapters uncover the ways that notions of privacy, freedom of speech, technological progress and benevolence undergird and structure these biocnecropolitical modalities.

As discussed, data-intensive technologies, ad-tech and internet enabled devices are weaponised by antiabortion groups to border and obstruct access to clinics and healthcare infrastructures. Technologically integrated bordering regimes are deployed by the antiabortion movement in an attempt to govern the terms, conditions and means of reproductive decision-making by socio-spatially reorganising the landscape of abortion access. As Sociologist Jessie Daniels' (2014) work documents, this is possible because antiabortion groups exploit weaknesses in the infrastructural architecture and the anonymous character of the web. According to Daniels (2009), "brick-and-mortar facilities and the deceptive practices traditionally associated with them have been joined by online strategies that do not replace, but rather augment, the established methods" (666). A further layer of deception is created by what Daniels (2009) dubs 'cloaked sites', conceptualised as virtual spaces that claim to offer medically accurate information but are in fact a form of thinly veiled propaganda.

This analysis can be extended by mapping the ways that antiabortion politics and the information infrastructures of the tech industry are co-produced and enabled by the same set of power relations. Freedom of expression and privacy rights provide the

legal basis for the refusal of courts to regulate the conduct of CPCs and are also used by tech-companies to stave off regulation and oversight. The refusal of search engine companies to correctly label fake clinics on web mapping services and the failures of social media platforms to respond to harassment and abuse dovetails with the objectives of antiabortion groups to proliferate their infrastructures and obstruct abortion access for millions of people. In other words, the same liberal values that structure the legal system also scaffold the information architectures of the web and are coded into its algorithmic decision making. As a result, courts have been sympathetic to the claim made by antiabortion groups that legally mandating CPCs to disclose their political objective is in violation of First Amendment rights. Equally, search engine companies and social media platforms cite their commitments to free speech to justify their lack of oversight and regulation (Noble 2018).

The ways in which online-offline power structures, designed and administrated by for-profit enterprises in the 'global north' ring-fence and control spaces of progressive politics, points to the fact that reproductive politics and the politics of the internet are mutually constituted. When harassment and stalking of prospective patients and abortion access advocates is recoded and arguably amplified in the virtual sphere, the same permissive liberal structures that allow for the proliferation of antiabortion violence in offline environments are reproduced. This can be seen in the ways that the design of such platforms places the burden on individual users to report harassment, or when algorithms reproduce antiabortion deception tactics and propaganda, allowing instances of harm to promulgate. Dominant narratives spun by the technology sector that claim that personal liberties can be realized through technology's ability to strip people of specifics and frame them as equal enable these instances of harm (Noble 2016). These frameworks are constitutive of the subtle ways in which gender and race neutral "glitches" (Benjamin 2019) in technology design allow for information flows to be assembled into technologies of reproductive regulation.

As Kalindi Vora and Neda Atanasoski (2019) remind us, historical forms of domination and power including social categories and hierarchies of difference are built into

seemingly non-human objects and the infrastructures that link them. This has the effect of sanitizing digital platforms and other technologies as human and value-free. By emphasising the neutrality and rationality of technology, proponents of ‘technoliberalism’ overwrite the historically conditioned (racialized and gendered) nature of subject–object and human–thing encounters. Chapter 6 of this thesis draws on these observations and Ruha Benjamin’s (2019) framework of ‘technological benevolence’ to discuss the design and implementation of the alternatives to detention programme within the wider landscape of the im/migration industrial complex in Florida.

The analysis and research presented in Chapter 6 reveals that electronic monitoring systems put in place by Immigration and Customs Enforcement (ICE) in order to allegedly reunite separated families, are an expression of technological benevolence mobilized to appease critics of U.S. government policies of family separation. This produces a landscape where im/migrant ‘women’ in particular are fitted with ankle monitors so they can leave brick-and-mortar detention centres and fulfil forms of reproductive labour and care work. And yet these technologies are designed and operated by the same corporations that manage brick-and-mortar im/migration detention centres. Although publicly touted as a more ‘humane’ alternative to incarceration, these initiatives expand the reach of the immigration industrial complex, ushering a new set of corporate partners: for-profit tech-enterprises. As Ruha Benjamin (2019) concludes, electronic monitoring is not only a technology of benevolence but a lucrative device of racialised capitalism that claims humanistic concern. In this landscape, tech-corporations and mechanisms of liberal governance orientated towards patriarchal protectionism of ‘vulnerable’ people, co-produce technologies of reproductive regulation.

By contrast, the contracts that Immigration and Customs Enforcement (ICE) holds with major technology enterprises such as Amazon and Palantir expand the virtual back-end systems of the immigration industrial complex. These tech-infrastructures are assembled for the purposes of tracking people through the detention and deportation system, including children. Technologies of benevolence such as ankle

monitors, remote surveillance systems and specialised programmes designed to protect those ‘most-vulnerable’ obscure this larger infrastructure. What belies these benevolent technologies are gendered and racialised reproductive grammars that drive family separation at the border and through the detention and deportation system. Meanwhile, corporate technology companies that hold billion-dollar contracts administrate and harvest data on behalf of the government to proliferate systems of surveillance and bordering into the interior. As explored in Chapter 4 of this thesis, while these technologies may have been sanitized to appear benevolent and value free (Benjamin 2019; Vora 2015), they are the inheritors of the reproductive politics and surveillance technologies assembled by turn of the century American eugenicists.

Finally, the ways in which the technology industry (re) shapes urban environments is an overlooked and yet vital aspect of the social relations co-produced with the technology industry. As evidenced by the Magic City Innovation District, tech-entrepreneurs and real estate developers exploit their social and political connections to designate neighbourhood spaces for sequestration and “re-development”. These infrastructural changes push entire communities into housing insecurity, a factor identified by both reproductive justice activist-scholars (Ross and Solinger 2017) and scholars of social reproduction (Katz 2001; Lonergan 2015) as a process that undercuts the ability of entire communities to reproduce social, political and cultural citizenship. Corporate tech-giants are often described by scholars and journalists alike as twenty-first century empires (Larson 2020; Noble 2016).

As examined in Chapter 7 of this thesis, this is more than merely a metaphor. According to Erin McElroy (2019), rapid changes to urban environments driven by tech-speculative gentrification and ‘redevelopment’ and logics of capitalist accumulation are a form of techno-imperialism. Much like other empires, techno-imperialism accumulates social and economic capital in its imperial hub of Silicon Valley whilst seeking to expand its spaces of (re)production. This drive to sequester urban space and virtual data are framed by McElroy (2019) as two sides of a form of imperialism that deploys an array of extractive technologies such as racialised

algorithmic surveillance that in turn map risk, suspicion and positive value onto geographical contexts.

In the Magic City hearings, promises of technological progress and ‘redevelopment’ for a neighbourhood described as “technologically obsolete” propelled the project to approval by the City. This line of argument, alongside proposed changes to the zoning classification of the neighbourhood were deployed to enable the expansion of tech capital (Maharawal 2017), can be understood as a re-articulation of ongoing historical narratives and processes that concern the relationship between (neo/settler) colonialism, imperialism, science, technology and spatiality. The proposed development demonstrates how colonial ontologies have been ‘rephrased’ within contemporary techno-scientific frameworks and the information age (Subramaniam and Pollock 2016). Logics of spatial sequestration and dispossession prefigure the establishment and reproduction of the settler state and tech-capital alike, organized around tropes of modernity versus tradition, the former gendered as a male project of bringing capitalism, technology and patriarchal protectionism to ‘modernise’ the neighbourhood (Reardon and TallBear 2012; Subramaniam et al. 2017).

All three chapters derived from fieldwork in Florida highlight that the relationship between reproductive politics and processes and tech-infrastructures is one of mutual shaping. Through this analysis, the reader is also invited to consider the ways that modernist concepts and liberal values orientated towards patriarchal protectionism, benevolence, technological progress, privacy and freedom of speech are mobilised to obfuscate bio-necropolitical bordering regimes. This serves not only to legitimize technologies of reproductive regulation assembled by antiabortion groups, Immigration and Customs Enforcement (ICE) and tech-entrepreneurs but also to obfuscate the bio-necropolitical processes and bordering regimes that structure them. From this standpoint, land sequestration and community dispossession are portrayed as necessary for tech-capitalist ‘progress’. Technological benevolence shrouds what is a de facto expansion of the immigration industrial complex, whilst the violent tactics of antiabortion groups are chalked up to mere freedom of expression.

8.5 Conclusion

This project has been driven by the desire to open up new ways of thinking about, researching and understanding the entanglements of reproductive politics, processes and technologies. At its very beginning, this thesis posed the question of what is at stake in thinking suspiciously not only about the body as the supposed common-sense site of reproductive processes (Murphy 2011), but also questioning the ‘body’ as the site of intervention of reproductive technologies. In other words, given that processes of reproduction are as much macrological as they are anato-mo-political, this thesis asks what ‘reproductive technologies’ might there be beyond the socio-biological processes of gestation and fertility?

An exploration of these questions is undertaken by investigating how infrastructures, “assist, alter, rearrange, foreclose, harm, and participate in the process of creating, maintaining, averting, and transforming life in inter-generational time” (Murphy 2013). Specifically, it examines the way that tech-infrastructures are implicated in promoting some forms of life and averting others (Murphy 2011; 2017), through bio-necropolitical bordering regimes. By drawing on the concepts of distributed reproduction (Murphy 2011), stratified reproduction (Colen 1995) and reproductive justice (Ross and Solinger 2017) this thesis prompts further analysis and thinking about reproductive technologies (or technologies of reproductive regulation) that are assembled to intervene at the level of the social body.

Conversely, this thesis explores and complicates the ways in which technology is framed and understood in studies of reproduction. While scholars of the social and political aspects of reproductive technologies have also embarked on this project by highlighting the ways in which biology has long been cultured by technologies of gender, sex, and kinship (Franklin 2013), this project takes this ‘de-naturalisation’ of technology a step further. In the information age forces conspire to make technologies appear as synonymous with digital artefacts, biotech, barcodes, computer code, apps, bots and the architectures of the internet. However, as argued throughout, these are tools, knowledges and artefacts that are assembled by wider power structures. The

power structures examined in this thesis, named as technologies of reproductive regulation, are conceptualised as social, discursive, material and technological flows that predate the formations of the technology industry and the information age.

Technologies of reproductive regulation are not defined by the digital-material structures (tech-infrastructures) that co-produce them but are understood as political technologies that (re)structure and maintain forms of reproductive abjection and regulation through bio-necropolitical bordering regimes. From this standpoint, border control, gentrification processes and the obstructive tactics of the antiabortion movement can be understood as a 'reproductive technologies' that promote some forms of reproduction, family making and kinship building while averting others.

Technologies of reproductive regulation are thus implicated in the often-violent work of (un)making babies, parents and kin (Murphy 2013). This brings to the forefront less obvious and yet important connections between technological infrastructures outside of the biomedical and fertility industry and reproductive politics and processes.

In the information age, technologies of reproductive regulation are increasingly co-produced with tech-infrastructures, as this thesis has argued. However, analysing the ways that digital and material infrastructures are co-constitutive of reproductive politics and processes entails a recognition that while these infrastructures are not value neutral they are assembled by power structures. Technologies are not, therefore, reduced to tools, but as Donna Haraway (1991) has argued are, "frozen moments of the fluid social interactions that constitute them that are also instruments for enforcing meanings" (164). Building on this, technologies of reproductive regulation are understood as form of power and a mode of managerial organization co-produced with tech-infrastructures that generate patterns of social relations and naturalise and sediment reproductive hierarchies and inequalities.

My hope is that technologies of reproductive regulation as an analytic can achieve two things. First, it affirms the importance of complicating the ontological politics of reproduction 'beyond biology/the body', but it can also invite scholars and activists to rethink what 'technology' is (ontology) and does within this politics. Feminist scholars

and activists have for decades agonized over the promises and harms of bio-technologies for reproduction. Artificial wombs, surrogacy, assisted reproductive technologies have been endlessly debated as harbingers of gender abolitionism, reproductive justice or as a pathway to reproductive dystopia. While this research is indisputably vital and fresh perspectives are constantly reinvigorating these debates (Lewis 2019), attending to the ways that other technological infrastructures are assisting, foreclosing and averting reproduction is equally urgent. A shift in focus from bio-tech industries towards thinking about the ways in which political technologies and the information age are important for reproductive politics and processes can yield important insights.

This thesis has highlighted the urgency of thinking with and through this intersection by contributing new knowledge about the complex ways that antiabortion politics are evolving in the digital age, which remains largely unexplored in existing scholarship. It charts important and underexamined connections between family separation policies, digitized border technologies and reproduction. Finally, this thesis has documented and brought to light the threats that tech-speculative gentrification poses to housing and neighbourhood infrastructures of social/biological reproduction. In so doing, this thesis has opened new vectors of enquiry in academic studies of reproductive politics and processes, feminist theory, STS and internet studies. My hope is that this can be the beginning of a broader exploration by myself and others.

Bibliography

- ACLU. 2020. 'The Constitution in the 100-Mile Border Zone'. American Civil Liberties Union. 2020. <https://www.aclu.org/other/constitution-100-mile-border-zone>.
- Agamben, Giorgio. 1998. *Sovereign Power and Bare Life*. Homo Sacer 1. Stanford, Calif: Stanford University Press.
- Ahmed, Aziza. 2015. 'Informed Decision Making and Abortion: Crisis Pregnancy Centers, Informed Consent, and the First Amendment'. *The Journal of Law, Medicine & Ethics* 43 (1): 51–58. <https://doi.org/10.1111/jlme.12195>.
- Ahmed, Sara. 2017. *Living a Feminist Life*. Durham: Duke University Press.
- Aldama, Arturo J, and Naomi Helena Quiñonez. 2002. *Decolonial Voices: Chicana and Chicano Cultural Studies in the 21st Century*. Bloomington: Indiana University Press. <http://www.aspresolver.com/aspresolver.asp?LAFI;1000044801>.
- Aldana, Raquel. 2008. 'Of Katz and "Aliens": Privacy Expectations and the Immigration Raids'. *University of California Davies Law Review* 41: 1081–1136. <https://scholarlycommons.pacific.edu/facultyarticles/244>.
- Alexander, Michelle. 2018. 'The Newest Jim Crow'. *The New York Times*, 2018. <https://www.nytimes.com/2018/11/08/opinion/sunday/criminal-justice-reforms-race-technology.html>.
- Allen, Anita. 2000. 'Gender and Privacy in Cyberspace'. *Faculty Scholarship at Penn Law*, no. 783 (May). https://scholarship.law.upenn.edu/faculty_scholarship/789.
- Aloisi, Antonio. 2015. 'Commoditized Workers: Case Study Research on Labor Law Issues Arising from a Set of on-Demand/Gig Economy Platforms'. *Comparative Labor Law & Policy Journal* 37: 653. <https://heinonline.org/HOL/Page?handle=hein.journals/cllpj37&id=689&div=&collection=>.
- Alvaré, Melissa Archer. 2017. 'Gentrification and Resistance: Racial Projects in the Neoliberal Order'. *Social Justice* 44 (2-3 (148)): 113–36. <https://www.jstor.org/stable/26538384>.
- Alvarez, Sandra C. 2018. 'Tracing a Cartography of Struggle: Reflections on Twenty Years of Transnational Solidarity with the U'wa People of Colombia'. *International Feminist Journal of Politics* 20 (1): 86–90. <https://doi.org/10.1080/14616742.2017.1385181>.
- American Civil Liberties Union. 2019. 'Worse Than Second-Class: Solitary Confinement of Women in the United States'. <https://www.aclu.org/report/worse-second-class-solitary-confinement-women-united-states>.
- American Immigration Council. 2020. 'Immigrants in Florida'. American Immigration Council.

- https://www.americanimmigrationcouncil.org/sites/default/files/research/immigrants_in_florida.pdf.
- Americans for Immigrant Justice and Southern Poverty Law Centre. 2019. 'Prison By Any Other Name: A Report on South Florida Detention Facilities'.
https://www.splcenter.org/sites/default/files/cjr_fla_detention_report-final_1.pdf.
- Amoore, Louise. 2006. 'Biometric Borders: Governing Mobilities in the War on Terror'. *Political Geography* 25 (3): 336–51. <https://doi.org/10.1016/j.polgeo.2006.02.001>.
- Amrute, Sareeta. 2019. 'Tech Colonialism Today'. In *Medium*. EPIC2019.
<https://points.datasociety.net/tech-colonialism-today-9633a9cbooad>.
- Andaya, Elise. 2019. "'I'm Building a Wall around My Uterus": Abortion Politics and the Politics of Othering in Trump's America'. *Cultural Anthropology* 34 (1): 10–17. <https://doi.org/10.14506/ca34.1.03>.
- Anderson, Elijah. 2015. "'The White Space'". *Sociology of Race and Ethnicity* 1 (1): 10–21. <https://doi.org/10.1177/2332649214561306>.
- Anderson, Warwick. 2002. 'Introduction: Postcolonial Technoscience'. *Social Studies of Science* 32 (5/6): 643–58. <https://www.jstor.org/stable/3183050>.
- Andrejevic, Mark. 2004. 'The Work of Watching One Another: Lateral Surveillance, Risk, and Governance'. *Surveillance & Society* 2 (4).
<https://doi.org/10.24908/ss.v2i4.3359>.
- Anonymous A. 2019. 'Personal Interview with Anonymous A, Reproductive Justice Coordinator for an Organisation Based in Florida.', 28 February 2019.
- Anonymous B. 2019. 'Personal Interview with Anonymous B, a Local Activist Involved in the Campaign to Shut down the Homestead Child Detention Facility', 17 September 2019.
- Anonymous C. 2019. 'Personal Interview with Anonymous C, an Activist Acquainted with the Homestead Facility', 2019.
- Anzaldúa, Gloria. 1987. *Borderlands: La Frontera*. Chicana Studies. San Francisco, Calif: Aunt Lute Books.
- Aouragh, Miriyam, and Paula Chakravartty. 2016. 'Infrastructures of Empire: Towards a Critical Geopolitics of Media and Information Studies'. *Media, Culture & Society* 38 (4): 559–75. <https://doi.org/10.1177/0163443716643007>.
- Arvin, Maile. 2019. 'Indigenous Feminist Notes on Embodying Alliance against Settler Colonialism'. *Meridians* 18 (2): 335–57. <https://doi.org/10.1215/15366936-7775663>.
- Associated Press. 2019. 'Trump Administration to Close "prison-like" Facility for Migrant Children'. *The Guardian*, 2019. <http://www.theguardian.com/us-news/2019/oct/28/trump-homestead-migrant-detention-florida>.
- Atanasoski, Neda, and Kalindi Vora. 2019. *Surrogate Humanity: Race, Robots, and the Politics of Technological Futures*. Perverse Modernities. Durham: Duke University Press.

- Atanasoski, Neda, and Kalindi Vora. 2015. 'Surrogate Humanity: Posthuman Networks and the (Racialized) Obsolescence of Labor. *Catalyst: Feminism, Theory, Technoscience* 1 (1).
https://catalystjournal.org/index.php/catalyst/article/view/ata_vor
- Bailey, Alison. 2011. 'Reconceiving Surrogacy: Toward a Reproductive Justice Account of Indian Surrogacy'. *Hypatia* 26 (4): 715–41.
<https://www.jstor.org/stable/41328877>.
- Bajak, Frank. 2017. 'Trump Administration Ends Detention Alternate for Asylum-Seekers, Mostly Used by Moms, Kids'. *Chicago Tribune*, 2017.
<https://www.chicagotribune.com/news/ct-trump-immigration-detention-alternate-asylum-seekers-20170609-story.html>.
- Bambara, Toni Cade. 1970. 'The Pill: Genocide or Liberation'. In *The Black Woman: An Anthology*. New York: Washington Square Press.
- Banerjee, Amrita. 2014. 'Race and a Transnational Reproductive Caste System: Indian Transnational Surrogacy'. *Hypatia* 29 (1): 113–28.
<https://doi.org/10.1111/hypa.12056>.
- Bashford, Alison, and Philippa Levine. 2010a. 'Introduction: Eugenics and the Modern World'. In *The Oxford Handbook of the History of Eugenics*, edited by Alison Bashford and Philippa Levine. Oxford ; New York: Oxford University Press.
- , eds. 2010b. *The Oxford Handbook of the History of Eugenics*. Oxford ; New York: Oxford University Press.
- Bastien, Marleine. 2019a. *City of Miami Commission Hearing— Planning & Zoning 28 February 2019, Miami City Hall, Miami, FL*. Miami City Hall, Miami.
- . 2019b. 'Personal Interview between Marleine Bastien, Executive Director of Family Action Network Movement (FANM) in Miami, Florida', 16 May 2019.
- Belew, Kathleen. 2019. *Bring the War Home: The White Power Movement and Paramilitary America*.
- Benjamin, Ruha. 2016a. 'Catching Our Breath: Critical Race STS and the Carceral Imagination'. *Engaging Science, Technology, and Society* 2 (0): 145–56.
<https://doi.org/10.17351/ests2016.70>.
- . 2016b. 'Innovating Inequity: If Race Is a Technology, Postracialism Is the Genius Bar'. *Ethnic and Racial Studies* 39 (13): 2227–34.
<https://doi.org/10.1080/01419870.2016.1202423>.
- , ed. 2019a. *Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life*. Durham: Duke University Press.
- . 2019b. *Race after Technology: Abolitionist Tools for the New Jim Code*. Medford, MA: Polity.
- Berda, Yael. 2013. 'Managing Dangerous Populations: Colonial Legacies of Security and Surveillance'. *Sociological Forum* 28 (3): 627–30.
<https://www.jstor.org/stable/43653901>.

- Bhattacharya, Tithi, and Liselotte Vogel, eds. 2017. *Social Reproduction Theory: Remapping Class, Recentering Oppression*. First published. London: Pluto Press.
- Bhattacharyya, Gargi. 2018. *Rethinking Racial Capitalism: Questions of Reproduction and Survival*. Cultural Studies and Marxism. Lanham: Rowman & Littlefield Publishers.
- BI Incorporated. 2019. 'BI Analytics - Offender Monitoring Statistics Behavior Tracking'. *BI Incorporated* (blog). 2019. <https://bi.com/products-and-services/analytics-offender-monitoring-data-statistics-behavior-tracking/>.
- Bidlingmaier, Selma Siew Li. 2019. 'Gentrification through Housing: Urban Eugenics and Lawrence Veiller's 1900 Tenement House Exhibition'. *Amerikastudien/American Studies* 64 (2): 265–90. <https://doi.org/10.33675/AMST/2019/2/8>.
- Blanchard, Dallas A., and Terry J. Prewitt. 1993. *Religious Violence and Abortion: The Gideon Project*. Gainesville: University Press of Florida.
- Blee, Kathleen M., and Kimberly A. Creasap. 2010. 'Conservative and Right-Wing Movements'. *Annual Review of Sociology* 36 (1): 269–86. <https://doi.org/10.1146/annurev.soc.012809.102602>.
- Bonds, Anne, and Joshua Inwood. 2016. 'Beyond White Privilege: Geographies of White Supremacy and Settler Colonialism'. *Progress in Human Geography* 40 (6): 715–33. <https://doi.org/10.1177/0309132515613166>.
- Boonstra, Heather D. 2008. 'The Impact of Government Programs on Reproductive Health Disparities: Three Case Studies'. *Guttmacher Institute* 11 (3). <https://www.guttmacher.org/gpr/2008/08/impact-government-programs-reproductive-health-disparities-three-case-studies>.
- Bowman, James. 1996. 'The Road to Eugenics'. *The University of Chicago Law School Roundtable* 3 (2). <https://chicagounbound.uchicago.edu/roundtable/vol3/iss2/7>.
- Brebenel, Mihaela. 2020. 'Embodied Frictions and Frictionless Sovereignty'. *Boundary 2* (blog). 18 August 2020. <https://www.boundary2.org/2020/08/mihaela-brebenel-embodied-frictions-and-frictionless-sovereignty/>.
- Briggs, Laura. 2002. *Reproducing Empire: Race, Sex, Science, and U.S. Imperialism in Puerto Rico*. American Crossroads 11. Berkeley: University of California Press.
- . 2017. *How All Politics Became Reproductive Politics: From Welfare Reform to Foreclosure to Trump*. Reproductive Justice: A New Vision for the Twenty-First Century 2. Oakland, California: University of California Press.
- Brin, Sergey, and Lawrence Page. 1998. 'The Anatomy of a Large-Scale Hypertextual Web Search Engines'. *Computer Networks and ISDN Systems, Proceedings of the Seventh International World Wide Web Conference*, 30 (1): 107–17. [https://doi.org/10.1016/S0169-7552\(98\)00110-X](https://doi.org/10.1016/S0169-7552(98)00110-X).
- Brock, André. 2011. 'Beyond the Pale: The Blackbird Web Browser's Critical Reception'. *New Media & Society* 13 (7): 1085–1103. <https://doi.org/10.1177/1461444810397031>.

- Brooks, Richard Rexford Wayne, and Carol M. Rose. 2013. *Saving the Neighborhood: Racially Restrictive Covenants, Law, and Social Norms*. Cambridge, Massachusetts: Harvard University Press.
- Browne, Simone. 2012. 'Race and Surveillance'. In *Routledge Handbook of Surveillance Studies*, edited by David Lyon, Kevin D. Haggerty, and Kirstie Ball. Abingdon, Oxon ; New York: Routledge.
- . 2015. *Dark Matters: On the Surveillance of Blackness*. Durham: Duke University Press.
- Brown-Saracino, Japonica, ed. 2010. *The Gentrification Debates*. Metropolis and Modern Life. New York: Routledge.
- Bryant, Amy G., Subasri Narasimhan, Katelyn Bryant-Comstock, and Erika E. Levi. 2014. 'Crisis Pregnancy Center Websites: Information, Misinformation and Disinformation'. *Contraception* 90 (6): 601–5.
<https://doi.org/10.1016/j.contraception.2014.07.003>.
- Bryant, Amy G., and Jonas J. Swartz. 2018. 'Why Crisis Pregnancy Centers Are Legal but Unethical'. *AMA Journal of Ethics* 20 (3): 269–77.
<https://doi.org/10.1001/journalofethics.2018.20.3.pfor1-1803>.
- Buiano, Madeline. 2018. 'ICE Data: Tens of Thousands of Deported Parents Have U.S. Citizen Kids'. The Centre for Public Integrity.
<https://publicintegrity.org/inequality-poverty-opportunity/immigration/ice-data-tens-of-thousands-of-deported-parents-have-u-s-citizen-kids/>.
- Businesswire. 2011. 'The GEO Group Closes \$415 Million Acquisition of B.I. Incorporated'. 11 February 2011.
<https://www.businesswire.com/news/home/20110211005372/en/The-GEO-Group-Closes-415-Million-Acquisition-of-B.I.-Incorporated>.
- Butler, Judith. 1993. *Bodies That Matter: On the Discursive Limits of 'Sex'*. New York: Routledge.
- Calkin, Sydney. 2019. 'Towards a Political Geography of Abortion'. *Political Geography* 69 (March): 22–29. <https://doi.org/10.1016/j.polgeo.2018.11.006>.
- Camp, Dave. 1997. *H.R. 867 (105th): Adoption and Safe Families Act of 1997*. H.R. 867 (105th): *Adoption and Safe Families Act of 1997*.
<https://www.govtrack.us/congress/bills/105/hr867>.
- Capps, Randolph, Heather Koball, Andrea Campetella, Krista Perreira, Sarah Hooker, and Juan Pedroza. 2015. 'Implications of Immigration Enforcement Activities for the Well-Being of Children in Immigrant Families: A Review of the Literature'. Urban Institute. <https://www.urban.org/research/publication/implications-immigration-enforcement-activities-well-being-children-immigrant-families-review-literature>.
- Castells, Manuel. 2000. *The Rise of the Network Society*. 2nd ed. Information Age, V.1. Oxford ; Malden, Mass: Blackwell Publishers.

- Cheng, Amrit. 2018. 'Fact-Checking Family Separation'. *American Civil Liberties Union*, 2018. <https://www.aclu.org/blog/immigrants-rights/immigrants-rights-and-detention/fact-checking-family-separation>.
- Chesler, Ellen. 1993. *Woman of Valor: Margaret Sanger and the Birth Control Movement in America*. 1. Anchor Books ed. An Anchor Book. New York, NY: Doubleday.
- Chun, Wendy Hui Kyong. 2009. 'Introduction: Race and/as Technology; or, How to Do Things to Race'. *Camera Obscura: Feminism, Culture, and Media Studies* 24 (1 (70)): 7–35. <https://doi.org/10.1215/02705346-2008-013>.
- Cisneros, Natalie. 2013. "'Alien' Sexuality: Race, Maternity, and Citizenship'. *Hypatia* 28 (2): 290–306. <https://doi.org/10.1111/hypa.12023>.
- Clarke, Adele E. 1998. *Disciplining Reproduction: Modernity, American Life Sciences, and 'the Problems of Sex'*. Berkeley: University of California Press.
- Clarke, Adele E. 2008. 'Introduction: Gender and Reproductive Technologies in East Asia'. *East Asian Science, Technology and Society: An International Journal* 2 (3): 303–26. <https://doi.org/10.1215/s12280-008-9063-4>.
- Clarke, Adele, and Donna Harway, eds. 2018. *Making Kin Not Population: Reconceiving Generations*. Chicago, IL: Prickly Paradigm Press.
- Coleman, Beth. 2009. 'Race as Technology'. *Camera Obscura: Feminism, Culture, and Media Studies* 24 (1 (70)): 177–207. <https://doi.org/10.1215/02705346-2008-018>.
- Colen, Shellee. 1995. "'Like a Mother to Them": Stratified Reproduction and West Indian Childcare Workers and Employees in New York'. In *Conceiving the New World Order: The Global Politics of Reproduction*, edited by Faye D. Ginsburgh and Rayna Rapp. Berkeley and Los Angeles, California: University of California Press.
- Collins, H M. 1983. 'The Sociology of Scientific Knowledge: Studies of Contemporary Science'. *Annual Review of Sociology* 9 (1): 265–85. <https://doi.org/10.1146/annurev.so.09.080183.001405>.
- Collins, Patricia Hill. 1997. 'Comment on Hekman's "Truth and Method: Feminist Standpoint Theory Revisited": Where's the Power?' *Signs: Journal of Women in Culture and Society* 22 (2): 375–81. <https://doi.org/10.1086/495162>.
- . 1998. 'It's All in the Family: Intersections of Gender, Race, and Nation'. *Hypatia* 13 (3): 62–82. <https://www.jstor.org/stable/3810699>.
- Combahee River Collective. 1986. *The Combahee River Collective Statement: Black Feminist Organizing in the Seventies and Eighties*. Albany, NY: Kitchen Table : Women of Color Press. <http://books.google.com/books?id=sEqaAAAAIAAJ>.
- Connelly, Matthew. 2010. *Fatal Misconception: The Struggle to Control World Population*. Cambridge: Belknap Press. <http://site.ebrary.com/id/10309089>.
- Connolly, N. D. B. 2016. *A World More Concrete: Real Estate and The Remaking of Jim Crow South Florida*. Chicago: University of Chicago Press.

- Corinne L., Mason. 2016. 'Race, Media, and Surveillance: Sex-Selective Abortions in Canada'. In *Expanding the Gaze: Gender and the Politics of Surveillance*, edited by Robert Heynen and Emily Van der Meulen. University of Toronto Press.
- Couldry, Nick, and Ulises A. Mejias. 2019. 'Data Colonialism: Rethinking Big Data's Relation to the Contemporary Subject'. *Television & New Media* 20 (4): 336–49. <https://doi.org/10.1177/1527476418796632>.
- Coutts, Sharona. 2016. 'Anti-Choice Groups Use Smartphone Surveillance to Target "Abortion-Minded Women" During Clinic Visits'. *Rewire News Group*, 2016. <https://rewirenewsgroup.com/article/2016/05/25/anti-choice-groups-deploy-smartphone-surveillance-target-abortion-minded-women-clinic-visits/>.
- Crampton, Jeremy W. 2011. *Mapping: A Critical Introduction to Cartography and GIS*. John Wiley & Sons.
- Curran, Winifred. 2017. *Gender and Gentrification*. Routledge Critical Studies in Urbanism and the City. Abingdon, Oxon ; New York, NY: Routledge.
- Currell, Susan. 2010. 'Breeding Better Babies in the Eugenic Garden City: "Municipal Darwinism" and the (Anti)Cosmopolitan Utopia in the Early Twentieth Century'. *Modernist Cultures* 5 (2): 267–90. <https://doi.org/10.3366/mod.2010.0106>.
- Dalla Costa, Mariarosa, and Selma James, eds. 1975. *The Power of Women and the Subversion of the Community*. 3rd ed. Bristol: Falling Wall Press Ltd.
- Danewid, Ida. 2020. 'The Fire This Time: Grenfell, Racial Capitalism and the Urbanisation of Empire'. *European Journal of International Relations* 26 (1): 289–313. <https://doi.org/10.1177/1354066119858388>.
- Daniels, Jessie. 2009a. *Cyber Racism: White Supremacy Online and the New Attack on Civil Rights*. Perspectives on a Multiracial America Series. Lanham, Md: Rowman & Littlefield Publishers.
- . 2009b. 'Cloaked Websites: Propaganda, Cyber-Racism and Epistemology in the Digital Era'. *New Media & Society* 11 (5): 659–83. <https://doi.org/10.1177/1461444809105345>.
- . 2013. 'Race and Racism in Internet Studies: A Review and Critique'. *New Media & Society* 15 (5): 695–719. <https://doi.org/10.1177/1461444812462849>.
- . 2018. 'The Algorithmic Rise of the "Alt-Right"'. *Contexts* 17 (1): 60–65. <https://doi.org/10.1177/1536504218766547>.
- Danticat, Edwidge. 2008. *Brother, I'm Dying*. 1st Vantage books ed. New York: Vantage Books.
- Davis, Angela Y. 1983. *Women, Race & Class*. 1st Vintage Books ed. New York: Vintage Books.
- . 1998. 'Masked Racism: Reflections on the Prison Industrial Complex', 1998. <https://www.colorlines.com/articles/masked-racism-reflections-prison-industrial-complex>.
- . 2003. *Are Prisons Obsolete?* Open Media Book. New York: Seven Stories Press.

- Davis, Dána-Ain. 2019. 'Trump, Race, and Reproduction in the Afterlife of Slavery'. *Cultural Anthropology* 34 (1): 26–33. <https://doi.org/10.14506/ca34.1.05>.
- De Genova, Nicholas P. 2002. 'Migrant "Illegality" and Deportability in Everyday Life'. *Annual Review of Anthropology* 31 (1): 419–47. <https://doi.org/10.1146/annurev.anthro.31.040402.085432>.
- De Lauretis, Teresa. 1987. *Technologies of Gender: Essays on Theory, Film, and Fiction*. Theories of Representation and Difference. Bloomington: Indiana University Press.
- De Zordo, Silvia, and Milena Marchesi. 2016. *Reproduction and Biopolitics: Ethnographies of Governance, Rationality and Resistance*. https://nls.ldls.org.uk/welcome.html?ark:/81055/vdc_100063022378.0x000001.
- Deleuze, Gilles, and Félix Guattari. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. Minneapolis: University of Minnesota Press.
- Denbow, Jennifer M. 2015. *Governed through Choice: Autonomy, Technology, and the Politics of Reproduction*. New York: New York University Press.
- . 2016. 'Abortion as Genocide: Race, Agency, and Nation in Prenatal Nondiscrimination Bans'. *Signs: Journal of Women in Culture and Society* 41 (3): 603–26. <https://doi.org/10.1086/684239>.
- Dennis, Amanda, Kelly Blanchard, and Denisse Córdova. 2011. 'Strategies for Securing Funding for Abortion Under the Hyde Amendment: A Multistate Study of Abortion Providers' Experiences Managing Medicaid'. *American Journal of Public Health* 101 (11): 2124–29. <https://doi.org/10.2105/AJPH.2011.300212>.
- Deutscher, Penelope. 2017. *Foucault's Futures: A Critique of Reproductive Reason*. Critical Life Studies. New York: Columbia University Press.
- Diallo, Dázon. 1990. 'Operation Oppress You: Women's Rights Under Siege'. In *From Abortion to Reproductive Freedom: Transforming a Movement*, edited by Marlene Gerber Fried, 1st ed. Boston, MA: South End Press.
- DiBranco, Alex. 2020. 'The Long History of the Anti-Abortion Movement's Links to White Supremacists', 3 February 2020. <https://www.thenation.com/article/politics/anti-abortion-white-supremacy/>.
- Dijk, Jan van. 2005. *The Deepening Divide: Inequality in the Information Society*. Thousand Oaks: Sage Publications.
- Doorn, Niels van. 2017. 'Platform Labor: On the Gendered and Racialized Exploitation of Low-Income Service Work in the "On-Demand" Economy'. *Information, Communication & Society* 20 (6): 898–914. <https://doi.org/10.1080/1369118X.2017.1294194>.
- Doty, Roxanne Lynne, and Elizabeth Shannon Wheatley. 2013. 'Private Detention and the Immigration Industrial Complex'. *International Political Sociology* 7 (4): 426–43. <https://doi.org/10.1111/ips.12032>.
- Dubrofsky, Rachel E., and Shoshana Magnet, eds. 2015. *Feminist Surveillance Studies*. Durham: Duke University Press.

- Edelman, Elijah Adiv. 2014. “Walking While Transgender”: Necropolitical Regulation of Trans Feminine Bodies of Colour in the Nation’s Capital’. In *Queer Necropolitics*, edited by Jinthana Haritaworn, Adi Kuntsman, and Silvia Posocco. Social Justice. Abingdon, Oxon: Routledge, Taylor & Francis Group, a GlassHouse Book.
- Edwards, Paul N., Geoffrey C. Bowker, Steven J. Jackson, and Robin Williams. 2009. ‘Introduction: An Agenda for Infrastructure Studies’. *Journal of the Association for Information Systems* 10 (5): 364–74.
- Edwards, Paul N, Steven J. Jackson, Geoffrey C. Bowker, and Corey Knobel C. 2007. ‘Understanding Infrastructure: Dynamics, Tensions, and Design’. <https://deepblue.lib.umich.edu/handle/2027.42/49353>.
- Ehrenreich, Barbara, and Deirdre English. 1979. *For Her Own Good: 150 Years of the Experts’ Advice to Women*. Anchor Books. Garden City: Anchor Press.
- Elfrink, Tim. 2018. ‘ICE Handcuffs Immigrants On 18th Birthday At Homestead Children’s Center, Sends Them To Jail’. *Miami New Times*, 2018. <https://www.miaminewtimes.com/news/ice-handcuffs-immigrants-on-18th-birthday-at-homestead-childrens-center-sends-them-to-jail-10651093>.
- Ely, Gretchen E., Travis Hales, D. Lynn Jackson, Eugene Maguin, and Greer Hamilton. 2017. ‘The Undue Burden of Paying for Abortion: An Exploration of Abortion Fund Cases’. *Social Work in Health Care* 56 (2): 99–114. <https://doi.org/10.1080/00981389.2016.1263270>.
- EMerge Americas. 2019. ‘EMerge Americas. Transforming Miami and Beyond Entrepreneurship, Technology, Venture’. EMerge Americas. 2019. <https://emergeamericas.com/discover/about>.
- Escobar, Martha D. 2016. *Captivity Beyond Prisons: Criminalization Experiences of Latina (Im)Migrants*. First edition. Austin: University of Texas Press.
- Eubanks, Virginia. 2017. *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*. First Edition. New York, NY: St. Martin’s Press.
- Everett, Anna. 2002. ‘The Revolution Will Be Digitized: Afrocentricity and the Digital Public Sphere’. *Social Text* 20 (2 (71)): 125–46. https://doi.org/10.1215/01642472-20-2_71-125.
- Executive Office of the President. 2017. *Enhancing Public Safety in the Interior of the United States - E.O. 13768 of Jan 25, 2017*. <https://www.federalregister.gov/documents/2017/01/30/2017-02102/enhancing-public-safety-in-the-interior-of-the-united-states>.
- Executive Office of the President. 2018. *E.O.13841 Affording Congress an Opportunity to Address Family Separation*. 83 FR 29435. <https://www.federalregister.gov/documents/2018/06/25/2018-13696/affording-congress-an-opportunity-to-address-family-separation>.
- Fairman, Neil. 2019. *City of Miami Commission Hearing— Planning & Zoning, 27 June 2019, Miami City Hall, Miami, FL*. Miami City Hall, Miami.

- Fanarjian, Nicole. 2017. 'Florida Lawmakers Are Funding Anti-Abortion Clinics, Restricting Women's Access to Comprehensive Healthcare'. *Miami Herald*, 2017. <https://www.miamiherald.com/opinion/op-ed/article183570311.html>.
- Fanon, Frantz. 1963. *The Wretched of the Earth*. New York: Grove.
- Farquhar, Dion. 1996. *The Other Machine: Discourse and Reproductive Technologies. Thinking Gender*. New York: Routledge.
- Federici, Silvia. 2010. 'Silvia Federici, "The Reproduction of Labour-Power in the Global Economy, Marxist Theory and the Unfinished Feminist Revolution"'. In *Caring Labor: An Archive*. <https://caringlabor.wordpress.com/2010/10/25/silvia-federici-the-reproduction-of-labour-power-in-the-global-economy-marxist-theory-and-the-unfinished-feminist-revolution/>.
- . 2012. *Revolution at Point Zero: Housework, Reproduction, and Feminist Struggle*. Oakland, CA : Brooklyn, NY : London: PM Press ; Common Notions : Autonomedia ; Turnaround [distributor].
- Feldman, Marcos, and Violaine Jolivet. 2014. 'Back to Little Havana: Controlling Gentrification in the Heart of Cuban Miami'. *International Journal of Urban and Regional Research* 38 (4): 1266–85. <https://doi.org/10.1111/1468-2427.12097>.
- Felt, Ulrike, Rayvon Fouché, Clake A. Miller, and Laurel Smith-Doerr, eds. 2017. *The Handbook of Science and Technology Studies*. Fourth edition. Cambridge, Massachusetts: The MIT Press.
- 'Fighting White Supremacy and White Privilege to Build a Human Rights Movement | Understanding and Dismantling Privilege'. n.d. Accessed 1 December 2020. <http://www.wpcjournal.com/article/view/16080>.
- Firestone, Shulamith. 1970. *The Dialectic of Sex: The Case for Feminist Revolution*. New York: Morrow.
- . 2003. *The Dialectic of Sex: The Case for Feminist Revolution*. New York, NY: Farrar, Straus and Giroux.
- Flateau, John. 1996. *The Prison Industrial Complex: Race, Crime & Justice in New York*. Brooklyn, NY: Medgar Evers College Press.
- Fleury-Steiner, Benjamin. 2019. 'Deportation Platforms: The AWS-ICE Alliance and the Fallacy of Explicit Agendas'. *Surveillance & Society* 17 (1/2): 105–10. <https://doi.org/10.24908/ss.v17i1/2.12951>.
- Flood, Sarah, Miriam King, Renae Rodgers, Steven Ruggles, and J. Robert Warren. 2020. 'Integrated Public Use Microdata Series, Current Population Survey: Version 7.0'. <https://www.ipums.org/projects/ipums-cps/do30.V7.o>.
- Flores-González, Nilda, ed. 2013. *Immigrant Women Workers in the Neoliberal Age*. Urbana: University of Illinois Press.
- Florida Constitution. 1968. Florida Constitution--1968 Revision Art. I, § 2.
- Florida Pregnancy Care Network. 2019. 'Florida Pregnancy Care Network'. Florida Pregnancy Care Network, Inc. 2019. <https://myfpcn.com>.

- Florida, Richard, and Steven Pedigo. 2019. 'Miami's Housing Affordability Crisis'. Miami Urban Future Institute, Florida International University. <https://digitalcommons.fiu.edu/mufi-reports/6>.
- Fortunati, Leopoldina. 1995. *The Arcane of Reproduction: Housework, Prostitution, Labor and Capital*. Translated by Jim Fleming. Brooklyn, N.Y.: Autonomedia.
- Fortunati, Leopoldina, and Jim Fleming. 1995. *The arcane of reproduction: housework, prostitution, labor and capital*. Brooklyn, N.Y.: Autonomedia.
- Foster, Diana Greene, Katrina Kimport, Heather Gould, Sarah C. M. Roberts, and Tracy A. Weitz. 2013. 'Effect of Abortion Protesters on Women's Emotional Response to Abortion'. *Contraception* 87 (1): 81–87. <https://doi.org/10.1016/j.contraception.2012.09.005>.
- Foucault, Michel. 1978. *The History of Sexuality Vol. 1: An Introduction*. 1st American ed. New York: Pantheon Books.
- . 1982. *Discipline and Punish: The Birth of the Prison*. Peregrine Books. Harmondsworth: Penguin Books.
- . 1988. 'Technologies of the Self'. In *Technologies of the Self: A Seminar with Michel Foucault*, edited by Michel Foucault, Luther H. Martin, Huck Gutman, and Patrick H. Hutton. Amherst: University of Massachusetts Press.
- . 2009. *Security, Territory, Population: Lectures at the Collège de France 1977-78*. Lectures at the Collège de France. Basingstoke: Palgrave Macmillan.
- Foucault, Michel, Mauro Bertani, Alessandro Fontana, François Ewald, and David Macey. 1976. *Society Must Be Defended: Lectures at the Collège de France, 1975-76*. 1st ed. New York: Picador.
- . 2003. *Society Must Be Defended: Lectures at the Collège de France, 1975-76*. 1st Picador pbk. ed. New York: Picador.
- Foucault, Michel, Valerio Marchetti, Antonella Salomoni, and Arnold I. Davidson. 2003. *Abnormal: Lectures at the Collège de France, 1974-1975*. 1. Picador USA ed. Lectures at the Collège de France. New York, NY: Picador.
- Franklin, M.I. 2013. *Digital Dilemmas: Power, Resistance, and the Internet*. Oxford ; New York: Oxford University Press.
- Franklin, Sarah. 2010. 'Revisiting Reprotech: Firestone and the Question of Technology'. In *Further Adventures of The Dialectic of Sex Critical Essays on Shulamith Firestone*, edited by Mardy Merck and Stella Sandford. London: Palgrave Macmillan.
- . 2013. *Biological Relatives: IVF, Stem Cells, and the Future of Kinship*. Experimental Futures. Durham: Duke University Press.
- Franklin, Sarah, and Faye Ginsburg. 2019. 'Reproductive Politics in the Age of Trump and Brexit'. *Cultural Anthropology* 34 (1): 3–9. <https://doi.org/10.14506/ca34.1.02>.
- Fried, Marlene Gerber. 1990. 'Transforming the Reproductive Rights Movement: The Post-Webster Agenda'. In *From Abortion to Reproductive Freedom*:

- Transforming a Movement*, edited by Marlene Gerber Fried, 1st ed. Boston, MA: South End Press.
- Gajjala, Radhika. 2003. 'South Asian Digital Diasporas and Cyberfeminist Webs: Negotiating Globalization, Nation, Gender and Information Technology Design'. *Contemporary South Asia* 12 (1): 41–56. <https://doi.org/10.1080/0958493032000123362>.
- . 2004. *Cyber Selves: Feminist Ethnographies of South Asian Women*. Walnut Creek, CA: AltaMira Press.
- Gell, Alfred. 1988. 'Technology and Magic'. *Anthropology Today* 4 (2): 6–9. <https://doi.org/10.2307/3033230>.
- Genova, Nicholas De. 2007. 'The Production of Culprits: From Deportability to Detainability in the Aftermath of "Homeland Security"'. *Citizenship Studies* 11 (5): 421–48. <https://doi.org/10.1080/13621020701605735>.
- GEO Group. 2020. 'Geo Group Annual Report 2020'. <https://annualreport.stocklight.com/NYSE/GEO/20655018.pdf>.
- Gerrand, Danielle. 2019. 'Florida Bill Would Ban Abortions If Fetal Heartbeat Detected', 2019. <https://www.cbsnews.com/news/florida-mike-hill-house-bill-235-abortion-ban-fetal-heartbeat/>.
- Gierczyk, Marta. 2020. 'Magic City Killjoys: Women Organizers, Gentrification, and the Politics of Multiculturalism in Little Haiti'. *Anthurium A Caribbean Studies Journal* 16 (1): 10. <https://doi.org/10.33596/anth.409>.
- Gilmore, Ruth Wilson. 2006. *Golden Gulag: Prisons, Surplus, Crisis, and Opposition in Globalizing California*. Berkeley: University of California Press.
- Ginsburg, Faye D. 1998. *Contested Lives: The Abortion Debate in an American Community*. Updated ed., with A new introd. Berkeley: University of California Press.
- Ginsburg, Faye D., and Rayna Rapp. 1995. *Conceiving the New World Order: The Global Politics of Reproduction*. Berkeley and Los Angeles, California: University of California Press.
- Giroux, Henry A. 2006. 'Reading Hurricane Katrina: Race, Class, and the Biopolitics of Disposability'. *College Literature* 33 (3): 171–96. <https://www.jstor.org/stable/25115372>.
- Glenn, Evelyn Nakano. 1992. 'From Servitude to Service Work: Historical Continuities in the Racial Division of Paid Reproductive Labor'. *Signs: Journal of Women in Culture and Society* 18 (1): 1–43. <https://doi.org/10.1086/494777>.
- . 2015. 'Settler Colonialism as Structure: A Framework for Comparative Studies of U.S. Race and Gender Formation'. *Sociology of Race and Ethnicity* 1 (1): 52–72. <https://doi.org/10.1177/2332649214560440>.
- Golash-Boza, Tanya. 2009. 'The Immigration Industrial Complex: Why We Enforce Immigration Policies Destined to Fail'. *Sociology Compass* 3 (2): 295–309. <https://doi.org/10.1111/j.1751-9020.2008.00193.x>.

- Golash-Boza, Tanya. 2011. *Immigration Nation: Raids, Detentions, and Deportations in Post-9/11 America*. Boulder, Colorado: Paradigm Publishers.
- Goldberg, Eve, and Linda Evans. 2003. *The Prison Industrial Complex and the Global Economy*. Victoria, B.C.: Camas Books.
- Gómez Cervantes, Andrea, Cecilia Menjívar, and William G. Staples. 2017. “‘Humane’ Immigration Enforcement and Latina Immigrants in the Detention Complex’. *Feminist Criminology* 12 (3): 269–92. <https://doi.org/10.1177/1557085117699069>.
- Google. 2019. ‘Update to Healthcare and Medicines Policy: Abortion (June 2019) - Advertising Policies Help’. 2019. https://support.google.com/adspolicy/answer/9297839?hl=en&ref_topic=29265
- Gordon, Linda. 2002. *The Moral Property of Women: A History of Birth Control Politics in America*. 3rd ed. Urbana and Chicago: University of Illinois Press.
- Goriunova, Olga. 2019. ‘The Digital Subject: People as Data as Persons’. *Theory, Culture & Society* 36 (6): 125–45. <https://doi.org/10.1177/0263276419840409>.
- Gort, Wilfredo. 2019. *City of Miami Commission Hearing—Planning & Zoning, 28 February 2019, Miami City Hall, Miami, FL*. Miami City Hall, Miami.
- Graham, Stephen, and Simon Marvin. 2001. *Splintering Urbanism: Networked Infrastructures, Technological Mobilities and the Urban Condition*. London ; New York: Routledge.
- Gray, Jonathan. 2019. ‘Data Witnessing: Attending to Injustice with Data in Amnesty International’s Decoders Project’. *Information, Communication & Society* 22 (7): 971–91. <https://doi.org/10.1080/1369118X.2019.1573915>.
- Gunaratnam, Yasmin. 2003. *Researching Race and Ethnicity: Methods, Knowledge, and Power*. London ; Thousand Oaks, Calif: Sage Publications.
- Gurr, Barbara Anne. 2015. *Reproductive Justice: The Politics of Health Care for Native American Women*. New Brunswick, New Jersey: Rutgers University Press.
- Gutiérrez, Elena R. 2008. *Fertile Matters: The Politics of Mexican-Origin Women’s Reproduction*. 1st ed. Chicana Matters Series. Austin: University of Texas Press.
- Gutiérrez Rodríguez, Encarnación. 2011. *Migration, Domestic Work and Affect: A Decolonial Approach on Value and the Feminization of Labor*. London: Routledge.
- . 2018. ‘The Coloniality of Migration and the “Refugee Crisis”: On the Asylum-Migration Nexus, the Transatlantic White European Settler Colonialism-Migration and Racial Capitalism’. *Refuge: Canada’s Journal on Refugees / Refuge : Revue Canadienne Sur Les Réfugiés* 34 (1). <https://doi.org/10.7202/1050851ar>.
- Guttmacher Institute. 2016a. ‘State Facts About Abortion: Florida’. Guttmacher Institute. 2016. <https://www.guttmacher.org/fact-sheet/state-facts-about-abortion-florida>.

- . 2016b. 'State Facts About Abortion: Florida'. Guttmacher Institute. 26 January 2016. <https://www.guttmacher.org/fact-sheet/state-facts-about-abortion-florida>.
- Haggerty, Kevin D., and Richard V. Ericson. 2000. 'The Surveillant Assemblage'. *The British Journal of Sociology* 51 (4): 605–22. <https://doi.org/10.1080/00071310020015280>.
- Hall, Rachel. 2015. 'Terror and the Female Grotesque: Introducing Full-Body Scanners to U.S. Airports'. In *Feminist Surveillance Studies*, edited by Rachel E. Dubrofsky and Shoshana Magnet. Durham: Duke University Press.
- Haller, Mark H. 1984. *Eugenics: Hereditarian Attitudes in American Thought*. New Brunswick, N.J.: Rutgers University Press.
- Hamilton, Jennifer. 2018. 'Critical Perspectives on Whiteness and Technoscience: An Introduction'. *Catalyst: Feminism, Theory, Technoscience* 4 (1): 1–12. <https://doi.org/10.28968/cftt.v4i1.29634>.
- Hamper, Josie. 2020. "'Catching Ovulation": Exploring Women's Use of Fertility Tracking Apps as a Reproductive Technology'. *Body & Society* 26 (3): 3–30. <https://doi.org/10.1177/1357034X19898259>.
- Haraway, Donna Jeanne. 1988. 'Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective'. *Feminist Studies* 14 (3): 575–99. <https://doi.org/10.2307/3178066>.
- . 1991. *Simians, Cyborgs, and Women: The Reinvention of Nature*. New York: Routledge.
- . 2018. *Modest_Witness@Second_Millennium. FemaleMan_Meets_OncoMouse: Feminism and Technoscience*. Second edition. New York, NY: Routledge, Taylor & Francis Group.
- Haraway, Donna Jeanne, and Thyrza Nichols Goodeve. 2000. *How Like a Leaf: An Interview with Thyrza Nichols Goodeve*. New York: Routledge.
- Harding, Sandra. 1992. 'Rethinking Standpoint Epistemology: What Is "Strong Objectivity?"' *The Centennial Review* 36 (3): 437–70. <https://www.jstor.org/stable/23739232>.
- Harding, Sandra G. 2008. *Sciences from Below: Feminisms, Postcolonialities, and Modernities*. Next Wave. Durham: Duke University Press.
- Haritaworn, Jinthana, Adi Kuntsman, and Silvia Posocco, eds. 2014. *Queer Necropolitics*. Social Justice. Abingdon, Oxon: Routledge, Taylor & Francis Group, a GlassHouse Book.
- Hartmann, Betsy. 1987. *Reproductive Rights and Wrongs: The Global Politics of Population Control and Contraceptive Choice*. 1st ed. New York: Harper & Row.
- Haugeberg, Karissa. 2017. *Women Against Abortion: Inside the Largest Moral Reform Movement of the Twentieth Century*. Women, Gender, and Sexuality in American History. Urbana, Chicago: University of Illinois Press.

- Hayles, N. Katherine. 1993. 'The Materiality of Informatics'. *Configurations* 1 (1): 147–70. <https://doi.org/10.1353/con.1993.0003>.
- Healy, Rachael Louise. 2020. 'Zuckerberg, Get out of My Uterus! An Examination of Fertility Apps, Data-Sharing and Remaking the Female Body as a Digitalized Reproductive Subject'. *Journal of Gender Studies* 0 (0): 1–11. <https://doi.org/10.1080/09589236.2020.1845628>.
- Helmreich, Stefan. 2008. 'Species of Biocapital'. *Science as Culture* 17 (4): 463–78. <https://doi.org/10.1080/09505430802519256>.
- Hernández, Leandra Hinojosa. 2019. 'Feminist Approaches to Border Studies and Gender Violence: Family Separation as Reproductive Injustice'. *Women's Studies in Communication* 42 (2): 130–34. <https://doi.org/10.1080/07491409.2019.1605213>.
- Heynen, Robert, and Emily Van der Meulen. 2016. *Expanding the Gaze: Gender and the Politics of Surveillance*. University of Toronto Press.
- Hightower, Cameron, and James C. Fraser. 2020. 'The Raced-Space of Gentrification: "Reverse Blockbusting," Home Selling, and Neighborhood Remake in North Nashville'. *City & Community* 19 (1): 223–44. <https://doi.org/10.1111/cico.12444>.
- Hill, B. Jessie. 2016. 'The First Amendment and the Politics of Reproductive Health Care Toward a Healthy First Amendment'. *Washington University Journal of Law & Policy* 50: 103–22. <https://heinonline.org/HOL/P?h=hein.journals/wajlp50&i=110>.
- Hill Collins, Patricia. 1991. *Black Feminist Thought: Knowledge, Consciousness, and the Politics of Empowerment*. London: HarperCollins Academic.
- Hillier, Amy E. 2003. 'Redlining and the Home Owners' Loan Corporation'. *Journal of Urban History* 29 (4): 394–420. <https://doi.org/10.1177/0096144203029004002>.
- Holmes, Helen B., Betty B. Hoskins, and Michael Gross, eds. 1981. *The Custom-Made Child? Women-Centered Perspectives*. Contemporary Issues in Biomedicine, Ethics, and Society. Clifton, N.J: Humana Press.
- Howell, Alison, and Melanie Richter-Montpetit. 2019. 'Racism in Foucauldian Security Studies: Biopolitics, Liberal War, and the Whitewashing of Colonial and Racial Violence'. *International Political Sociology* 13 (1): 2–19. <https://doi.org/10.1093/ips/oly031>.
- . 2020. 'Is Securitization Theory Racist? Civilizationism, Methodological Whiteness, and Antiblack Thought in the Copenhagen School'. *Security Dialogue* 51 (1): 3–22. <https://doi.org/10.1177/0967010619862921>.
- Hughes, Thomas Parke. 1993. *Networks of Power: Electrification in Western Society, 1880 - 1930*. Softshell Books ed. Softshell Books History of Technology. Baltimore, Md.: John Hopkins Univ. Press.
- Hunt, Sarah. 2018. 'Researching with Relations of Violence: Witnessing as Methodology'. In *Indigenous Research: Theories, Practices, and Relationships*, edited by Rochelle Johnston, Deborah McGregor, and Jean-Paul Restoule.

- Hussey, Laura S. 2013. 'Crisis Pregnancy Centers, Poverty, and the Expanding Frontiers of American Abortion Politics'. *Politics & Policy* 41 (6): 985–1011.
<https://doi.org/10.1111/polp.12054>.
- Hyra, Derek S. 2017. *Race, Class, and Politics in the Cappuccino City*. Chicago ; London: The University of Chicago Press.
- Ianelli, Jerry. 2019a. 'Florida Democrats Indirectly Accept Private-Prison Money From Geo Group Despite Ban'. *Miami New Times*, 2019.
<https://www.miaminewtimes.com/news/florida-democrats-indirectly-accept-private-prison-money-from-geo-group-despite-ban-11061074>.
- . 2019b. 'Homestead, Miami Migrant Camp Children Used as "Bait," SPLC Says in Lawsuit'. *Miami New Times*, 2019.
<https://www.miaminewtimes.com/news/homestead-miami-migrant-camp-children-used-as-bait-splc-says-in-lawsuit-11062606>.
- INCITE!, ed. 2016. *Color of Violence: The INCITE! Anthology*. Durham: Duke University Press.
- Inda, Jonathan Xavier. 2002. 'Biopower, Reproduction and the Migrant Woman's Body'. In *Decolonial Voices: Chicana and Chicano Cultural Studies in the 21st Century*, edited by Arturo J Aldama and Naomi Helena Quiñonez. Bloomington: Indiana University Press.
<http://www.aspresolver.com/aspresolver.asp?LAFI;1000044801>.
- Inhorn, Marcia, Tine Tjørnhøj-Thomsen, Helene Goldberg, and Maruska la Cour Mosegaard, eds. 2009. *Reconceiving the Second Sex: Men, Masculinity, and Reproduction*. Fertility, Reproduction and Sexuality, v. 12. New York: Berghahn Books.
- Jackson, D. Lynn. 2007. 'State Policy Restrictions on Abortion'. *Journal of Policy Practice* 6 (4): 25–43. https://doi.org/10.1300/J508v06n04_03.
- James, Joy. 1996. *Resisting State Violence: Radicalism, Gender, and Race in U.S. Culture*. Minneapolis, Minn: University of Minnesota Press.
- Jarman, Michelle. 2020. 'Disability Rights through Reproductive Justice'. In *The Routledge Handbook of Disability and Sexuality*, edited by Russell Shuttleworth and Linda Mona. Routledge.
- Jesudason, Sujatha, and Katrina Kimport. 2013. 'Decentering the Individual and Centering Community: Using a Reproductive Justice Methodology to Examine the Uses of Reprogenetics'. *Frontiers: A Journal of Women Studies* 34 (3): 213–25.
<https://doi.org/10.5250/fronjwomestud.34.3.0213>.
- Johnson, Corey, Reece Jones, Anssi Paasi, Louise Amoore, Alison Mountz, Mark Salter, and Chris Rumford. 2011. 'Interventions on Rethinking "the Border" in Border Studies'. *Political Geography* 30 (2): 61–69.
<https://doi.org/10.1016/j.polgeo.2011.01.002>.

- Jones, Rachel K., and Lawrence B. Finer. 2012. 'Who Has Second-Trimester Abortions in the United States?' *Contraception* 85 (6): 544–51. <https://doi.org/10.1016/j.contraception.2011.10.012>.
- Jones, Rachel K., and Jenna Jerman. 2017. 'Abortion Incidence and Service Availability In the United States, 2014'. *Perspectives on Sexual and Reproductive Health* 49 (1): 17–27. <https://doi.org/10.1363/psrh.12015>.
- Joyce, Kathryn. 2010. 'Abortion as "Black Genocide"'. <https://www.politicalresearch.org/2010/04/29/abortion-as-black-genocide-an-old-scare-tactic-re-emerges>.
- Jumamoy, Matthew, A J Nadel, Jordy Portillo, and Olivia Shields. 2020. 'Single-Family Zoning and Spatial Inequality'. 2020. https://web.stanford.edu/~mjumamoy/pub/URBANST141_SVatHome_SJZoning.pdf.
- Justa Causa. 2014. 'Development without Displacement: Resisting Gentrification in the Bay Area, Oakland, California'. <https://cjjc.org/wp-content/uploads/2015/11/development-without-displacement.pdf>.
- Kamal, Sultana. 1987. 'Seizure of Reproductive Rights? A Discussion on Population Control in the Third World and the Emergence of the New Reproductive Technologies in the West'. In *Made to Order: The Myth of Reproductive and Genetic Progress*, edited by Patricia Spallone and Deborah Lynn Steinberg, 1st ed. The Athene Series. Oxford [Oxfordshire]; New York: Pergamon Press.
- Kaminski, Dan, Mike Nellis, and Kristel Beyens, eds. 2013. *Electronically Monitored Punishment: International and Critical Perspectives*. New York: Routledge.
- Kammen, Jessika van, and Nelly Oudshoorn. 2002. 'Gender and Risk Assessment in Contraceptive Technologies'. *Sociology of Health & Illness* 24 (4): 436–61. <https://doi.org/10.1111/1467-9566.00303>.
- Kasdin, Neisen. 2018. *City of Miami Commission Hearing— Planning & Zoning, 15 November 2018, Miami City Hall, Miami, FL*. Miami City Hall, Miami.
- Kasich, John. 1996. *H.R. 3734 (104th): Personal Responsibility and Work Opportunity Reconciliation Act of 1996*. <https://www.govtrack.us/congress/bills/104/hr3734/text>.
- Katz, Cindi. 2001. 'Vagabond Capitalism and the Necessity of Social Reproduction'. *Antipode* 33 (4): 709–28. <https://doi.org/10.1111/1467-8330.00207>.
- . 2008. 'Bad Elements: Katrina and the Scoured Landscape of Social Reproduction'. *Gender, Place & Culture* 15 (1): 15–29. <https://doi.org/10.1080/09663690701817485>.
- Keenan, Jesse M., Thomas Hill, and Anurag Gumber. 2018. 'Climate Gentrification: From Theory to Empiricism in Miami-Dade County, Florida'. *Environmental Research Letters* 13 (5): 054001. <https://doi.org/10.1088/1748-9326/aabb32>.

- Kennedy, Thomas. 2019. 'Personal Interview with Thomas Kennedy, Political Director for the Florida Immigrant Coalition (FLIC) and the Author in Miami, Florida', October 2019.
- Kent-Stoll, Peter. 2020. 'The Racial and Colonial Dimensions of Gentrification'. *Sociology Compass* 14 (12): e12838. <https://doi.org/10.1111/soc4.12838>.
- Kerr, Ian, Valerie M. Steeves, and Carole Lucock, eds. 2009. *Lessons from the Identity Trail: Anonymity, Privacy, and Identity in a Networked Society*. Oxford ; New York: Oxford University Press.
- Kertzer, David I., and Dominique Arel, eds. 2002. *Census and Identity: The Politics of Race, Ethnicity, and Language in National Census*. New Perspectives on Anthropological and Social Demography. Cambridge, UK ; New York: Cambridge University Press.
- Khalili, Laleh. 2011. 'Gendered Practices of Counterinsurgency'. *Review of International Studies* 37 (4): 1471–91. <https://doi.org/10.1017/S026021051000121X>.
- Kilgore, James. 2015. 'Electronic Monitoring Is Not the Answer: Critical Reflections on a Flawed Alternative'. Urbana-Champaign Independent Media Center. <https://mediajustice.org/wp-content/uploads/2015/10/EM-Report-Kilgore-final-draft-10-4-15.pdf>.
- Klausen, Susanne, and Alison Bashford. 2010. 'Fertility Control: Eugenics, Neo-Malthusianism, and Feminism'. In *The Oxford Handbook of the History of Eugenics*, edited by Alison Bashford and Philippa Levine. Oxford ; New York: Oxford University Press.
- Kline, Wendy. 2010. 'Eugenics in the United States'. In *The Oxford Handbook of the History of Eugenics*, edited by Alison Bashford and Philippa Levine. Oxford ; New York: Oxford University Press.
- Kosman, Joel. 1993. 'Toward an Inclusionary Jurisprudence: A Reconceptualization of Zoning'. *Catholic University Law Review* 43 (1): 59–108. <https://scholarship.law.edu/lawreview/vol43/iss1/3>.
- Kotting, Jennifer. 2018. 'Personal Interview with Jennifer Kotting, Communication Director for the National Network of Abortion Funds', 5 August 2018.
- Koulish, Robert. 2015. 'Spiderman's Web and the Governmentality of Electronic Immigrant Detention'. *Law, Culture and the Humanities* 11 (1): 83–108. <https://doi.org/10.1177/1743872111433376>.
- Krause, Elizabeth L. 2018. 'Reproduction in Retrospective, or What's All the Fuss Over Low Fertility?' In *International Handbook on Gender and Demographic Processes*, edited by Nancy E. Riley and Jan Brunson, 73–82. International Handbooks of Population. Dordrecht: Springer Netherlands. https://doi.org/10.1007/978-94-024-1290-1_5.
- Kundra, Vivek. 2011. 'Federal Cloud Computing Strategy'. The White House. https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/egov_docs/federal-cloud-computing-strategy.pdf.

- Kwan, Mei-Po. 2002. 'Feminist Visualization: Re-Envisioning GIS as a Method in Feminist Geographic Research'. *Annals of the Association of American Geographers* 92 (4): 645–61. <https://doi.org/10.1111/1467-8306.00309>.
- Laguerre, Michel S. 1984. *American Odyssey: Haitians in New York City*. Ithaca, N.Y.: Cornell University Press.
- Lai, K. K. Rebecca. 2019. 'Abortion Bans: 9 States Have Passed Bills to Limit the Procedure This Year'. *The New York Times*, 15 May 2019, sec. U.S. <https://www.nytimes.com/interactive/2019/us/abortion-laws-states.html>
- Laliberté, Guy. 2018. *City of Miami Commission Hearing - Planning & Zoning, 15 November 2018. Miami City Hall, Miami, FL*. Miami.
- Larson, Rob. 2020. *Bit Tyrants: The Political Economy of Silicon Valley*. Chicago: Haymarket Books.
- Latour, Bruno. 1987. *Science in Action: How to Follow Scientists and Engineers Through Society*. Milton Keynes: Open University Press.
- . 1990. 'Technology Is Society Made Durable'. *The Sociological Review* 38 (1_suppl): 103–31. <https://doi.org/10.1111/j.1467-954X.1990.tb03350.x>.
- . 1999. *Pandora's Hope: Essays on the Reality of Science Studies*. Cambridge, Mass: Harvard University Press.
- . 2004. *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, Mass: Harvard University Press.
- Lau, Lisa. 2018. 'A Postcolonial Framing of Indian Commercial Surrogacy: Issues, Representations, and Orientalisms'. *Gender, Place & Culture* 25 (5): 666–85. <https://doi.org/10.1080/0966369X.2018.1471047>.
- Laughlin, Harry H. 1914. 'Bulletin No. 10B: Report of the Committee to Study and to Report on the Best Practical Means of Cutting Off the Defective Germ-Plasm in the American Population. II. THE LEGAL, LEGISLATIVE AND ADMINISTRATIVE ASPECTS OF STERILIZATION.' Cold Spring Harbor, Long Island, New York: Eugenics Record Office.
- . 1922. 'Eugenical Sterilization in the United States'. Psychopathic Laboratory of the Municipal Court of Chicago.
- Law, John. 2002. *Aircraft Stories: Decentering the Object in Technoscience*. Science and Cultural Theory. Durham, NC: Duke University Press.
- Lerner, Gerda. 1986. *The Creation of Patriarchy*. Women and History, [Gerda Lerner] ; Vol. 1. New York: Oxford Univ. Press.
- Levin, Sam. 2018. 'Google Search Results for Abortion Services Promote Anti-Abortion Centers'. *The Guardian*, 13 February 2018. <http://www.theguardian.com/world/2018/feb/13/abortions-near-me-google-search-results-anti-pro-life-groups-promote>.
- Levine, Philippa. 2010. 'Anthropology, Colonialism, and Eugenics'. In *The Oxford Handbook of the History of Eugenics*, edited by Alison Bashford and Philippa Levine. Oxford ; New York: Oxford University Press.

- Lewis, Andrew R. 2018. *The Rights Turn in Conservative Christian Politics: How Abortion Transformed the Culture Wars*. First paperback edition. Cambridge, United Kingdom; New York, NY: Cambridge University Press.
- Lewis, Sophie. 2017. 'Cthulhu Plays No Role for Me'. Viewpoint Magazine. 2017. <https://www.viewpointmag.com/2017/05/08/cthulhu-plays-no-role-for-me/>.
- . 2019. *Full Surrogacy Now: Feminism against Family*. London ; New York: Verso.
- Lind, Amy, and Jill Williams. 2013. 'Engendering Violence in De/Hyper-Nationalized Spaces: Border Militarization, State Territorialization, and Embodied Politics at the U.S.-Mexico Border'. In *Feminist (Im)Mobilities in Fortress(Ing) North America.*, edited by Sisson Anne Runyan, Amy Lind, Patricia Mcdermott, and Marianne Marchand. New York: Ashgate.
- Lipsitz, George. 2007. 'The Racialization of Space and the Spatialization of Race: Theorizing the Hidden Architecture of Landscape'. *Landscape Journal* 26 (1): 10–23. <https://www.jstor.org/stable/43323751>.
- . 2011. *How Racism Takes Place*. Philadelphia: Temple University Press.
- Lipton-Lubet, Sarah, and Nicola Beisel. 2002. 'Appropriating Aushwitz: The Holocaust as Analogy and Provocation in the ProLife Movement'. <https://www.asanet.org/sites/default/files/savvy/sectionchs/documents/beisel.pdf>.
- Lira, Natalie, and Alexandra Minna Stern. 2014. 'Mexican Americans and Eugenic Sterilization: Resisting Reproductive Injustice in California, 1920–1950'. *Aztlan: A Journal of Chicano Studies* 39 (2): 9–34.
- Lloyd, David, and Patrick Wolfe. 2016. 'Settler Colonial Logics and the Neoliberal Regime'. *Settler Colonial Studies* 6 (2): 109–18. <https://doi.org/10.1080/2201473X.2015.1035361>.
- Lonergan, Gwyneth. 2015. 'Migrant Women and Social Reproduction under Austerity'. *Feminist Review* 109 (1): 124–45. <https://doi.org/10.1057/fr.2014.43>.
- Lorraine Piñeiro, Stephanie. 2019. 'Personal Interview with Stephanie Lorraine, Director of the The Central Florida Women's Emergency Fund and the Author', 28 February 2019.
- Love, Nancy S. 2017. 'Back to the Future: Trendy Fascism, the Trump Effect, and the Alt-Right'. *New Political Science* 39 (2): 263–68. <https://doi.org/10.1080/07393148.2017.1301321>.
- Lovett, Laura L. 2020. 'Eugenic Housing: Redlining, Reproductive Regulation, and Suburban Development in the United States'. *WSQ: Women's Studies Quarterly* 48 (1): 67–83. <https://doi.org/10.1353/wsq.2020.0019>.
- Lucas D. Introna, Helen Nissenbaum. 2000. 'Shaping the Web: Why the Politics of Search Engines Matters'. *The Information Society* 16 (3): 169–85. <https://doi.org/10.1080/01972240050133634>.
- Luckman, Susan. 1999. '(En)Gendering the Digital Body: Feminism and the Internet'. *Hecate*, January. <https://search.informit.org/doi/abs/10.3316/IELAPA.200006114>.

- Lugo-Lugo, Carmen, and Mary Bloodsworth-Lugo. 2014. "Anchor/Terror Babies" and Latina Bodies: Immigration Rhetoric in the 21st Century and the Feminization of Terrorism'. *Journal of Interdisciplinary Feminist Thought* 8 (1).
<https://digitalcommons.salve.edu/jift/vol8/iss1/1>.
- Lupton, Deborah. 2015a. 'Quantified Sex: A Critical Analysis of Sexual and Reproductive Self-Tracking Using Apps'. *Culture, Health & Sexuality* 17 (4): 440-53. <https://doi.org/10.1080/13691058.2014.920528>.
- . 2016. "Mastering Your Fertility": The Digitised Reproductive Citizen'. In *Negotiating Digital Citizenship: Control, Contest and Culture*, edited by Anthony McCosker, Sonja Vivienne, and Amelia Johns. London ; New York: Rowman & Littlefield International.
- Lyon, David, ed. 2003. *Surveillance as Social Sorting: Privacy, Risk, and Digital Discrimination*. London ; New York: Routledge.
- Lyon, David, Kevin D. Haggerty, and Kirstie Ball, eds. 2012. *Routledge Handbook of Surveillance Studies*. Abingdon, Oxon ; New York: Routledge.
- Mackenzie, Adrian. 2015. 'The Production of Prediction: What Does Machine Learning Want?' *European Journal of Cultural Studies* 18 (4-5): 429-45.
<https://doi.org/10.1177/1367549415577384>.
- Magic City. 2019. 'Inside Magic City'. Magic City Innovation District® - Miami's Innovation and Entertainment District. 2019.
<https://magiccitydistrict.com/inside-magic-city/>.
- Maharawal, Manissa M. 2017. 'San-Francisco's Tech-Lead Gentrification: Public Space, Protest and the Urban Commons'. In *City Unsilenced: Urban Resistance and Public Space in the Age of Shrinking Democracy*, edited by Jeffrey Hou and Sabine Knierbein. New York: Routledge, Taylor& Francis Group.
- Mamo, Laura. 2007. *Queering Reproduction: Achieving Pregnancy in the Age of Technoscience*. Durham, N.C: Duke University Press.
- Marchand, Marianne H., and Anne Sisson Runyan. 2011. 'Introduction: Feminist Sightings of Global Restructuring Old and New Conceptualization'. In *Gender and Global Restructuring: Sightings, Sites, and Resistances*, edited by Marianne H. Marchand and Anne Sisson Runyan, 2nd ed. RIPE Series in Global Political Economy 30. Milton Park, Abingdon, Oxon [England] ; New York: Routledge.
- Mason, Carol. 1999. 'Minority Unborn'. In *Fetal Subjects, Feminist Positions*, edited by Meredith Wilson Michaels and Lynn M Morgan. Philadelphia: University of Pennsylvania Press. <https://www.degruyter.com/doc/cover/9781512807561.jpg>.
- . 2002. *Killing for Life: The Apocalyptic Narrative of Pro-Life Politics*. Ithaca: Cornell University Press.
- . 2019. 'Opposing Abortion to Protect Women: Transnational Strategy since the 1990s'. *Signs: Journal of Women in Culture and Society* 44 (3): 665-92.
<https://doi.org/10.1086/701156>.

- Massey, Douglas S. 2005. 'Racial Discrimination in Housing: A Moving Target'. *Social Problems* 52 (2): 148–51. <https://doi.org/10.1525/sp.2005.52.2.148>.
- Mbembé, Achille. 2003. 'Necropolitics'. *Public Culture* 15 (1): 11–40. <https://muse.jhu.edu/article/39984>.
- . 2019. 'Bodies as Borders'. *From the European South* 4: 5–18.
- McCann, Carole R. 1999. *Birth Control Politics in the United States, 1916-1945*. Cornell paperbacks. Cornell Paperbacks. Ithaca, NY: Cornell Univ. Press.
- McCosker, Anthony, Sonja Vivienne, and Amelia Johns, eds. 2016. *Negotiating Digital Citizenship: Control, Contest and Culture*. Illustrated edition. London ; New York: Rowman & Littlefield Publishers.
- McElroy, Erin. 2019. 'Data, Dispossession, and Facebook: Techno-Imperialism and Toponymy in Gentrifying San Francisco'. *Urban Geography* 40 (6): 826–45. <https://doi.org/10.1080/02723638.2019.1591143>.
- McFadden, Caroline R. 2017. 'Reproductively Privileged: Critical White Feminism and Reproductive Justice Theory'. In *Radical Reproductive Justice: Foundations, Theory, Practice, Critique*, edited by Loretta Ross, Lynn Roberts, Erika Derkas, Whitney Peoples, and Pamela Bridgewater. New York City: The Feminist Press at The City University of New York.
- McIntyre, Michael, and Heidi J. Nast. 2011. 'Bio(Necro)Polis: Marx, Surplus Populations, and the Spatial Dialectics of Reproduction and "Race"'. *Antipode* 43 (5): 1465–88. <https://doi.org/10.1111/j.1467-8330.2011.00906.x>.
- McWhorter, Ladelle. 2009. *Racism and Sexual Oppression in Anglo-America: A Genealogy*. Bloomington: Indiana University Press. <https://muse.jhu.edu/book/12928>.
- Melamed, Jodi. 2015. 'Racial Capitalism'. *Critical Ethnic Studies* 1 (1): 76–85. <https://doi.org/10.5749/jcritethnstud.1.1.0076>.
- Menning, Barbara. 1981. 'In Defense of In Vitro Fertilization'. In *The Custom-Made Child? Women-Centered Perspectives*, edited by Helen B. Holmes, Betty B. Hoskins, and Michael Gross. Contemporary Issues in Biomedicine, Ethics, and Society. Clifton, N.J: Humana Press.
- Merck, M, and S Sandford. 2010. *Further Adventures of The Dialectic of Sex Critical Essays on Shulamith Firestone*.
- Michaels, Meredith Wilson, and Lynn M Morgan, eds. 2016. *Fetal Subjects, Feminist Positions*. <https://www.degruyter.com/doc/cover/9781512807561.jpg>.
- Mies, Maria. 1987. 'Why Do We Need All This? A Call Against Genetic Engineering and Reproductive Technology'. In *Made to Order: The Myth of Reproductive and Genetic Progress*, edited by Patricia Spallone and Deborah Lynn Steinberg, 1st ed. The Athene Series. Oxford [Oxfordshire] ; New York: Pergamon Press.
- Mies, Maria, and Vandana Shiva. 2014. *Ecofeminism*. London: Zed Books.
- Mijente, and Immigrant Defense Project, and the National Immigration Project of the National Lawyers Guild. 2018. 'Who's Behind ICE? The Tech and Data

- Companies Fuelling Deportations'.
<https://ojs.library.queensu.ca/index.php/surveillance-and-society/article/view/12951/8482>.
- Mills, Catherine. 2011. *Futures of Reproduction: Bioethics and Biopolitics*. International Library of Ethics, Law, and the New Medicine, v. 49. Dordrecht: Springer.
- . 2017. 'Biopolitics and Human Reproduction'. In *The Routledge Handbook of Biopolitics*, edited by Sergei Prozorov and Simona Rentea, 281–94. London: Routledge.
- Miriam, Jordan. 2019. 'Migrant Children Are Spending Months "Crammed" in a Temporary Florida Shelter'. *The New York Times*, 2019.
<https://www.nytimes.com/2019/06/26/us/homestead-migrant-children-shelter.html>.
- Mirzoeff, Nicholas. 2020. 'Artificial Vision, White Space and Racial Surveillance Capitalism'. *AI & SOCIETY*, November. <https://doi.org/10.1007/s00146-020-01095-8>.
- Mohanty, Chandra Talpade, and Jacqui M. Alexander. 2012. 'Cartographies of Knowledge and Power: Transnational Feminism as Radical Praxis'. In *Critical Transnational Feminist Praxis*, edited by Amanda Lock Swarr and Richa Nagar. SUNY Press.
- Mohl, Raymond A. 2001a. 'Race and Housing in the Postwar City: An Explosive History'. *Journal of the Illinois State Historical Society (1998-)* 94 (1): 8–30.
<https://www.jstor.org/stable/40193532>.
- . 2001b. 'Whitening Miami: Race, Housing, and Government Policy in Twentieth-Century Dade County'. *The Florida Historical Quarterly* 79 (3): 319–45.
- Mol, Annemarie. 1999. 'Ontological Politics. A Word and Some Questions'. *The Sociological Review* 47 (1): 74–89. <https://doi.org/10.1111/j.1467-954X.1999.tb03483.x>.
- Monahan, Torin. 2017. 'Regulating Belonging: Surveillance, Inequality, and the Cultural Production of Abjection'. *Journal of Cultural Economy* 10 (2): 191–206.
<https://doi.org/10.1080/17530350.2016.1273843>.
- Morelix, Arnobio, Ewing Marion Koffman Foundation, Robert Fairlie, Santa Cruz University of California, and Inara Tereque. 2017. '2017 Kauffman Index of Startup Activity'. https://www.kauffman.org/wp-content/uploads/2019/09/2017_Kauffman_Index_Startup_Activity_Metro_Report_Final.pdf.
- Morgan, Lynn M. 2019. 'Reproductive Governance, Redux'. *Medical Anthropology* 38 (2): 113–17. <https://doi.org/10.1080/01459740.2018.1555829>.
- Morgensen, Scott Lauria. 2011. 'The Biopolitics of Settler Colonialism: Right Here, Right Now'. *Settler Colonial Studies* 1 (1): 52–76.
<https://doi.org/10.1080/2201473X.2011.10648801>.

- Munson, Ziad W. 2008. *The Making of Pro-Life Activists: How Social Movement Mobilization Works*. Chicago: University of Chicago Press.
- Murphy, Michelle. 2004. 'Immodest Witnessing: The Epistemology of Vaginal Self-Examination in the U.S. Feminist Self-Help Movement'. *Feminist Studies* 30 (1): 115–47. <https://www.jstor.org/stable/3178561>.
- . 2011. 'Distributed Reproduction'. In *Corpus: An Interdisciplinary Reader on Bodies and Knowledge*, edited by Monica J. Casper and Paisley Currah, 21–38. New York: Palgrave Macmillan US. https://doi.org/10.1057/9780230119536_2.
- . 2012. *Seizing the Means of Reproduction: Entanglements of Feminism, Health, and Technoscience*. Experimental Futures. Durham, NC: Duke University Press.
- . 2013. 'Distributed Reproduction, Chemical Violence, and Latency'. S&F Online. 2013. <http://sfonline.barnard.edu/life-un-ltd-feminism-bioscience-race/distributed-reproduction-chemical-violence-and-latency/>.
- . 2017. *The Economization of Life*. Durham ; London: Duke University Press.
- Nahman, Michal Rachel. 2013. *Extractions An Ethnography of Reproductive Tourism*. Basingstoke,: Palgrave Macmillan.
- Nakamura, Lisa. 2002. *Cybertypes: Race, Ethnicity, and Identity on the Internet*. New York: Routledge.
- . 2008. *Digitizing Race: Visual Cultures of the Internet*. Electronic Mediations 23. Minneapolis: University of Minnesota Press.
- . 2015. 'Blaming, Shaming and the Feminization of Social Media'. In *Feminist Surveillance Studies*, edited by Rachel E. Dubrofsky and Shoshana Magnet. Durham: Duke University Press.
- Nakamura, Lisa, Beth E. Kolko, and Gilbert B. Rodman, eds. 2000. *Race in Cyberspace*. New York: Routledge.
- NARAL. 2015. 'Crisis Pregnancy Centers: The Insidious Threat to Reproductive Freedom'. <https://www.prochoiceamerica.org/wp-content/uploads/2017/04/cpc-report-2015.pdf>.
- Narayan, Uma. 1989. 'The Project of Feminist Epistemology: Perspectives From a Nonwestern Feminist'. In *Gender/Body/Knowledge: Feminist Reconstructions of Being and Knowing*, edited by Alison M. Jaggar and Susan Bordo, 256–69. Rutgers University Press.
- Nelson, Jennifer. 2003. *Women of Color and the Reproductive Rights Movement*. New York: New York University Press.
- Neyer, Gerda, and Laura Bernardi. 2011. 'Feminist Perspectives on Motherhood and Reproduction'. *Historical Social Research / Historische Sozialforschung* 36 (2 (136)): 162–76. <https://www.jstor.org/stable/41151279>.
- Noble, Safiya Umoja. 2016. 'A Future for Intersectional Black Feminist Technology Studies'. *S&F Online*, no. 13.3-14.1. <http://sfonline.barnard.edu/traversing-technologies/safiya-umoja-noble-a-future-for-intersectional-black-feminist-technology-studies/>.

- . 2018. *Algorithms of Oppression: How Search Engines Reinforce Racism*. New York: New York University Press.
- Noble, Safiya Umoja, and Brendesha M. Tynes, eds. 2015. *The Intersectional Internet: Race, Sex, Class and Culture Online*. Digital Formations, vol. 105. New York: Peter Lang Publishing, Inc.
- Office for Refugee Resettlement and Department for Homeland Security. 2018. 'Memorandum of Agreement Regarding Consultation and Information Sharing in Unaccompanied Alien Children Matters'.
<https://www.texasmonthly.com/wp-content/uploads/2018/06/Read-the-Memo-of-Agreement.pdf>.
- O'Leary, Anna Ochoa, and William Paul Simmonds. 2017. 'Reproductive Justice and Resistance at the US-Mexico Borderlands'. In *Radical Reproductive Justice: Foundations, Theory, Practice, Critique*, edited by Loretta Ross, Lynn Roberts, Erika Derkas, Whitney Peoples, and Pamela Bridgewater. New York City: The Feminist Press at The City University of New York.
- Omi, Michael, and Howard Winant. 2015. *Racial Formation in the United States: From the 1960s to the 1990s*. Third edition. New York: Routledge/Taylor & Francis Group.
- Ordoover, Nancy. 2003. *American Eugenics: Race, Queer Anatomy, and the Science of Nationalism*. Minneapolis: University of Minnesota Press.
- Osman, Suleiman. 2017. 'Gentrification Matters'. *Journal of Urban History* 43 (1): 172–79. <https://doi.org/10.1177/0096144216680247>.
- O'toole, J.D. 2019. National Network of Abortion Funds et al v. Does 1-15, No. 1:2018cv10596 - Document 46 (D. Mass. 2019).
- Oudshoorn, Nelly. 1994. *Beyond the Natural Body: An Archaeology of Sex Hormones*. New York ; London: Routledge.
- Page, Rebecca, Trygve Madsen, Johnny Mojica, Nina Kerr, and Corrine Armistead. 2019. 'The Potential Environmental and Social Costs of the Magic City Innovation District: Technical Summary'.
https://static1.squarespace.com/static/561dc6c6e4b039470e9afcoo/t/5doabfe73cbc950001a596a8/1560985585232/CJP-LittleHaiti_EarthEconomics_o612-2.pdf.
- Paige, Connie. 1983. *The Right to Lifers: Who They Are, How They Operate, Where They Get Their Money*. 1st ed. New York: Summit Books.
- Pande, Amrita. 2010. 'Commercial Surrogacy in India: Manufacturing a Perfect Mother-Worker'. *Signs: Journal of Women in Culture and Society* 35 (4): 969–92. <https://doi.org/10.1086/651043>.
- . 2016. 'Global Reproductive Inequalities, Neo-Eugenics and Commercial Surrogacy in India'. *Current Sociology* 64 (2): 244–58. <https://doi.org/10.1177/0011392115614786>.

- Parreñas, Rhacel Salazar. 2000. 'Migrant Filipina Domestic Workers and the International Division of Reproductive Labor'. *Gender and Society* 14 (4): 560–80. <https://www.jstor.org/stable/190302>.
- . 2001. *Servants of Globalization: Women, Migration and Domestic Work*. Stanford, Calif: Stanford University Press.
- Parry, Bronwyn. 2017. *Bodies across Borders: The Global Circulation of Body Parts, Medical Tourists and Professionals*. London; New York: Routledge.
- Pasquale, Frank. 2015. *The Black Box Society the Secret Algorithms That Control Money and Information*. Cambridge: Harvard University Press.
- Pateman, Carole, and Charles W. Mills. 2007. *Contract and Domination*. Cambridge: Polity.
- Pavlovskaya, Marianna. 2016. 'Digital Place-Making: Insights from Critical Cartography and GIS'. In *The Digital Arts and Humanities: Neogeography, Social Media and Big Data Integrations and Applications*, edited by Charles Travis and Alexander von Lünen, 153–67. Springer Geography. Cham: Springer International Publishing. https://doi.org/10.1007/978-3-319-40953-5_9.
- Perea, Juan F., ed. 1997. *Immigrants Out! The New Nativism and the Anti-Immigrant Impulse in the United States*. Critical America. New York: New York University Press.
- Perin, Constance. 1979. *Everything in Its Place: Social Order and Land Use in America*. Princeton, N.J: Princeton Univ. Pr.
- Petchesky, Rosalind P. 1981. 'Antiabortion, Antifeminism, and the Rise of the New Right'. *Feminist Studies* 7 (2): 206–46. <https://doi.org/10.2307/3177522>.
- . 1987. 'Fetal Images: The Power of Visual Culture in the Politics of Reproduction'. *Feminist Studies* 13 (2): 263–92. <https://doi.org/10.2307/3177802>.
- . 1990. *Abortion and Woman's Choice: The State, Sexuality, and Reproductive Freedom*. Rev. ed. The Northeastern Series in Feminist Theory. Boston: Northeastern University Press.
- Pido, Eric J. 2016. 'Property Relations: Alien Land Laws and the Racial Formation of Filipinos as Aliens Ineligible to Citizenship'. *Ethnic and Racial Studies* 39 (7): 1205–22. <https://doi.org/10.1080/01419870.2015.1103879>.
- Pierre-Louis, François. 2006. *Haitians in New York City: Transnationalism and Momemtown Associations*. Gainesville: University Press of Florida.
- Plant, Sadie. 1997. *Zeros + Ones: Women, Cyberspace and the New Sexual Revolution*. London: Fourth Estate.
- Plantin, Jean-Christophe, Carl Lagoze, Paul N Edwards, and Christian Sandvig. 2018. 'Infrastructure Studies Meet Platform Studies in the Age of Google and Facebook'. *New Media & Society* 20 (1): 293–310. <https://doi.org/10.1177/14614448166661553>.

- Pollock, Anne, and Banu Subramaniam. 2016. 'Resisting Power, Retooling Justice: Promises of Feminist Postcolonial Technosciences'. *Science, Technology, & Human Values* 41 (6): 951–66. <https://doi.org/10.1177/0162243916657879>.
- 'Pregnancy Help Medical Clinics'. 2019. 2019. <https://www.pregnancyhelpclinics.org/en>.
- 'Pregnancy Options Miami'. 2019. Pregnancy Options Miami. 2019. <https://pregnancyoptionsmiami.org/>.
- Price, Polly J. 2000. 'Alien Land Restrictions in the American Common Law: Exploring the Relative Autonomy Paradigm'. SSRN Scholarly Paper ID 233142. Rochester, NY: Social Science Research Network. <https://papers.ssrn.com/abstract=233142>.
- Privacy International. 2018. 'Who Supplies the Data, Analysis, and Tech Infrastructure to US Immigration Authorities?' Privacy International. 2018. <http://www.privacyinternational.org/long-read/2216/who-supplies-data-analysis-and-tech-infrastructure-us-immigration-authorities>.
- . 2019. 'How Anti-Abortion Activism Is Exploiting Data'. Privacy International. 2019. <http://privacyinternational.org/long-read/3096/how-anti-abortion-activism-exploiting-data>.
- Puar, Jasbir K. 2017. *The Right to Maim: Debility, Capacity, Disability*. Anima. Durham: Duke University Press.
- Public Comment. 2018. *City of Miami Commission Hearing— Planning & Zoning, 15 November 2018, Miami City Hall, Miami, FL*. Miami City Hall, Miami.
- . 2019a. *City of Miami Commission Hearing—Planning & Zoning, 28 February 2019, Miami City Hall, Miami, FL*. Miami City Hall, Miami.
- . 2019b. *City of Miami Commission Hearing—Planning & Zoning, 27 June 2019, Miami City Hall, Miami, FL*. Miami City Hall, Miami.
- Pulido, Laura. 2016. 'Flint, Environmental Racism, and Racial Capitalism'. *Capitalism Nature Socialism* 27 (3): 1–16. <https://doi.org/10.1080/10455752.2016.1213013>.
- Queen, Bradley. 2020a. 'The First Amendment v. Reproductive Rights: Crisis Pregnancy Centers, Commercial Speech, and Marketplaces of Misinformation'. *First Amendment Studies* 54 (1): 71–92. <https://doi.org/10.1080/21689725.2020.1742763>.
- . 2020b. 'The First Amendment v. Reproductive Rights: Crisis Pregnancy Centers, Commercial Speech, and Marketplaces of Misinformation'. *First Amendment Studies* 54 (1): 71–92. <https://doi.org/10.1080/21689725.2020.1742763>.
- Rabinow, Paul. 1999. *French DNA: Trouble in Purgatory*. Chicago, IL: University of Chicago Press.
- Rabinow, Paul, and Nikolas Rose. 2006. 'Biopower Today'. *BioSocieties* 1 (2): 195–217. <https://doi.org/10.1017/S1745855206040014>.

- Ramírez, Margaret M. 2020. 'City as Borderland: Gentrification and the Policing of Black and Latinx Geographies in Oakland'. *Environment and Planning D: Society and Space* 38 (1): 147–66. <https://doi.org/10.1177/0263775819843924>.
- Rapp, Rayna. 1999. *Testing Women, Testing the Fetus: The Social Impact of Amniocentesis in America*. The Anthropology of Everyday Life. New York: Routledge.
- Reardon, Jenny, and Kim TallBear. 2012. "'Your DNA Is Our History": Genomics, Anthropology, and the Construction of Whiteness as Property'. *Current Anthropology* 53 (S5): S233–45. <https://doi.org/10.1086/662629>.
- Rewire News Group. n.d. 'Crisis Pregnancy Centers'. Rewire News Group. Accessed 28 March 2021. <https://rewirenewsgroup.com/legislative-tracker/law-topic/crisis-pregnancy-centers/>.
- Ribes, David, and Thomas Finholt. 2009. 'The Long Now of Technology Infrastructure: Articulating Tensions in Development'. *Journal of the Association for Information Systems* 10 (5). <https://doi.org/10.17705/ijais.00199>.
- Rich, Adrienne. 1976. *Of Woman Born: Motherhood as Experience and Institution*. 1st ed. New York: Norton.
- Richie, Beth E. 2000. 'A Black Feminist Reflection on the Antiviolence Movement'. *Signs: Journal of Women in Culture and Society* 25 (4): 1133–37. <https://doi.org/10.1086/495533>.
- Ritchie, Andrea J. 2016. 'Law Enforcement Violence Against Women of Color In'. In *Color of Violence: The INCITE! Anthology*, edited by INCITE! Durham: Duke University Press.
- Roberts, Celia. 2007. *Messengers of Sex: Hormones, Biomedicine, and Feminism*. Cambridge Studies in Society and the Life Sciences. Cambridge ; New York: Cambridge University Press.
- Roberts, Dorothy. 1997. *Killing the Black Body: Race, Reproduction, and the Meaning of Liberty*. 1st ed. New York: Pantheon Books.
- Roberts, Dorothy E. 1997. 'Who May Give Birth to Citizens? Reproduction, Eugenics, and Immigration'. In *Immigrants Out! The New Nativism and the Anti-Immigrant Impulse in the United States*, edited by Juan F. Perea. Critical America. New York: New York University Press.
- Robinson, Cedric J. 1983. *Black Marxism: The Making of the Black Radical Tradition*. London : Totowa, N.J: Zed ; Biblio Distribution Center.
- Rodríguez-Pose, Andrés, and Michael Storper. 2020. 'Housing, Urban Growth and Inequalities: The Limits to Deregulation and Upzoning in Reducing Economic and Spatial Inequality'. *Urban Studies* 57 (2): 223–48. <https://doi.org/10.1177/0042098019859458>.
- Romero, Diana, and Madina Agénor. 2017. 'The Welfare Family Cap: Reproductive Rights, Control, and Poverty Prevention'. In *Radical Reproductive Justice: Foundations, Theory, Practice, Critique*, edited by Loretta Ross, Lynn Roberts,

- Erika Derkas, Whitney Peoples, and Pamela Bridgewater. New York City: The Feminist Press at The City University of New York.
- Rosen, Joanne D. 2012. 'The Public Health Risks of Crisis Pregnancy Centers'. *Perspectives on Sexual and Reproductive Health* 44 (3): 201–5. <https://doi.org/10.1363/4420112>.
- Ross, Loretta. 2017. 'Reproductive Justice Beyond Biology'. Center for American Progress. 2017. <https://www.americanprogress.org/issues/race/news/2017/03/15/428191/reproductive-justice-beyond-biology/>.
- Ross, Loretta J. 2018. 'Demographically Doomed: White Supremacy, Electoral Power and Reproductive Justice'. *Different Takes*, no. 92. <https://sites.hampshire.edu/popdev/files/2018/03/DT-92.pdf>.
- Ross, Loretta, Lynn Roberts, Erika Derkas, Whitney Peoples, and Pamela Bridgewater, eds. 2017. *Radical Reproductive Justice: Foundations, Theory, Practice, Critique*. New York City: The Feminist Press at The City University of New York.
- Ross, Loretta, and Rickie Solinger. 2017. *Reproductive Justice: An Introduction*. Reproductive Justice : A New Vision for the Twenty-First Century 1. Oakland, California: University of California Press.
- Rowland, Robyn. 1987a. 'Of Women Born, But for How Long? The Relationship of Women to the New Reproductive Technologies and the Issue of Choice'. In *Made to Order: The Myth of Reproductive and Genetic Progress*, edited by Patricia Spallone and Deborah Lynn Steinberg, 1st ed. The Athene Series. Oxford [Oxfordshire] ; New York: Pergamon Press.
- . 1987b. 'Technology and Motherhood: Reproductive Choice Reconsidered'. *Signs* 12 (3): 512–28. <https://www.jstor.org/stable/3174335>.
- Roy, Deboleena, and Banu Subramaniam. 2016. 'Matter in the Shadows: Feminist New Materialism and the Practices of Colonialism'. In *Mattering: Feminism, Science, and Materialism*, edited by Victoria Pitts-Taylor. Biopolitics: Medicine, Technoscience, and Health in the Twenty-First Century. New York: New York University Press.
- Ruddick, Sara. 1983. 'Maternal Thinking'. In *Mothering: Essays in Feminist Theory*., edited by Joyce Trebilcot, 231–62. Savage, MA: Rowman & Littlefield.
- Rudolph, Eric. 2014. 'White Lies: Eugenics, Abortion, and Racism'. <http://armyofgod.com/EricRudolphWhiteLiesEugenicsAbortionandRacism2.pdf>.
- Rudrappa, Sharmila. 2015. *Discounted Life: The Price of Global Surrogacy in India*. New York ; London: New York University Press.
- . 2018. 'Reproducing Dystopia: The Politics of Transnational Surrogacy in India, 2002–2015'. *Critical Sociology* 44 (7–8): 1087–1101. <https://doi.org/10.1177/0896920517740616>.

- Rushing, Beth, and Suzanne Onorato. 2003. 'Controlling the Means of Reproduction: Feminist Theories and Reproductive Technologies'. *Humanity & Society* 27 (3): 393–413. <https://doi.org/10.1177/016059760302700321>.
- Sampaio, Anna. 2015. *Terrorizing Latina/o Immigrants: Race, Gender, and Immigration Politics in the Age of Security*. Philadelphia: Temple University Press.
- Sandoval, Chela. 2004. 'US Third World Feminism: The Theory and Method of Differential Oppositional Consciousness'. In *The Feminist Standpoint Theory Reader: Intellectual and Political Controversies*, edited by Sandra G. Harding, 195–209. Routledge.
- Sandvig, Christian. 2013. 'The Internet as Infrastructure'. *The Oxford Handbook of Internet Studies*. 1 January 2013. <https://www.oxfordhandbooks.com/view/10.1093/oxfordhb/9780199589074.001.0001/oxfordhb-9780199589074-e-5>.
- Santana, Carlos Rivera. 2018. 'Colonization, Coloniality and Bio-Power: Biopolitics in Queensland, Australia'. *Cultural Studies* 32 (2): 223–39. <https://doi.org/10.1080/09502386.2017.1328453>.
- Sassen, Saskia. 2002. 'Towards a Sociology of Information Technology'. *Current Sociology* 50 (3): 365–88. <https://doi.org/10.1177/0011392102050003005>.
- Saurette, Paul, and Kelly Gordon. 2018. *The Changing Voice of the Anti-Abortion Movement: The Rise of 'Pro-Woman' Rhetoric in Canada and the United States*. Toronto: University of Toronto Press. <https://doi.org/10.3138/9781442668751>.
- Sauter, Molly. 2014. *The Coming Swarm: DDoS Actions, Hacktivism, and Civil Disobedience on the Internet*. New York ; London: Bloomsbury Academic, an imprint of Bloomsburg Publishing Inc.
- Savage, Charlie. 2018. 'Explaining Trump's Executive Order on Family Separation - The New York Times'. *New York Times*, 2018. <https://www.nytimes.com/2018/06/20/us/politics/family-separation-executive-order.html>.
- Schafran, Alex. 2013. 'Origins of an Urban Crisis: The Restructuring of the San Francisco Bay Area and the Geography of Foreclosure'. *International Journal of Urban and Regional Research* 37 (2): 663–88. <https://doi.org/10.1111/j.1468-2427.2012.01150.x>.
- Schilling, Joseph, and Leslie S. Linton. 2005. 'The Public Health Roots of Zoning: In Search of Active Living's Legal Genealogy'. *American Journal of Preventive Medicine* 28 (2): 96–104. <https://doi.org/10.1016/j.amepre.2004.10.028>.
- Schmidt, Madeleine. 2019. 'Yelp Fixed Its Anti-Choice Clinic Problem. Why Can't Google Do the Same?' *Rewire News Group*, 2019. <https://rewirenewsgroup.com/article/2019/10/01/yelp-fixed-its-anti-choice-clinic-problem-why-cant-google-do-the-same/>.

- Schoen, Johanna. 2005. *Choice & Coercion: Birth Control, Sterilization, and Abortion in Public Health and Welfare*. Gender and American Culture. Chapel Hill: University of North Carolina Press.
- Schorsch, Peter. 2019. 'Winners and Losers Emerging from the 2019 Legislative Session'. *Florida Politics - Campaigns & Elections. Lobbying & Government*. (blog). 2019. <https://floridapolitics.com/archives/295674-winners-and-losers-of-the-2019-legislative-session/>.
- Schurr, Carolin. 2017. 'From Biopolitics to Bioeconomies: The ART of (Re-)Producing White Futures in Mexico's Surrogacy Market'. *Environment and Planning D: Society and Space* 35 (2): 241–62. <https://doi.org/10.1177/0263775816638851>.
- Schwartz, Barbara. 2019. 'Personal Interview with Barbara Schwartz a Clinic Escort with Planned Parenthood and Other Reproductive Rights Organisations. Miami, Florida.', 5 March 2019.
- Sensenbrenner, James F. Jr. 2002. *H.R.3525 - 107th Congress (2001-2002): Enhanced Border Security and Visa Entry Reform Act of 2002*. <https://www.congress.gov/bill/107th-congress/house-bill/3525/text>.
- . 2006. *Text - H.R.4437 - 109th Congress (2005-2006)*. <https://www.congress.gov/bill/109th-congress/house-bill/4437/text>.
- Servon, Lisa J. 2002. *Bridging the Digital Divide: Technology, Community, and Public Policy*. The Information Age Series. Malden, MA: Blackwell Pub.
- Shammas, Brittany. 2019. 'Amnesty International Calls Homestead Migrant Facility a Human-Rights Violation'. Miami New Times. 2019. <https://www.miaminewtimes.com/news/amnesty-international-demands-homestead-center-for-unaccompanied-children-close-as-soon-as-possible-11220725>.
- Shapin, Steven, Simon Schaffer, and Thomas Hobbes. 1985. *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life: Including a Translation of Thomas Hobbes, Dialogus Physicus de Natura Aeris by Simon Schaffer*. Princeton, N.J: Princeton University Press.
- Shepard, Nicole. 2018. 'Big Data and Sexual Surveillance'. Association for Progressive Communication. https://www.apc.org/sites/default/files/BigDataSexualSurveillance_o.pdf.
- Sherman, Renee Bracey. 2018. 'Personal Interview with Renee Bracey Sherman and the Author', 2018.
- Siegel, Reva, and Duncan Hosie. 2019. 'Trump's Abortion and Immigrant Policies May Share a Goal'. *Time*, 2019. <https://time.com/5748503/trump-abortion-immigration-replacement-theory/>.
- Silliman, Jael Miriam, Anannya Bhattacharjee, Angela Y. Davis, and Population Committee on Women and the Environment, eds. 2002. *Policing the National Body: Sex, Race, and Criminalization*. Cambridge, Mass: South End Press.

- Silliman, Jael Miriam, Marlene Gerber Fried, Loretta J Ross, and Elena R Gutiérrez. 2016. *Undivided Rights: Women of Color Organize for Reproductive Justice*. <http://public.ebookcentral.proquest.com/choice/publicfullrecord.aspx?p=4596550>.
- Silva, Daniella. 2019. 'GPS Tracking of Immigrants in ICE Raids Troubles Advocates'. *NBC News*, 2019. <https://www.nbcnews.com/news/us-news/gps-tracking-immigrants-ice-raids-troubles-advocates-n1042846>.
- Singer, Audrey. 2019. 'Immigration: Alternatives to Detention (ATD) Programs'. R45804. Congressional Research Service. <https://crsreports.congress.gov/product/pdf/R/R45804>.
- SLPC. 2019. 'Draft Memorandum – Policy Options to Respond to Border Surge of Illegal Immigration'. https://www.splcenter.org/sites/default/files/72.6_-_3d_am_compl_exh_5_leaked_memo_01-18-2019.pdf.
- Smietana, Marcin, Charis Thompson, and France Winddance Twine. 2018. 'Making and Breaking Families – Reading Queer Reproductions, Stratified Reproduction and Reproductive Justice Together'. *Reproductive Biomedicine & Society Online* 7 (November): 112–30. <https://doi.org/10.1016/j.rbms.2018.11.001>.
- Smith, Andrea. 2005. 'Beyond Pro-Choice versus Pro-Life: Women of Color and Reproductive Justice'. *NWSA Journal* 17 (1): 119–40. <https://www.jstor.org/stable/4317105>.
- . 2012. 'Indigeneity, Settler Colonialism, White Supremacy'. In *Racial Formation in the Twenty-First Century*, edited by Daniel HoSang, Oneka LaBennett, and Laura Pulido. Berkeley: University of California Press.
- . 2015a. *Conquest: Sexual Violence and American Indian Genocide*. Durham, NC: Duke University Press.
- . 2015b. 'State Surveillance, Settler Colonialism, and Gender Violence'. In *Feminist Surveillance Studies*, edited by Rachel E. Dubrofsky and Shoshana Magnet. Durham: Duke University Press.
- . 2016. 'Heteropatriarchy and the Three Pillars of White Supremacy: Rethinking Women of Color Organizing', July. <https://doi.org/10.1215/9780822373445-007>.
- Solinger, Rickie. 2001. *Beggars and Choosers: How the Politics of Choice Shapes Adoption, Abortion, and Welfare in the United States*. 1st ed. New York: Hill and Wang.
- . 2005. *Pregnancy and Power: A Short History of Reproductive Politics in America*. New York: New York University Press.
- Southern Poverty Law Centre. 2019. J.E.C.M. v. Hayes Case. In the United States District Court For the Eastern District of Virginia, Alexandria Division.
- Spallone, Patricia, and Deborah Lynn Steinberg, eds. 1987. *Made to Order: The Myth of Reproductive and Genetic Progress*. 1st ed. The Athene Series. Oxford [Oxfordshire] ; New York: Pergamon Press.

- Srnicek, Nick. 2017. *Platform Capitalism. Theory Redux*. Cambridge, UK ; Malden, MA: Polity.
- Stacey, Judith. 2018. 'Queer Reproductive Justice?' *Reproductive Biomedicine & Society Online* 7 (July): 4-7. <https://doi.org/10.1016/j.rbms.2018.06.004>.
- Staples, Dan. 2018. 'Personal Interview with Dan Staples, IT Manager for the National Network of Abortion Funds with the Author.', 8 August 2018.
- Star, Susan Leigh. 1999. 'The Ethnography of Infrastructure'. *American Behavioral Scientist* 43 (3): 377-91. <https://doi.org/10.1177/00027649921955326>.
- Stehlin, John. 2016. 'The Post-Industrial "Shop Floor": Emerging Forms of Gentrification in San Francisco's Innovation Economy'. *Antipode* 48 (2): 474-93. <https://doi.org/10.1111/anti.12199>.
- Steil, Justin P., Len Albright, Jacob S. Rugh, and Douglas S. Massey. 2018. 'The Social Structure of Mortgage Discrimination'. *Housing Studies* 33 (5): 759-76. <https://doi.org/10.1080/02673037.2017.1390076>.
- Stern, Alexandra Minna. 2005. *Eugenic Nation: Faults and Frontiers of Better Breeding in Modern America*. American Crossroads 17. Berkeley: University of California Press.
- Stoler, Ann Laura. 1995. *Race and the Education of Desire: Foucault's History of Sexuality and the Colonial Order of Things*. Durham: Duke University Press.
- . 2008. 'Imperial Debris: Reflections on Ruins and Ruination'. *Cultural Anthropology* 23 (2): 191-219. <https://doi.org/10.1111/j.1548-1360.2008.00007.x>.
- Suarez, Francisco X. 2018. *City of Miami Commission Hearing - Planning & Zoning, 15 November 2018. Miami City Hall, Miami, FL*. Miami.
- Subramaniam, Banu, Laura Foster, Deboleena Roy, and Kim TallBear. 2017. 'Feminism, Postcolonialism, and Technoscience'. In *The Handbook of Science and Technology Studies*, edited by Ulrike Felt, Rayvon Fouché, Clake A. Miller, and Laurel Smith-Doerr, Fourth edition. Cambridge, Massachusetts: The MIT Press.
- Sufrin, Carolyn. 2019. 'When the Punishment Is Pregnancy: Carceral Restriction of Abortion in the United States'. *Cultural Anthropology* 34 (1): 34-40. <https://doi.org/10.14506/ca34.1.06>.
- Sultana, Farhana. 2017. 'Reflexivity'. In *International Encyclopedia of Geography: People, the Earth, Environment and Technology*, edited by Douglas Richardson, Noel Castree, Michael F. Goodchild, Audrey Kobayashi, Weidong Liu, and Richard A. Marston, 1-5. Oxford, UK: John Wiley & Sons, Ltd. <http://doi.wiley.com/10.1002/9781118786352.wbiego686>.
- Sunder Rajan, Kaushik. 2006. *Biocapital: The Constitution of Postgenomic Life*. Durham: Duke University Press. <https://doi.org/10.1215/9780822388005>.
- Supreme Court of the United States. 1993. *Reno v. Flores*, 507 U.S. 292 (1993). *Reno v. Flores* (91-905), 507 U.S. 292 (1993). <https://supreme.justia.com/cases/federal/us/507/292/>.

- Sweeney, Miriam E. 2017. 'The Ms. Dewey "Experience:" Technoculture, Gender, Race'. In *Digital Sociologies*, edited by Daniels Jessie, Gregory Karen, and Tressie McMillan Cottom. Policy Press.
- Tallbear, Kim. 2018. 'Making Love and Relations Beyond Settler Sex and Family'. In *Making Kin Not Population: Reconceiving Generations*, edited by Adele Clarke and Donna Harway. Chicago, IL: Prickly Paradigm Press.
- Taylor, Keeanga-Yamahtta. 2019. *Race for Profit: How Banks and the Real Estate Industry Undermined Black Homeownership*. Justice, Power, and Politics. Chapel Hill: The University of North Carolina Press.
- 'Terrorizing Latina/o Immigrants | Temple University Press'. n.d. Accessed 28 February 2021. <http://tupress.temple.edu/book/1231>.
- Thatcher, Jim, David O'Sullivan, and Dillon Mahmoudi. 2016. 'Data Colonialism through Accumulation by Dispossession: New Metaphors for Daily Data'. *Environment and Planning D: Society and Space* 34 (6): 990–1006. <https://doi.org/10.1177/0263775816633195>.
- The Combahee River Collective. 2014. 'A Black Feminist Statement'. *Women's Studies Quarterly* 42 (3/4): 271–80. <https://www.jstor.org/stable/24365010>.
- Thompson, Charis. 2005. *Making Parents: The Ontological Choreography of Reproductive Technologies*. Inside Technology. Cambridge, Mass.: MIT Press.
- Thorburn, Elise Danielle. 2016. 'Networked Social Reproduction: Crises in the Integrated Circuit'. *TripleC: Communication, Capitalism & Critique. Open Access Journal for a Global Sustainable Information Society* 14 (2): 380–396–380–96. <https://doi.org/10.31269/triplec.v14i2.708>.
- Toledo, Jackie. 2018. *House Bill 41 (2018) - The Florida Senate*. <https://www.flsenate.gov/Session/Bill/2018/41>.
- Toro-Morn, Maura, Anna Romina Guevarra, and Nilda Flores-González. 2013. 'Introduction: Immigrant Women and Labor Disruptions'. In *Immigrant Women Workers in the Neoliberal Age*, edited by Nilda Flores-González, Anna Romina Guevarra, Maura Toro-Morn, and Grace Chang. Urbana: University of Illinois Press.
- Trask, Haunani-Kay. 1999. *From a Native Daughter: Colonialism and Sovereignty in Hawai'i*. Rev. ed. Honolulu: University of Hawai'i Press.
- Troesken, Werner, and Randall Walsh. 2019. 'Collective Action, White Flight, and the Origins of Racial Zoning Laws'. *The Journal of Law, Economics, and Organization* 35 (2): 289–318. <https://doi.org/10.1093/jleo/ewz006>.
- Trouillot, Michel-Rolph. 1995. *Silencing the Past: Power and the Production of History*. Boston, Mass: Beacon Press.
- Trujillo-Pagán, Nicole. 2014. 'Emphasizing the "Complex" in the "Immigration Industrial Complex"'. *Critical Sociology* 40 (1): 29–46. <https://doi.org/10.1177/0896920512469888>.

- University of Miami Office of Civic and Community Engagement. 2016. 'Miami Housing Timeline'. 2016. <https://affordablehousing.miami.edu/housing-timeline/index.html>.
- Urla, Jacqueline. 1993. 'Cultural Politics in an Age of Statistics: Numbers, Nations, and the Making of Basque Identity'. *American Ethnologist* 20 (4): 818–43. <https://doi.org/10.1525/ae.1993.20.4.02a00080>.
- US Census Bureau. 2020. 'U.S. Census Bureau QuickFacts: Florida'. 2020. <https://www.census.gov/quickfacts/FL?>
- Vaidhyanathan, Siva. 2012a. *The Googlization of Everything: And Why We Should Worry*. Updated edition, First paperback printing. Berkeley Los Angeles: University of California Press.
- Vásquez, Tina. 2020. 'In 2020, Let's Recognize Immigration as a Reproductive Justice Issue'. Truthout. 2020. <https://truthout.org/articles/in-2020-lets-recognize-immigration-as-a-reproductive-justice-issue/>.
- Verhovek, Sam Howe. 1994. 'Pensacola's Decade of Violence: Escalating Battle Over Abortion'. *The New York Times*, 6 August 1994, sec. U.S. <https://www.nytimes.com/1994/08/06/us/pensacola-s-decade-of-violence-escalating-battle-over-abortion.html>.
- Vertommen, Sigrid. 2017. 'From the Pergonal Project to Kadimastem: A Genealogy of Israel's Reproductive-Industrial Complex'. *BioSocieties* 12 (2): 282–306. <https://doi.org/10.1057/biosoc.2015.44>.
- Vora, Kalindi. 2015. 'Re-Imagining Reproduction: Unsettling Metaphors in the History of Imperial Science and Commercial Surrogacy in India'. *Somatechnics* 5 (1): 88–103. <https://doi.org/10.3366/soma.2015.0149>.
- Wadhia, Shoba Sivaprasad. 2019. *Banned: Immigration Enforcement in the Time of Trump*. New York: New York University Press.
- Wajcman, J. 2010. 'Feminist Theories of Technology'. *Cambridge Journal of Economics* 34 (1): 143–52. <https://doi.org/10.1093/cje/ben057>.
- Wajcman, Judy. 2004. *TechnoFeminism*. Cambridge ; Malden, MA: Polity.
- Waldby, Catherine, and Melinda Cooper. 2008. 'The Biopolitics of Reproduction'. *Australian Feminist Studies* 23 (55): 57–73. <https://doi.org/10.1080/08164640701816223>.
- Waldby, Cathy, and Robert Mitchell. 2006. *Tissue Economies: Blood, Organs, and Cell Lines in Late Capitalism*. Science and Cultural Theory. Durham [N.C.]: Duke University Press.
- Weheliye, Alexander G. 2014. *Habeas Viscus: Racializing Assemblages, Biopolitics, and Black Feminist Theories of the Human*. Durham: Duke University Press.
- Weintraub, Amy. 2019. 'Personal Interview with Amy Weintraub, Reproductive Rights Program Director and Deputy Communications Director for Progress Florida in Miami, Florida.', 26 February 2019.

- Whitley, Leila. 2015. 'The Body as Border? Arizona's SB1070 as a Case Study for Re-Thinking the Spatiality of the US-Mexico Border'. *CEJISS* 3 (9).
<http://www.cejiss.org/issue-detail/the-body-as-border-arizona-s-sb1070-as-a-case-study-for-re-thinking-the-spatiality-of-the-us-mexico-border>.
- Whittemore, Andrew H. 2017. 'The Experience of Racial and Ethnic Minorities with Zoning in the United States'. *Journal of Planning Literature* 32 (1): 16–27.
<https://doi.org/10.1177/0885412216683671>.
- Wiel, Lucy van de. 2019. 'The Datafication of Reproduction: Time-Lapse Embryo Imaging and the Commercialisation of IVF'. *Sociology of Health & Illness* 41 (S1): 193–209. <https://doi.org/10.1111/1467-9566.12881>.
- Wilson, Sacoby, Malo Hutson, and Mahasin Mujahid. 2008. 'How Planning and Zoning Contribute to Inequitable Development, Neighborhood Health, and Environmental Injustice'. *Environmental Justice* 1 (4): 211–16.
<https://doi.org/10.1089/env.2008.0506>.
- Winner, Langdon. 1980. 'Do Artifacts Have Politics?' *Daedalus* 109 (1): 121–36.
<https://www.jstor.org/stable/20024652>.
- WLRN. 2019. "'We Now Have A Lot To Look At": Florida Republican Says He's Encouraged By Alabama Abortion Law'. WLRN. 2019.
<https://www.wlrn.org/show/the-florida-roundup/2019-05-19/we-now-have-a-lot-to-look-at-florida-republican-says-hes-encouraged-by-alabama-abortion-law>.
- Wolfe, Patrick. 1999. *Settler Colonialism and the Transformation of Anthropology: The Politics and Poetics of an Ethnographic Event*. Writing Past Colonialism Series. London ; New York: Cassell.
- . 2006. 'Settler Colonialism and the Elimination of the Native'. *Journal of Genocide Research* 8 (4): 387–409. <https://doi.org/10.1080/14623520601056240>.
- Wood, Phillip J. 2007. 'Globalization and Prison Privatization: Why Are Most of the World's For-Profit Adult Prisons to Be Found in the American South?' *International Political Sociology* 1 (3): 222–39. <https://doi.org/10.1111/j.1749-5687.2007.00015.x>.
- Wynter, Sylvia. 2003. 'Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, Its Overrepresentation--An Argument'. *CR: The New Centennial Review* 3 (3): 257–337. <https://doi.org/10.1353/ncr.2004.0015>.
- Yuval-Davis, Nira. 1997. *Gender & Nation*. Politics and Culture. London ; Thousand Oaks, Calif: Sage Publications.
- . 2011. 'Power, Intersectionality and the Politics of Belonging', no. 75.
<https://doi.org/10.5278/FREIA.58024502>.
- Zangrillo, Robert. 2018. *City of Miami Commission Hearing - Planning & Zoning, 15 November 2018, Miami City Hall, Miami, FL*. Miami.
- Zéphir, Flore. 2004. *The Haitian Americans*. New Americans. Westport, Conn: Greenwood Press.

- Zlolniski, Christian. 2000. 'Cleaning the Buildings of High Tech Companies in Silicon Valley: The Case of Mexican Janitors in Sonix', May.
<https://escholarship.org/uc/item/2bo5k7zx>.
- . 2005. 'Labor Control and Resistance of Mexican Immigrant Janitors in Silicon Valley'. *Human Organization* 62 (1): 39–49.
<https://doi.org/10.17730/humo.62.1.376mj445em7jw65u>.
- Zuboff, Shoshana. 2019. *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power*. London: Profile Books.

Appendix A

Introduction

Name of person looking for your permission: Grace Tillyard. If you have any questions now or at any time during the research project, please contact Grace Tillyard: grace.tillyard@gmail.com. If you have any concerns about this research, please contact Professor Des Freedman, Department of Media, Communications & Cultural Studies at Goldsmiths, University of London, d.freedman@gold.ac.uk

General Information about this Study

Purpose of the Study: You are being asked to take part in this research study that aims to investigate the increasingly important role of internet communication and mobile technology for reproductive justice organising and helping (or hindering) communities in need with access to sexual and reproductive health information and services. In person interviews and/or focus group participation will be conducted. The interview/group discussion will follow the introduction of a few broad topics. This approach allows you to provide your own account - narrative - of your experiences, perceptions, and in which you have played, or are still playing an active part. These questions are simply to facilitate our discussion, your recollections of the past, evaluations of on-going projects, and frame your thoughts about the future.

If you agree to be recorded, (See below) we will keep the interview, record the results of our conversation and your thoughts and opinions for research purposes, but your name and other information will never be recorded or used unless you give us permission to do so. If we make a videotape of the interview/focus group sessions your face will be excluded, unless you have filled out and signed the separate consent form for photography. The recordings and transcripts will be kept in a secure place for a period of no longer than seven years, according to international law, after which the tapes and transcripts will be destroyed. If you chose to not be named, the information you share with us will remain entirely confidential including any names of any persons or third parties that you mention. However, if you disclose instances of personal neglect or abuse we will be obliged to refer this information to the relevant focal point identified by your organisation. You may ask questions about this study's confidentiality at any time.

Research Benefits: There may be no direct benefit to you for being in this study, but other people using sexual and reproductive health services in the future may benefit from the information we gather.

Research Risks: There are no medical risks to you for taking part in this study. There is a small risk that confidentiality could be broken but we will take special care. This study may include risks that are unknown at this time.

Withdrawal: You are free to withdraw your consent and to stop participating in this study at any time.

Costs: There are no costs to you for taking part in the study and you will receive transportation costs if you are required to travel somewhere for the purposes of an interview or focus group.

Signatures

As an investigator or the investigator's representative, I have explained the possible benefits and the risks of this research study; the alternative to being in the study; and how the participant's information will be collected, used, and shared with others:

Signature of Person Obtaining Consent

Date

Authorization

You have been informed about this study's possible benefits, and risks and how the information will be collected, used and shared with others. You have been given the opportunity to ask questions before you sign, and you have been told that you can ask questions at any time. You voluntarily agree to participate in this study. You hereby authorize the collection, use and sharing of information that may include audio and video recordings.

I consent to this conversation being recorded Yes No

I consent to being identified in the research project Yes No

Signature(s) of Person Consenting and Authorizing

Date

Appendix B

Interview with:	Location:	Date:
Anonymous A, Reproductive Justice Organiser	Orlando, Florida	February 28 th 2019
Anonymous B, Local Activist campaigning against the detention and deportation system	Miami, Florida	17 th of September 2019
Anonymous C, Local Activist	Miami, Florida	18 th of September 2019
Stephanie Lorraine Piñeiro, Board member for the Central Florida Women's Emergency Fund and abortion storyteller.	Orlando, Florida	March 1 st 2019.
Barbara Schwartz, volunteer Planned Parenthood clinic escort	Miami, Florida	5 th of March 2019.
Staples, Dan. I.T. Manager, National Network of Abortion Funds	Skype interview	8 th of August 2018
Bracey Sherman, Renee, We Testify Founder and Reproductive Justice Advocate	Skype interview	29 th August 2018.
Jennifer Kotting Director of Communications at the National Network of Abortion Funds.	Skype interview	5 th of August 2018.
Marleine Bastien, Executive Directors of Family Action Network Movement, FANM.	Miami, Florida	16 th of May 2019
Thomas Kennedy, Political Director for the Florida Immigrant Coalition (FLIC)	Miami, Florida	17 th of September 2019
Amy Weintraub, Reproductive Rights Program Director and Deputy Communications Director for Progress Florida	Miami, Florida.	26 th of February 2019
Dian Alarcón, Organiser for the Latina Institute for Reproductive Justice	Miami, Florida	21 st of March 2019
Laura Estefania Muñoz Quiñones, Executive Director for Poderosa is Her Power	Miami, Florida	1 st of February 2018
Natalia Ruiz Cuartas, Co-Founder of Poderosa is Her Power	Miami, Florida	1 st of February 2018

Anonymous D and E, members of a domestic workers alliance	Miami, Florida	15 th of February 2018
Lai Eng, Volunteer for Planned Parenthood in Florida	Miami, Florida	22 th of February 2019
Maria Asuncion Bilbao, Organiser with United We Dream	Miami, Florida	18 th of October 2019
Lis-Marie Alvarado Organiser with the American Friends Service Committee	Miami, Florida	4 th of February 2018
Tiffany Burks, Community Organiser	Miami, Florida	20 th February 2019