The Future of Media



The Future of Media

Edited by Joanna Zylinska with Goldsmiths Media





Copyright © 2022 Goldsmiths Press First published in 2022 by Goldsmiths Press Goldsmiths, University of London, New Cross London SE14 6NW

Printed and bound by Versa Press, USA Distribution by the MIT Press Cambridge, Massachusetts, and London, England

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A CIP record for this book is available from the British Library.

ISBN 978-1-913380-14-4 (pbk) ISBN 978-1-913380-13-7 (ebk)

www.gold.ac.uk/goldsmiths-press



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Technological Futures as Colonial Debris: 'Tech for Good' as Technocolonialism

Mirca Madianou

Just as the future is often imagined in terms of technological innovation, digital developments such as 'artificial intelligence' and 'blockchain' are popularly framed as 'the future'. Such a temporal framing points to a linear understanding of technology as an inexorable trajectory of advancement. While this discourse permeates most popular understandings of digital innovation, it is exemplified in 'technology for good,' or 'tech for good' as they are most often referred to, initiatives. 'Tech for good' essentially assumes that technologies will provide solutions to complex social problems. Technology, which in this context is almost always synonymous with digital technology and computation (see also parallel terms such as 'AI for good'), is intentionally designed and developed to address social, economic and environmental challenges. While 'tech for good' claims applications in many spheres of social life, from the so-called 'smart city' to global health, it is most systematically entrenched in the field of international development and, more recently, humanitarianism. In development it is often synonymous with other neologisms such as ICT4D, or M4D ('information communication technologies for development' and 'mobile for development, respectively). In humanitarianism 'tech for good' is at the heart of digital humanitarianism, which includes the uses of digital innovation and data in emergencies such as international conflicts or the recovery from hurricanes and earthquakes. In practice, the spheres of digital development and digital humanitarianism overlap significantly as aid agencies often engage both in emergency work and long-term recovery (Krause 2014). Apart from emergencies, digital humanitarianism addresses protracted issues such long-term displacement where projects adopt a development focus. Humanitarianism and development are structurally similar as they follow the flow of aid from the rich global North to

the global South. These similarities and interconnections allow us to speak of a humanitarian–development nexus. While this essay will focus on digital humanitarianism, the argument is largely applicable to digital development, with both being emblematic of 'tech for good' initiatives.

This chapter questions the linear paradigms of technology and of humanitarianism, as well as their convergence exemplified in phenomena such as 'tech for good' or digital humanitarianism. In 'tech for good', technological determinism finds the perfect home as both share a teleological narrative that conflates the future with notions of progress and the good. This thinking reveals a number of problematic assumptions about technology and the humanitarianismdevelopment nexus. The first set of assumptions relate to technology as a set of fixed characteristics with calculable outcomes. This technologically determinist position is at odds with a sociotechnical understanding of technology as a process articulated in production and consumption. Technologies are produced and consumed in specific social, political and economic contexts which shape them and are in turn shaped by them. This is not to deny that technologies have certain propensities or architectures, but to recognise that these are not over-determining. Take for example radio, which, in its inception, had a clear interactive affordance that enthused Bertold Brecht, who in the early 1930s recognised its potential for enabling democratic participation (Brecht 2000). Rather than being a fixed quality, interactivity was never realised as radio was subsequently shaped as a broadcasting one-to-many medium. Instead of supporting grassroots participation, radio was associated with state propaganda in the 1930s, although, again, this shouldn't be seen as an inherent quality of the medium. In different political contexts, radio has been appropriated for resistance to oppressive regimes, or as a source of alternative information (Madianou 2005; Mankekar 1999). All media are the products of political, social, economic and cultural orders (Morley, Chapter 5 in this volume; Williams 1974) while they in turn contribute to shaping these contexts.

The progressivist paradigm of technology, which privileges whatever appears to be the latest innovation, ignores how all technologies refashion and rework earlier media in what Bolter and Grusin (1998) have termed a process of remediation. Additionally, apart from the historical or vertical lineages which produce forms of mediation, technologies are also defined in relation to other media that are part of socio-technical assemblages such as 'polymedia' (Madianou and Miller 2011). Such understandings of technology cast into doubt hierarchies that favour newness. In fact, the fetishism of the new promoted by

'tech for good' can be seen as a 'commercial imperative' (Kember and Zylinska 2012, 4) which ultimately benefits technology companies. Nothing summarises better the future orientation of the technology sector than the planned obsolescence of platforms which compels users to constantly update and renew their hardware and software. In visions of technological future, capitalism has found the perfect match.

The second set of assumptions concerns what constitutes development and humanitarianism. Apart from the 'imperative to reduce suffering', as it is usually defined (Calhoun 2008), humanitarianism is also an industry, a discourse and a historical phenomenon with roots in nineteenth- and twentieth-century colonialisms (Fassin 2012; Lester and Dussart 2014). Similar to international development, humanitarianism epitomises a teleological account of modernity as it centres on a linear progress of improvement. This is even more pronounced in the development sector, where improvement is synonymous with economic betterment which is achieved by emulating Western values and practices. While such Eurocentric approaches to humanitarianism and development have been discredited (Escobar 2012; Fassin 2012), they have been revived in the trends of ICT4D and digital humanitarianism. The logic of solutionism that underpins such trends presumes technological fixes for complex social problems. Technological fixes are often driven by commercial motives as private companies seek branding opportunities or a chance to generate hype for new products. In fact, digital humanitarianism is often driven by solutions seeking problems - and thus opportunities for publicity and attention - rather than the other way around. ICT4D and digital humanitarianism represent the point where two linear, modernist narratives converge. Digital technology is assumed to be the tool for achieving economic development. More importantly, 'tech for good' initiatives often conceal the historical legacies of development or humanitarianism.

In this essay I argue that, rather than advancing a democratic future, the use of technologies in digital humanitarianism reworks and accentuates colonial legacies of inequality and discrimination. I have termed this process 'technocolonialism' (Madianou 2019a). Technocolonialism refers to the convergence of digital developments with humanitarian structures and market forces and the extent to which they reinvigorate and rework colonial relationships of dependency. I will illustrate my argument by focusing on 'digital identity' initiatives for refugees which have become prominent in the humanitarian sector. Before unpacking digital humanitarianism we need to make sense of its colonial legacies and contemporary logics.

Humanitarianism and Colonialism

Despite the grand announcements that colonialism expired with the independence of postcolonial states, colonial (Stoler 2016) and decolonial (Quijano 2000) theorists remind us that colonial genealogies and inequalities persist and metamorphose in the contemporary context. Quijano's notion of the 'coloniality of power' is useful for explaining how the subjugation of the colonised continued well after the independence of postcolonial states as a result of the dominance of Eurocentric systems of knowledge, the codification of social and racial discrimination and the exploitation associated with global capitalism (Quijano 2000). For Stoler, contemporary global inequalities such as migration are 'reworkings ... of colonial histories' which she theorises as colonial presence (2016, 5). According to Stoler empires leave behind debris - and these hardened ruins can be reactivated and reworked under different conditions, often in oblique and opaque ways (Stoler 2016). Most contemporary migrant and refugee flows can be traced to colonial pasts (Hegde 2016; Khiabany 2016), while the racial subjugation of migrants and refugees helps to preserve colonial orders and the 'coloniality of power' (De Genova 2016; Quijano 2000). Humanitarianism itself originated in colonial expansion and the parallel awareness of otherness and suffering (Lester and Dussart 2014). Although humanitarianism is taken for granted as an expression of 'a supposed natural humaneness' (Fassin 2012) and an 'imperative to reduce suffering' (Calhoun 2008), the structural asymmetry between donors, humanitarian officers and aid recipients reproduces the unequal social orders which shaped colonialism and empire.

The emphasis on 'doing good' occludes the fact that aid is part of a wider liberal agenda (Escobar 2012) that primarily benefits the global North nations. However, colonial legacies surface from time to time, as happened during in the 2018 Oxfam sexual harassment and abuse scandal. The recognition of institutional racism within the aid sector in the wake of George Floyd's murder and Black Lives Matter protests in 2020² was a further reminder of 'colonial presence' (Stoler 2016). The decision by the UK government in June 2020 to dismantle its Department for International Development (DfID) and incorporate it into the Foreign Office³ speaks volumes about the true objective of aid projects, whether development or humanitarian or both. The transfer of cash from the global North to the global South, often via intermediary global North private firms which are awarded lucrative grants, preserves the power structures that benefit the North. The asymmetry is evident in the language used in humanitarianism and

development to refer to 'aid beneficiaries' and 'donors'. It is in these asymmetrical relationships that we mostly discern the legacies of colonialism.

The Logics of Digital Humanitarianism

Ironically, digital technologies were introduced in development and humanitarian operations as a means to correct these asymmetries. The interactive nature of digital platforms was considered empowering for affected people, who would seize the opportunity to express their needs, thus improving humanitarian accountability (Madianou et al. 2016) and realising the goal of participatory development (Waisbord 2008). The 'logic of accountability' has driven numerous aid projects and has ultimately legitimated digital developments within the sector. For example, 'digital identity' initiatives are framed as contributing to the dignity and empowerment of refugees (UNHCR 2018).

Digital practices are also driven by the 'logic of humanitarian audit', which recognises the potential of technologies and data as metrics for audit which donors demand. Given the huge growth of the humanitarian sector, with the global aid economy estimated at over \$150 billion, there is an acute pressure for audit. At the same time, the increasing marketisation of humanitarianism, combined with the short cycle of projects, means that agencies constantly compete for funding for which they have to supply evidence of impact. Biometric registrations were initially introduced in order to address issues of low-level fraud in humanitarian distributions and establish robust audit trails (UNHCR 2002). Metrics and refugee data have become the currency which supports humanitarian projects. A related factor is the pressure for savings and efficiency. Biometric scans are claimed to speed up registrations, which in the past involved lengthy interviews and paperwork (Kessler 2002), while digital cash transfer programmes reduce third-party costs.

Digital technologies are not just driven by the aid sector itself or by donor states. The private sector has entered the humanitarian space though ubiquitous public-private partnerships and the outsourcing of digital practices, including biometric registrations, to private vendors. For private companies, many of which are technology companies such as Amazon, Google, Facebook, Microsoft and Palantir, the involvement in humanitarian causes represents excellent branding opportunities with further potential benefits, such as increased visibility, data extraction and opportunities to pilot new technologies. The 'logic of capitalism'

has driven a number of innovation projects, including 'digital identity' initiatives, which explains the latter's emphasis on entrepreneurialism and web-based business opportunities (GSMA 2018).

Linked to the logic of capitalism is the 'logic of solutionism' – the idea that technology can solve complex social problems. The logic of solutionism explains the prevalence of technological experimentation and hype in digital humanitarianism projects. The concern here is the foregrounding of solutions before the understanding of the actual problems or cultural contexts. This explains the paradox of solutions being decided on the basis of technological hype, often generated by technology companies keen to promote their latest product, rather than a careful evaluation of actual problems.

Finally, the 'logic of securitisation' reduces refugees to a security threat (Anderson 2014) and explains the push for biometrics, especially by governments which aim to detect 'anomalies' and control their borders (Aradau and Blanke 2018). In the humanitarian context, host governments often put pressure on intergovernmental agencies such as the UNHCR to share data collected in a state's territory (Jacobsen 2015). Often the UNHCR conducts biometric registrations together with host states, or in some cases simply supports the hosts to carry out registrations. Such practices raise concerns about 'function creep,' which refers to the reuse of data for purposes entirely different than the one they were originally collected for (Ajana 2013).

In practice the five logics intersect and produce the phenomenon I describe as technocolonialism. In combination, these logics explain the push for digital initiatives such as the digital identity programmes which will be the focus of the next section.

Digital Identity Programmes

'Digital identity' initiatives constitute a relatively recent trend, although they have roots in established identification practices from the early days of humanitarianism, including biometric registrations – which have been taking place since 2002. Historically, all humanitarian operations have produced databases and have provided refugees with some credential, which confirms their entitlement to aid. The difference today is that these processes are digitised and rely on biometrics, the technology for measuring, analysing and processing a person's physiological characteristics, such as their fingerprints, iris or facial patterns.

Biometric registration is one of the first things to take place when a refugee comes into contact with the UN agency for refugees. Biometric databases are then used to authenticate those entitled to aid distributions. Biometric registrations were introduced in 2002 to speed up distributions, reduce the number of 'two-timers' and improve audit trails for donors (Jacobsen 2015). Biometric technologies have become the standard method for refugee registrations with the UNCHR, aiming to have all refugee data from across the world in a central population registry by 2020 (UNHCR 2018).

As the rate of biometric registrations has accelerated, their uses have also diversified. Biometric databases are used to underpin cash transfers, which are increasingly popular in humanitarian operations, replacing the traditional food distributions.4 Increasingly, biometric registrations, cash transfers and other biometric based practices are grouped under the term 'digital identity' (UNHCR 2018). Digital identity is presented as a solution to the problem of lack of formal identity papers, especially among refugees and stateless people. Over 1 billion people lack a legal form of identification, which has potential adverse consequences for employment and economic activity (for example, proof of identity is required to open a bank account). This is a problem that affects refugees in particular, who may have lost access to legal paperwork due to displacement. Humanitarian organisations such as the United Nations High Commissioner for Refugees (UNHCR) have prioritised the use of digital technology in order to provide digital identities for refugees. The idea is that a 'digital identity' based on biometric data will be portable across borders and can be used for access to jobs, remittances and banking. However, given the lack of interoperability between humanitarian and state systems, the idea of a 'portable' identity hasn't yet been realised. In practice, digital identity is a different way of framing already established processes of refugee registration, identification and credentialing.

Biometric technologies need to be understood within a longer lineage of practices of enumeration and control that are part of colonial legacies. The birth of biometrics can be traced back to the British Empire when fingerprinting was introduced to identify and control colonial subjects in India (Pugliese 2010). Contemporary biometrics involves digital technology and machine learning, while they often combine with other technologies such as blockchain: a sociotechnical assemblage that I have elsewhere analysed as a 'biometric assemblage' (Madianou 2019b). Despite the assumption that technological developments have enhanced the reliability of biometrics, there is evidence that biometric data codify existing forms of discrimination (Browne 2015; Magnet 2011). If anything,

technological convergence amplifies the risks associated with each constituent technology (Madianou 2019b). Biometric technologies 'privilege whiteness' (Browne 2015) with significantly higher margins of error when measuring or verifying 'othered bodies', whether in terms of race, ethnicity, gender, class, disability or age (Benjamin 2019; Browne 2015; Magnet 2011). For example, the immutability of blockchain technology can make any registration errors permanent with potentially deleterious consequences for refugees and other vulnerable populations.

The problem of bias isn't simply a matter of technological deficiency. The narrow definition of identity in a biometric system may sound straightforward, but it is anything but, especially when dealing with situations such as statelessness or ethnic conflicts. The recent 2017–2019 biometric registration of the 1 million Rohingya refugees in Bangladesh is a case in point. The registration, jointly organised by the UNHCR and the Bangladesh government and outsourced to a private vendor, referred to the Rohingya as 'Myanmar nationals,' a term which the refugees contested fiercely. They saw the term as signalling their inevitable and imminent repatriation to Myanmar, where they had suffered what the UN described as genocide. This symbolic annihilation of the Rohingya from their own identity 'smart cards' is evidence that despite their claims to objectivity and science, biometric registrations are deeply political. In November 2018, when the Rohingya went on strike to demand that the term Rohingya be used on their cards to mark their ethnicity, the strikers were met with the force of the Bangladeshi police (for a discussion see Madianou 2019a). Biometric registrations continued, while, according to the UN rapporteur on the situation in Myanmar, repatriation efforts began without the promised transparency and consultation among refugees.5

Not only do refugees have no control over their own data or identity cards, they also lack any meaningful opportunity to withdraw from biometric registrations. To deny participation in biometric registrations or identity programmes is tantamount to denying aid – an impossible situation for refugees who depend almost entirely on humanitarian distributions. When all opportunities for work, learning or travel are out of reach, the only option is to comply with the demand to give one's data regardless of any reservations. In such asymmetric situations consent is rendered meaningless. The lack of consent in humanitarian operations came into sharp focus in June 2019, when the United Nation's World Food Programme (WFP) temporarily suspended the distribution of food aid in Yemen as Houthi leaders, representing one of the sides involved in the protracted civil war, opposed

the use of biometric data in aid delivery. The WFP, which insisted on biometric registrations as part of efforts to address low-level fraud, was heavily criticised for its decision to deny food to one of the world's most vulnerable populations.

Although biometric refugee registrations and their pitfalls have received some attention (see Jacobsen 2015; Madianou 2019b), what is less discussed is the normalisation of biometric technology in a range of everyday practices, such as cash transfers. For example, the UNHCR's biometric database has been used to support a system of cash distributions in Jordan and Bangladesh. Since 2018 the WFP has been piloting the Building Blocks programme in refugee camps in Jordan. Building Blocks is essentially a cash-transfer system using blockchain, a distributed ledger system, integrated with the UNHCR's biometric database. Building Blocks allows refugees to 'shop' at officially sanctioned grocery stores by scanning their iris at checkout. Once the refugee's identity is authenticated on the UNHCR database, the WFP releases payment to the merchant and deducts the amount from the beneficiary account. The WFP blockchain keeps a record of all transactions. The pilot has reached 106,000 Syrian refugees in the Za'atari and other camps across Jordan. Since April 2020 the Building Blocks scheme has been extended to the Rohingya refugee camps in Bangladesh.

Building Blocks has been celebrated for its cost efficiency and empowering potential as it allows refugees to choose what to shop. A closer looks reveals that refugees remain at best ambivalent about the scheme and often sceptical about the implications for their privacy. According to a recent report, refugees in Jordan were uncomfortable with the amount of information held about them, the fact that their daily practices were stored in their permanent record and the possibility of data sharing (Shoemaker et al. 2018, 19). According to the same report, many refugees were not aware of how Building Blocks worked, what data were collected and who had access to them. Yet refugees had no choice about whether to participate in the scheme or not. Having a basic of understanding of how an identity system works is fundamental for establishing trust and achieving meaningful consent. It is impossible for anyone to give consent to something that they do not understand. Coupled with the steep asymmetrical relations that define aid, consent appears impossible in these settings.

Such findings from the users' perspective would have set alarm bells ringing in countries with strong legal frameworks around data protection and privacy. The Building Blocks scheme looks questionable at best in the context of the General Data Protection Regulation (GDPR), which provides the legal framework for privacy and data safeguards in the EU. But in contexts with no legal framework

regarding data protection, technological pilots such as Building Blocks can go ahead. The context of emergency is used to justify many of these practices.

Given the impossibility of consent and given that technological convergence amplifies the risks of bias, data safeguarding and data sharing, it is unclear why Building Blocks scaled up to over 100,000 users when it was still at a pilot stage. Building Blocks exemplifies the logic of solutionism and the fetishism of futurist visions of technology. The teleological paradigm of technology privileges the latest innovation as the best. It is no coincidence that in 2018, when the Building Blocks pilot was introduced, blockchain was considered the hottest innovation in tech circles (Madianou 2019b). In interviews I conducted with stakeholders from the aid and technology sectors it was often acknowledged that blockchain was the end rather than the means: a preoccupation with 'what can be done with blockchain' instead of 'how can we address an actual problem'. This inversion is typical of the logic of solutionism where solutions seek problems rather than the other way around. Even though 'the cash distribution could be carried out with a simple spreadsheet, as the then head of innovation at the WFP admitted,8 it would not have generated the hype that blockchain did. My interviews also reveal that tech companies, which are increasingly present in the aid sector, often push for the testing of a particular innovation (for a discussion, see Madianou 2019a).

Experimentation in refugee camps and among other vulnerable people can be traced back to colonial regimes. The outsourcing of experimentation is still present, especially during emergencies, as revealed in the response to the Covid-19 pandemic, when a French doctor claimed that the virus vaccine should be tested in Africa.⁹ In the Building Blocks pilot, the potential risks from using an untested technology were ignored in favour of the operational benefits and value extraction from the actual experiment. Jacobsen similarly highlights the experimental character of biometric registrations, where 'the risk of experimentation failure is outsourced to the global periphery' (Jacobsen 2015, 31). The discourse of experimentation is evident in article headlines such as *Wired*'s 'How Refugees are Helping Create Blockchain's Brand New World.'¹⁰

Despite claims to refugee empowerment, 'digital identity' policies are less about refugees and more about operational benefits, audit trails, cost cutting and experimentation. Digital identity exemplifies neoliberal humanitarianism by rebranding digital systems of control into a vision of economic development. The Building Blocks pilot, where shopping appears like a scene from a futurist science-fiction film, is a gamified version of camp securitisation. Refugees are imagined as shoppers and potential entrepreneurs, ready to open bank accounts with their

digital wallets. In reality, refugees are coerced into a digital system of migration management, which ultimately aims to control their mobility by constituting new types of traceable 'digital bodies' which are open to surveillance. While acknowledging refugee agency, the persistence of power asymmetries is impossible to ignore. The logics of capitalism and solutionism have normalised and legitimated the uses of biometrics under the promise of 'identity' and its connotation of recognition. The contrast here is between 'digital identity' as a neoliberal and securitised project, and the actual constitution of refugee subjectivities – which, like all identities, are ambivalent and relational.

Conclusion: 'Tech for Good' as Technocolonialism

Digital identity, emblematic of digital humanitarianism and 'tech for good' initiatives, reworks and revitalises colonial legacies. I analyse these processes as technocolonialism, a term developed to capture the constitutive role that digital technology and data play in entrenching existing power asymmetries between people in need and aid agencies. This occurs through a number of interconnected processes: by extracting value from 'beneficiary' data and innovation experiments for the benefit of aid organisations and private companies; by materialising discrimination associated with colonial legacies; by contributing to the production of social orders that entrench the 'coloniality of power'; and by justifying some of these practices under the context of emergencies. The constitutive role of technologies in revitalising colonial legacies differentiates technocolonialism from neocolonialism. Rather than marking an unstoppable path towards modernisation, technologies rework, amplify and justify the extractive logics of the past. In this sense, technological futures are understood as colonial debris (Stoler 2016).

Digital identity policies, which have become the new way to frame the management of refugee data, rely on biometric technologies. By privileging whiteness, biometric systems codify discrimination, thus inscribing the coloniality of power. Yet biometrics is presented as objective and scientific and therefore beyond doubt. Algorithmic sorting and automation are far from infallible, of course; algorithms make errors that entrench existing biases. When biometrics is used to authenticate aid recipients, this doesn't just entail a probability of error; automation also reduces the moral agency of humanitarian workers. Algorithmic sorting separates actors from their consequences.

The replicability of biometric datasets exacerbates data sharing practices with nation states. While data sharing with host nations has always taken place (as humanitarian agencies operate at the invitation of nation states), the nature of digital datasets streamlines sharing and accentuates the potential risk of 'function creep'. Apart from states, sharing also takes place with private companies, in their role as humanitarian partners, donors or contractors. Digital identity data are extracted for audit, private profit or for securitisation, but not for the direct benefit of refugees. Even in cash transfer projects when refugees are imagined as empowered subjects with 'digital wallets' there is little evidence of direct benefit to displaced people themselves.

Digital identity initiatives, despite their ambitious claims of 'financial empowerment' and 'sovereign identity', show little evidence of success. But even when they fail, digital identity initiatives still succeed in producing social orders. Digital identity programmes, which are often funded by large technology companies, are very successful in generating 'hype' around new technologies such as blockchain. Experimentation with new technologies among vulnerable populations echoes the medical experiments that took place under colonial regimes. By turning the political issue of statelessness into a problem with a technical solution, digital identity programmes depoliticise forced displacement while advancing a business agenda. At the same time, the neoliberal discourse of financial empowerment occludes the colonial lineages of such practices (Stoler 2016).

The lack of meaningful consent in refugee biometric registrations further compounds some of the above inequalities. It is not possible to refuse biometric data collection as that would amount to refusing aid when no other livelihood options are available. Ultimately, digital identity practices reconfirm the hierarchy between aid providers and refugees – and in so doing reaffirm that, structurally, contemporary versions of humanitarianism are not dissimilar to their colonial counterparts. Far from advancing a democratic future, the sociotechnical assemblage of digital humanitarianism revitalises the unequal legacies of the past.

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