

A Framework for Generative AI in Higher Education

Professor Jennifer George

My Background

- Professor in Computing
- Human Computer Interaction > Accessibility
 - Tech + disability
- Tech + (faith and belief)
- Interest in legislation, regulations, policies
- Leadership roles in Higher Education: Head of Computing, Chair AI Working Group
- Teaching and scholarship (20+ years)
 - Impact work
 - Student experience

Gen AI

- Publicly available for 2-3 years
- In the context of HE, used for eg.
 - Preparing courses
 - Creating teaching resources
 - Creating assessments
 - Completing assessments
 - Marking / providing feedback
 - Using for research



How much is this a reality? (HEPI data)

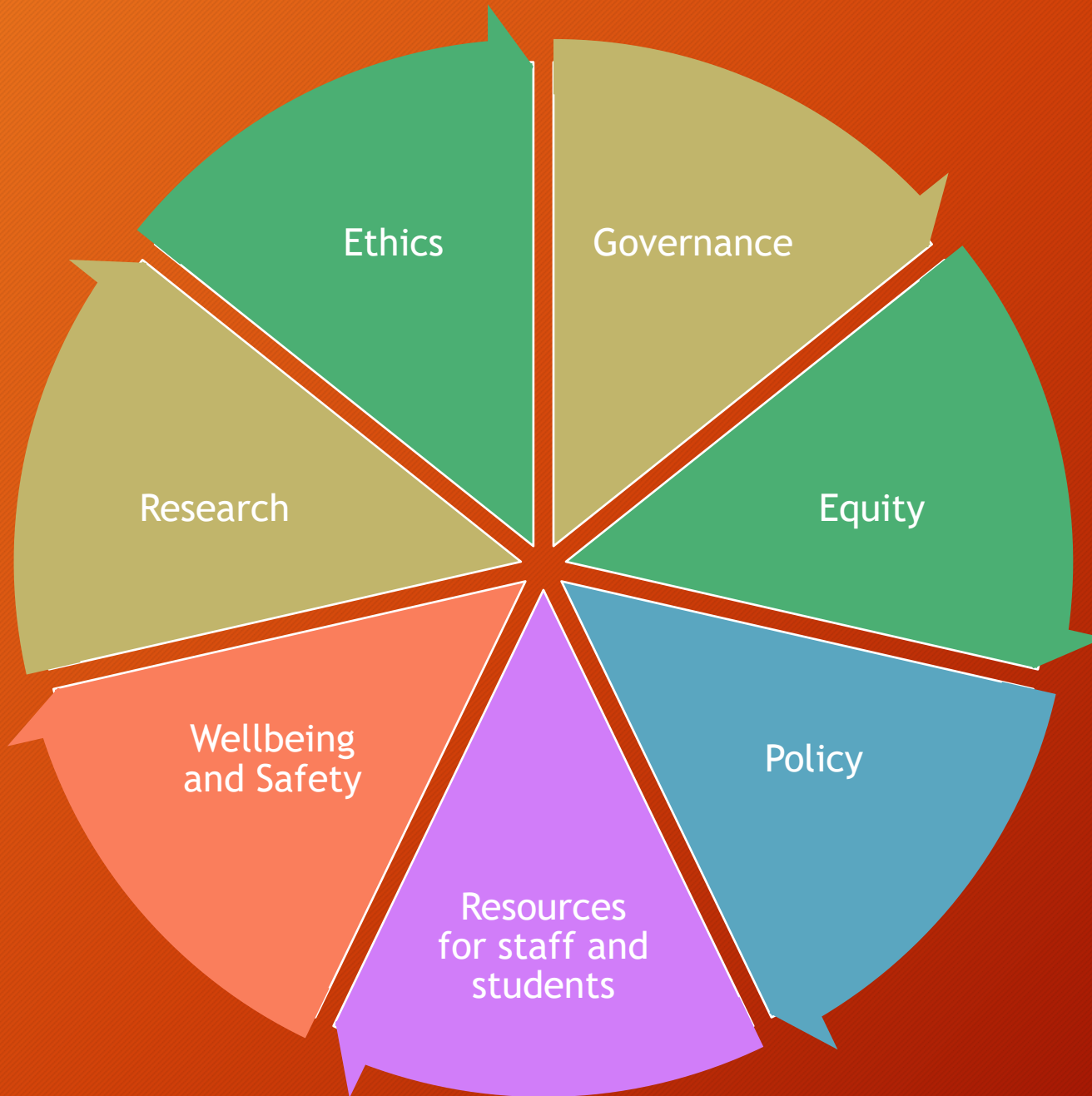
- Out of over 1,000 students who were surveyed in 2024,
 - 92% use Gen AI tools in some form (up from 66% from 2023)
 - 88% use it for assessments (up from 53%)
 - Main use is explanations, summaries and recommended reading
 - They use it as it saves time and quality of their work
 - Those who don't use it for assessment are worried of being accused of academic misconduct and / or getting false or biased results
 - Women are more worried than men
 - Wealthier students also worried less (possibly paid services)
 - Digital divide has widened

A few more statistics

- 80% of students say their HEIs have a clear AI policy
- 76% know the use of AI would be spotted in their work
- 36% of students have received support to develop Gen AI skills
- 42% of students believe their staff are knowledgeable in AI to help them
- Students are neutral about their assessments being graded by AI

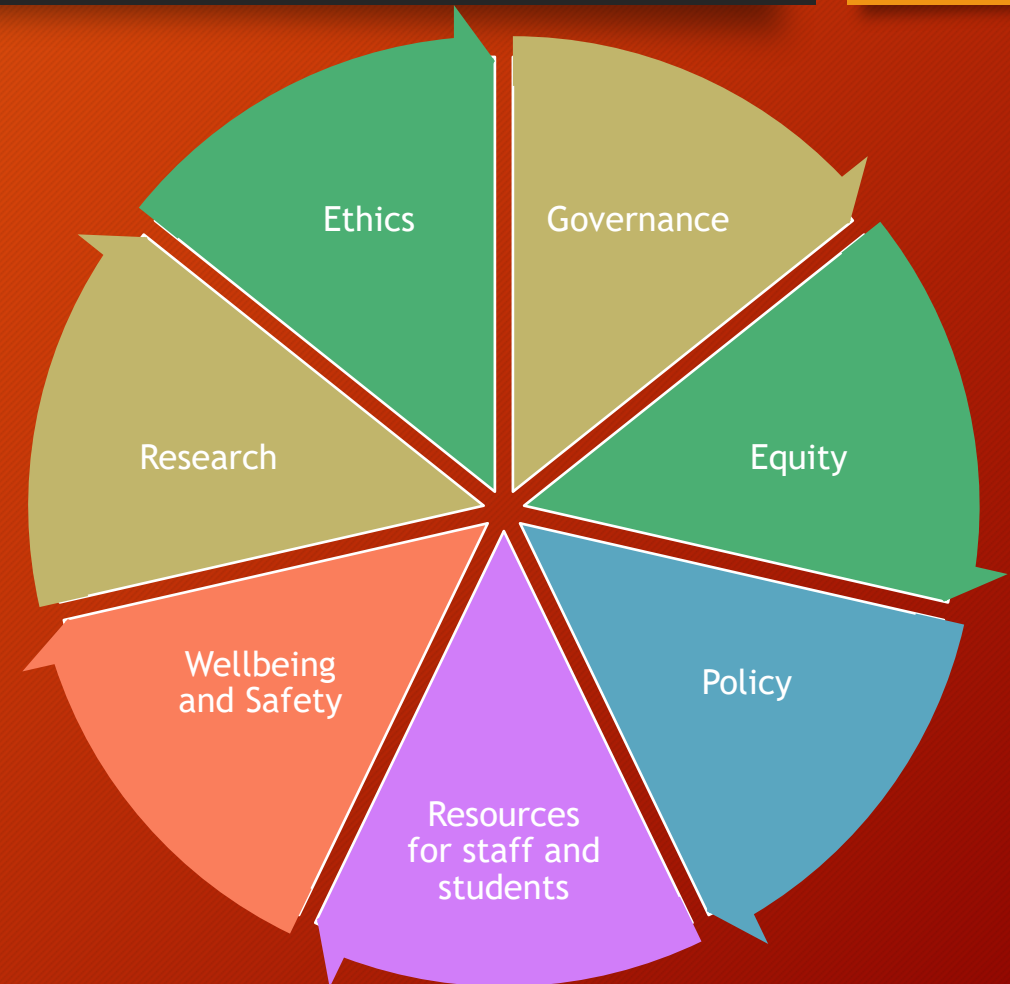
Some questions and debates

- Should students be allowed to use?
- Should staff be allowed to use?
- Is the information from Gen AI reliable?
- Is the information from Gen AI ethical?
- How important are prompt engineering skills for careers?
- What happens to my usage data?
- When students record us, what happens to what we say?
- Can students with disabilities continue to use their devices?



GenAI Framework and outcomes

- Understanding about our students
- Policy - overarching
- Influence existing policies eg.
 - Data and GenAI
 - Assessment
- CPD and Guides
 - What is Gen AI
 - Gen AI tools
 - Productivity tools
 - Prompt engineering
 - Setting up your own LMS
 - Research and coursework
 - Ethics
 - Publications
 - Employment
 - Staying safe



Ethics

- Bias and fairness detection
- Mis / disinformation
- Data and privacy
- Sustainability
- Exploitation
- How to check for ethical issues

Some questions to consider

- How neutral is AI and what are the political and financial driving forces?
- Can you train Gen AI in moral values? Is the responsibility for morality shifting from humans to AI?
- What's the role of Gen AI in human flourishing
- What's the role of Gen AI in stewardship
- What does the use of Gen AI do to human relationships and the environment?

Questions?

j.george@gold.ac.uk



Exploitation

- Content tagging and content moderation for LLMs is completed by millions of people across the world
 - Underpaid
 - Have to watch inappropriate content to reject -> trauma





Environmental impact



LLMs can consume 1000s of megawatt hours of electricity



Emit hundreds of tons of carbon



Model training can lead to evaporation of astonishing amount of fresh water into the atmosphere for data center heat rejection



Generation of electricity is through fossil fuel combustion -> local air pollution -> thermal pollution in water



Product of solid waste



Data and Privacy



Collection of sensitive data



Collection of data without consent



Use of data without permission



Unchecked surveillance and bias



Data exfiltration



Data leakage

Bias



Victoria Hedlund · 1st

Lecturer in Education | Lessoninspector.ai co-creator | Teacher Ge...

12h · 🌐

I asked ChatGPT to explain how the economy works to a man and then a woman (in keeping with my exploring gender bias in GenAI for different subjects theme). This is revealing some worrying emergent properties - mechanical ...more

ChatGPT >

Explain how the economy works to a man and then a woman

The economy works the same way for both men and women, but if you're asking for two different styles of explanation, here's how I'd do it:

Explaining to a Man:

Think of the economy like a machine with different gears working together. Businesses create products and services, workers (you and others) produce and consume them, and money flows between everything like oil keeping it running. When businesses do well, they hire more people, wages go up, and spending increases. When things slow down, businesses cut costs, jobs shrink, and the cycle slows. Governments step in sometimes to tweak the machine—lowering interest rates, printing money, or adjusting policies to keep everything balanced. Supply and demand are the force driving it all—when people want something, businesses rush to

ChatGPT >

people want something, businesses rush to provide it, and prices shift accordingly.

Explaining to a Woman:

Think of the economy like a household budget, but on a massive scale. Money comes in (through wages, business profits, and government spending) and goes out (on goods, services, investments, and taxes). When people and businesses feel secure, they spend more, fueling growth. But when uncertainty hits—like a job loss or unexpected expense—they tighten their belts, and the whole system slows down. The government, like a household manager, can adjust things by borrowing, cutting spending, or investing in key areas to keep everything running smoothly. Supply and demand influence prices—just like when a trendy item suddenly becomes expensive because everyone wants it.

Both explanations cover the same concept but frame it differently. Which one makes more sense to you?