

AI: the ethical landscape

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Ethical issues raised by AI

JUNE 2019: 42 codes of AI ethics

Key themes of:

- Privacy
- Accountability
- Fairness
- Transparency

Wallach 2019

What is the right thing to do?

Accepted healthcare values

- Beneficent - for the good of the patient/public
- Safe and non-harmful
- Respectful – of individual choices and rights
- Trustworthy – inter-personal relationships of trust
- Equitable (in outcomes and in access)



Key tensions raised by AI-enabled healthcare

POTENTIAL AI GOODS	CORE VALUES IN TENSION WITH THOSE GOODS	TYPE OF VALUE	HEALTHCARE EXAMPLE
Accuracy	Fairness	<i>Societal</i>	Diagnostic algorithm accurate for majority but inaccurate for sub-groups
Personalisation	Solidarity	<i>Societal</i>	Diagnoses that improve individual prognoses but impact societal attitudes
Quality and efficiency	Privacy and control of data	<i>Individual</i>	More efficient and population-specific healthcare requiring unfettered access to patient data
Convenience	Self-actualisation	<i>Individual</i>	AI diagnosis encroaching upon or replacing clinician judgment

Challenges for AI-enabled healthcare

1. **WHAT: AI for “societal well-being”** (ACOLA 2019)

- Who determines what is societal wellbeing regarding health and healthcare?
- What outcomes do we want, cf health equity?

2. **HOW: augmentative or transformative?**

- How will the human-AI interface function?
- How will responsibility be fairly attributed?

3. **CONSTRAINTS**

- Safety and effectiveness
- Data ownership, privacy and consent
- Explainability and transferability

Potential threats

1. The technological imperative and optimism bias
2. Conflicting values and conflicts of interest in AI development
3. Lack of political will



AI as a medical innovation

- Driving the agenda
- Developing the evidence base
- Detailed study of exemplar cases
- Demonstrating safety and effectiveness
- Delivering public good (multi-dimensional)



<https://medicalsimulation.training/surgical/21822/>

AI: Our clever health future or a clinical complexity?

Definitely a clinical complexity!

But maybe we can map our way to a clever health future.



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References

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