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The ethical issues in the use of AI in healthcare

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1 INTRODUCTION

In the 21st century, advancements in theory and computational power have rapidly propelled artificial intelligence (AI), especially in healthcare, drawing significant investments (see Figures 1.1 and 1.2). Proponents believe AI can enhance diagnostic accuracy, extend care to remote areas, and save doctors' time for more patient interaction [1]. However, AI's potential to worsen health disparities due to biases has sparked ethical concerns about privacy, data ownership, biased system risks, and lack of human oversight [2, 3]. This text will explore these issues' in public and docter angle and give some suggestings.

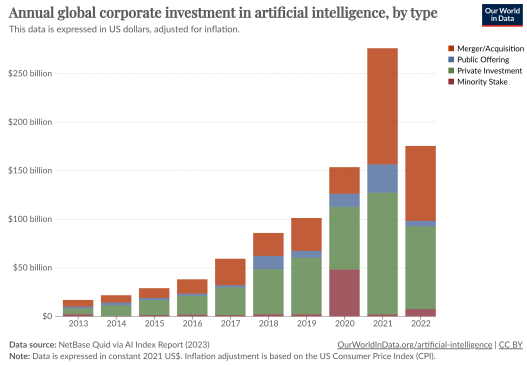

Figure 1.1: Annual investment in AI by type

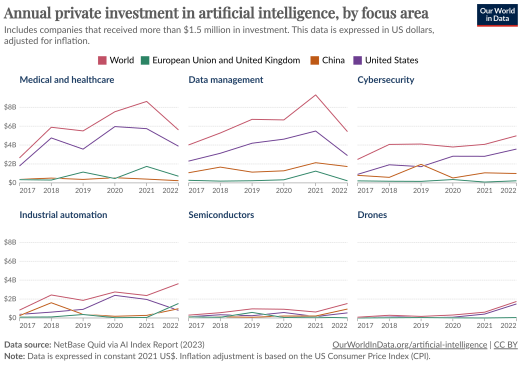

Figure 1.2: Annual investment in AI by area

2 Reasons for ethical issues in public

The public stands to gain from new Healthcare AI (HCAI) technologies but also faces the highest risk of AI-related issues. Concerns persist around HCAI's role in diagnosing and suggesting treatments for both acute and chronic conditions, despite physician oversight. Many are hesitant to embrace HCAI [4]. Engaging patients and the wider public in ethical HCAI discussions is crucial yet challenging. Most lack direct HCAI experience or even a basic understanding of AI. Further more the following figure 2.1 and figure 2.2 indicate a prevailing global sentiment of unease regarding the societal impact of artificial intelligence over the next two decades. Particularly, the older population and individuals with lower economic status are more inclined to believe that AI will bring more harm than benefit, highlighting widespread caution about AI's future role. Finally, public also concerns about the leakage of private health information, Since it will affects the personal life, including bullying, high insurance premium, and loss of job due to the medical history [5].

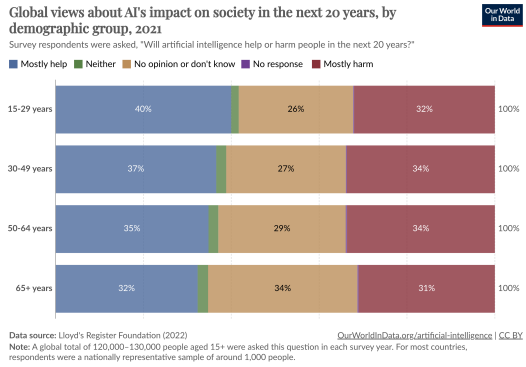

Figure 2.1: Views on AI's impact on society by ages

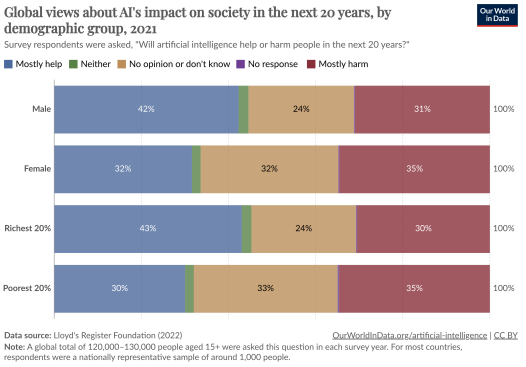

Figure 2.2: Views on AI's impact on society by gender and wealth

3 Reasons for ethical issues in doctors

Artificial intelligence is heralded as a breakthrough for complex medical tasks, such as accurately interpreting chest X-rays, potentially outperforming humans. However, this innovation stirs fear among doctors about being replaced or marginalized, highlighting a lack of trust in AI and its developers, which could hamper AI's effectiveness in healthcare.
In Additionally, a national survey in Turkey, involving 167 emergency medicine specialists, indicated a majority downplay ethical concerns about data storage and reuse. 61.68% trust in anonymity to protect privacy, and 70.66% believe AI systems are unbiased [6], which shows Understanding the ethics of artificial intelligence is also crucial for docter.

4 SUGGESTINGS

(1) By educating the public and medical staff on artificial intelligence and related ethical issues, this will help to improve their awareness of privacy and human rights in artificial intelligence.
(2) By openly acknowledging the value of medical staff and respecting the decisions of clinicians, they realize that artificial intelligence is not a competitive relationship but a cooperative relationship, and the output of artificial intelligence is communicated to patients in a way that doctors can understand.

5 CONCLUSION

Anxiety towards AI in healthcare stems from a lack of understanding and uncertainty about responsibility boundaries. Addressing this requires enhancing AI ethics and education for all involved, clarifying role boundaries to mitigate ethical issuess arising from AI use.
The application potential of artificial intelligence in the medical field is huge, but in the era of artificial intelligence, we should not forget that people are not just composed of data. Even when talking about personalized medicine, we should keep asking ourselves: "Where are the people in AI-based personalized medicine?" Personhood is a profound concept related to phenomenal consciousness, intention, and free will. If clinical recommendations automatically deployed by AI are directly integrated, this will preemptively prevent clinicians from developing their own clinical judgment capabilities, which we humans do when developing AI tools. Artificial intelligence should be ensured to safeguard our health and well-being, and especially our dignity as human beings.

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