The ethical issues in the use of AI in healthcare

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March 2, 2024

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' origins and solutions.
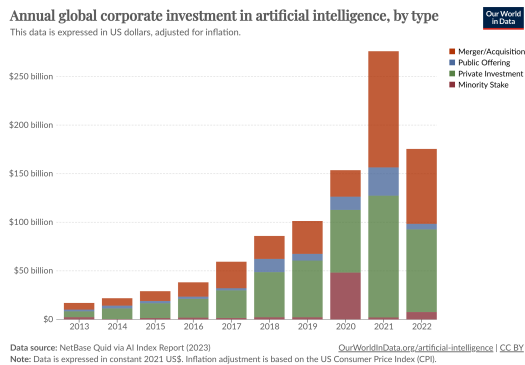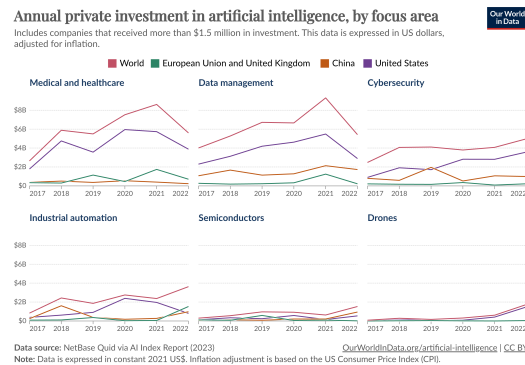

Figure 1.1: Annual investment in AI by type

Figure 1.2: Annual investment in AI by area

2 SECTION1

The public stands to gain from new 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. Their limited insight into HCAI's application and the potential for harm highlights the need for greater awareness around privacy, data rights, and human rights [1], emphasizing the importance of informed public participation in AI governance.
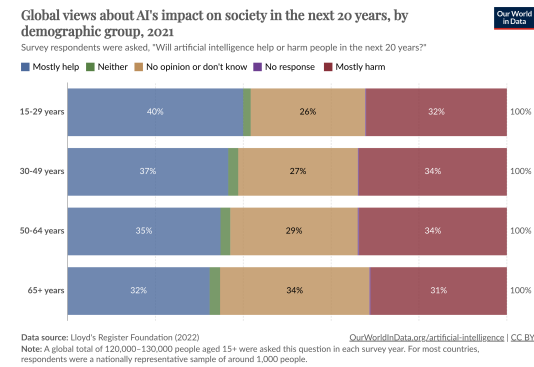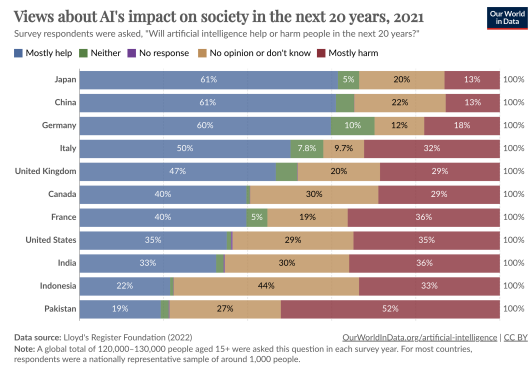

Figure 2.1: Annual private investment in AI

Figure 2.2: Views on AI's impact on society

3 SECTION2

For doctors, doctors are in a very awkward position in the entire system. Healthcare artificial intelligence is patient-centered during its implementation.

On the one hand, artificial intelligence systems are said to be the solution for many highly skilled medical tasks where machines have the potential to surpass human capabilities, such as identifying normal and abnormal chest X-rays [5]. The transformative power of data technology has brought worries and fears to doctors. Machines and doctors seem to be placed on a double-edged balance to determine who will go and who will stay. They are afraid that they will be replaced by machines. Or would disempowerment of clinicians, resulting in the development stage of HCAI, clinicians do not fully trust Artificial intelligen system or developers, ultimately affecting the performance of HCAI.

On the other hand, A national survey-based study in Turkey shows that most participants believed that ethical issues around data storage and reuse can be ignored. The perspectives of engineers and developers who create AI systems, as well as potential users (healthcare professionals) should be more comprehensively collected, In addition, 61.68% of people believe that anonymity can protect privacy, and 70.66% of participants believe that artificial intelligence systems do not discriminate [6] It is also necessary to mention its understanding of artificial intelligence ethics.

4 SECTION3

(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

Artificial intelligence can do a lot in medicine, but we must remember that people are more than just data. Even with personalized medicine using HCAI, we need to keep asking, "Where do people fit into AI-based personalized medicine?" Being human involves deep ideas like awareness, purpose, and choice, which is important when we create AI tools. We should make sure AI helps our health and well-being, and respects our dignity as humans.

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