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The ethical issues in the use of AI in healthcare

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1 INTRODUCTION

Based on the improvement of certain theories and the improvement of computer computing power, AI has achieved rapid development in the 21st century. It raises huge expectaions, has attracted significant investment expecialy in Medical and healthcare area (Figure1.1 and Figure1.2). So far, advocates of healthcare AI (HCAI) have promised the thechnology will improve the accuracy of screening and diagnosis, increase the availability of create in remote regions and free up physicain's time so that they can engage more with patients [1]. Meanwhile, questions around the potential exacerbation of health disparities due to modeling biases have raised notable ethical concerns regarding the use of this technology in healthcare [2]. Including concerns about privacy and data ownership, the risk of harm through biased systems and a lack of human oversight [3]. Here we are going to disscuess, how did this issues arise and what should we do to solve it.

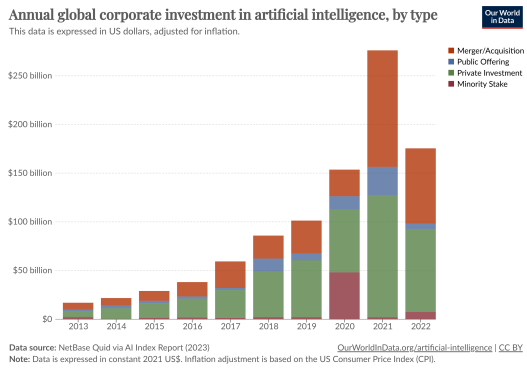

Figure 1.1: Annual investment in AI by type

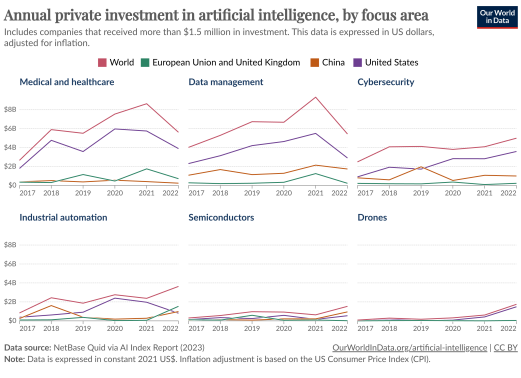

Figure 1.2: Annual investment in AI by area

2 SECTION1

Public may be both benificiaries of new HCAI technologies and the greatest sufferers of AI-related harms. The result highlight that there are still noticeable concerns about implementing HCAI in diagnostics and treatment recommendations for patients eith both acute and chronic illnesses, even if these tools are used as a recommendation system under the physician experience and wisdom. Individuals may still not be ready to accept and use HCAI [4]. Patients and publics are important voices In developing effective and ethical AI governance, but engaging patients and pbulics meanigfully in research about ethical HCAI is challenging. Most people have no first hand experience with HCAI, and some are unfamiliar with the concept of AI in general, Pulics may have limited understaing of how HCAI may be implemented and limited knowledge about the potential wrongs and harms that coudld arise from implementing HCAI [1], which means The public, as an actor, has yet to become more aware of privacy, data ownership, and human rights.

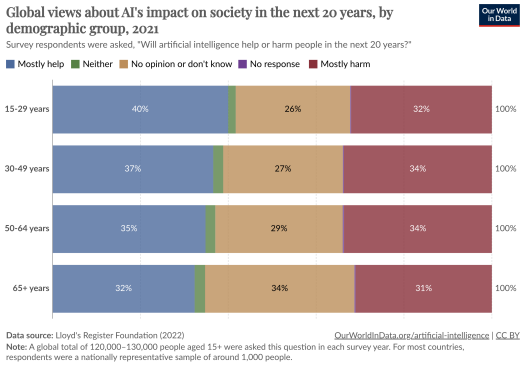

Figure 2.1: Annual private investment in AI

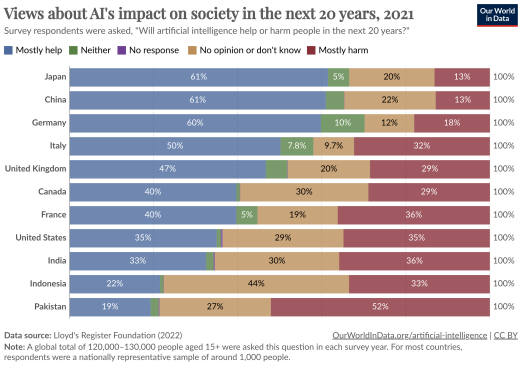

Figure 2.2: Views on AI's impact on society

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]

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

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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