The big ethical questions for artificial intelligence in healthcare

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AI in healthcare is developing rapidly, with many applications currently in use or in development in the UK and worldwide. The Nuffield Council on Bioethics examines the current and potential applications of AI in healthcare, and the ethical issues arising from its use, in a new briefing note, Artificial Intelligence (AI) in healthcare and research, published today.

There is much hope and excitement surrounding the use of AI in healthcare. It has the potential to make healthcare more efficient and patient-friendly; speed up and reduce errors in diagnosis; help patients manage symptoms or cope with chronic illness; and help avoid human bias and error. But there are some important questions to consider: who is responsible for the decisions made by AI systems? Will increasing use of AI lead to a loss of human contact in care? What happens if AI systems are hacked?

The briefing note outlines the ethical issues raised by the use of AI in healthcare, such as:

- the potential for AI to make erroneous decisions;
- who is responsible when AI is used to support decision-making;
- difficulties in validating the outputs of AI systems;
- the risk of inherent bias in the data used to train AI systems;
- ensuring the security and privacy of potentially sensitive data;
- securing public trust in the development and use of AI technology;
- effects on people's sense of dignity and social isolation in care situations;
- effects on the roles and skill-requirements of healthcare professionals; and
- the potential for AI to be used for malicious purposes.

Hugh Whittall, Director of the Nuffield Council on Bioethics, says:

"The potential applications of AI in healthcare are being explored through a number of promising initiatives across different sectors—by industry, health sector organisations and through government investment. While their aims and interests may vary, there are some common ethical issues that arise from their work.

Our briefing note outlines some of the key ethical issues that need to be considered if the benefits of AI technology are to be realised, and public trust maintained. These are live questions that set out an agenda for newly-established bodies like the UK Government Centre for Data Ethics and Innovation, and the Ada Lovelace Institute. The challenge will be to ensure that innovation in AI is developed and used in a ways that are transparent, that address societal needs, and that are consistent with public values."

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