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Artificial intelligence and nursing: The good, the bad and the cautionary

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Even the most earnest and discerning reader will struggle to keep apace with current debates relating to ethical aspects of Artificial Intelligence (AI). This is partly because the literature is legion, because AI is making inroads into so many aspects of our lives and because the ethical issues are increasingly complex and wide-ranging. Headlines suggest AI's health benefits, for example; 'AI blood test could detect sepsis earlier and save lives'[1]; caution regarding safety 'never summon a power you cannot control'[2]; and need for critique 'Why the tech equals progress narrative must be challenged'.[3]

The ethical aspects of AI in relation to nursing practice are also complex and wide-ranging, spanning implications for care practices, research, leadership, education and for nurse regulation and policy. Articles in this issue engage with many aspects relevant to AI and technology and care with cross-cultural philosophical reflection on topics such as robots in care to discussions of fake kindness, trust, autonomy, compassion and impact on relationships between care-recipients and care-givers.

The majority of conversations, relating to AI and care, are understandably framed in utilitarian terms. That is, weighing the potential benefits and harms of AI for humans in the short and longer term. Given the shortcomings and potential hazards of AI in relation to care practices, it is timely to review some recent guidance for nurses which highlight some of the ethical arguments. In relation to nursing and AI, whilst a utilitarian approach to ethical analysis is helpful, it needs to be supplemented by qualities of character and the ethics of care across cultures.

A recent conference at the Brocher Foundation[4] in Geneva, which I had the privilege of attending, considered recent massive investment and the promise of significant societal benefit alongside ethical and philosophical challenges such as cost, control, storage and curation of data, hype exceeding promise and critical questioning regarding the implications for society. Cautionary points were made regarding users' understanding of AI decision-making processes with a potentially mysterious 'black box' which makes transparent processes potentially impossible. The discussion explored also the role of trust, trustworthiness and bias in the ways that AI is created and utilized, particularly when governments collect, store and make available large health databases. Speakers alluded to the 'hype' relating to AI which appears to exceed its promise, to 'techno-optimism' and to threats to the health professions in terms of being 'deskilled' by AI and, perhaps also, being made redundant. In discussing, the implications of AI replacement for professional/patient relationships one speaker, Professor Ross Upshur, was sceptical stating:

> Good luck trying to mathematise the phenomenology of human experience.

Almost a decade ago Robert Wachter, in 'The Digital Doctor'[5] (p. xiii), wrote that medicine and computers are 'awkward companions' and that:

> …computers make some things worse, some things better, and they change everything.

Wachter described two kinds of problem – one technical and one adaptive. The former, he writes, can be solved through the development of new tools, processes and leadership. The latter requires that people change. People, he writes, 'are both the problem and the solution'.

What Wachter writes of computers is transferable to the wider and more impactful realm of AI. Nursing and AI are also 'awkward companions' and, to make progress in companionship, we require some understanding of AI, of its promise and problems and critical ethical perspectives which require nurse activism, allyship and character traits of: courage, wisdom and trustworthiness. So what is AI?

One response to this question comes from the UK House of Lords library:

> Artificial intelligence (AI) can take many forms. As such, there is no agreed single definition of what it encompasses. In broad terms, it can be regarded as the theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making and translation between languages….[6]

My own engagement with AI involved working with an interdisciplinary team on a qualitative component of a project relating to the potential role of AI in assisting with early stages of fitness to practise decision-making. A previous report[7] focused on the development of the AI tool which included detailed consideration of: risk level prediction; explanations of the risk prediction results; engagement with similar previous cases (over 4000 accessed which is insufficient); and entries in the regulation code. Each of these areas revealed a great deal of complexity and the need for a large number of cases to enable the AI tool to learn, so that decision-making is considered sufficiently trustworthy with a high level of confidence in its outputs. It was never the intention that such an AI tool would replace human decision-making but rather that it would complement and increase efficiency of human processes.

Ethical guidance, relating to AI from nursing regulators, acknowledged that AI continues to evolve. Guidance highlights some of the anticipated challenges of AI and suggests underpinning principles. The UK Nursing and Midwifery Council,[8] for example, restate the following 'cross-sectoral AI principles' from the Government's AI White paper:

- Safety, security and robustness – ensuring privacy and confidentiality of data;
- Appropriate transparency and explainability – professionals to understand intended function, risks and benefits;
- Fairness – sensitivity to potential bias which increase inequalities; and
- Accountability, governance and redress – significant ethical, legal and professional issues arise regarding responsibility, for example, relating to decision-making and potential harm.

The American Nurses Association's Position Statement on 'The Ethical use of Artificial Intelligence in Nursing Practice'[9] states:

> Nurses must ensure that advanced technologies do not compromise the nature of human interactions and relationships central to the nursing profession. It is crucial that nurses anticipate and evaluate the impact of AI on healthcare through a proactive approach that emphasizes agency, caring, and influence over how technology is developed and applied...

The Topol Review[10] identified 3 principles which suggest how the benefits of AI and other technologies to patient care should be advanced:

• People first – an opportunity is provided for patients to be partners in their care;

• Evidence-led – ensuring the technology is underpinned by evidence and ethical and legal frameworks that make them trustworthy; and

• Giving the gift of time – adopting new technologies should provide more time for care and interactions with patients.

In conclusion, nurses, nurse leaders and professional bodies play a critical role, locally and globally, in educating themselves on the opportunities and challenges presented by AI in relation to care practices, education, research and regulation. We need to continue to engage with current literature, reports and media discussions regarding AI and reflect critically on what is means for care-recipients, families, care communities and our professions. We have guidance from regulators and professional bodies, as above, to draw on and need to consider how current and future developments relate to how we enact guidance in our professional codes and guidance.

We need, as Wachter[5] points out, to accept that change is inevitable and requires more from us than merely following codes and other professional guidance. We need to make space and time to focus on our purpose as care professionals – contributing to excellence in health and social care locally and globally – and also developing the character traits to advocate effectively for those we serve. To do this, we will need new forms of prudence or professional wisdom,[11] courage and demonstrate consistently that we are trustworthy but not obstructive of change for the good.

We need also to bear in mind that the moral life is complex and, as we go about our daily care-related activity, remember that not everything that matters can be captured and converted to an AI algorithm. Each person nurses care for is unique as are nurses' responses to their individuality and dignity. The potential to 'mathematise' the phenomenology of lived experience of people we care for is – and should remain – elusive and the domain of human to human interactions.

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