Ethics in a Global Society

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Professor

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Assignment

### *Developmental Readings*

Review Assignment #3, the course essential elements, assigned readings, and recommended readings to identify selections of books and scholarly articles to identify and select developmental reading sources and entries.

* Refer to the “[Student Guide to Developmental Readings](https://drive.google.com/file/d/161V_FaYR2BnNGCSFUlWPjUSIQzcH04Hq/view?usp=share_link)” for updated information on sample comments, rubrics, and key definitions related to developmental readings.

Title: Examining the Social Ethics of Artificial Intelligence in Healthcare

Abstract: How will the healthcare experience change based on the incorporation of Artificial Intelligence in healthcare? This paper covers the ethical and social implications of Artificial Intelligence in healthcare that we, as social scientists, need to be concerned about and how we may be able to help society engage in the ethical considerations of Artificial Intelligence healthcare.

**Source One:** Avnoon, N., Kotliar, D. M., & Rivnai-Bahir, S. (2024). Contextualizing the ethics of algorithms: A socio-professional approach. *New Media & Society*, *26*(10), 5962–5982. <https://doi.org/10.1177/14614448221145728>

**Comment 1:**

**Quote/Paraphrase:** “The sociology of morality examines how moral systems are constructed, understood, and adopted by societies, organizations, and individuals (Durkheim, 1961; Hitlin and Vaisey, 2013; Weber, 2003). Early sociological approaches have frequently dealt with questions of morality (Weber, 2003), highlighting how social structures shape social morals (Durkheim, 1961). Nevertheless, the sociological interest in questions of morality has quickly waned, and only by the end of the 20th century have sociologists begun to express interest in the links between the moral and the social.” (Avnoon et al., 2024, p. 5964)

**Essential Element:** Survey the history and significant development of ethics.

**Additive/Variant Analysis:** This quote is additive to my understanding of the role sociology in examining moral concerns in society. However, part of the quote is variant to my understanding of that sociology never really swayed from social moral issues, they may have not distinctly called out the moral side of social issues, nevertheless it has always been inherent in the subjects of sociology, such a race and ethnic relations, behind the social dynamics as such is a moral underpinning.

**Contextualization:** In social sciences like physical science there is a premise to be value free in research, which the intent is good, so we can study what ‘is’ of scientific research. However, in sociology, there has been a seen purpose behind social research in trying to understand what is happening within society, and that is to be able to make social change from understanding the social dynamics of the world. I believe that this moral concern never left sociology, though sociologists of an era may have made it less implicit. Ethics not only have implications on individuals, but also implications for the larger community and society, thus a subject sociology should be interested in.

**Source Two:** Benzinger, L., Ursin, F., Balke, W.-T., Kacprowski, T., & Salloch, S. (2023). Should artificial intelligence be used to support clinical ethical decision-making? A systematic review of reasons. *BMC Medical Ethics*, *24*(1), 48. <https://doi.org/10.1186/s12910-023-00929-6>

**Comment 2:**

**Quote/Paraphrase: “**Furthermore, the use of AI in the clinical setting may provide a form of cognitive moral enhancement [42] and promote ethical competencies [43]. On the other hand, critics argue that the information supplied by AI may not be as robust as one might think, since “even wellperforming algorithms can be unreliable in individual cases” [24]. The algorithms on which the tools are based may never be fully comprehensive of the actual ethical decision-making process, as the complex deliberations are “unlikely to be successfully reduced to a set of equations” [43]. Furthermore, AI is thought to lack the ability to act empathetically [40] or take structural and systematic knowledge into account, as “context and explanations are still hard for algorithms to grasp” [24]. If that holds true, the use of AI may pose no clear benefit [41], while still potentially undermining the competencies of the stakeholders [44].” (Benzinger et al., 2023, p.6)

**Essential Element:** Understand ethics as the philosophy and methodology of behavior and the conducting of human activities.

**Additive/Variant Analysis:** This quote is additive to my current understanding of the ethical implications of the use of AI in particular in the healthcare field. Where, AI may be help with tasks, however in healthcare there are professional codes of practice and ethical standards that are abided by in clinical practice.

**Contextualization:** In much of human activity there are moral and ethical concerns, with healthcare this is particularly the case due to that there is health of lack there of at stake even live or death, thus the consequences of ethical decisions are more than that of such as a business dealing. Therefore, even though there may be perceived benefits to use AI in healthcare there is a greater concern around the ethical capabilities to healthcare AI. These healthcare AI ethical concerns are around the providers/clinical staff and patients and families, but also to the larger community and society. Navigating these ethical issues surrounding AI is no small task, and is probably the most important feature of to consider in the AI movement.

**Comment 3:**

**Quote/Paraphrase:** “The results show an uneven distribution of references to different ethical principles, with positive and negative aspects of autonomy being by far the most frequently mentioned. The high occurrence of these arguments is due probably to the fact that most of the AI tools included in the review work directly with predictions of patient preferences. These applications are deeply intertwined with issues of patient and stakeholder autonomy, leading to a wide variety of arguments about autonomy.” (Benzinger et al., 2023, p.6)

**Essential Element:** Compare the different approaches of traditional ethical systems to Christian ethics.

**Additive/Variant Analysis:** The concept of autonomy surrounding AI within this quote is additive to my current understanding of the ethical issues of AI.

**Contextualization:** The concept of autonomy has many different aspects from philosophical to legal, in this article it has a concern with patient autonomy, or freedom from AI control in health decisions. There are arguments for and against patient autonomy using healthcare AI, it could be the case that AI is a tool for providers and patients to support their autonomy. It could also be the case that AI promotes less autonomy for providers and patients. It reminds me that God has provided freedom to His creation and does not control the actions of people, in essence we are not His puppets. The question is would providers and patients be willing to transfer more and more of their autonomy to AI, assuming AI knows better than human agency in healthcare decisions?

**Source Three:** Cribb, A. (2020). Managing ethical uncertainty: Implicit normativity and the sociology of ethics. *Sociology of Health & Illness*, *42*(S1), 21–34. <https://doi.org/10.1111/1467-9566.13010>

**Comment 4:**

**Quote/Paraphrase:** “As noted earlier, sociologists are well placed to illuminate the complex roles played by the countless number of factors that shape the diverse ethical landscapes of health care. The examples rehearsed in the previous section provide a small indication of the scope for already ongoing conversations between sociologists and clinicians (and others) to support ethical reflexivity in health care. A key activity here is, of course, to help clinicians and other health system actors ‘deconstruct’ the familiar category of ‘ethics’ in so far as this is treated as categorically distinct from other kinds of considerations – economic, technical, biomedical and so on.” (Cribb, 2020, p.30)

**Essential Element:** Understand ethics as the philosophy and methodology of behavior and the conducting of human activities.

**Additive/Variant Analysis:** The content of this quote is additive to my understanding of the role sociology that could provide a reflexivity withing ethical concerns of healthcare including healthcare AI.

**Contextualization:** Reflexivity is a concept in sociology that has to do with the researcher as awareness of their own positional status within the social structures themselves. This reflexivity could be real meaningful to clinicians as they are within the social structural framework of healthcare provides a certain objectivity to critical evaluate the place for healthcare AI. This will allow the clinicians and sociologists to think through the possible ethical considerations of healthcare AI that may not be readily apparent. Healthcare is a social system that impacts many different areas including patients, providers, the community, government, business, and so forth, each may have a certain way of looking into the ethical concerns of healthcare AI, the reflexivity is a way to take all the different views into account while examining healthcare AI ethical issues.

**Source Four:** De Togni, G., Erikainen, S., Chan, S., & Cunningham-Burley, S. (2024). Beyond the hype: ‘Acceptable futures’ for AI and robotic technologies in healthcare. *AI & SOCIETY*, *39*(4), 2009–2018. <https://doi.org/10.1007/s00146-023-01659-4>

**Comment 5:**

**Quote/Paraphrase:** “AI methods and robotics are being used to support clinicians, surgeons and healthcare providers with decision making, to reduce error and improve diagnosis, treatment choice, and patient outcomes (Di Ieva 2019). These technologies are aimed at increased efficiency while tailoring healthcare to individuals’ specific characteristics and needs, and making healthcare more affordable and accessible (Mohd 2019). Health data are increasingly captured through electronic medical records (EMR) and new smart devices for individual use (Schüll 2016), and analyzed by AI deep learning systems to forge novel research agendas and provide personalized care. While expectations continue to rise about the future of medicine and healthcare promised by data-intensive innovation (Erikainen and Chan 2019), there is an urgent need to define and address the opportunities, challenges, and practical implications of using AI and robotics in healthcare” (De Togni et al., 2024, p.2009)

**Essential Element:** Understand ethics as the philosophy and methodology of behavior and the conducting of human activities.

**Additive/Variant Analysis:** Though this quote points to the reason why healthcare AI makes sense to implement because of the healthcare information being entered into EHRs which creates data that AI needs to use for “intelligence”, however the problem (variant) is the messiness of healthcare data, which if AI uses will be one of the ethical issues, of GIGO, garbage in garbage out.

**Contextualization:** The data input issue will be a major problem with healthcare AI. Data input is an issue with all systems, but with healthcare it is particularly problematic for numerous reasons. AI, artificial intelligence, with the key word ‘artificial’ is attempting to have this artificial intelligence based on correlations within the massive amount of data it is fed and works with. The GIGO is an issue with all systems, but in particular to healthcare because not only the data is entered in by humans (fallible), but there are so many different systems with different logic at work and so many different requirements based on different payors (the major driver in the U.S. healthcare system) with specific requirements for a service to be covered by the insurance. With all the data fluctuations it would be difficult for the AI system to ‘play multiple chess games at once each with different rules and win. Thus, confusing the AI in making important decisions, which is a major ethical issue concerning healthcare AI.

**Source Five:** Khogali, H. O., & Mekid, S. (2023). The blended future of automation and AI: Examining some long-term societal and ethical impact features. *Technology in Society*, *73*, 102232. <https://doi.org/10.1016/j.techsoc.2023.102232>

**Comment 6:**

**Quote/Paraphrase:** “To address the negative societal impacts of AI while maximising its benefits, AI ethics must be developed consistently. AI has no cultural or ethical background. Data and the representation of information are always required to feed an AI system. Some information, such as sex, age, and temperature, is simple to code and quantify. However, it is impossible to quantify complex emotions, beliefs, cultures, conventions, and values consistently. It is best for AI systems to try to maximise gains and reduce losses using mathematical principles because they are unable to process these complex concepts. To ensure sustainable growth, AI regulatory awareness and technology monitoring are highly desired.” (Khogali & Mekid, 2023, p.73)

**Essential Element:** Evaluate the secular ethical standards concerning current world events and respond with a Christian ethical application.

**Additive/Variant Analysis:** The information presented in this quote is variant to my understanding of the ethical concerns of healthcare AI. Where if “AI ethics must be developed consistently. AI has no cultural or ethical background” then which system will the ethics of AI be developed, the ‘white’ culture, which then will be inherently unethical.

**Contextualization:** With our actual intelligent scientific community has made mistakes by coming from their certain cultural or ethical backgrounds. For example, medical researchers have consistently mistakenly assigned medial issues base on racial genetics, where not even considering the racist social systems that impact the health of non-white populations. This will be one of the ethical issues of healthcare AI of not being able to account for the social impacts of health for different race and ethnic backgrounds.

**Source Six:** Mackintosh, N., & Armstrong, N. (2020). Understanding and managing uncertainty in health care: Revisiting and advancing sociological contributions. *Sociology of Health & Illness*, *42*(S1), 1–20. <https://doi.org/10.1111/1467-9566.13160>

**Comment 7:**

**Quote/Paraphrase:** “The rapid emergence of new technologies, public awareness of limitations in medical knowledge and pressures associated with grappling with uncertainty at an organisational and health system level are increasingly coming to the fore. Against a backdrop of heightened awareness of uncertainty at a broader societal level (Beck 1992, Giddens 1991), ‘personalised medicine’ has emerged as a concept which questions to what extent a particular treatment is beneficial for particular patient groups and whether a patient is receiving the right care, in the right place, at the right time, from the right people. Important too is the way in which patients are increasingly encouraged to share in decision-making and ‘choose wisely’ (https://www.choosingwisely.co.uk/) with regard to tests, treatment or procedures because of concerns over potential overdiagnosis and overtreatment.” (Mackintosh & Armstrong, 2020, p. 2)

**Essential Element:** Survey the history and significant development of ethics.

**Additive/Variant Analysis:** The information presented in this quote is additive to my understanding if the dynamics of shared healthcare knowledge from the use of technology in particular the web and sites such as Web MD to inform patients and clinicians.

**Contextualization:** Since the advent of the web, there has been so much more accessible information to the general public, though one needs to be discerning, has presented a situation where consumers of healthcare has much more information about healthcare concerns than anytime throughout history. This provides the patient with valuable information that helps them make informed healthcare decisions along with the information that their provider presents. Though providers may not like this ‘open access knowledge’ it does provide a check and balance to providers diagnosis or lack there of. This patient information benefit is an additional layer of ethical power for the patients. Patients want to be treated with respect and as a knowledgeable partner in the provider patient relationship. Providers have a hard time with this, will healthcare AI have an even harder time with healthcare knowledge patients questioning treatment?

**Source Seven:** McLennan, S., Fiske, A., Tigard, D., Müller, R., Haddadin, S., & Buyx, A. (2022). Embedded ethics: A proposal for integrating ethics into the development of medical AI. *BMC Medical Ethics*, *23*(1), 6. <https://doi.org/10.1186/s12910-022-00746-3>

**Comment 8:**

**Quote/Paraphrase:** “Although there may be a genuine willingness by tech companies to consider the ethical challenges around AI applications [12], many AI developers do not have the necessary competency to translate unfamiliar high-level principles. Developers come from varied disciplines and professional backgrounds that do not include systematic ethics training. At the same time, few trained ethicists currently work in tech companies, and there is no established culture of practical exchange between these fields. Partly in response to this divergence of fields, there has been efforts to improve the general ethical awareness of those on the technical side of development processes.” (McLennan et al., 2022, p. 2)

**Essential Element:** Understand ethics as the philosophy and methodology of behavior and the conducting of human activities.

**Additive/Variant Analysis:** This quote is additive to my understanding of the role that AI developers play in AI development and ethical programming in AI systems.

**Contextualization:** The dynamics of technology that is that it requires a specific set of skills to develop the technology including AI. Though there may be input from clinicians and bioethicist, the developer holds the keys to the AI product. The issue in AI ethical development is that if indeed ethics could be programed into AI, we would only know the ethical concerns we have at this given moment, but the moment AI is introduced then addition ethical concerns arise. How can there be an perpetual loop of ethical programing based on ethical concerns of the AI system itself? This is one of the ethical concerns of healthcare AI, can an ethical AI be created based on input from developers and the loop of AI?

**Source Eight:** Morley, J., Machado, C. C. V., Burr, C., Cowls, J., Joshi, I., Taddeo, M., & Floridi, L. (2020). The ethics of AI in health care: A mapping review. *Social Science & Medicine*, *260*, 113172. <https://doi.org/10.1016/j.socscimed.2020.113172>

**Comment 9:**

**Quote/Paraphrase**: “For instance, ethical mistakes or misunderstandings may lead to social rejection and/or distorted legislation and policies, which in turn cripple the acceptance and advancement of [the necessary] data science. Encouraging this kind of proactive ethical analysis is essential but also challenging because, although bioethical principles for clinical research and healthcare are well established, and issues related to privacy, effectiveness, accessibility and utility are clear (Nebeker et al., 2019), other issues are less obvious (Char et al., 2018). For example, AI processes may lack transparency, making accountability problematic, or may be biased, leading to unfair, discriminatory behaviour or mistaken decisions (Mittelstadt et al., 2016).” (Morley et al., 2020, p. 2)

**Essential Element:** Understand ethics as the philosophy and methodology of behavior and the conducting of human activities.

**Additive/Variant Analysis:** This quote is additive to my understanding of limits of AI and data science based on the issue of GIGO.

**Contextualization:** The lack of transparency within AI will certainly be an issue within healthcare, where one will not understand what went into the decision-making process for an AI product. This ‘blackbox’ effect is problematic for providers and patients to have confidence in what healthcare AI is providing as inputs into healthcare. This will be one of the ethical considerations the developers and health system will need to address in how to audit healthcare AI and to have a way to interpret the logic AI used to diagnose or treat patients. The way healthcare AI is envisioned to work is to assist the providers with tasks such as diagnoses and treatment, to which the provider should have the auidit tools to check and verify healthcare AI.

**Source Nine:** Palmer, A., & Schwan, D. (2024). More process, less principles: The ethics of deploying AI and robotics in medicine. *Cambridge Quarterly of Healthcare Ethics*, 33(1), 121–134. <https://doi.org/10.1017/S0963180123000087>

**Comment 10:**

**Quote/Paraphrase:** “Imagine that a group of physicians and administrators at a local nursing home is considering purchasing several social robots (henceforth “carebots”) from Robocorp. Among other things, these carebots will take over menial tasks but also provide companionship and interactive engagement with residents. Administrators point to the safety, economic, and efficiency benefits. However, some staff have raised concerns given the profound impact that this technology may have on the care environment and relationships between caregivers and patients. They worry that such technologies reduce opportunities for caring interactions, compassionate listening, and human touch—all of which are at the core of good care.” (Palmer & Schwan, 2024, p.121)

**Essential Element:** Survey the history and significant development of ethics.

**Additive/Variant Analysis:** This quote is additive to my understanding of the benefits and problems related to increase uses of technology and AI in healthcare.

**Contextualization:** This quote offers us an example of where we may be heading in healthcare as we open up to more and more supporting roles of technology within healthcare. First, electronical health records then AI and carebots. The healthcare field is specialized and takes many years of education and monetary investment in education, there has been a shortage in healthcare workers in particular for doctors. Thus the real drive to use technology to assist healthcare staff and to try to fill in the gaps in shortage areas with robotics and AI. There are many ethical issues surrounding technology and healthcare, but one of the ethical issues that this quote points to is that the staff is showing concern of the lack of human touch and human connection utilizing AI and robotic technology. As technology companies hear these concerns, what they will do is try to make AI and carebots more human for that “human touch”, the question is will patients then start thinking about them in a more human way and thus be ok with an artificial human rather than actual human. This will become an ethical dilemma if human touch could be replaced with artificial human touch.

**Source Ten:** Gabe, J., & Monaghan, L. F. (2022). *Key concepts in medical sociology*. Sage

**Comment 11:**

**Quote/Paraphrase:** “Sociology in bioethics, also described as ‘empirical bioethics’ by philosophers, elucidates the social process that frame ethical issues, analysing the ways in ethical problems are identified, managed and resolved. By doing so, it aims to ground more abstract philosophical ethical debates in empirical case studies, exploring the embodied ethics of ‘real actors’ in particular social worlds (William and Wainwright, 2013).” (Gabe & Monaghan, 2022, p. 255)

**Essential Element:** Understand ethics as the philosophy and methodology of behavior and the conducting of human activities.

**Additive/Variant Analysis:** This quote is additive to my understanding of the role sociology can play in medical ethics.

**Contextualization:** Thought philosophy and ethics can contribute a great deal to medical ethics, sociology also has a major role to play in examining the larger social impact of medical ethical issues as well as presenting a framework for thinking about real life examples of how the ethical issues will come about. With healthcare AI it is important to think about and try to understand the larger social impacts of using healthcare AI. There has been implantation of healthcare AI at various levels within the clinical setting and with smart healthcare wearables and technology, sociology has a some real world data to begin to study and forecast what ethical considerations will need to be accounted for as healthcare AI moves forward.

**Source Eleven:** Bohr, A., & Memarzadeh, K. (Eds.). (2020). *Artificial intelligence in healthcare*. Academic Press.

**Comment 12:**

**Quote/Paraphrase:** “In a recent study, when asked about the future of AI on primary care, while acknowledging its potential benefits, most practitioners were extremely skeptical regarding it playing a significant role in the future of the profession. One main pain point refers to the lack of empathy and the ethical dilemma that can occur between AI and patients. While this might be true for today, it is naïve to assume that this form of technology will remain dormant and will not progress any further. (Bohr & Memarzadeh, 2020, p. 56)

**Essential Element:** Evaluate the secular ethical standards concerning current world events and respond with a Christian ethical application.

**Additive/Variant Analysis:** This quote is additive and variant to my understanding of the concerns of healthcare AI. Where practitioners are skeptical and should be a major consideration. Though we understand that healthcare AI will develop in its sophistication ethical concerns should be always there.

**Contextualization:** AI and healthcare is here, and here to stay, it is being promoted as a tool to assist practitioners. Practitioners may not be the driving force of healthcare AI, but they are within a larger system of healthcare with healthcare technology companies playing a larger role in dictating the direction of healthcare. Together with practitioners and bioethics, sociology and policy makers need to learn the complex details of healthcare AI in order to better understand the ethical implications of healthcare AI.

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