Local synthesis of 1st and 2nd waves of societal discussions

US - Health

In 2023, discussions on what it means to be human in the time of neuroscience (NS) and AI have been facilitated by NHNAI partners in 9 different countries. In each country, 3 lines of discussions have been opened to explore this question in the **3 thematic fields of education, health, and democracy**. Each partner then produced **3 local syntheses** reporting on the content of discussions in these 3 fields in the corresponding countries.[1]

This document presents **ideas of the local synthesis in US**, about discussions on **health**, organized by Santa Clara University.

[1] For an exact total of 8*3 + 2 local syntheses. In Canada (Québec), Cégep Sainte-Foy organized discussions focused on Democracy and Education, but not on Health.

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Part 1: Salient ideas of 2023

AI risk to the doctor-patient relationship (7 extracts)

Description of the idea: AI as a risk for damaging the doctor-patient relationship through alienation, intrusion of outside organizations (like insurers), loneliness, deskilling, and technological dependency

Corresponding extracts (click on the arrow on the left to unfold/fold)

1. Humans define and uphold professional/institutional norms, forming the ethical backdrop for health care. I worry about the extent to which AI could reasonably be expected to replace this aspect of health care. Consider patient consent forms as an example - These are designed to uphold patient autonomy. But in order to function in this way, these consent forms rely on a backdrop where trust has been cultivated in the medical profession and there exist other institutional processes (like IRBs, treatment and research protocols, etc) that ensure the consent form isn't acting as the sole safeguard of patient welfare. Without this ethical backdrop, patient consent forms would be like Terms of Service agreements (where users ostensibly consent to the conditions, yet there is widespread criticism that these ToS don't actually uphold user autonomy/informed consent).
2. It is not clear to me that a fully automated hospital could "be with" a patient. E.g., in discussions of medical ethics when no further medical interventions are viable, we do not think that care ceases. We think that healthcare folks still owe something to the patient (or that the character of the best HCWs requires of them) that they still care for the patient. I don't think this is possible in an automated hospital
3. I am worried about the way remote patient monitoring seems to erode the 'context' of health care by blurring its physical boundaries. For example, the term 'patient' no longer seems reserved for someone in a hospital setting if there is remote monitoring of patient data. How might this impact an individual's understanding of their identity, or the way they experience their health, illness, and/or interactions with health care providers? How might this impact patients' expectations of privacy? etc.
4. The increase of remote patient monitoring worries me. For example, there was a case where data recorded on the patient's use of a CPAP machine was not only shared with their doctor, but with the maker of the machine, the medical supply company that provided it, and to their health insurer. The insurance company then uses this data to deny coverage of these (expensive!) devices if they determine the patient's usage wasn't in line with their standards. If remote patient monitoring like this becomes more common place, will there be a shift of power from health care providers to insurance companies?
5. If a hospital could be fully automated, the merits of human capacity might be lost, and humans lives may be harmed. Imagine a patient who would have diagnosed with fibromyalgia based on their self-report but is tested negative by an algorithm.
6. As healthcare involves human connections humans should not be overlooked even with the innovations of AI-led medical technologies. Studies have shown that in patients with chronic conditions progressive lack of human connections increases their vulnerabilities to loneliness and isolation and worsens their medical conditions.
7. If a hospital could be completely automated, ethical questions are bound to arise especially when AI-powered algorithms are used to inform high-stakes decisions. One can imagine the devastating consequences of receiving a wrong diagnosis or a wrong medical treatment plan from an automated system powered by AI algorithms.

AI automating healthcare risks dehumanizing the healthcare system (6 extracts)

Description of the idea: Healthcare is becoming more and more automated, and as this automation progresses, "the human touch" becomes farther and farther away. AI should be used to help healthcare providers to spend more time with patients, not less, and facilitate human interaction, not replace it.

Corresponding extracts (click on the arrow on the left to unfold/fold)

1. Since the development of AI is not currently subject to the same demanding protocols and guidelines as health care (and raises unique challenges in terms of people being able to trust these systems), I worry that the complete automation of health care would erode this critical ethical backdrop
2. If a hospital could be fully automated, the merits of human capacity might be lost, and humans lives may be harmed. Imagine a patient who would have diagnosed with fibromyalgia based on their self-report but is tested negative by an algorithm.
3. As healthcare involves human connections humans should not be overlooked even with the innovations of AI-led medical technologies. Studies have shown that in patients with chronic conditions progressive lack of human connections increases their vulnerabilities to loneliness and isolation and worsens their medical conditions.
4. If a hospital could be completely automated, ethical questions are bound to arise especially when AI-powered algorithms are used to inform high-stakes decisions. One can imagine the devastating consequences of receiving a wrong diagnosis or a wrong medical treatment plan from an automated system powered by AI algorithms.
5. It is not clear to me that a fully automated hospital could "be with" a patient. E.g., in discussions of medical ethics when no further medical interventions are viable, we do not think that care ceases. We think that healthcare folks still owe something to the patient (or that the character of the best HCWs requires of them) that they still care for the patient. I don't think this is possible in an automated hospital
6. I am worried about the way remote patient monitoring seems to erode the 'context' of health care by blurring its physical boundaries. For example, the term 'patient' no longer seems reserved for someone in a hospital setting if there is remote monitoring of patient data. How might this impact an individual's understanding of their identity, or the way they experience their health, illness, and/or interactions with health care providers? How might this impact patients' expectations of privacy? etc.

AI puts at risk human agency, clarity and distribution of moral responsibility, and autonomy (4 extracts)

Description of the idea: By injecting itself into the healthcare system as an outside force, often controlled by hospital administrators, corporations, insurers, or governments, AI acts as a force that puts at risk individual human agency, as well as confusing the clarity and distribution of moral responsibility in the healthcare system, and thus endangers autonomy for both the patient and the individual healthcare provider.

Corresponding extracts (click on the arrow on the left to unfold/fold)

1. distribute responsibility,
2. I am unsure about how moral responsibility should be assigned for decisions made with AI in CDSS. If the physician is held solely responsible for decisions made with, or against, an AI recommendation, then

what incentive is there for the developers to design these systems responsibly and to continue to monitor their performance to make necessary updates? Alternatively, while it may make sense to hold programmers responsible if the situation occurred as a result of their negligence in designing the system, how can programmers be held responsible when the nature of AI sometimes means that the system will make choices other than those predicted and encouraged by its programmers?

3. Humans define and uphold professional/institutional norms, forming the ethical backdrop for health care. I worry about the extent to which AI could reasonably be expected to replace this aspect of health care. Consider patient consent forms as an example - These are designed to uphold patient autonomy. But in order to function in this way, these consent forms rely on a backdrop where trust has been cultivated in the medical profession and there exist other institutional processes (like IRBs, treatment and research protocols, etc) that ensure the consent form isn't acting as the sole safeguard of patient welfare. Without this ethical backdrop, patient consent forms would be like Terms of Service agreements (where users ostensibly consent to the conditions, yet there is widespread criticism that these ToS don't actually uphold user autonomy/informed consent).
4. One thing we try to think about in AI is the problem of adjustable autonomy, or a system "knowing what it doesn't know" - can it recognize that its model is not sufficient to solve a problem to a given level of safety, or that some knowledge is missing, and so therefore it should hand over the task to a human? This can require a sort of meta-level reasoning that's not present in most deep learning systems (certainly not in ChatGPT! :-)

AI needs regulation to protect health care norms such as consent, and by extension trust in healthcare. (3 extracts)

Description of the idea: AI effects health care norms such as consent, and that has implications for trust, or lack of trust in healthcare. Use of AI in healthcare should be regulated in order to orient it towards good outcomes.

Corresponding extracts (click on the arrow on the left to unfold/fold)

1. Humans define and uphold professional/institutional norms, forming the ethical backdrop for health care. I worry about the extent to which AI could reasonably be expected to replace this aspect of health care. Consider patient consent forms as an example - These are designed to uphold patient autonomy. But in order to function in this way, these consent forms rely on a backdrop where trust has been cultivated in the medical profession and there exist other institutional processes (like IRBs, treatment and research protocols, etc) that ensure the consent form isn't acting as the sole safeguard of patient welfare. Without this ethical backdrop, patient consent forms would be like Terms of Service agreements (where users ostensibly consent to the conditions, yet there is widespread criticism that these ToS don't actually uphold user autonomy/informed consent).
2. Since the development of AI is not currently subject to the same demanding protocols and guidelines as health care (and raises unique challenges in terms of people being able to trust these systems), I worry that the complete automation of health care would erode this critical ethical backdrop
3. I think the best practices that have been developed in health care could be really useful in informing the development of AI standards and regulations. It would be much easier to 'consent' to an AI system if users and subjects could have confidence in institutional processes that are in place to safeguard their welfare.

AI puts at risk privacy and opens patients to harm from powerful organizations (3 extracts)

Description of the idea: AI, big data, surveillance, and remote patient monitoring put at risk privacy, especially in the context of the power differential between patients and insurers, as well as due to the demands for efficiency embedded in AI technology itself. Once the rationale of promoting efficiency becomes paramount, other values are necessarily endangered.

Corresponding extracts (click on the arrow on the left to unfold/fold)

1. I am worried about the way remote patient monitoring seems to erode the 'context' of health care by blurring its physical boundaries. For example, the term 'patient' no longer seems reserved for someone in a hospital setting if there is remote monitoring of patient data. How might this impact an individual's understanding of their identity, or the way they experience their health, illness, and/or interactions with health care providers? How might this impact patients' expectations of privacy? etc.
2. The increase of remote patient monitoring worries me. For example, there was a case where data recorded on the patient's use of a CPAP machine was not only shared with their doctor, but with the maker of the machine, the medical supply company that provided it, and to their health insurer. The insurance company then uses this data to deny coverage of these (expensive!) devices if they determine the patient's usage wasn't in line with their standards. If remote patient monitoring like this becomes more common place, will there be a shift of power from health care providers to insurance companies?
3. remote patient monitoring

Desirable / Undesirable

Undesirable: AI that replaces humanity in healthcare, rather than supporting humanity in healthcare (4 extracts)

Description of the idea: It is undesirable for AI to replaces humanity in healthcare, rather than supporting humanity in healthcare. Human-to-human interaction is preferable because of our common psychology, empathy, rights, and needs, while AI systems might be quite alien in their rationale and beholden to their controllers in ways that do not hold the patient's best interests in mind.

Corresponding extracts (click on the arrow on the left to unfold/fold)

1. I am worried about the way remote patient monitoring seems to erode the 'context' of health care by blurring its physical boundaries. For example, the term 'patient' no longer seems reserved for someone in a hospital setting if there is remote monitoring of patient data. How might this impact an individual's understanding of their identity, or the way they experience their health, illness, and/or interactions with health care providers? How might this impact patients' expectations of privacy? etc.
2. If a hospital could be fully automated, the merits of human capacity might be lost, and humans lives may be harmed. Imagine a patient who would have diagnosed with fibromyalgia based on their self-report but is tested negative by an algorithm.
3. As healthcare involves human connections humans should not be overlooked even with the innovations of AI-led medical technologies. Studies have shown that in patients with chronic conditions progressive lack of human connections increases their vulnerabilities to loneliness and isolation and worsens their medical conditions.
4. If a hospital could be completely automated, ethical questions are bound to arise especially when AI-powered algorithms are used to inform high-stakes decisions. One can imagine the devastating consequences of receiving a wrong diagnosis or a wrong medical treatment plan from an automated system powered by AI algorithms. *)*

Part 2: Salient ideas of 2024

Embodiment & Emotion (6 Excerpts)

Description of the idea: Humans are embodied in living bodies, while AI is not. AI cannot really understand embodiment, only provide a statistical impression of that understanding based on what humans have said and which has been fed into their data. Many things about being human have not been turned into data and fed to AI, and these are now comparatively "more human" things.

Corresponding extracts

- AI is dumb and has an emotional intelligence of zero. Future AI may develop some capacities that interpret emotions, but that will never be as competent as a talented counselor.
- the improvement on productivity does not equal to better well being and meaningful lives. Human brains still adopt a system that does not evolve as fast as the technology. Perhaps we will have more crisis of meaning when there is a mismatch between what we can do with AI and what we can process emotionally
- When it comes to humanitarian efforts, I think that AI should not replace human interaction. I think it is paramount to maintain the face-to-face human encounter and relationality that builds community and reminds each other of our shared humanity. Integrating AI into this space may reduce persons or desensitize the emotional response that comes out of witnessing human suffering.
- in terms of creativity, it really depends on what you define to be 'art'. If you were to define it as something that provokes emotion, then yes something created with AI in this space could be art. But, if we just talk about creativity, so much of what humans value as creativity comes from their lived experiences and person thoughts, those of which AI does not have in the same capacity. If someone would want to make art or be creative with AI, I think they would need to acknowledge or have it known that this was created with the work of AI and not solely on their own merit, as sure they maybe put the prompt in AI and tweaked it that way, but the basis of it comes from AI.
- what aspects of being human are elided by AI--for example the embodied part. The care ethics perspective on AI might be very different from the rights or justice ones...
- The context that I think about most is emotional health, mental health and the benefit/harm calculus of using AI in the form of a bot that provides mental health care. Who should assess whether someone's mental or emotional health needs CAN or SHOULD be addressed by a therapist powered by AI? For example, this article (https://www.psychiatrist.com/news/neda-suspends-ai-chatbot-for-giving-harmful-eating-disorder-advice/), discusses how an AI chatbot was suspended for "giving harmful eating disorder advice."

Human Social Interaction (3 excerpts)

Description of the idea: AI should facilitate and not replace human social interaction. AI which tries to replace human relationships is dependency-inducing and harmful. Instead AI should help people connect with other human beings.

Corresponding extracts

- When it comes to humanitarian efforts, I think that AI should not replace human interaction. I think it is paramount to maintain the face-to-face human encounter and relationality that builds community and

reminds each other of our shared humanity. Integrating AI into this space may reduce persons or desensitize the emotional response that comes out of witnessing human suffering.

- AI dependence is going to be a real thing, because we already see human beings developed connections and attachment to AIs, especially for people who are deprived from opportunities of building real connections or are lacking skills or motivation.
- loneliness (at least in the US) is reported to be an epidemic, and traditional systems of support are breaking down, it is imperative that we build connection and communities of support. AI could perhaps play a role in connecting people, but the actual relationships of support must be person to person, where compassion and mutual aid can be developed

Health (3 Excerpts)

Description of the idea: AI has great potential benefits for healthcare, including physical, mental, and emotional care. But AI should not simply replace humans but assist them.

Corresponding extracts

- AI has the potential to dramatically increase the access to mental health care and provide a more humane, immediate and personalized approach for therapeutic purposes
- until we are more experienced at using AI, certain areas, (like healthcare which is being deemed a high risk area in some regulatory developments) need stronger guidelines. Allowing a chatbot to freelance advice is too risky, as this example demonstrates. But I am more comfortable with AI that might, say, highlight a hard to detect dental cavity that a dentist can then confirm and decided to act on. So, we mitigate with policy and professional ethical standards that will emerge in various areas to deal with the use of automation, AI and AGI.
- The context that I think about most is emotional health, mental health and the benefit/harm calculus of using AI in the form of a bot that provides mental health care. Who should assess whether someone's mental or emotional health needs CAN or SHOULD be addressed by a therapist powered by AI? For example, this article (https://www.psychiatrist.com/news/neda-suspends-ai-chatbot-for-giving-harmful-eating-disorder-advice/), discusses how an AI chatbot was suspended for "giving harmful eating disorder advice."