

Health Tech for the People (HT4P): A transdisciplinary research initiative focused on artificial intelligence tech ethics and design for health justice



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ABSTRACT

Background: Technologies animated by artificial intelligence (AI) and machine learning proliferate in nursing's work and health care. Rapidly evolving AI technologies demand ethics and research infrastructure responsive to this dynamic landscape.

Purpose: We founded Health Tech for the People (HT4P) to develop a critical technology ethics for more accountable, human-centered design of AI technologies.

Methods: Our HT4P framework, grounded in data feminism and design justice principles, guided projects across two priority areas: reproductive health and aging technologies.

Discussion: Outcomes of HT4P's first year included an ethics fellowship, five transdisciplinary symposia/workshops, community partnerships and a community-directed technology ethics seminar, and multiple projects-in-progress.

Conclusion: Nurses have an opportunity to cultivate a radical imagination for more just and careful tech futures. This requires us to develop ethics of technology that puts values in practice by redistributing power, acknowledging the invisible and undervalued labor and resources, and repairing long-standing injustices.

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New health technologies rapidly proliferate in nursing's clinical, administrative, educational, and research environments. Considerable energy has been invested in the pursuit of technological innovation. The growing space of artificial intelligence (AI) for health care has been met with particular enthusiasm. AI and other technologies developed for use in nursing should ameliorate long-standing injustices, rather than amplify existing health inequities and oppressions (Walker et al., 2023). In the rush to innovate in this burgeoning AI environment, comparatively little investment has been made in co-creation and maintenance of the critical relationships, accountability systems, and organizing necessary to move us closer to health justice (Alang & Blackstock, 2023). Evidence of health injustice associated with emerging technologies includes the

persistence of racist algorithms, the profligate consumption of planetary resources required to build and maintain AI technologies, and exploitative practices that extract labor and materials to maintain the global AI supply chain (Benjamin, 2019; Crawford & Joler, 2018).

Recent events involving amplification of misinformation, coded bias, and hate speech by generative AI programs designed to mimic human conversational patterns add further concerns. The company X's generative AI chatbot Grok is one such example. Grok has stated second-hand smoke exposure isn't real (it is) and that COVID-19 vaccines have caused millions of unexplained deaths (they haven't) (Hagen et al., 2025). Then, in July 2025, Grok responded to a query about how to respond to "anti-white hate" by praising Adolf Hitler—posting hate speech and embracing the self-referential label "MechaHitler" before being taken briefly off-line. That same month, "Grok for Government" was announced, advertised as "a suite of frontier AI products available to United States Government customers" according to the company's on-line press release (<https://x.ai/news/government>). Rapid expansion and adoption of AI products has outpaced institutional safeguards and

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regulatory structures designed to protect consumer safety, public health, and democracy.

This paper outlines the genesis, conceptual foundations, and first-year activities of a multidisciplinary initiative created to address the need for more robust training and research infrastructure to support ethical praxis and accountable design of AI and other health technologies. We created Health Tech for the People (HT4P), a new research and training initiative, by combining the expertise and strengths of multiple disciplinary perspectives and ongoing research collaborations. We focus on critical ethics of technology and accountable design, evaluation, translation, and regulation of health technologies, with an emphasis on AI for the public interest. HT4P incubates interdisciplinary and community-led teams and technologies across two broadly defined priority areas: aging care and reproductive health. We adopted a broad definition of what constitutes “technology,” inclusive of any application of knowledge for practical purposes (Technology, n.d.). In this sense, technologies constitute emergent AI applications but also include nursing care models, assessments and diagnostics, pedagogies, and policy.

Conceptual Foundations of HT4P

Grounded in the concept of health justice and principles of design justice, critical nursing ethics, and data feminism, our vision for HT4P is to serve as a resource and consultation space. We offer interdisciplinary and community-directed expertise to support researchers and innovators to engage in accountable, human-centered design and deepen their knowledge of tech ethics. We strive to center communities at the center of our research priority-setting and design decision-making.

Health Justice. While there is no singular definition for health justice, public policy and health equity expert Jamila Michner conceptualizes it as an outcome and process. For Michner, this outcome and process requires “both building power among those who are most deeply affected (corporeally and materially) by health inequity and breaking the power of those who are accruing (economic and political) gains from the status quo of health inequity” (Michener, 2022, p.656). Examining specifically the COVID and HIV pandemics, Sirry Alang and Oni Blackstock (2023, p. 196) described health justice as a “paradigm and collection of actions that interrogate systems; structures; social, political, economic, and cultural institutions; and networks of relationships that, although normalized, create and perpetuate inequities in power and access to resources that matter for health, including the ability to engage in healthy behaviors.” Health justice gestures at a redistribution of power and resources in which folks that are most likely to be impacted by technologies like AI for health care gain and retain control over it. This includes its design, deployment, maintenance, and discontinuation—and when necessary, destruction. To actualize nursing’s aspirational commitments and ethics, we must work toward developing the relationships and infrastructure necessary to create new futures for health justice as the foundation for technological innovation, rather than an afterthought.

Design justice is a social movement and set of dynamic principles. Built on foundations of Black feminist thought like sociologist Patricia Hill Collins’ concept of the matrix of domination, design justice prioritizes two core beliefs—(a) *That the communities most impacted by designs should be centered in design decision-making*; and (b) *That all persons have unique expertise they can bring to the design process* (Costanza-Chock, 2020).

Data Feminism furthers the work of health and design justice in the realm of data science and data ethics. Principles of data feminism exhort data scientists to examine power, challenge power, elevate emotion and embodiment, rethink binaries and hierarchies, embrace pluralism, consider context, and make labor visible (D’Ignazio & Klein, 2023). Data feminism has produced innovations that resist

oppressive norms and reimagine what “counts” as innovation in the AI space. Examples include Margaret Mitchell and colleagues’ proposal for AI “model cards,” which are a type of label designed to provide greater transparency about machine learning models by informing users about who created the model, for what purpose, and how it performs across intersectional identity groups (Mitchell et al., 2019). Data feminism calls technologists to pay particular attention to invisible, undervalued, and uncompensated forms of labor and care work required to build and maintain AI and data systems.

HT4P Priority Areas

HT4P activities are organized across two priority areas. The first priority area focuses on health tech in the realm of reproductive health following the U.S. Supreme Court’s decision to overturn *Roe v. Wade*. The second focuses on health tech and aging. While HT4P-affiliated members are involved in projects that extend beyond these two foci, we chose these two priority areas as initial sites of engagement that could anchor collaborations and event-planning.

Priority Area 1: Reproductive Health

In the rapidly evolving post-Roe legal landscape, the collection and storage of health data is fraught and potentially dangerous. This is complicated further by the explosion of anti-transgender legislation in the United States (ACLU, 2025). Health information on menstrual cycles, pregnancy, fertility, sexuality, gender, and sexual behavior is politically salient in a health context that increasingly criminalizes critical health interventions. Related concerns have recently emerged with the announcement of a database proposed by the Health and Human Services compiling the care records of people with autism served by Medicare and Medicaid (HHS Press Office, 2025). Current systems of legal compliance and risk mitigation such as Institutional Review Boards and the Healthcare Information Privacy and Portability Act are not sufficient to address the ethical complexities of AI technologies. Community-led organizations working to address racism and other systemic injustices in data and technology have repeatedly called for greater accountability on the part of scientists, industry, and health systems (Akanegbu, 2025). These calls, led by groups like the Black Mamas Matter Alliance, Center for Applied Trans Studies, Data for Black Lives, Distributed A.I. Research Institute, and Algorithmic Justice League, demand redistribution of power big data and AI design agendas. In a landscape characterized by an ethos of “move fast and break things,” we envision an ethics of tech predicated on care, community, and co-creation rooted in accountability and abolition. This priority area is led by a team of transgender, genderqueer, women, and femme-identifying investigators. In its first year, we focused on accountable design and shared governance of technologies and data infrastructures associated with reproductive health monitoring and data management systems that are anti-oppressive, accessible, and gender-affirming. This priority area also serves as a bridge to other units within our university, connecting us to fine arts, department of women, gender, and sexuality studies, schools of nursing and public health, and the UMass Amherst Public Interest Technology Initiative (PIT).

Priority Area 2: Aging

Historically, computer scientists, engineers, and technologists building AI/ML for aging populations lacked in-depth expertise in the ethics and praxis of community-directed, human-centered, and accountable design. This has created historical and ongoing harm that fails to anticipate and address data weaponization and bias (D’Agnostino, 2023). To repair these harms, we need to prioritize older adult users’ perceptions of their own needs and preferences,

situated context and lived experience, and ethical concerns. Older adults occupying intersections of societal oppressions like ableism, racism, sexism, and poverty have been disproportionately harmed by surveillant AI/ML tools, data weaponization, and algorithmic bias (Chu, Donato-Woodger, Khan, et al., 2023). Misinformation campaigns and scams enabled by AI/ML products like chatbots and deep fakes target older adults, subjecting them to adverse consequences, including privacy intrusions, misinformation campaigns, and scams (Harrington et al., 2023). Recognizing this harm, one goal of this priority area was to strengthen the ethical reasoning capacity among teams working on technologies for older adult and aging populations. From this, we aim to generate Human-Centered Strategy Tools (HCST) for researchers who lack an in-depth understanding of these dimensions, to reorder decision-making power from being technology-focused and technologist-driven to more human-centered and community-led.

Another goal of this priority area was to increase local community participation in and power over research, to provide older adults with a platform to both voice their opinions and direct the design of future technology aimed at supporting them. We engaged with local councils on aging, assisted living centers, memory cafes, and clinics to spread awareness on the value and impact of research participation and to strengthen our pipeline for future research by building strong ties to local communities. Our current efforts are primarily focused on providing tech ethics development, human-centered design consultation, and community-led advisory support to technologists and research teams collaborating with persons living with Alzheimer's Disease and Related Dementias and their caregivers. This priority area bridges several related centers in and around the UMass Amherst campus, including the Massachusetts A.I. and Technology Center for Connected Care (an NIA P30 center), Elaine Marieb Center for Nursing & Engineering Innovation, Computational Social Sciences Institute, and the Robotics Cluster of Excellence.

Methods

Initial Collaboration

Our collaboration began as two separate grant initiatives led by Rae Walker and Ravi Karkar. Following submission, grant reviewers identified considerable overlap in the research foci of these submissions. Subsequently, the teams were invited to collaborate. To do so meaningfully, the teams converged to share disciplinary perspectives, values, and research objectives to develop a new submission that merged the interests of both. Iterative discussions, facilitated in-person and via shared documents, resulted in a single, transdisciplinary grant submission that combined the strengths and multidisciplinary lenses of both teams. Our goal for the initial collaboration was to address ethics of technology and accountable, human-centered design across the lifespan, with a special focus on technologies supporting reproductive health and aging populations. Leads for the combined proposal included faculty with multidisciplinary expertise from computer science, human-computer interaction, kinesiology, social work, science and technology studies, history, health informatics, public health, engineering, gerontology, gender studies, and nursing specialties such as oncology, gerontology, community health nursing, trauma critical care, and philosophy. The subsequently funded proposal established a new research collaboration and think tank named, "Health Tech for the People" (HT4P).

Adoption of Shared Commitments

Subsequent to discussions of shared values, the team established a set of shared commitments via a shared "living document." These conversations occurred in-person at team meetings and via Padlet, a digital platform that allows for anonymous and asynchronous collaboration and

brainstorming. Commitments were grounded in prefigurative politics, feminist care ethics, health justice, data feminism, and design justice (Costanza-Chock, 2020; Dillard-Wright, 2024; D'Ignazio & Klein, 2023; Sharman, 2021, 2023; Tronto, 1998). All team members were invited to suggest and comment on value statements. Comments on the reflected areas of disagreement or ambiguity were discussed by the team until consensus was reached within the group. Rooted in feminist and prefigurative praxis, the commitments developed reflect the politics and ethics we aspire to both in terms of how we collaborate with each other and the work we aim to produce. Figure 1 outlines these commitments. Examples of our commitments include as follows:

- We center the voices of those who are directly impacted by outcomes of the design process (Design Justice Principle #2).
- Before seeking new design solutions, we look for what is already working at the community level. We honor and uplift traditional, Indigenous, and local knowledge and practices (Design Justice Principle #10).
- We will practice critical consent and apply principles of consentful tech across our collaborations and engagement with research partners and communities. Consent is freely-given, reversible, informed, enthusiastic, specific, and presumes equal possibility of refusal (Lee & Tolliver, 2017).

Co-Creation of the HT4P Framework

Building on the conceptual foundations of a draft initially developed by Rae Walker, HT4P leads [Walker, Dillard-Wright & Karkar] collaborated to develop a framework to guide the work of HT4P. These discussions resulted in a provisional HT4P Framework. The initial framework was presented and discussed during an HT4P workshop at the Eastern Nursing Research Society's annual scientific conference. It continued to be iterated and revised through subsequent HT4P events and team discussions. Here, we provide a brief overview of the framework. Key components and philosophical underpinnings of the framework as a lens for tech ethics are further explicated in other papers currently in preparation (Dillard-Wright, Walker & Karkar, in preparation) (Figure 2).

The HT4P framework highlights domains of visible and invisible care work required to develop, implement, maintain, evaluate, and regulate technologies purported to support human and planetary health. This framework defines technology as the practical application of knowledge, including but not limited to algorithms, devices, data systems, care models, policies, and clinical practices. Human-technology interactions are structured by the power relations of the broader techno-social terrain in which they are situated. Regardless of the intentions behind the design of any technology, this context shapes who has access to the technology and who does not, who benefits, and who bears the brunt of any negative consequences—intended or unintended.

The HT4P Framework Assumes That No Technology Is Intrinsically, Ethically, or Politically Neutral

Interactions between humans and technology are dynamic and reciprocal, with humans building and influencing tech and its applications, and tech impacting humans in turn. As the arrows flowing from human-technology interactions depict, some human-health technology interactions promote health and a sense of connection. And some human-health technology interactions result in harm and rupture of relationships or further isolation. Sometimes, both health/connection and harm/rupture can occur simultaneously, in relation to the same technology.

The circular timeline reflects the assumption that health and harm are not only dynamic current states but also products of cumulative historical realities that shape the present and possible futures. It is not enough to support health in the present. Practitioners

Our Commitments

A living document

- We **center the voices of those who are directly impacted by outcomes of the design process** (Design Justice Principle #2)
- *Before* seeking new design solutions, we **look for what is already working** at the community level. We honor and uplift traditional, Indigenous and local knowledge and practices. (Design Justice Principle #10)
- We respect **epistemic diversity** (No “one right way” or universal hierarchies of what types of knowledge/methods/ideas/technologies are superior/best)
- We believe **everyone is an expert based on their own lived experience**, and that we all have unique and brilliant contributions to bring to a design process (Design Justice Principle #6)
- We recognize community members and persons we accompany in care (sometimes referred to as ‘patients’) are **co-designers, researchers, leaders, and experts in their own right**, whose time and labor deserve to be respected and wherever possible, compensated.
- We will maintain **ways for team members and accountability partners to “talk back”** to proposals/ideas
- We will practice **critical consent** and apply principles of **consentful tech** across our collaborations and engagement with research partners and communities (consent is freely-given, reversible, informed, enthusiastic, specific and presumes equal possibility of refusal)
- We acknowledge that engagement and/or **collaboration around ideas does not equal endorsement**; consent will always be sought prior to attaching any individual’s name to a project/presentation/proposal/manuscript
- We **acknowledge painful histories and current realities associated with systems of oppression**, such as colonization and systemic racism, that have shaped UMass and society. UMass Amherst sits on stolen land, and UMass-affiliated researchers have engaged in practices that have harmed communities, directly and indirectly.
- We commit to working towards more **sustainable and anti-racist systems, greater accountability, healing and repair** (where such is possible). Such efforts may be guided by restorative and transformative justice approaches like those outlined in Mariame Kaba and Shira Hassan’s *Fumbling Toward Repair*, recognizing the provisional and human processes at play.
- We commit to engaging with **accountability** mechanisms that may stem from our collaboration in good faith

Figure 1. Health Tech for the People shared commitments: a living document.

of health justice may also attend to past harms and injustice. In this sense, the framework expands upon traditional definitions of what constitutes the work of technologists from an exclusively future-focused orientation to include continuously looking back: identifying, acknowledging, and—where possible—acting to repair past harms and ruptures created by human–technology interactions. For example, a 2019 investigation of a widely used health insurance algorithm by Obermeyer and colleagues found evidence of racial bias that resulted in White patients receiving access to more resources post hospital discharge, while Black patients were denied (Obermeyer et al., 2019). Rather than simply adding a correction for the bias moving forward, some scholars and technologists have called for a new praxis of *algorithmic reparation*, wherein algorithms would “name, unmask, and undo allocative and representational harms as they materialize in sociotechnical form” (Davis et al., 2021). Preventing and healing existing harms of human–technology interactions requires care work such as *digital defense* (preventive efforts aimed both at reducing or eliminating potential harms and increasing community control over technologies that cause harm) and *critical reparative praxis* (Agostinho, 2021).

Care work, including the care work of maintaining our tech and data systems, is undervalued, under- or unwaged, and often rendered invisible in budget, workflows and organizational charts, measurement

tools, reporting structures, and political economies that rely upon it. In this framework, this technological care work is depicted as hidden beneath the surface of what is typically acknowledged, measured, supported, and compensated. As outlined in recent ethnographies of A.I. for health care like Data & Society’s “Repairing Innovation,” nurses and others who engage in this invisible technological care work are frequently underrecognized while also being hypersurveilled, exposed to threats to their safety and well-being, and exploited. Famous examples of unacknowledged care work include the “Black Angels”—Black nurses like Virginia Allen who administered tuberculosis care at Seaview Hospital in the early 1900s after White nurses refused to engage in what was considered risky and stigmatized work (Smiliot, 2023). Another example is the female programmers who maintained the Electronic Numerical Integrator and Computer, considered the world’s first digital computer (Kleiman, 2022). Both groups were largely uncredited at the time of their contributions, even as their labor was essential to the success of the technologies they supported.

Ethical Training in AI: HT4P Graduate Student Fellowship Program

Our funding included a series of fellowships to support training in tech ethics and accountable design among predoctoral and postdoctoral fellows from across the university. An initial cohort of six

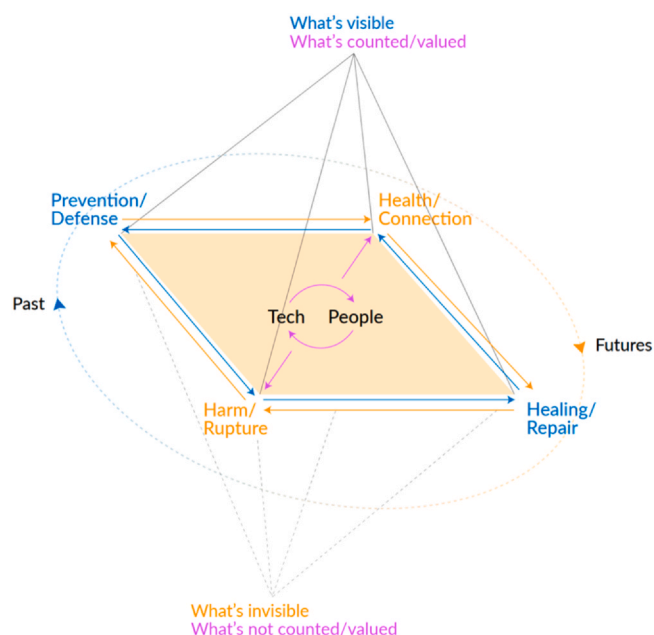


Figure 2. Health Tech for the People framework. Illustrating care labor, value, and impacts of human–technological interactions.

fellows (5 doctoral students and 1 postdoctoral fellow) from departments of nursing, computer science, food science, and psychology and brain sciences was selected in the Spring of 2024 following a competitive application process and holistic review by HT4P faculty. HT4P Fellows participated in a series of synchronous, online training workshops led by HT4P faculty and oriented around principles and applications of tech ethics and accountable design.

Subsequent to the workshops, HT4P Fellows received individual consultation time with HT4P faculty leads to discuss their research interests and proposals for an individual project focused on applications of tech ethics. An individual project preparation checklist, excerpts of which are displayed in Table 1 and Figure 3, was

developed to support trainees' discernment surrounding the nature and focus of their project. Individual project workshop ideas were subsequently publicly presented and discussed by the group at the HT4P Spring 2024 symposium. The full-length version of this checklist is included as an Appendix. Trainees received a summer stipend to support their own individual projects. They presented outcomes of this work at the HT4P Fall 2024 symposium.

The initial syllabus for the first year of the HT4P fellows program and other training materials are available at: <https://bit.ly/HT4Pfellowship>.

Results

HT4P Launch

HT4P officially launched in September 2023 through a hybrid event. The event included an overview of the new research collaboration, introductions by academic and community partners, an introduction of the preliminary HT4P framework and overview of projects-in-progress, and a collaborative brainstorming session using the online collaboration platform Padlet.com around co-creating new futures for health justice. In Spring 2024, HT4P convened a multidisciplinary workshop at the 36th Annual Eastern Nursing Research Society Scientific Sessions in Boston. Titled, "Designing for Health Justice in an A.I. Era: Transdisciplinary Workshop & Talk Back with Health Tech for the People," the workshop featured four presentations and a collaborative ideation session engaging audience members in co-visioning new futures for technology and health justice. The workshop included an overview of the HT4P initiative and framework, an engineering and human-centered design perspective, speculative ethics for health tech, and case studies in digital defense and repair work entailed by A.I. technologies.

HT4P Community Seminar

In November 2023, the Reproductive Health priority area held our first community-directed seminar, focused on co-creation of reproductive health technologies grounded in experiences of families disproportionately impacted by state surveillance. Inspired by

TOWARDS MORE CONSENTFUL TECH Read: Lee, U. & Toliver, D. (2017) *Building Consentful Tech* [zine]. https://www.communitysolutionsva.org/files/Building_Consentful_Tech_zine.pdf

The And Also Too Project defines "consentful tech" as "applications and spaces in which consent underlies all aspects, from the way they are developed, to how data is stored and accessed, to the way interactions happen between users." They use the acronym F.R.I.E.S. to outline a holistic and on-going approach to consent where consent is:

- Freely-Given
- Reversible
- Informed
- Enthusiastic
- Specific

Consider the technolog(ies) on which you are working and/or which you are studying. Choose one and map out your answers to the following questions, in terms of your understanding of communit(ies) whose data is used and/or who are otherwise impacted by the design and use of this technology. Use the template outlined in Table 1 as a guide.

Figure 3. HT4P Fellow Preparation Checklist excerpt. Section 5 of the checklist addresses the concept of creating "consentful tech."

Table 1
HT4P Fellow Preparation Checklist: Consentful Tech Evaluation Table

Answer the Following Questions to the Right (If You Can—If You Don't Know the Answers, Just Say, "I don't know")	Problem Definition Looks Like? (What Problem Is the Technology Designed to Solve and How Is That Decided/Defined?)	Development (Who Gets to Design the Tech, Who Has Decision-Making Authority, and Who Has Veto Power?)	Deployment (Where and How Is the Technology Deployed? Who Is Responsible for Maintaining It? Is That Labor Recognized? Who Has Control Over the Tech?)	Evaluation (Who Evaluates the Functioning and Impacts of the Technology? How Are These Measures Defined and Who Decides? Who Has Access to Those Results and Capacity to Act on Them?)	Data (Whose Data Are Collected and How Is It Stored? What Data Are Collected and How Was That Decided? Who Has Access? Who Decides When Data Are Shared or Destroyed? Who "owns" the Data?)
Use this space to record your response.	Use this space to record your response.	Use this space to record your response.	Use this space to record your response.	Use this space to record your response.	Use this space to record your response.
To What Extent Is Consent for Each of the Following:	Problem Definition: Was Impacted Community Members' Consent for This:	Development: Was Impacted Community Members' Consent for This:	Deployment: Was Impacted Community Members' Consent for This:	Evaluation: Was Impacted Community Members' Consent for This:	Data: Was Impacted Community Members' Consent for This:
Freely-Given?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know
Reversible?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know
Informed?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know
Enthusiastic?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know
Specific?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know

the format of the Johns Hopkins Center for Innovative Care in Aging's "The Issue Is..." series and principles of design justice, the seminar was created as a collaborative space for multidisciplinary HT4P members to listen to community partners' perspectives on AI-related issues impacting them, reflect on their design implications, and brainstorm how existing HT4P resources or expertise might be made available to better support community needs and priorities. The Community Seminar on Surveillance Tech invited Amy Walker, a midwife from a local community hospital, to discuss her work with the New Beginnings program. New Beginnings supports pregnant and postpartum people with or in recovery from substance use disorder, working not only to connect them with treatment, health care, and housing resources, but also to assist them in navigating social welfare and family policing systems. These systems monitor participants—whose participation may be required by legal and carceral entities—via multiple surveillance methods, including access to electronic health records. Together, seminar attendees envisioned possibilities for technology interventions that could give New Beginnings participants control over their own data and support them in their recovery journeys, without subjecting them to coercive surveillance.

Public Interest Tech Collaboration

Building on the momentum of HT4P, Jess Dillard-Wright, Rae Walker and transdisciplinary collaborators developed "Another Care is Possible" as part of a PIT University Network-sponsored fellowship. This year-long effort provided an incubator for HT4P-affiliated faculty and community members to consider speculative questions about care in the context of life, reproductive, and death decisions. Recognizing that communication between caregivers, care receivers, and communities has ethical implications linked to the power and knowledge differentials that structure professionalized care. Meeting through Spring and Fall 2023, the fellowship culminated with a community-facing teach-in and skill-share, held both in-person and online, that incorporated arts, community, connection, and technology. Participants dwelled on the questions of what happens to our digital selves when our embodied selves die—and conversely, what effects do our digital selves have on our embodied experiences of living and dying in the era of AI. We hosted expert death doula Dina Stander and historian of computing, labor, and care work Tamara Kneese to share their expertise. Attendees also engaged in communal grief practices such as community shroud-making, construction of a memorial to "technologies that no longer serve us," spoken word performance, and storytelling.

Another Nursing Is Possible Prefigurative Ethics Project

Jess Dillard-Wright also received project funding to develop a side-long and grassroots prefigurative ethics for nursing titled "Another Nursing is Possible: Ethics, Political Economies, and Possibility." Rooted in the principles of mutual aid, prefigurative politics, and building the worlds we dream of, Another Nursing is Possible is a multiphased and interdisciplinary effort that began with a literature review, then developed an interview schedule, formed an advisory committee, consulted key content experts, and secured the equipment to record oral histories. The project team is currently finalizing an interview schedule and further refining the literature included in the review. Considering nursing as a technology, this ethics project has the potential to impact nursing policy, practice, education, and leadership.

Death Care for Data Bodies

"Death Care for Data Bodies" is an ongoing HT4P project inspired by the scholarship of authors like Tonia Sutherland (2023) and

Tamara Kneese (2023), and led by Rae Walker, that examines the state of the nursing knowledge and practice related to end-of-life care and the data bodies that accompany people in life—and beyond. These data bodies take on a life of their own, even after the death of the person to whom the data body was connected. This in turn has implications for humanity, the planet, and those who remain to manage digital legacy assets. Our review examined key concepts associated with death care for data bodies, including digital legacy-making, advanced care planning, digital memorabilia, digital health, and construction and maintenance of virtual cemeteries and shrines. Lesser-studied concepts published on to date include the role of ritual, emergent necro-technologies like AI-animated personal avatars or funeral robots, medical assistance in dying, and care for data bodies that belie criminalized forms of care work. This review of digital death care practices (Walker, Leblanc & Gatrall, in preparation) yielded new questions about the role of care work in relation to our growing data bodies, such as: Who has the rights to data after people die?, how are data used after death?, who can destroy these data?, who can profit of these data?, and what are the health equity implications of these growing data bodies of the dead and the care work they entail?.

AI and Dementia Care

Much of the work of the Aging Priority Area during HT4P's first year centered around ongoing collaborations established with [center name]: a [university]-based National Institute of Aging-funded Collaboratory that fosters interdisciplinary research on AI-enhanced technologies to support the care and empowerment of older adults at home, including and especially people living with dementia (PLWD). The Collaboratory employs frameworks and resources to center the voices of older adults and PLWD in the development of new technology—acting as a catalyst for the tech industry to be inclusive of marginalized and vulnerable older populations in designing products and services such as remote patient monitoring and digital biomarkers to enable early detection of changes in cognitive and physical function. [Center name] partners with HT4P leadership to bridge the gap between [university] researchers studying aging and local and regional service providers working with older adults and caregivers “on the ground” including stakeholders from public, private, and nonprofit sectors as well as older adults and caregivers. These convenings have included a listening session with local grassroots nonprofit leadership, a seminar to raise awareness and receive feedback on the HT4P research thrust, and presentations on aging and technology at local assisted living facilities and senior centers.

Delphi Study of Human-Centered Design Considerations

Based on the HT4P Framework and led by [author], “Human-Centered Strategy Tools (HCST)” is currently in development using an e-Delphi method inclusive of diverse and multidisciplinary perspectives on AI/ML design. This tool leverages an in-depth understanding of various dimensions to create a minimum viable product with ethical considerations at the forefront of design decision-making. Through collaborative development using the Delphi method, HCST focuses on human-centered design in health care AI, working to ensure that the AI/ML application meets the actual needs, contexts, and challenges as viewed by users and communities disproportionately impacted by the technology.

Tech and Nurses' Urinary Health

Led by [author] with support from [authors], “Wee Work” is an exploratory study with nurses who are experiencing stress, urge, and functional urinary incontinence as they age. In keeping with

principles of tech and disability justice including cautions against techno-ableism (Shew, 2023), the interview schedule targets five main areas: (a) scope and degree of the impact of urinary incontinence on the nurse's life and work, (b) techniques and strategies for management already in use, (c) the nurse's current and past interactions with technologies related to urinary incontinence, (d) external systems and resources already in use, and (e) nurses' experiences of access, exclusion, and discrimination related to urinary incontinence. This study is designed to highlight opportunities for ethical tech development that could support structural change and individual agency for nurses and other shift workers challenged by urinary incontinence.

End-of-Year Symposium and Fellows Presentations

In Fall 2024, HT4P observed the 1-year anniversary of our official launch with a symposium that was held online and in-person, and open to the public. The first half of the event introduced a panel discussion and conversation with two invited guests: journalist and public interest tech entrepreneur Thomas Goetz and tech policy scholar Ethan Zuckerman. Rather than ceding the entire forum to these two renown technologists, both of whom occupy positions of great privilege and power, each presenter was given a few minutes to share reflections on the theme of creating new futures for health justice before being asked to listen and sit in conversation with HT4P members who reflected a broad array of positionalities, disciplinary backgrounds, and research interests. Pursuant to a wide-ranging and highly engaged conversation, HT4P Fellows presented results of their fellowship projects. This format attempted to “flip the script” of typical tech conference meetings, from the “sage on the stage” model to one where diverse HT4P community members exerted greater control over the dialogue and shared their perspectives and scholarship with leaders who've greatly shaped tech industry and policy.

Discussion and Recommendations

The Institute for Applied Life Sciences at UMass Amherst where the HT4P initiative was created has an institutional culture that is predominantly science, technology, engineering, mathematics, medicine (STEMM)-centered, biomedically oriented, and technologist-driven. Introduction of HT4P: a care ethics-oriented, health justice-grounded, humanities, and fine arts-inclusive AI research initiative into this space represented a significant innovation and disruption to dominant norms in terms of both philosophical orientation and approaches to collaboration and co-creation. From its inception, HT4P entailed significant investments in time and energy devoted to reflection and interpersonal dialogue to foster understanding of collaborators' respective perceptions of the needs and priorities, establish mutual respect and appreciation for each contributor's strengths and expertise (including the expertise of lived experience), and to find common language across diverse disciplines, positionalities, and philosophical standpoints.

Factors Impacting Interdisciplinary Collaboration

A number of factors likely impacted initial successes of this interdisciplinary collaboration. Rather than jump directly to proposing or building new technologies, HT4P collaborators found we first needed to examine similarities and differences across our respective research priority areas and disciplines with regard to ethical lenses, values, priorities, and assumptions about what it is to strive for “health justice” and to create AI/ML “Health Tech for the People.” Such dialogues were respectfully and collaboratively moderated by faculty with STEM and humanities backgrounds, a recommended practice (van Diggele et al., 2020; Advancing Academic Freedom, 2006). While we consider these dialogues to have been

both generative and essential to the sustainability and integrity of this initiative, they did not necessarily fit into existing institutional metrics for success the way that deliverables like minimum viable products (MVPs), new grant proposals, or patents might. We urged investigators to pause and practice reflexivity about power and positionality with regard to AI projects, to consider the invisible labor and care work entailed by AI technologies, to acknowledge past trauma and harms imposed on communities impacted by and marginalized within AI design, and to look for locally controlled solutions and what was already working, before rushing to innovate new AI “solutions.”

Valuing Epistemic Diversity

In light of the epistemic diversity represented across our working groups, and our adoption of shared commitments like honoring the unique expertise each person brought to the collaboration, we found we needed to introduce new means of engaging with and capturing poly-vocal conversations about the future of health technology that did not require distillation of ideas to a singular “right” answer or hierarchical taxonomy (like “levels of evidence”). Shared documents and online platforms like Padlet.com, where comments could be collected and displayed in real time either with attribution or anonymously, were especially helpful for fostering idea generation and mitigating some of the power differentials within groups. This effort was time-intensive, and the outcome was more praxis-oriented rather than product-based. We note that without more holistic measures of impact and community engagement, investigators from disciplines where success metrics are highly quantified and publication, IP, or grant dollars-based may struggle to communicate and defend the importance and value of such time investment.

Grappling With Questions of Project Association and Endorsement

HT4P’s leadership also had to grapple with questions of whether our tech ethics-focused initiative’s sponsorship of fellows and their affiliated projects implied implicit and endorsement of such work being “ethical.” We also discussed whether participation in HT4P might be viewed as a form of “ethics-washing,” wherein AI projects without any true foundations in tech ethics would be nonetheless deemed “ethical” by virtue of association with the initiative (Schultz et al., 2025). Although collaborators within HT4P were encouraged to honor our shared commitments and to adopt human-centered, accountable design principles into their efforts, the work was often at varying stages of development and in some cases well beyond a time when the research questions and technologies could be considered to have been community-led or controlled. HT4P leads were not positioned to judge whether or not projects adequately reflected these principles, as such assessments should lie with communities most impacted by the technologies themselves. Rather than refuse to engage with projects that lacked explicit grounding in HT4P principles, we adopted a harm reduction strategy: aiming to meet collaborators where they were and to offer guidance and tools that might help project leads to better understand the importance of accountable, human-centered design approaches and do more to share power with communities involved with or potentially impacted by the technologies being developed or evaluated.

Varied Perspectives on Ethics of Tech

Finally, we confronted the reality that what constitutes ethics looks different in different disciplines. How one thinks about ethics in food science technology can vary wildly from how it is applied in computer science. We continue to deliberate on how to invite diverse groups of researchers and co-creators to think about and practice ethics, and to be in dialogue with each other and

communities they are designing with and for. While we acknowledge that while there is no singular, universally adopted AI tech ethics, we note that the field of bioethics appeared to be the dominant influence on academically located health technologists we encountered. Many of our STEMM-based HT4P collaborators were unfamiliar with principles of data feminism, design justice, or transhumanist ethics, though all were versed in Beauchamp and Childress’ four bioethical principles of beneficence, nonmaleficence, autonomy, and justice (Beauchamp & Childress, 1979). This may be due to Institutional Review Board processes that are largely framed around these principles and legal concepts like regulatory compliance. This raises important questions about the inadequacies of compliance-driven frameworks and bioethics as principal or sole foundations for ethical praxis by nurses and other technologists, and the corresponding hazards of allowing bioethics to continue to dominate thinking and decision-making in AI development, regulation, and design agendas (Hao, 2019; Page, 2012). Related concepts, such as AI “ethics-washing” also deserve further interrogation within nursing and across health care generally.

The HT4P initiative was a collaborative experiment in shifting power over AI design decision-making and changing mindsets around who is a tech worker, what constitutes ethical AI for health and care, and the impacts of AI technologies on both visible and invisible labor and planetary resources. Initially we had proposed establishment of a paid community advisory board to help guide our efforts, but this was abandoned upon the realization that guidance and oversight for each project should be directed by the particular communities driving and/or impacted by those projects. Therefore, rather than establishing a singular advisory board, we adopted a more distributed approach in which each team was encouraged to share power and foster deeper relationships with specific accountability partners.

Strengths and Limitations

Our findings to date are shaped by the particular institutional and social context in which we work—specifically, a large research-intensive state university located in a relatively rural setting in the Northeast region of the United States. Faculty have a strong union and contract that provides explicit protection of academic freedom beyond that which is recommended by the American Association of University Professors (van Diggele et al., 2020). This likely offers faculty in HT4P greater protection when taking risks on new endeavors, including those that focus explicitly on promoting equity and health justice.

While we believe there are important lessons to be learned from our experiences for a wide range of nurses and innovators, we acknowledge important limitations to generalizability. Furthermore, recent wide-ranging policy changes such as numerous executive orders released since January 20, 2025 (The White House, 2024); HR 239 that proposes changing FDA regulations to allow for AI agents to prescribe; and rescission of the White House Office of Science and Technology Policy’s former Blueprint for an A.I. Bill of Rights (White House Office of Science and Technology Policy, n.d.), will no doubt continue to shape the development, regulation, and impacts of AI for health care.

Conclusions

Nurses have an opportunity to cultivate a radical imagination for more just and careful tech futures. This requires us to develop ethics of technology that attends to current and historical sociotechnical realities, including the existence of structures of oppression that shape inequitable power arrangements in AI for health care’s development, implementation, and regulation. Health justice, data

feminism, critical nursing ethics, and a provisional HT4P framework guided our initiative's creation and first-year collaborations.

While the community partnerships and projects that resulted from our efforts are contextually situated and therefore specific to our particular institution, region, and focus areas (reproductive health and aging), we believe tools we've created like the HT4P Fellow Project Preparation Checklist may benefit other health care settings and foci seeking to accomplish similar goals. We deliberately licensed our tools under a Creative Commons license (CC BY-NC 4.0) so as to allow others to freely use and adapt them for non-commercial use with proper attribution. Furthermore, the HT4P framework was designed to reflect care work associated with human-technology interactions across a wide variety of settings, though establishing its utility beyond domains of reproductive health and aging in our immediate context will require additional research.

We cannot yet judge longer-term impacts of these efforts, though initial observations and projects-in-progress indicate some progress toward our stated goals. In the future, we hope to continue to iterate and refine our HT4P framework with input from multiple disciplines and communities. In partnership with our communities, we hope to advance HT4P's efforts to shift institutional cultures around AI technologies, redistribute power over data and design decision-making, and foster robust tech worker communities and systems of care aimed at building new futures for health justice.

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Appendices

Appendix 1. HT4P Fellow Individual Project Consultation Checklist [Full Length].

1. RESEARCH QUESTIONS, RELATIONSHIPS, and TECHNOLOGIES: What are the research questions, phenomena, technologies, or relationships you're currently focused on?
2. KEY CONCEPTS/VARIABLES: Consider the key concept(s) or variable(s) that are a focus for your scholarly work. Examples of concepts could include things like: "disruptive behaviors," "vision," "reproductive health," "food contamination," "accessible," "air quality," "documentation," or "nursing care."
 - a. Name at least one key concept/variable:
 - b. Define the concept/variable:
 - c. Where did this definition come from (and who decided to define it in this way, originally)? Do you know?
 - d. How is this concept assessed or measured? (And who decided? And did it come from the community/ies most impacted?)
 - e. Who (if anyone) benefits/profits from this concept/variable being assessed or measured in this way? Who (if anyone) is harmed? Do you know?
3. COMMUNITIES and POSITIONALITY: Consider the communit(ies) directly impacted by your scholarship and/or the phenomena you are currently studying.
 - a. How would you describe the communit(ies)?
 - b. Is this the same way they would describe themselves? (And do you know?)
 - c. What is your relationship to the community/(ies)?
 - i. Are you a member yourself?
 - ii. Do you have personal relationships with multiple other members of the community/ies? If not—why not? If so—how did those come about?
 - iii. To what extent do you and your experiences resemble those of other community members?
 - iv. To what extent do the experiences of the person(s) you are in relationship within those communities represent those of all community members?
 - d. Academic researchers often wield power to decide what counts as "knowledge" and what are suitable topics for research. And among academic researchers, each of us have identities and positionalities that impact how we navigate and experience the world, and how others treat us.

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Rachel (Rae) Walker: Writing- Review and editing, Writing-Original draft, Visualization, Supervision, Project administration, Methodology, Funding acquisition, Formal analysis, Conceptualization. *Cory Ellen Gatrall:* Writing- Review and editing, Writing- Original draft. *Jason Molony:* Writing- Review and editing, Writing- Original draft. *Joohyun Chung:* Writing- Review and editing, Writing- Original draft. *Ravi Karkar:* Writing- Review and editing, Writing- Original draft, Visualization, Supervision, Project administration, Methodology, Funding acquisition, Formal analysis, Conceptualization. *Jess Dillard-Wright:* Writing- Review and editing, Writing- Original draft, Visualization, Supervision, Project administration, Methodology, Funding acquisition, Formal analysis, Conceptualization.

Declaration of Competing Interest

The authors declare no conflicts of interest.

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- i. How would you describe your own positionality in terms of power, when compared with other researchers doing work on similar topics as you?
- ii. What about when compared to members of communities impacted by your scholarship?

4. THE INEVITABLE AND THE IMPOSSIBLE: Read the assigned reading for meeting #2: Benjamin, R. DISCRIMINATORY DESIGN, LIBERATING IMAGINATION. In R. Benjamin (Ed.), *Captivating Technology: Race, Carceral Technoscience, and Liberatory Imagination in Everyday Life* (pp. 1–22). Duke University Press. <https://doi.org/10.2307/j.ctv11sn78h.5>

Dr. Benjamin discusses The “New Jim Code,” which she defines as a combination of coded bias and imagined objectivity that creates “[technological] innovation that enables social containment while appearing fairer than discriminatory practices of the previous era.” Her book, *Captivating Technology*, combines Science & Technology studies (STS) and critical race studies to “illuminate not only how society is impacted by technological development, but how social norms and policies, and institutional framework shape a context that makes some technologies seem inevitable and others impossible.”

Consider your own area of technological focus, and/or the communities whose well-being is impacted by phenomena you study, and complete the following table:

Which Technologies Seem to Be “INEVITABLE” (in your area of focus and/or for the communities impacted by your research)? [List a few in your area] For example: Credit scores, ChatGPT, and Amazon.com	Which Technologies Seem to Be “IMPOSSIBLE” (in your area of focus and/or for the communities impacted by your research)? [List a few in your area] For example: Universal health care, high-speed rail access throughout the United States, and universal basic income
When did this technology become INEVITABLE?	Does this IMPOSSIBLE technology exist somewhere? Has it in the past?
What historical or current events, societal norms, and/or policies created this sense of inevitability?	What historical or current events, societal norms, and/or policies created this sense of impossibility?
Do you agree they are indeed “inevitable”? (and why?)	Do you agree they are indeed “impossible” (and why?)

5. TOWARD MORE CONSENTFUL TECH Read: Lee, U. & Toliver, D. (2017) *Building Consentful Tech* [zine]. https://www.communitysolutionsva.org/files/Building_Consentful_Tech_zine.pdf

The And Also Too Project defines “consentful tech” as “applications and spaces in which consent underlies all aspects, from the way they are developed, to how data is stored and accessed, to the way interactions happen between users.” They use the acronym F.R.I.E.S. to outline a holistic and ongoing approach to consent where consent is:

- Freely-Given
- Reversible
- Informed
- Enthusiastic
- Specific

Consider the technolog(ies) on which you are working and/or which you are studying. Choose one and map out your answers to the following questions, in terms of your understanding of communit(ies) whose data are used and/or who are otherwise impacted by the design and use of this technology.

Answer the following questions to the right (if you can—if you don't know the answers, just say, “I don't know”)	Problem Definition Looks Like? (What problem is the technology designed to solve and how is that decided/defined?)	Development (Who gets to design the tech, who has decision-making authority, and who has veto power?)	Deployment (Where and how is the technology deployed? Who is responsible for maintaining it? Is that labor recognized? Who has control over the tech?)	Evaluation (Who evaluates the functioning and impacts of the technology? How are these measures defined and who decides? Who has access to those results and capacity to act on them?)	Data (Whose data are collected and how is it stored? What data are collected and how was that decided? Who has access? Who decides when data are shared or destroyed? Who “owns” the data?)
[insert response] To What Extent Is Consent for Each of the Following:	[insert response] Problem Definition: Was Impacted Community Members' Consent for This:	[insert response] Development: Was Impacted Community Members' Consent for This:	[insert response] Deployment: Was Impacted Community Members' Consent for This:	[insert response] Evaluation: Was Impacted Community Members' Consent for This:	[insert response] Data: Was Impacted Community Members' Consent for This:
Freely-Given?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know
Reversible?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know
Informed?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know
Enthusiastic?	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know	Yes No Don't know

Specific?	Yes	Yes	Yes	Yes	Yes
	No	No	No	No	No
	Don't know	Don't know	Don't know	Don't know	Don't know

6. SUMMARY ASSESSMENT:

- To what extent did you have answers to all the questions on this worksheet?
- To what extent do you think the answers you were able to give represent those of everyone who might be impacted?
- If there were places where you were unsure or did *not* have answers, why do you think that is?
- What new questions or curiosities do you have as a result of working through these questions?

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