

**Laidlaw Scholars Undergraduate Leadership and Research
Programme**

Research Proposal

**Family Caregivers, ChatGPT, and Power:
Critical Perspectives on Digital Care Work**

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Abstract

This research will investigate the implications of AI integration into healthcare, specifically as it pertains to the role of family caregivers and their engagement with AI, primarily LLM chatbots. Family caregivers commonly face emotional, financial, informational, and logistical strains, which have amplified and accelerated the adoption of digital tools, such as ChatGPT. Despite this, the integration of digital tools into family caregiving is an understudied field. As such, this research will dissect the power and social hierarchies that define family caregiver-AI interactions, contextualizing broader systems of gender, class, race, and socio-economic status. Qualitative interviews will be conducted to ascertain insights into the perceptions, uses, and barriers faced as it relates to AI usage. Findings will contribute a foundational understanding on the emergence and greater adoption of digital health tools and will also serve to inform future policy and recommendations for equitable, responsible AI.

Introduction

My first time using AI was not to interpret Shakespeare's iambic pentameter or to compute a Taylor Series: it was to converse about my first teenage heartbreak. Admittedly, this wasn't one of my shining moments (one I rarely confess), and its response was more awkward than enlightening. However, since that fateful day, AI models have advanced significantly, and that early encounter, imperfect but non-judgmental, birthed my fascination for how AI models can be havens of identity, belonging, and questioning: a point of introspection when human support is absent or marred by prejudice.

I currently work as the Lab Manager of the Motivation and Social Cognition Laboratory, where my research studies how people confer humanizing traits to AI models. As research goes, I've been exposed to the incredible complexities that define how we interact with AI: the infinite and nuanced decisions that feed into a single prompt or follow-up question or the sheer amount of emotion that can be offloaded to the friendly, almost touching, tone of ChatGPT. Inevitably, I've also encountered the inequities and social hierarchies that are quite literally coded into AI frameworks, which raise questions about the efficacy of AI in critical contexts such as healthcare or mental health, and which have brought me to my current research proposal.

The disparities that cultivate at the intersection of AI and family caregivers are nuanced, merging two unique areas of hierarchy and power. Accordingly, my overarching goal is to deconstruct themes of digital literacy, socioeconomic inequality, and gender inequity, analyzing how power dynamics mediate caregiver-AI interactions.

Research Objectives

The primary objective of this research is to understand how family caregivers implement, perceive, and experience AI models, with secondary objectives analyzing dimensions of emotional engagement, conferred trust, accessibility, and the ethics of digital healthcare. These will be achieved by answering two principal questions: (1) How do family caregivers perceive and experience AI models in real-world caregiving contexts? and (2) How do caregivers envision the future role of AI in caregiving, including issues of trust, ethical safeguards, and improvements needed to further caregiver support?

Methods and Ethics Review

This study will employ a three-stage qualitative design: (1) Recruitment; (2) Semi-structured virtual interviews; (3) NVivo thematic analysis. Recruitment will employ targeted outreach to caregiver support groups and aging-focused organizations, alongside digital platforms such as Facebook, Twitter, or LinkedIn groups; this will ensure a diverse sample of 20 family caregivers. All recruitment practices will be guided by principles of accessibility and ethical research.

Eligible participants will receive an informed consent form followed by an invitation to a semi-structured interview via a secure online platform (Zoom or Microsoft Teams). This format allows convenience and flexibility, a participant-centered exploration of lived experience, and probing questions that guide conversation around specific caregiving contexts and the use of AI. With consent, interviews will be recorded and transcribed; all data will be anonymized and securely stored.

Data analysis will use a three-step thematic analysis approach with NVivo software. Transcripts will first be analyzed to identify recurring ideations, with initial codes generated to capture these concepts. Codes will then be placed under broader themes that define caregiver experience. Member checking and inter-coder review will be used throughout analysis to ensure alignment with caregivers' accounts. Findings will then be reported in alignment with the research questions. This protocol has been approved by the Health Sciences REB.

International Focus

AI models are often understood in isolation, uncoupled from their human developers; however, human prejudice is deeply ingrained in their design, quite literally coded into AI systems. Operating at a crossroads, charged with politics of technology, digital literacy,

and accessibility (Capraro et al., 2024), AI usage demands interdisciplinary analysis. The social determinants of family caregiving, including gender inequities, socioeconomic status, and structural racism (Tough et al., 2019), form a critical nexus with AI that highlights a constellation of power dynamics that spans healthcare research, social frameworks, and information disparities.

Globally, the ceaseless adoption of AI is ubiquitous, especially in healthcare (Oleribe et al., 2025); combined with greater global longevity and decreased fertility (Lunenfeld and Stratton, 2013), the proliferative ageing population has accelerated the integration of AI in caregiving. Grounded in the lived experience of caregivers across diverse social contexts, this research will serve as a global lens that spearheads inclusive and ethical dialogue, positioning caregiver reality at the heart of international AI-healthcare policy.

Beyond global proliferation, this project tackles elements of cultural caregiving. Across international contexts, caregiving practices reflect heritage, ranging from eastern familial obligation to western senior homes. Universal differences in caregiving styles are situated within cultural expectations, social policy, and economic conditions, blending social determinants that form unique collisions as emerging technology encroaches upon traditional caregiving.

Outcomes

This research will address a critical gap in literature on the integration of AI tools in family caregiving, dismantling the intersection of societal disparities, power dynamics, and lived experience. Beyond academia, I hope to prioritize knowledge mobilization, creating tangible change for caregivers, AI designers, and policymakers. I envision this as accessible infographics, presentations, and pamphlets distributed through caregiving

centers across Ontario, offering practical guidance on engagement with AI tools.

Caregiver feedback forms will inform iterative refinement to ensure usability. More broadly, the findings will aim to advance academic conversation on AI-caregiver topics while informing federal policy work, providing caregivers with effective, equitable, and scalable solutions.

Research Supervisor

A personal goal I have for this project is to embrace the human dimension, emerging as a leader who drives research as a vehicle for social impact, reflection, and a service of care. Beyond developing research skills, I plan to consult both Dr. Kokorelias and Dr. Harris on their expertise of social frameworks, particularly critical theory and feminist ethics of care, to cultivate novel perspectives that interrogate the power dynamics of AI-caregiver interactions. Fostered from this mentorship will be a rigorous academic inquiry grounded in social responsibility, one that will reverberate and live through my future leadership.

References

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