

# Research Statement

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09 (Day) 07 (Month) 2024 (Year)

## Background

- Broadly speaking, my research interest is in human-computer interaction.
- My goal is to build a solid psychological understanding of human-computer interaction so that better interfaces and media can be designed that fit the mental model of users and the context of use. Most human-computer interfaces are designed in an ad-hoc or haphazard manner without scientific or theoretical grounding. My research will continue to develop, enhance, and advance the theoretical understanding of principles to guide and evaluate human-computer interaction design.

## (Examples of) Research Areas

- Human-computer interaction and NeuroIS
  - o I study problems and issues in human-computer interaction. I am interested in developing an in-depth understanding of issues related to the interaction between technologies and users to help improve the effective use of technology. My research also incorporates the use of psychophysiological methods (e.g., eye-tracking and electroencephalogram/EEG) to deepen our understanding of issues in human-computer interaction.
  - o I have studied, assessed, and evaluated the trade-offs between 2D and 3D virtual worlds, the personalization-privacy paradox, and Web users' tolerable waiting time. One of my current research projects analyzes different scam types and uses a multi-faceted approach to identify and detect scams as well as mitigate the impact of scams.
- Metaverse and virtual worlds
  - o I research in the area of marketing and education in the metaverse. I am working on using the metaverse to enhance teaching and learning, and in assessing the efficacy of using the metaverse for marketing and branding.
  - o My earlier research has provided guidance and suggestions for using the metaverse in marketing and education. I am continuing this stream of research to enhance the utilization and efficacy of the metaverse in the business and education contexts.
- Generative artificial intelligence
  - o I am interested in studying and understanding how the use of generative AI on a regular or daily basis could have an impact on our well-being and our concept of self-identity. A research question of interest is: Does the use of generative AI affect our self-identity, need for companionship, and capacity for creative self-expression?

## Selected Publications and Outputs

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