



Department of
Information Science Technology
Cullen College of Engineering

IST Seminar Series Presents:



Managing the Visibility of XR Surveillance into our Futures: technical, legal, and social implications of the biospatial surveillance industry

Dr. Luke Heemsbergen

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Friday, May 3, 2024 from 1:30PM-2:30PM (Central Time)

- **Join In-person:** AMG 307
- **Join Online:** MS Teams (see link below)

https://teams.microsoft.com/l/meetup-join/19%3ameeting_NDMxMmFiNjAtNDU2MS00YmZkLTk4ZTEtZDZlMzhiODU2Mjlx%40thre.ad.v2/0?context=%7b%22Tid%22%3a%22170bbabd-a2f0-4c90-ad4b-0e8f0c4259%22%2c%22Oid%22%3a%22c9f8dd10-bdbf-4c7a-bc65-d4bc72037cbe%22%7d

Abstract: Emerging XR technologies are generating vast amounts of data in 3-D virtual space. The XR spaces themselves can be surveilled along with behaviors and signals from users haptic feedback, speed of motion, range of motion, body movements and positions, gaze tracking, variable focus, and interactivity. While much of the existing research has been about effects of XR, the economic, surveillance, and predictive implications of new forms of tracking have yet to be examined. This talk explores creative methodologies to make surveillance in XR - that is both biometric and environmental - visible. If we want to create more equitable and transparent XR media futures, understanding these possibilities and making them visible is an important first step to creating systems that legally, socially, and technological protect and extend user rights in XR and allows for productive spaces for industry innovation and community development.

Biosketch: Luke Heemsbergen (Ph.D. University of Melbourne) is a Senior Lecturer at Deakin University, Co-Lead of the Critical Digital Infrastructures and Interfaces research group, Co-Lead Immersive Realities – Deakin Motion Lab; Member, Alfred Deakin Institute for Citizenship and Globalisation, Science and Society Network and the Centre for Cyber Resilience and Trust. He was appointed to the ARC funded Centre of Excellence for the Digital Child as an Associate Investigator in 2023 to study on how children are growing up with AR and AI in their midst. His research and teaching examine how physical and digital environments engage each other in sociotechnical systems like Augmented and Mixed Reality Media or 3D printed futures.