

Wei Zhao

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SUMMARY

I am a PhD candidate in the School of Computing and Information Systems at The University of Melbourne. My research focuses on understanding human behaviour through quantitative and qualitative techniques and designing computer systems through user-centred approaches. My current project is looking at the use of digital technologies to improve the psychosocial wellbeing of older adults.

Research interests: digital health, human-computer interaction, computer-supported cooperative work, mixed reality.

EDUCATION

PhD in Engineering and IT – The University of Melbourne, ongoing
Thesis title: Designing for the social engagement of older adults living independently
Supervised by: A/Prof Jenny Waycott, Dr Melissa Rogerson, Dr Ryan Kelly
Funded by: Australian Government Research Training Program Scholarship

Master of Information Technology – The University of Melbourne, 2020
Graduated with Distinction
Thesis published at 32nd Australian Conference on Human-Computer Interaction

Bachelor of Management (Public Relations) – Sun Yat-sen University (China), 2018
Awarded best student scholarship in 2016
GPA: 3.8/4.0

EMPLOYMENT HISTORY

Research Assistant – The University of Melbourne, Aug 2020 – ongoing
Duties: research on a project under the direction of the supervisor and senior research fellow; coordinate research activities including literature review, data collection, quantitative and qualitative data analysis, and drafting scientific reports.

Academic Tutor – The University of Melbourne, Aug 2020 – ongoing
Duties: facilitate tutorials and grade for multiple undergraduate and postgraduate subjects, including two core subjects of the Master of IT degree. Awarded a Melbourne Teaching Certificate (MTC) in 2021.

Software Product Assistant – PAYO, Jul 2021 – Nov 2021
Duties: assist the product manager in the planning and development of requirements for product feature updates; communicate with UI and development teams in an agile way to ensure product delivery in within schedule and meet requirements; perform testing of prototypes accordingly to verify product reliability and performance requirements.

Digital Marketing Assistant, ToFuture Education, Nov 2018 – Dec 2019
Duties: support the marketing manager and marketing team with project organisation; compose and post online content for the company's social media page and website; prepare promotional presentations and organise promotional events.

SKILLS

Research methods – In-depth interviews, observations, diary studies, contextual inquiry, ethnography, workshops, focus groups, questionnaires and surveys, experimental design, online evaluation (card sorting, first click, tree test), usability testing

Software design and development – Personas, scenarios, user cases, sketching, wireframes, storyboards, paper prototypes, high-fidelity prototype, front-end development (HTML5, CSS, JavaScript), back-end development (JAVA, Node.js).

RESEARCH PROJECTS

PhD research project (ongoing) – *Using digital technologies to maintain the social engagement of older adults living independently: experiences from COVID-19*. This study aims to investigate how older adults have been using technologies to maintain social engagement during COVID-19 restrictions when meeting in person becomes difficult. Findings from the study will inform future design of digital tools for supporting older people's psychosocial wellbeing.

<https://people.eng.unimelb.edu.au/wzhao10/ageing/engagement.html>

Research assistant project (ongoing) - *Emerging technologies for enrichment in old age: a critical perspective*. This project aims to identify empirically informed strategies for good practice in the design and deployment of emerging technologies (e.g., virtual reality, social robots, videoconferencing) for enrichment in old age.

<https://cis.unimelb.edu.au/hci/projects/enrichmentoldage>

Master thesis project (completed) - *Challenges of deploying VR in aged care: a two-phase exploration study*. This study investigated the challenges of deploying virtual reality technology in aged care settings from the perspective of residents and staff members. It involved video observation and thematic analysis approaches and revealed several types of issues that need to be addressed.

<https://dl.acm.org/doi/10.1145/3441000.3441018>

PUBLICATIONS

Published:

- **Wei Zhao**, Steven Baker, and Jenny Waycott. 2020. *Challenges of Deploying VR in Aged Care: A Two-Phase Exploration Study*. In proceedings of the 32nd Australian Conference on Human-Computer Interaction (OzCHI '20). <https://dl.acm.org/doi/10.1145/3441000.3441018?cid=99659676299>
- **Wei Zhao**. 2021. *Ubiquitous Music-making: A Critical Review*. In proceedings of the 16th International Conference on Audio Mostly (AM '21). <https://dl.acm.org/doi/10.1145/3478384.3478391>
- Jenny Waycott, **Wei Zhao**, Ryan Kelly, and Elena Robertson. 2021. *Technology-Mediated Enrichment in Aged Care: Survey and Interview Study*. In the Journal of Medical Internet Research Aging (JMIR aging). <https://aging.jmir.org/2022/2/e31162>

In Press

- **Wei Zhao**, Jenny Waycott, Ryan Kelly, and Melissa Rogerson. 2022. *Understanding Older Adults' Participation in Online Social Activities: Lessons from the COVID-19 Pandemic*. In proceedings of the 25th ACM Conference on Computer-Supported Cooperative Work And Social Computing (CSCW 2022).

MEDIA COVERAGE

Magazine report:

- *Tech design needs to focus on residents*. By Sandy Cheu. November 4, 2021. Published on Australian Ageing Agenda. <https://www.australianageingagenda.com.au/technology/tech-design-needs-to-focus-on-residents/>

PROFESSIONAL SERVICE

Journal and conference reviewer:

- Proceedings of the ACM on Human-Computer Interaction (CSCW)
- Australian Conference on Human-Computer Interaction (OZCHI)

Student Volunteer:

- ACM Conference on Computer-Human Interaction (CHI), 2021, accessibility support
- Proceedings of the ACM on Human-Computer Interaction (CSCW), 2021, session support & quick responses

ENGAGEMENT AND OUTREACH

Seminar talks:

- **Co-presenter**, Care and Connection during COVID-19: Using technology to communicate with loved ones in aged care, Seminars in Ageing Program, National Ageing Research Institute (NARI), 2 Aug 2021

Conference talks:

- **Presenter**, Challenges of Deploying VR in Aged Care, Session: Aged Care, 32nd Australian conference on Human-computer Interaction, 4 Dec 2020
- **Presenter**, Ubiquitous Music-making: A Critical Review, Session: Internet of Musical Things, International Workshop on the Internet of Sounds, Audio Mostly 2021, 2 Sep 2021
- **Presenter**, Technologies for Social Connection in Aged Care during COVID-19: Staff Perspectives, Session: Social Connection, The 54th Australian Association of Gerontology (AAG) Conference, 10 Nov 2021

Public events:

- **Student presenter**, Biometric Dungeons & Dragons, Melbourne Knowledge Week (MKW), 26 Apr - 2 May 2021

TEACHING EXPERIENCE

INFO90004 Evaluating the User Experience (Graduate subject tutoring) – This subject concerns the methods and techniques that are used to identify what characterises UX and how you can recognise, measure, and evaluate it in a variety of contexts. This entails a deep understanding of the psychological and social theories underlying UX, combined with practical knowledge of the various industry methods and tools currently in use.

INFO90006 Fieldwork for Design (Graduate subject tutoring) - This subject introduces students to the theories and methods used to understand people and settings for designing technical systems. The subject equips students with the knowledge and skills needed to gather information about people and activities, to understand the intended users of the systems, and to use the insights gained from this process to identify design requirements.

INFO900010 Technology Innovation Project (Graduate subject tutoring) - This subject involves an in-depth innovation investigation under the supervision of a member of the academic staff and in the context of the University's engagement initiatives. Students working in groups will be required to

perform research, customer and problem discovery, ideation, concept creation and validation, and technical implementation for a real-world challenge. The subject also provides students with skills and knowledge for improving written and oral communication.

INFO10003 Fundamentals of Interaction Design (Undergraduate subject tutoring) – This subject concerns the methods for designing interactive technologies that are useful, usable, and satisfying. It introduces students to the key theories, concepts and industry methods that are crucial to the user-centred design process.

INFO20004 Usability Evaluation Methods (Undergraduate subject tutoring) - This subject is built on the foundational material from the prerequisite subject Fundamentals of Interaction Design to learn the key industry methods and tools used to conduct usability evaluations and develop understanding about when these methods should be applied and how to interpret their findings.

COMMUNITY SERVICE

Volunteer IT Mentor, Mar 2021 – Aug 2021: Be Connected Program is part of the Australian Government eSafety Commissioner Be Connected Initiative. I'm volunteering weekly at the Beryl Hevey Centre in Altona, Victoria as an IT mentor that introduces basic digital skills to a group of retired aged older adults, including the use of smartphones, tablets, and computers.

Credentialed Community Language (CCL) Certificate in Mandarin, Nov 2019

MEMBERSHIP

Member of Australian Association of Gerontology (AAG)

Member of The ACM Special Interest Group on Computer-Human Interaction (SIGCHI)