

---

## Two Fully-funded PhD positions

in Ubiquitous Computing and Behavioural Science

jointly enrolled at The University of Melbourne and Freie Universität Berlin

Start date: 2022

Applications due:

- 20 September
- 

In the context of the collaboration between the the University of Melbourne and the Berlin University Alliance, we invite applications for a fully-funded, full-time PhD position in Ubiquitous Computing and Behavioural Science. The research will be co-hosted at the School of Computing and Information System in Australia and the Freie Universität Berlin in Germany. Successful candiates will spend significant time in both locations and will receive a joint degree from both institutions.

The focus of this research is on developing methods to quantify, track, and instil healthy behaviours. Everyday behaviours, such as a balanced diet or frequent hand washing can become habitual and impact people's health by reducing the risk of viral infection and improve the management of chronic conditions, such as heart disease and diabetes. As many individuals do not adhere to recommended behavioural guidelines (e.g., not washing hands in core situations), innovative methods to measure behavioural performance and intervene are needed. Digital technologies provide the means to continuously measure individuals' behaviours and support them in achieving behavioural goals. To develop such technologies to successfully monitor and achieve sustainable behavioural changes in individuals' everyday lives requires bringing together medical research, behavioural psychology, and computing science. The successful candidate will hence work in an interdisciplinary environment across both locations in Australia and Germany.

### University of Melbourne

At the University of Melbourne, the work will be embedded in the Human-Computer Interaction (HCI) group, which is made up of a dynamic group of researchers working on Ubiquitous Computing (UbiComp), User Experience (UX), and Computer Supported Cooperative Work (CSCW). We are fascinated by issues arising from humans interacting with emerging technologies. What influences our experience of information and communication technology? How might we ensure that information technology is usable, useful and satisfying to use? The HCI group explores these and other questions by studying the design and use of digital technologies by people. Our research methods are human-centric, focusing on technology-in-use by people, either in their natural settings or in our state-of-the-art usability lab. Our current area of focus ranges from smart hospitals and creating technologies to improve chronic disease outcomes to social computing, conversational agents, technologies for emotion regulation and age care, explainable AI, context-aware systems and cognitive computing.

More information about our team and current projects can be found at:

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

### Freie Universität Berlin

At the Freie Universität Berlin, the candidate will work within the Division of Health Psychology. The members of the Division of Health Psychology collaborate and publish together with researchers from 27 nations and different disciplines such as medicine, social sciences, business, and computer science. The field of Health Psychology is dedicated to the scientific study of stress and coping, psychological factors

in physical illness, health-enhancing and health-compromising behaviors, and health promotion. How do people react to, cope with and recover from illness? Why are some persons acting in accordance with their health goals, whereas other fail to translate their good intentions into action? How can we tailor treatments to a person's needs and motivational state? Our group aims to examine what drives change of health behaviors (e.g., healthy nutrition, physical activity, hand hygiene, and healthy smartphone use) and how these behaviours can be promoted by treatments. We analyze data from (technology-based) assessments of health behaviors over time using state-of-the-art quantitative methods.

More information about the Division of Health Psychology can be found at:  
<https://www.ewi-psy.fu-berlin.de/en/einrichtungen/arbeitsbereiche/gesund/index.html>

### **Your tasks**

The successful candidate will:

- Conduct research in the fields of ubiquitous computing, human-computer interaction, and behavioural sciences
- Develop methods to quantify and track behaviours using sensing technologies and mobile computing devices
- Implement interventions to nudge users towards healthier behaviours
- Design, conduct, and report on studies that quantitatively and qualitatively investigate how digital technologies can effectively change people's behaviours for the better.

### **Your profile**

We seek applicants with a master's degree in computer science, psychology, or related fields. Successful candidates are expected to show proficiency in quantitative research methods and have technical proficiency in data analysis (i.e., Python, R, or equivalent). The candidate will be expected to conduct studies with human participants, for which relevant experience will be a plus. Proficiency in English is a prerequisite. The University of Melbourne is strongly committed to support diversity and flexibility in the workplace.

### **Your application**

To apply, please send the following documents to Dr. Tilman Dingler ([tilman.dingler@unimelb.edu.au](mailto:tilman.dingler@unimelb.edu.au)): a cover letter, a CV, Bachelor/Master certificate, and transcripts. We consider applications on a rolling basis until 20 September. We will reach out shortly after receiving your application to schedule a remote interview.

### **Scholarship Information**

At The University of Melbourne, students receive a tax-free annual stipend of approximately \$31,000AUD. The value of this stipend increases gradually each year. In addition, PhD students can receive additional remuneration for teaching, marking, or other duties. Typically, these can range between \$6,000AUD to \$9,000AUD per year.

We are very much looking forward to hearing from you!