



TOWARDS BETTER SUPPORTING HUMAN ASPECTS IN MOBILE eHEALTH APPLICATIONS

Md Shamsujjoha, Professor John Grundy,
Professor Li Li, Dr Qinghua Lu and Dr Hourieh Khalajzadeh

At a glance



Background

Many eHealth apps are ineffective because they don't integrate human needs and other issues such as cognitive style, culture and emotions.



Goal

Help developers understand and address human aspects in eHealth apps, resulting in more effective apps for end users.



Strategies

- Identify the range and nature of relevant human aspects.
- Propose and evaluate supports for integrating human aspects.
- Develop actionable guidelines, development workflows and best practices.

Key outcomes



App development concerns

Our systematic literature review and app analysis highlighted the necessity to better consider human aspects in development.



Human aspects and application approaches

We identified key human aspects for eHealth apps and current principal approaches to address them.



Improved guidelines for development

We created and assessed enhanced set of guidelines to better support human aspects in eHealth apps, aligned with best practice.

Methods and tools



Conducted an analysis of 25,000+ apps, a comprehensive background study, systematic literature review and meta-analysis to identify strengths, limitations and future research for eHealth apps.



Reviewed 240 survey responses and 25 interviews to explore user-developer engagement for integrating human aspects in eHealth apps, categorise challenges and recommend actions for risk management.



Developed 'new' guidelines and enhanced existing ones to better address human aspects in eHealth apps, with practical examples.



Found over 85% developers consider the new guidelines useful, appreciating real-life examples, usability, accessibility and reliability focused. Areas of improvement were also identified.

Learn more

To discover more about this project, contribute to best practices or improve the accessibility of your website and apps, contact [HumaniSE Lab](#) or scan the QR code.



Acknowledgements

Md Shamsujjoha was supported by the Monash International Tuition Scholarship, RTP Stipend, and CSIRO Data61 Top-up Scholarship. This work was also supported by the Australian Research Council under a Laureate Fellowship project FL190100035.

We would like to thank all the interview participants and survey respondents without whom this work would never have been accomplished.

