Survey Questionnaire for Mobile App Developers

Md. Shamsujjoha, John Grundy, Li Li, Qinghua Lu, Hourieh Khalajzadeh
Faculty of Information Technology (FIT), Monash University, Melbourne, Australia

This survey is designed to get feedback from mobile app developers on how they go about handling human-centric issues in eHealth apps' development for more its more effective usages and fundamental future needs. The questionnaire is divided in two sections. The first section collects some demographic information of the participants. No identifying information is collected in this questionnaire. Then, the second section collects their views on human-centric issues in this domain.

Section 1: Demographic Information

1. Country of residence:
2. Age:
3. Gender:
4. Highest qualification:
5. Area of qualification:
6. Experience (in years) in mobile app development:
7. Current role in development team (tick all that apply):
   a. Project manager
   b. Business consultant/Marketing manager/Sales personnel
   c. Requirements analyst
   d. Software architect
   e. Programmer
   f. User interface or Graphical User interface designer/developer/engineer
   g. App animator or operations developer/engineer
   h. QA engineer
   i. Tester
   j. Other:

   > Please write here

8. Former roles in development teams (tick all that apply):
   a. Project manager
   b. Business consultant/Marketing manager/Sales personnel
   c. Requirements analyst
   d. Software architect
   e. User interface designer/developer/UX experience developer/engineer
   f. QA engineer
   g. Programmer
   h. Tester
   i. Operations
   j. Other:

   > Please write here

Monash University

9. Do you ever work on an eHealth app development project?

   ☐ Yes (go to next question i.e., question 10)
   ☐ No (go to next section i.e., question 11)

10. What sub-domain of an eHealth app have you worked on (tick all that apply):
    a. Telehealth and telemedicine
    b. Health and Fitness tracking
    c. Mental health
    d. Mobile games to improve health issues
    e. App based solution for a health issue
    f. Electronic Health Records (EHR)
    g. Electronic Medical Records (EMR)
    h. Health IT systems
    i. Consumer health IT data
    j. Virtual healthcare
    k. Mobile health decision making
    l. Big data systems used in digital health
    m. Other:

    > Please write here

Section 2: Views on Human-centric Issues in eHealth Apps

11. Which human-centric issues of eHealth app end-users have you had to consider during app development (tick all that apply)?

Issue	Always	Sometimes	Rarely	Never
Elderly users e.g. > 60 years of age				
Very young users e.g. < 16 years of age				
Users with accessibility issues				
Users with physical challenges				
Users with mental health issues				
Users with cognitive challenges				
Users whose language proficiency may be low				
Users uncomfortable with technology				
Low socio-economic status users				
Different gender, gender identity of users				
Users with diverse cultural backgrounds				
Other vulnerable users				
Others				

● Others – please list and indicate how often need to consider:

> Please write here

12. Which of these human-centric issues do you view as most critical for effective usages of eHealth app and consequently its development (tick all that apply)?

Issue	N/A	Critical	Important	Limited importance
App reliability: Trustworthiness, correctness, data source, theory and practice.				
App accessibilities: Text contrast, alternate text vs images, links, navigation, form, labels, table, time-outs, use of sitemap etc.				
App usability: Taps, landscape mode, platforms, OS versions, resolution, auto-filled customer data, unresponsiveness (for gestures), content, navigation etc.				
App versatility: Variety of health information or communication services at different levels in the user community domain.				
User versatility: End-users age, physical challenges (for example adaptive interface for the visually impaired), Mental health issues, Cognitive challenges, Language and technology proficiency, Gender variability, Socio-economic status and Cultural backgrounds.				
Other:				

● Others – please list and key reasons for this if any:

Please write here

13. Which issues do you find you have to spend the most time on to address (tick all that apply)

Issue	N/A	Critical	Important	Limited importance
App reliability: Trustworthiness, correctness, data source, theory and practice.				
App accessibilities: Text contrast, alternate text vs images, links, navigation, form, labels, table, time-outs, use of sitemap etc.				
App usability: Taps, landscape mode, platforms, OS versions, resolution, auto-filled customer data, unresponsiveness (for gestures), content, navigation etc.				
App versatility: Variety of health information or communication services at				

different levels in the user community domain.				
User versatility: End-users age, physical challenges (for example adaptive interface for the visually impaired), Mental health issues, Cognitive challenges, Language and technology proficiency, Gender variability, Socio-economic status and Cultural backgrounds.				
Other:				

● Others – please list and key reasons for this if any:

Please write here

14. Which human-centric issues do you find hardest to address at different phases of app development (Numeric values 1-easy to 5-very hard):

Issue	N/A	Requirements - elicitation	Solution design	Implementation – coding in	Testing	Bug fixing
App reliability: Trustworthiness, correctness, data source, theory and practice.						
App accessibilities: Text contrast, alternate text vs images, links, navigation, form, labels, table, time-outs, use of sitemap etc.						
App usability: Taps, landscape mode, platforms, OS versions, resolution, auto-filled customer data, unresponsiveness (for gestures), content, navigation etc.						
App versatility: Variety of health information or communication services at different levels in the user community domain.						
User versatility: End-users age, physical challenges (such as adaptive interface for the visually impaired), Mental health issues, Cognitive challenges, Language and technology proficiency, Gender variability, Socio-economic status and Cultural backgrounds.						
Other:						

● Others – please list and key reasons for this if any:

Please write here

15. Specify the app development practices that you use for addressing human-centric issues in your app for its more effective usages and consequently its development.

> Please write here, if no specific practise write N/A

16. Specify the development tool that you use for addressing human-centric issues in your app for its more effective usages and consequently development.

> Please write here, if no specific practise write N/A

17. Do you have any ideas what would help you better to address challenging human-centric issues in eHealth app for its more effective usages and consequently its development?

> Please write here

18. Any other comments for us about these issues, this survey?

> Please write here

19. Might you be willing to be interviewed about some of your experiences in more detail by a member of our team? This will be removed from your survey responses.

☐ Yes (please provide a contact name and email address in the following box)
☐ No

> Please write Name and Email address in this box if you answered yes for Question 19. This information will be removed from your survey responses.

20. Would you like to receive a report on our findings? This will be removed from your survey responses.
☐ Yes (please provide a contact name and email address in the following box)
☐ No

> Please write Name and Email address in this box if you answered yes for Question 20. This information will be removed from your survey responses.