

Summary of PhD research

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Title

The Role of User Expectations in the Design of Personalised Health Information Portals

Supervision

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Summary

Health information portals (HIP) are known as a 'one-stop-shop for medical information and services available online' that provide users with easy access to a variety of medical information. However, despite a number of advantages that HIP offer, there continue to be a number of concerns such as lack of consistency in the information provision, poorly organised information and design. Personalisation is considered to be a solution to some of the problems stated above. However, effective personalisation is hard to implement, and with the lack of unified guidelines and techniques for its implementation, HIP designers adopt various approaches that leads to the lack of consistency in developing personalised features. One of the solutions to implementing effective personalisation of HIP is better understanding of user expectations in that regard, and their consideration in the design process, area well researched in marketing. This research explores marketing theories and techniques on consideration and identification of the user expectations and how they might be captured in the development processes of personalised HIP in the context of user centred design.

Research Questions

Can user satisfaction with health information portals be improved through personalised features which take into account user expectations?

Sub-questions:-

- To what extent do current health information portals implement personalisation?
- What is important to know about user expectations in designing personalised health information portals?
- How can expectations of users of health information portals be identified?
- Can techniques from marketing be adapted to help identify user expectations for personalised health information portals? If they can, then how?
- How can developers identify and include user expectations in the design of health information portals?

Research Approach

This research focuses on finding innovative solution to the existing problem of unsatisfactory design of personalised HIP which signifies it as a design science research. The aim of this research is to explore and solve a poorly understood problem of how to effectively design of personalised HIP in a rapidly changing online environment.

Design science research will be adopted for this project as it involves development of artefacts (a framework & a set of guidelines) with their subsequent evaluation in iterations.

There are three techniques that are going to be used in this research:

- 1) Analysis of the portals
- 2) Think aloud & observations
- 3) Focus groups with the users
- 4) Interviews with the developers

The purpose of the analysis of the HIP is to explore, identify and examine their personalised features. For the purpose of this research it is important to understand what the developers see as a personalised feature and whether there is a unified understanding of how these features are to be implemented throughout HIP. Thorough analysis of the HIP is expected to provide an insight into these issues.

Think aloud & observation techniques will be used while working with the portal users at the initial stage of the data collection to create a draft of the framework.

The purpose of the focus groups is to test and evaluate the framework on user expectations developed as a result of the previous steps (see above).

Conduction of the semi-structured interviews with the developers aims to validate the developed framework and provide guidelines for the portal developers on identification and incorporation of the user expectations in the design processes of personalized health information portals.

Contribution to Knowledge

Theoretical:

- better understanding of the user in the context of designing personalised HIP
- better understanding of the importance and role of the user expectations in designing HIP
- a framework identifying various aspects that have to be considered for effective exploration of user expectations in relation to HIP

Practical:

- guidelines for the developers to assist them in identifying user expectations for personalised HIP in the context of the UCD paradigm
- adaptation of marketing techniques to identify user expectations to the IS field
- a set of recommendations for the developers in regards to implementing personalised features of the HIP

About the Researcher

Kate Lazarenko is a Research and Teaching Assistant at the Faculty of Information Technology, Monash University, Melbourne, Australia. She is also Monash PhD student starting from January 2008. Kate holds a bachelor honours degree in computer science (applied informatics) from the Russian State University for the Humanities, followed by a post graduate master degree from Monash University, Melbourne, Australia. Kate's research interests lie within decision support field, personalisation in particular, and human-computer interaction including user centred design and usability.