

User-Centred Design Using Gamestorming

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Abstract. User-centered design (UX) is becoming a standard in software engineering and has tremendous potential in healthcare. The purpose of this tutorial will be to demonstrate and provide participants with practice in user-centred design methods that involve ‘Gamestorming’, a form of brainstorming where ‘the rules of life are temporarily suspended’. Participants will learn and apply gamestorming methods including persona development via empathy mapping and methods to translate artefacts derived from participatory design sessions into functional and design requirements.

Keywords. User-centred design, end-user design, participatory design, usability

1. Tutorial Organization

The proposed tutorial speakers are:

Leanne Currie, RN, PhD, University of British Columbia, School of Nursing.
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Dr. Leanne Currie is an Associate Professor at the University of British Columbia School of Nursing where she conducts research in the field of nursing, biomedical and health informatics. Dr. Currie’s program of research is in clinical informatics with research projects related to wound care documentation by nurses, smoking cessation, personal health records for patients with chronic diseases, data mining, and informatics competencies in healthcare providers and healthcare students.

J. Craig Phillips, RN, ARNP, LLM, PhD, University of Ottawa, School of Nursing,
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Dr. Phillips is an Associate Professor at the University of Ottawa School of Nursing where he conducts research in ecological epidemiology, intercultural human rights law and participatory design for marginalized populations. He has been funded by the Canadian Institutes of Health Research towards the development of a tailored smoking cessation website with HIV+ gay men using an emancipatory framework.

Charlene Ronquillo, RN, MSN, PhD student, University of British Columbia, School of Nursing, cronquillo@alumni.ubc.ca

Ms Ronquillo is a doctoral student at the University of British Columbia School of Nursing where her research will focus on technology use by healthcare providers in low resource settings. She has been involved in development and prototyping of a Web-based tool to support smoking cessation with HIV+ gay men in Western Canada.

Derek Roswell, RN, BScN, MScN student, University of Ottawa, School of Nursing. Derek.roswell@gmail.com

Mr. Roswell is a registered nurse working in mental health and community health. Prior to becoming a nurse, Mr Roswell was a project manager for community-based healthcare initiatives seeking equitable healthcare solutions. Most recently, he has been part of a team working towards the development and prototyping of a Web-based tool to support smoking cessation with HIV+ gay men in Western Canada.

2. Tutorial Description

2.1. Format

Breakout group discussion

Timeline

- 1st hour: Theory and application of user-centred and participatory design; types of Gamestorming activities and application to requirements elicitation and expert usability testing
- 2nd hour: Application of select Gamestorming activities
- 3rd hour: Strategies to translate artifacts derived from user-centred design sessions to actual user interface design.

2.2. Description

User-centered design (UX) is becoming a standard in software engineering and has tremendous potential in healthcare. The purpose of this tutorial will be to demonstrate and provide participants with practice in user-centred design methods that involve ‘Gamestorming’, a form of brainstorming where ‘the rules of life are temporarily suspended’. The workshop will begin with a discussion of general methods for inviting and involving participants in the elicitation of requirements for materials that participants would use in the development of software systems including how to build a safe space for novel ideas to be brought forward. The tutorial will describe how to apply the ten essentials of gamestorming in the context of software design or refinement of existing software systems. The ten essentials of gamestorming include opening and closing; fire starting; artifact generation; node generation; developing a meaningful space; using sketching to elicit ideas; valuing randomness; referral, reframing, improvisation; selection; and trying something new.

Key aspects of user-centred design and iterative evaluation will be described and participants will have an opportunity to practice with wire-framing software for rapid prototyping and engaging in user-centred usability testing ‘on-the-fly’.

The use of personas is commonly applied in user-centred design to provide examples of typical target end-users. Personas are also key to expert usability evaluation, and as such, methods to develop valid personas are crucial in software design. In this tutorial, we will provide participants with a tool kit of methods to elicit and validate personas that have been developed by participants who are part of the target end-user population. Key processes for identifying personas to use for usability

testing and system design will be addressed including persona development via empathy mapping and persona validation via peer feedback.

The tutorial will also focus on how to translate artefacts derived from user-centred design sessions to actual software by using value mapping and using a gamestorming approach called product Pinocchio by which the participatory design team apply human characteristics to software so that the most important features can be identified.