

Tutorial on Contextual Design for Wearable Technology

Abstract

Mobile devices, including wearable computers, are being considered for more and more roles in both work and personal life. If these devices are to succeed they need to be well designed to meet their users needs. Good design is not something that usually happens by chance (as evidenced by the hardware and software available for use today), it is planned and worked toward. This tutorial will introduce and explain contextual design¹ as a method for understanding and modeling the needs and tasks of your users. The design of the hardware and software associated with mobile devices, including wearable computers will be emphasized as examples. Contextual design is a method that focuses on understanding, describing, and modeling an entire work domain or task as the basis of good technology design and usability evaluation of that design. The objective of this tutorial is to provide the participants with an understanding of contextual design, and how to use it, as it relates to the design, development, and evaluation of new technology, both hardware and software. This tutorial is intended for anyone interested in the design and usability evaluation of new technology. Participants will leave this tutorial with a working knowledge of contextual design and how it relates to the design and evaluation of new technology. There are no prerequisites for this tutorial.

¹ Beyer, H. and Holtzblatt, K. (1998). *Contextual Design: Defining Customer-Centered Systems*. New York: Morgan Kaufmann Publishers.

Outline of Tutorial Content

What is contextual design?

Why do we need contextual design?

How do you perform a contextual inquiry?

Steps, models, and examples of contextual design

- Flow model

- Sequence model

- Artifact model

- Cultural model

- Physical model

How do you use the models to create a design?

How do you use the models to support usability evaluation?

Qualifications

Dr. Jennifer Ockerman is a Research Engineer at the Georgia Institute of Technology. She divides her time evenly between the School of Industrial and Systems Engineering and the Georgia Tech Research Institute. Dr. Ockerman has experience teaching the method of contextual design to senior level students in the School of Industrial and Systems Engineering. In addition, she has incorporated the contextual design method into her work and research with wearable computers. Dr. Ockerman has been working in the wearable technology field for approximately 5 years.

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