

Accessibility & Usability

An Introduction to User Experience (UX) Fundamentals

Accessibility & Usability Group
January 31, 2020

Disability & Access Services (DAS)
Student Support & Wellbeing (SSAW)
Division of Student Life (DSL)

Christopher S. LaRoche, Senior User Experience Consultant

Overview

- I - Welcome and Introduction
- II - What is User Experience (UX)?
- III - Methods
- IV - Context and 'It Depends...'
- V - Design - Where Does Design Fit?
- VI - Future
- VII - Bibliography
- VIII - Contact Information

II. Welcome and Introduction

II. What is User Experience (UX)?

Alphabet Soup of User Experience (UX)

Accessibility Architecture Computer Content Customer CX **Design**
Experience Factors Graphic HCI **Human** Inclusive
Information Interaction Product Prototyping Research Strategy
Usability **User** UUser Visual

II. What is User Experience (UX)?



What is User Experience (UX)?

Usability and user experience (UX) are concepts that have existed for generations and evolved from traditional human factors. Over the last few decades, it has become standardized and greatly expanded:

- World War II - instrumentation, personnel selection, and training
- Software and computer hardware industry
- World Wide Web
- Consumer devices
- Medical devices

What is User Experience (UX)?

- Human Factors comes from the field of psychology and focuses on understanding basic biological/human traits and mapping to users' needs
- The fast growth of information technology and the internet have made UX a critical aspect of product and service design
- As the field of usability matured, it evolved into the field of user experience (UX), which focuses on the full end-to-end experience for a user, not just the user's interaction with the user interface

User-Centered Design (UCD)

- An outgrowth of human factors and early usability work was User-Centered Design (UCD)
- Overall, UCD is a framework & method to create products that correctly match a user's needs and expectations
- Products created using UCD principles are more likely to be successful since user's needs are considered and (likely) incorporated from the initial planning stages

User-Centered Design (UCD) - Philosophy

- “Know thy user, know thy user, know thy user”
- “The key to making things understandable is to understand what it’s like not to understand” (Richard Saul Wurman)

User-Centered Design (UCD) - Principles & Benefits

- Ease of learning and relearning (learnability)
- Ease of use (efficiency)
- Consistency within and between products
- First impressions
- Error prevention and recovery
- Memorability
- Satisfaction or likeability
- Flexibility and discoverability
- Improved collaboration for groups of users

What User-Centered Design (UCD) is NOT



http://simpsons.wikia.com/index.php?title=The_Homer&image=TheHomer-png

- Users are not designers and designers are not users!
- It is more than common sense!

User Experience (UX) - Clarity?

User Experience (UX) is an open-ended term and profession that continues to grow and expand

User Experience includes three distinct groupings:

RESEARCH - DESIGN - EVALUATION

III. Methods

User Experience (UX) Methods

Within the field of User Experience (UX), there are numerous methods used to obtain information from users

When the profession was emerging in the 1970s and 1980s, the main method was usability testing. Usability testing proved quite successful as a way to understand the user's perspective on a product - and make our profession visible

The variety of methods expanded as the field evolved from 'just' usability testing to looking at the full user experience.

UX Methods - By Grouping

- *Research* - Understanding what the users need and their goals and behavior
- *Design* - creating and designing the interface or experience the user expects or needs
- *Evaluation* - once the interface or product is in a working state, users can test and evaluate if the interface or product maps to user's mental model and needs

Methods - By Grouping

Here is a sampling of the most common methods used in the field today (divided into the grouping mentioned earlier)

RESEARCH	DESIGN	EVALUATION
User Interviews	Prototyping (all types)	Usability Testing (moderated & un-moderated (remote & in-lab)
Card Sorting & Reverse Card Sorting		Expert Review
Surveys		Heuristic Review
User Observations		Surveys
Storyboarding		
Journey mapping		

Usability Body of Knowledge (BOK)

<http://www.usabilitybok.org/>

The Usability Body of Knowledge (BOK) is a solid resource for information about UX methods and design

Usability Body of Knowledge

Contact | Login Volunteer

HomeWhat is Usability?TopicsAbout the Usability BoKGlossary

Welcome to the Usability Body of Knowledge



The Usability Body of Knowledge is dedicated to creating a living reference that represents the collective knowledge of the usability profession. Such a collection of knowledge for the usability profession will necessarily be broad and inclusive in scope, because our profession is inherently multidisciplinary and draws on a wide range of other practices.

The Usability BoK is derived from published literature, conference proceedings, and the experiences of practitioners accumulated over many years. It is a guide to existing resources, and will evolve as the practice of usability evolves.

Explore the content that is available, and then consider volunteering to add more content!

What you will find in the Usability BoK

Major topic areas include:

Methods

This section of the Usability BoK presents descriptions of methods, including procedures, resources needed, outcomes, appropriate uses, benefits, and costs. These descriptions will form the core of a knowledge base that defines our field and will help communicate usability methods to clients, project managers, and team members. Usability practitioners will also benefit from cross-referencing of related methods and pointers to outside resources for more details.

Design

This section of the Usability BoK presents patterns, principles, and guidelines on interaction design, information design, graphical design, and interface design, which have evolved over time from foundations in HCI and other design disciplines.

Managing UX

As our profession has matured, we have developed common strategies and approaches for dealing with organizational challenges, from marketing usability to integration with existing processes to managing a large and diverse usability department. This section of the Usability BoK presents these practical guidelines using a "Question and Answer" approach.

Other useful sections

What is Usability?


A brief introduction to the subject of usability, how it relates to other User Experience disciplines, and how it relates more broadly to other professional disciplines.

Glossary

Definitions of common terms related to usability and user-centered design. You may also note that certain words on this site have a light underline. Hover over them - they allow you to see glossary definitions without leaving the page.

Printer-friendly version

A Project of



UXPA
The User
Experience
Professionals'
Association

What is Usability?
Topics
About the Usability BoK

We need the help of volunteers to refine and extend the content. If you are interested in contributing, please fill out the volunteer form.

Volunteer Form

Sponsor

Design for Context

■ IV. Context and ‘It Depends’

Context within User Experience (UX)

- Part of the overall issue with understanding usability and the user experience is the impact of the context of use of the product or service
- This is critical - and needs to be understood when working with a product
- This also makes 'standardizing' usability & user experience VERY DIFFICULT

International Organization for Standardization (ISO) - Usability

"[Usability refers to] the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use." ISO 9241-11

“It Depends...”

- The term ‘it depends’ is frequently used when asked if a product is ‘usable’ or a ‘good user experience’
- Again, all experiences are contextual, so often the same product can be ‘usable’ for one person and ‘not usable’ for another. This is one of the more difficult aspects of user experience is to understand how to know if a product or service is indeed usable or a positive user experience
- User research helps determine what aspects of context are most important for a good user experience

V. Design - Where does Design fit?

User Experience (UX) and Design

- As the field has matured and gained acceptance within organizations, the importance of design has also become crucial to the user experience profession
- As the user experience field evolved and usability testing and user research became well known, design's influence expanded as important to the user experience
- Today, design is rightly seen as a critical component of the user experience field

User Experience (UX) and Design

- Using the three main groupings of research, design, and evaluation allows the user experience professional involvement with the product development through the entire product or service life cycle
- This is a recent development and a testimony to the importance & growth of the field, as only a decade or two ago, the best we could hope was a part in product evaluation (mostly usability testing)

VI. Future

So, How Bright is the Future?

VERY BRIGHT!

- The user experience is now an important concept in many products. Products need to deliver more than just a ‘good interface’
- With the increasing visibility and importance of user experience, the idea of being strategic and the emergence of ‘UX strategy’ is continuing
- As design becomes more a part of the overall user experience, our field itself becomes bigger and more valuable

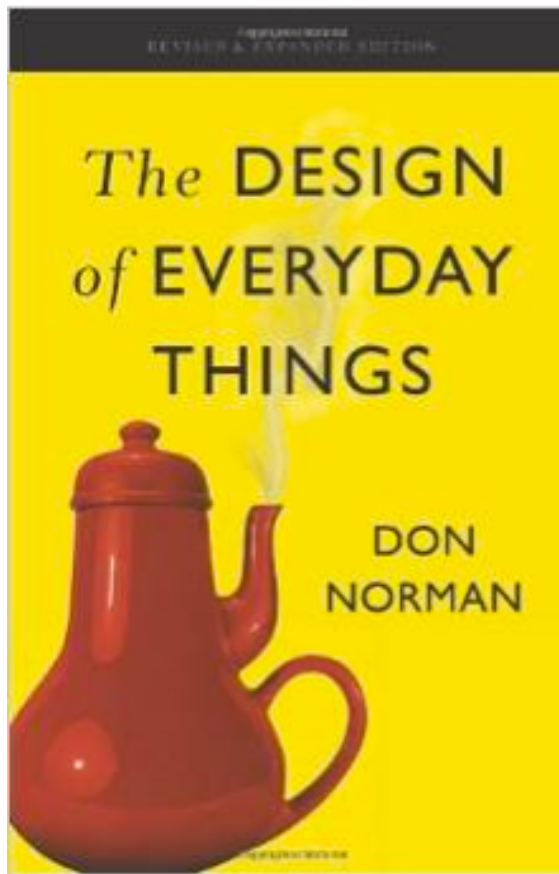
So, How Bright is the Future?

- Recently the term of customer experience or “CX” has evolved and overtook the term and idea of User Experience in some industries. This is a natural evolution and often they can have similar meanings and goals
- Also the term experience design is now evolving as a further term to be all and much more encompassing regarding the user experience

VII. Bibliography

Foundational UX Book

Design of Everyday Things, (Revised & Expanded Edition)
Donald Norman



VIII. Contact Information

Chris LaRoche - Bio



Chris LaRoche is a senior user experience consultant at the Massachusetts Institute of Technology (MIT), focusing on researching and evaluating the accessibility & usability of Web sites. He is also a Senior Lecturer at the College of Professional Studies (CPS) at Northeastern University, where he has taught for several decades.

Email: laroche@mit.edu

Web Site: <http://ux.mit.edu>