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)

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Alphabet Soup of User Experience (UX)
II. What is User Experience (UX)?

http://upassoc.org/usability_resources/about_usability/images/vectors.gif
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
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

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

<table>
<thead>
<tr>
<th>RESEARCH</th>
<th>DESIGN</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>User Interviews</td>
<td>Prototyping (all types)</td>
<td>Usability Testing (moderated &amp; un-moderated (remote &amp; in-lab)</td>
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<tr>
<td>Card Sorting &amp; Reverse Card Sorting</td>
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<td>User Observations</td>
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<td>Storyboarding</td>
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<td>Journey mapping</td>
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The Usability Body of Knowledge (BOK) is a solid resource for information about UX methods and design.

http://www.usabilitybok.org/

The Usability Body of Knowledge (BOK) is dedicated to creating a living reference that represents the collective knowledge of the usability profession. This is a collection of knowledge for the usability profession, and knowledge is distributed among users, organizations, and clients. The Usability Body of Knowledge (BOK) is a collaborative effort involving experts in the field of usability, usability professionals, and other stakeholders. It provides a comprehensive overview of usability methods and best practices, along with definitions and guidelines for using these methods effectively.

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IV. Context and ‘It Depends’
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.
"[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?
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
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.
Foundational UX Book

*Design of Everyday Things*, (Revised & Expanded Edition)
Donald Norman
VIII. Contact Information
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.

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