

UX Design Fundamentals

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Class Objectives

Learn the FUNdamentals

UX Process - discoverability, ideation, prototyping, testing, implementation

Learn about the hard skills needed

Wireframing, Prototyping, Design Tool Efficiency, User Research, Agile knowledge and this class!

Learn about the soft skills needed

Communication, Empathy, Business Meetings, Presenting Work

Learn about the tools needed

Sketch, Adobe XD, Invision, Axure, and anything that allows you to wireframe

Work on your own UX Project

We will walk through a UX project start to finish and give you a start on a portfolio

Learn how to a job in UX

Job titles and descriptions, portfolio examples, and networking tips



About Me

I went to WVU and got my undergrad many moons ago



1st Job

Writing Spider - Web Designer

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    <th>Lastname</th>
    <th>Age</th>
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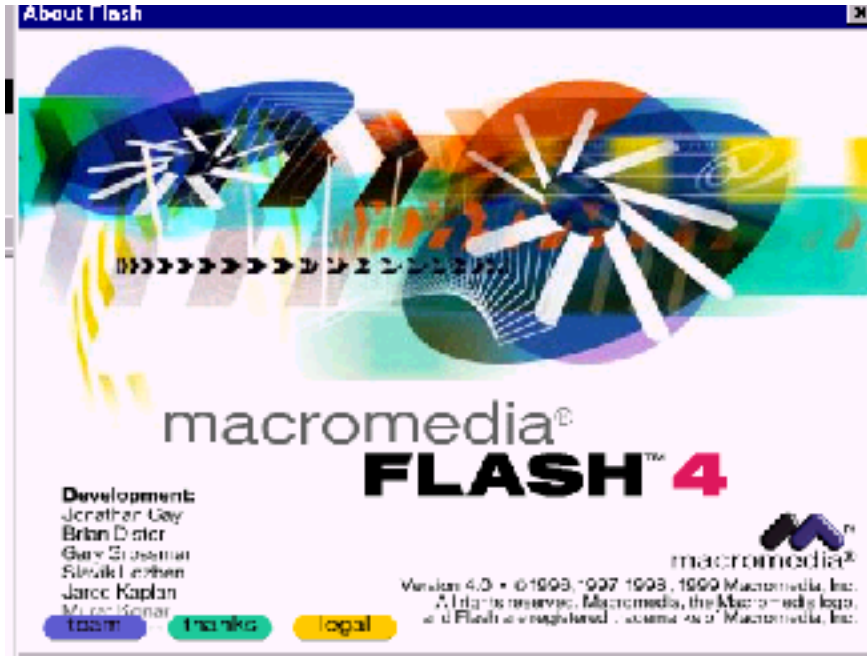
About Me

Started my own web firm on the side



2nd Job

Mecklenburg County Park and Recreation - Webmaster





About Me

Decided to go corporate

3rd Job

Randall-Reilly - Director of User Experience



Currently ...

Bank of America - Senior User Experience Designer

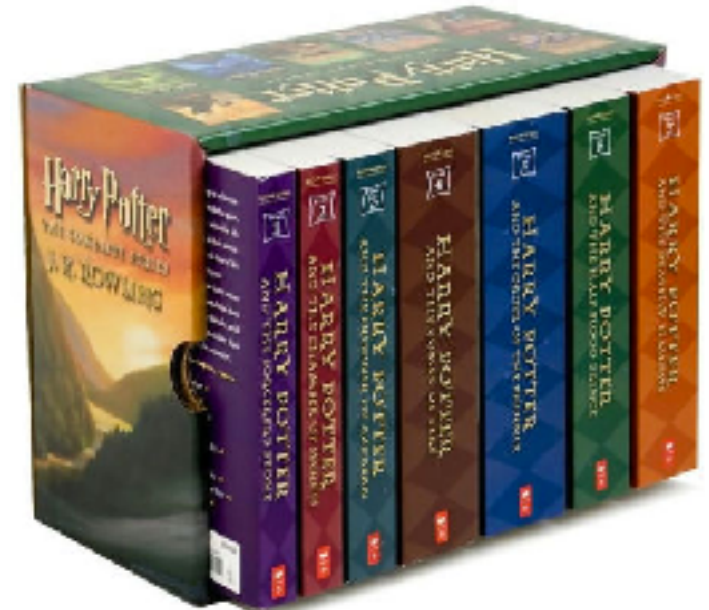




About Me

I like ...

Guitars, Karaoke and Harry Potter books, not in that order.





What about you?

Who are you?

What do you do?

What are you hoping to get out of the class?



What does User Experience (UX) mean to you?



What is UX?

ISO

“A person’s perceptions and responses resulting from the use and/or anticipated use of a product, system or service.” - (ISO 9241-210:2010, subsection 2.15)

Wikipedia

User experience design (UXD or UED) is the process of enhancing customer satisfaction and loyalty by improving the usability, ease of use, and pleasure provided in the interaction between the customer and the product.



"Design is not just what it looks like and feels like.
Design is how it works." - Steve Jobs

“Any product that needs a manual to work is broken.”
– Elon Musk

“A user interface is like a joke. If you have to explain it, it’s not
that good.” – Martin LeBlanc



"“No. I don’t think the Empire had Wookiees in mind when they designed it, Chewie.” – Han Solo to Chewbacca about the Tydirium imperial shuttle they’re flying





History of UX

1900s - Fredrick Winslow Taylor

Wrote “The Principles of Scientific Management”

Theory that systematic management is the solution to inefficiency

Experimentation and testing applies to the field of UX.

1940 - Kiichiro Toyota

Toyota and human input.

He created a system that allowed anyone on the production to pull a cord to stop the line if they noticed something wrong or they had an idea to improve the system

Feedback and improvement applies to field of UX.

1955

Henry Dreyfuss

American industrial engineer known for designing and improving the usability for some of the most iconic consumer products

Hoover vacuum cleaner

Table top telephone

Based on Common sense and scientific approaches

He wrote what is considered the first UX book “Designing for people”

“When the point of contact between the product and the people becomes a point of friction then the designer has failed”

Focus on usability and iteration applies to field of UX.

1966 - Walt Disney - the first UX designer?

Obsessed with creating magical, immersive, near perfect user experiences

“Know your audience, wear your guest’s shoes, and communicate with color, shape, form and texture”

Observation and empathy are key to field of UX

1970s - Xerox, apple and the PC era

PARC research center

Graphical user interface, the mouse

Set the tone for personal computing as we know it today

Innovation and outside the box thinking applies to field of UX

1984 - Apple the original macintosh

featured a graphical user interface, built-in screen and mouse

iPod - 2001

iPhone - 2007

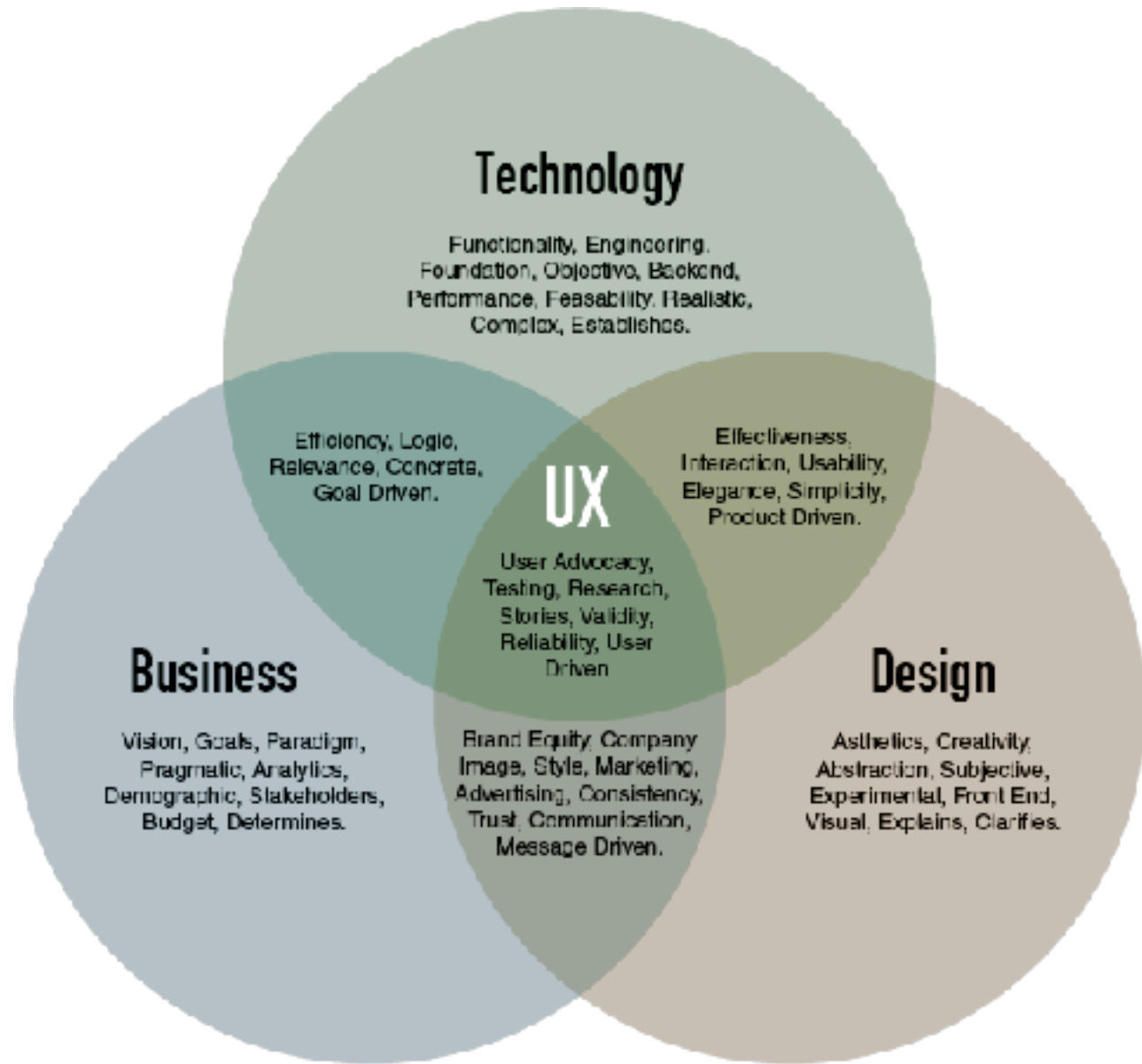
Minimalist design and simplicity applies to field of UX

1995 - Don Norman gives UX design a name

Joined the team at Apple as a user experience architect

“I invented the term b/c I thought that human interface and usability were too narrow. I wanted the term to cover all aspects of the person’s experience with a system, including industrial design, graphics, the interface, the physical interaction and the manual”

1988 - The “Design of Everyday things” by Don Norman considered the bible of UX



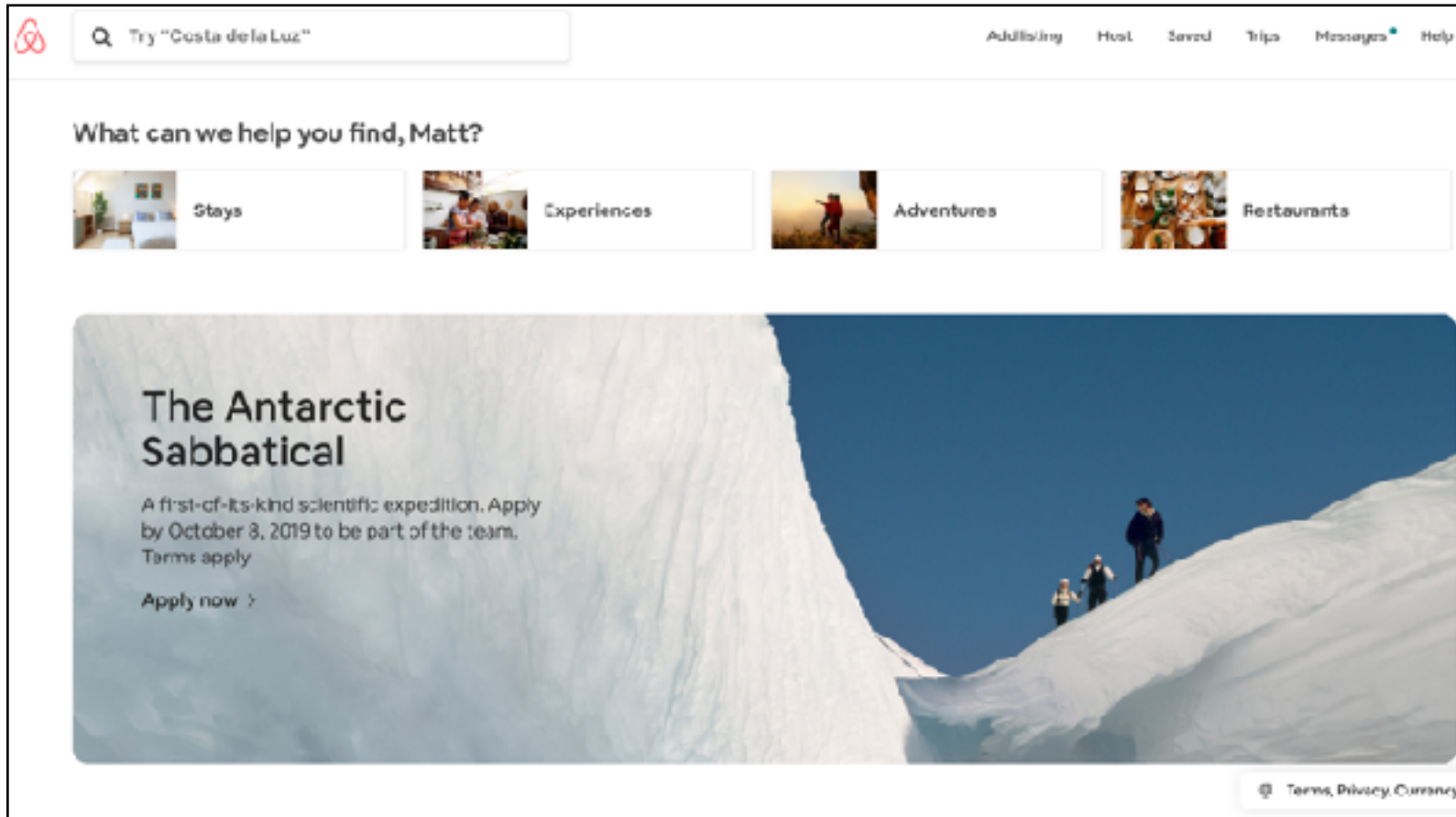


Benefits of UX Design

The benefits of UX design are two-fold:

UX design improves the experience for the user of that product.

Good user experience increases the adoption of that product.



Airbnb increased adoption

- Easy for hosts to list spaces
- Easy for guests to find places

The founders improved UX by **talking to users** and actually moved to NYC to be closer to their initial user base.



Goals of UX Design

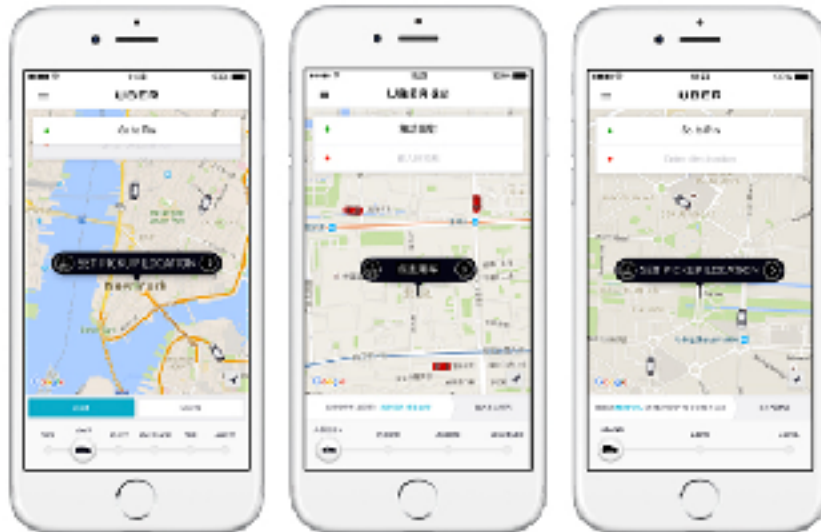
The goals of UX design include:

1. To understand the goals and context-of-use of potential users or customers.
2. To use that understanding to design a product, service, or app within the constraints of business and technology.

Useful: You need to solve a user's need; a problem that users actually have.

Usable: Usability needs to be clear so that users understand your product/service.

Delightful: It's no bad thing if a user enjoys using your product.



Uber is a good example of **creating a usable product that delights.**

They didn't own a single car.

Business that is based solely on **improving user experience and eliminating friction.**



UX Today

Continues to involve.

Artificial intelligence to voice technology, virtual reality to designing without interfaces

We no longer have time to read through pages and pages of user guides to figure out how something works.

The UX designers job is to create something so intuitive that you need minimal instructions, in the software world that means the goal is to design software that doesn't need a manual,





Bad UX







Good UX

NYC subway system

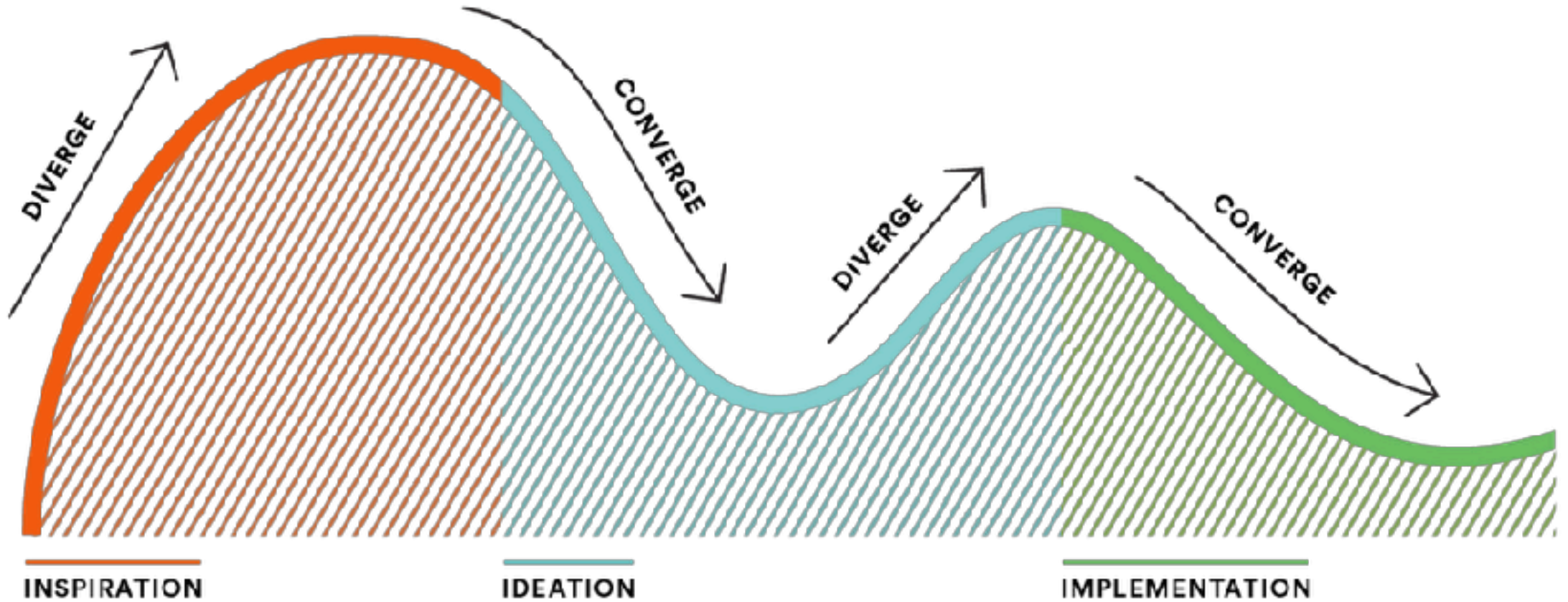
<https://www.ceros.com/originals/massimo-vignelli-nyc-subway/>





Design Thinking Model

<https://www.ideo.com/pages/home>





Appendix





Usability Heuristics

#1: Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

(Read full article on [visibility of system status](#) and watch 3 min. [video on the visibility heuristic.](#))

#2: Match between system and the real world

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

(Read full article on the [match between the system and the real world](#) and watch 3 min. [video on the real-world heuristic.](#))

#3: User control and freedom

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

(Watch 2-min. [video on the user control heuristic.](#))

#4: Consistency and standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow [platform conventions](#).

(Watch 3-min. [video on consistency & standards.](#))

#5: Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

(Read full article on [preventing user errors](#) and watch 3 min. [video on error prevention.](#))

#6: Recognition rather than recall

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

(Read full article on [recognition vs. recall in UX](#) and watch 3 min. [video on recognition vs. recall.](#))

#7: Flexibility and efficiency of use

Accelerators — unseen by the novice user — may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

(Watch 3 min. [video on Flexibility and Efficiency of Use.](#))

#8: Aesthetic and minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

(Watch 2 min. [video on Aesthetic and Minimalist Design.](#))

#9: Help users recognize, diagnose, and recover from errors

[Error messages](#) should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

(Watch 2 min. [video on helping users overcome errors.](#))

#10: Help and documentation

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

(Watch 3 min. [video on help and documentation.](#))



More Quotes

“People ignore designs that ignore people” –Frank Chimero

“The goal of a designer is to listen, observe, understand, sympathize, empathize, synthesize, and glean insights that enable him or her to ‘make the invisible visible.’ –Hillman Curtis

“Styles come and go. Good design is a language, not a style.” – Massimo Vignelli

“It is not enough that we build products that function, that are understandable and usable, we also need to build products that bring joy and excitement, pleasure and fun, and, yes, beauty to people’s lives.” –Don Norman

“If you think good design is expensive, you should look at the cost of bad design.” –Ralf Speth

“If you do it right, it will last forever.” –Massimo Vignelli

“If I had asked people what they wanted, they would have said faster horses.” –Henry Ford

“Design is a solution to a problem. Art is a question to a problem.” –John Maeda

“Design is more important than technology in most consumer applications.” –Dave McClure

“Above all, think of life as a prototype. We can conduct experiments, make discoveries, and change our perspectives. We can look for opportunities to turn processes into projects that have tangible outcomes. We can learn how to take joy in the things we create whether they take the form of a fleeting experience or an heirloom that will last for generations. We can learn that reward comes in creation and re-creation, no just in the consumption of the world around us. Active participation in the process of creation is our right and our privilege. We can learn to measure the success of our ideas not by our bank accounts by their impact on the world.” –Tim Brown

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More Quotes

“There’s the whole Buddhist thing about the essence of a bowl being its emptiness—that’s why it’s useful. Its emptiness allows it to hold something. I guess that means that design must talk about something else. If you make design about design, you’re just stacking bowls, and that’s not what bowls are for.” –Frank Chimero

“No. I don’t think the Empire had Wookiees in mind when they designed it, Chewie.” –Han Solo to Chewbacca about the Tydirium imperial shuttle they’re flying

“Any product that needs a manual to work is broken.” –Elon Musk

“A user interface is like a joke. If you have to explain it, it’s not that good.” –Martin LeBlanc, Iconfinder

“Design isn’t crafting a beautiful textured button with breathtaking animation. It’s figuring out if there’s a way to get rid of the button altogether.” –Edward Tufte

“As we decrease uncertainty, we give ourselves permission to increase fidelity.” –Jonathan Irwin

“The most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.” –Mark Weiser

“Good design is obvious. Great design is transparent.” –Joe Sparano



Resources

People to follow

Jakob Nielsen
Don Norman
Bruce Tog
Luke Wilson
Jared Spool

Books to read

The design of everyday things - Don Norman
Lean UX
Don't Make Me Think
100 things

Websites to follow

asktog.com
invision's blog
nngroup.com
uxdesign.cc
<https://www.uxbooth.com/>
<https://uxmag.com/>

Meetups to attend

ixDA Meetup UX

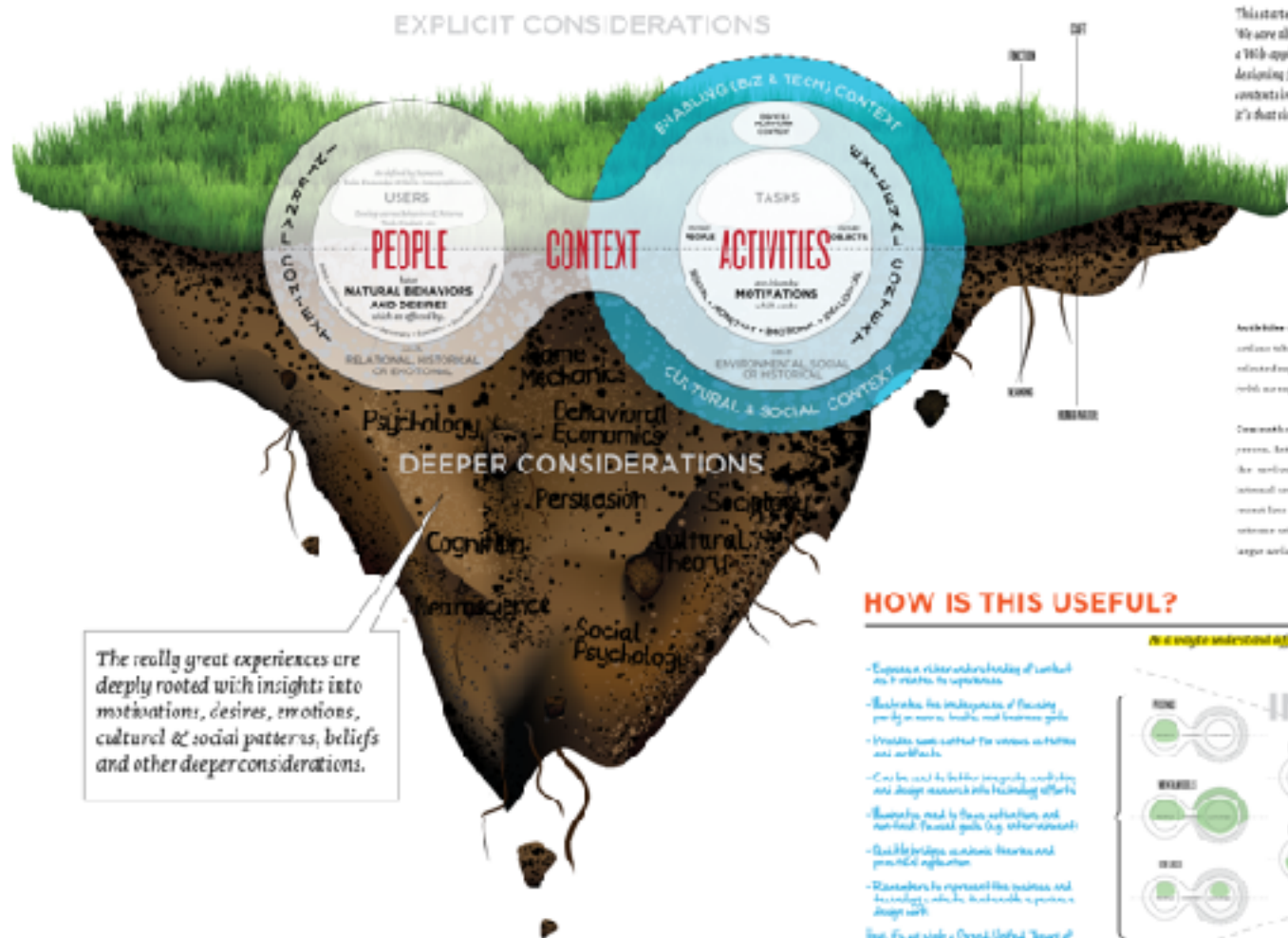
Conferences to attend

So many

PodCasts

Charlotte has a strong UX community - get involved!
The best way to get a job, network and show interest!
Do personal projects and build a portfolio.

“Designing for experiences is fundamentally about people, their activities, and the context of those activities...”



This starts as a simple phrase to explain what it is we do when we design for experiences: We are about people, their activities and the context of those activities. Whether designing a Web application or a new office building, simply ask: Who are the people we are designing for? What is the activity (or activities) they are trying to do? And what are the contexts in which they are trying to operate? And 'people' can be an individual or group. It's that simple. At least on the surface...

People refers to real individuals or life groups and the things that make us who we are, independent of any activities. This includes learned and natural behaviors, desires, beliefs, moods or moods not yet verbalized as well as related things like beliefs, customs, preferences, emotions, personality and more. In respect to specific activities, we do assume roles such as user, customer, consumer, fan, stakeholder, partner or employee. But in official notes by these roles, we also consider duties of those roles.

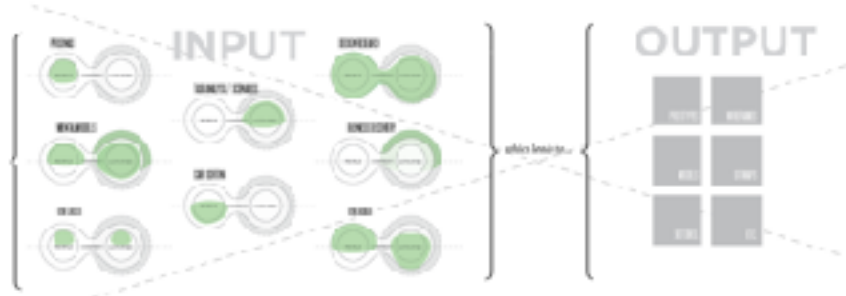
Activities does not mean things people do. This can be a verb-focused view, but might also include entities when the user's attention is directed toward something apart (e.g., entertainment-related experiences). Activities can also be things things done or made so that activities may include something and/or use it.

Contexts are defined as any information that might affect the end-user's behavior or a process. Internal contexts are knowledge directly affecting the end-user itself and might include the environment, social groups, historical contexts or simply the constraints of particular activities. Internal contexts are things things affecting the person's behavior or mental state, such as the recent loss of a job or being related by a child death. From this perspective, it's worth noting that the external context will include the business and technology environments, as well as the social and cultural context in which activities occur.

HOW IS THIS USEFUL?

- Expresses richer understanding of context and its relation to experiences
- Illustrates the importance of finding people or users, beliefs and business goals
- Provides user context for various activities and artifacts
- Can be used to better integrate marketing and design research into business efforts
- Illustrates need to focus activities and methods toward goals (eg. information)
- Qualifies business contexts, interests and potential application
- Distinctions to represent the business and technology contexts, business or process design needs
- Using it's not under a Grand Unified Theory of Everything!

As a single understand of the input, activities and objectives:



THE CLIFFS NOTES VERSION:



WHAT ABOUT...?

"Gross Channel Scenario"

While acknowledging there may be several "channels" to consider...



Social Activities

Collaborating with others like activity, often to reach objectives...



But the activity involves or facilitates a high degree of interaction and social participation, that the people/groups of the user/role/role are engaged in the activity and/or the activity is a social activity.



As a single organize patterns for project kick-off meetings:

