

# UX Design

A Crash Course

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**What is UX?**





# UX Careers

Cory Lebson describes User Experience as an umbrella term, but umbrellas didn't look good on the cover. So, he describes UX as cheesecake, every slice tastes different, but they all use cheese.

We're starting here so that we can define UX before getting into practical applications.

## The UX Careers Handbook



Cory Lebson

 CRC Press  
Taylor & Francis Group  
A CHAPMAN & HALL BOOK

<https://uxcareershandbook.com/>



# Visual Design

You'll find a lot of UX titles to be fairly self explanatory, being easy to understand is kinda UX's forte.

Visual designers work with layout and color schemes to guide users through a system. You'll find visual design used in games whenever the developer is trying to guide you in a certain direction. Not always as obvious as Mirror's Edge

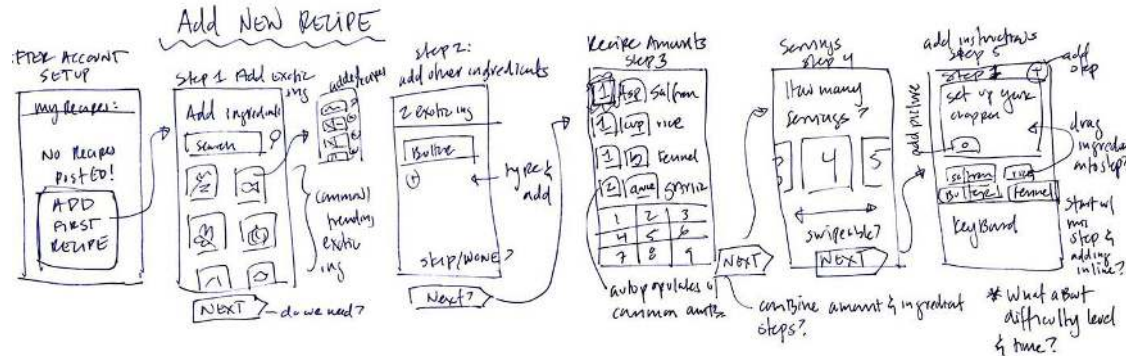


<https://www.rockpapershotgun.com/2009/01/20/wot-i-think-mirrors-edge/>

# Interaction Design

Interaction designers create the user's workflow. They utilize prototyping software to develop the workflow before going into production.

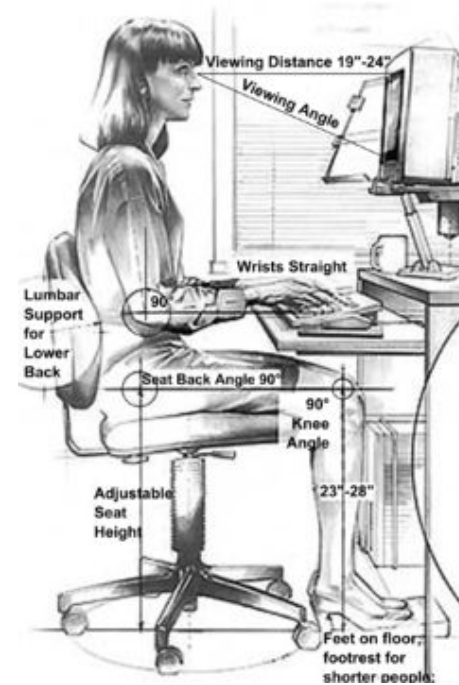
Interaction designers will take the researchers findings and translate them into workable, user-friendly solutions.





# Human Factors

Human Factors Designers focus on the physical human element. This involves understanding hand size for mobile apps, hearing and vision impairments, whether the user is sitting or standing or on the move. Ergonomics plays a big role in user enjoyment, take a look at the proliferation of gaming chairs for long gaming sessions.

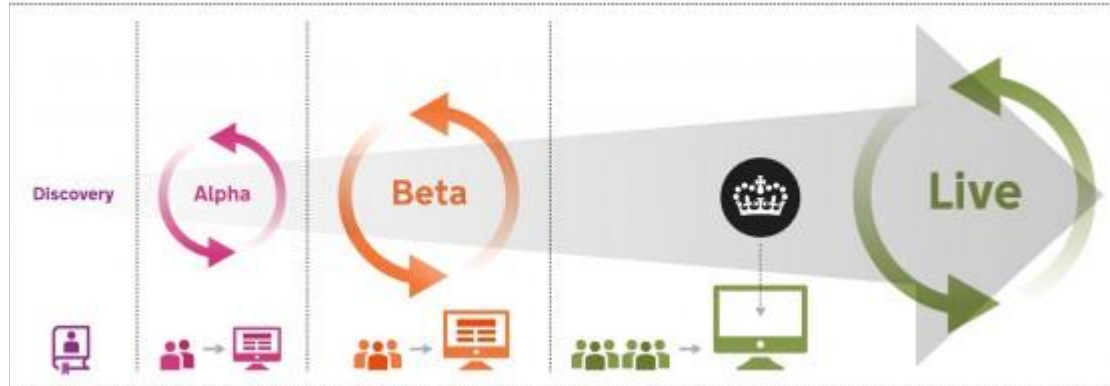


[https://en.wikipedia.org/wiki/Human\\_factors\\_and\\_ergonomics](https://en.wikipedia.org/wiki/Human_factors_and_ergonomics)



# User Research and Evaluation

User Researches are needed at all stages of development, before production to research potential user base, middle to test iterations, and end to test final product before release. They do some of the testing themselves in the form of heuristic evaluations, but mostly they design the testing procedure then recruit real users to use the product. They observe user interactions to see where they get tripped up or validate when things go according to plan.





# User Stories



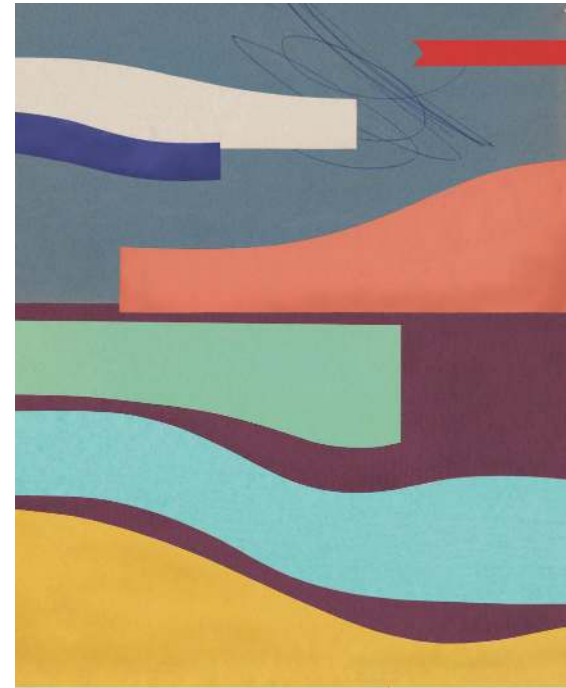




# What are user stories?

User stories focus on the development of the project on the end user. Rather than finding a user for a product, user stories allows developers to pick their end user and tailor the experience to their needs and wants.

The User's Journey is a great resource on this subject.



**THE USER'S JOURNEY**  
Storymapping Products That People Love  
Donna Lichaw Foreword by Jonathon Colman

 Rosenfeld



# Why use them?



User stories are an exercise in empathy in addition to product planning. Users purchase software, whether it's games or a mobile app, because they are trying to fill a need or want. In order to be the developer that fulfills that need or want, the developer needs to know their users.

<http://isha.sadhguru.org/blog/yoga-meditation/demystifying-yoga/confusion-and-clarity-on-the-spiritual-path/>



# What game is this?

Bill is a hardcore gamer who loves a challenge, even if it takes hundred tries to progress. The sheer act of overcoming is rewarding enough and he doesn't need exposition getting in the way of the next challenge. He hates casual games and thinks that anyone who can't handle the difficulty curve should just git gud.

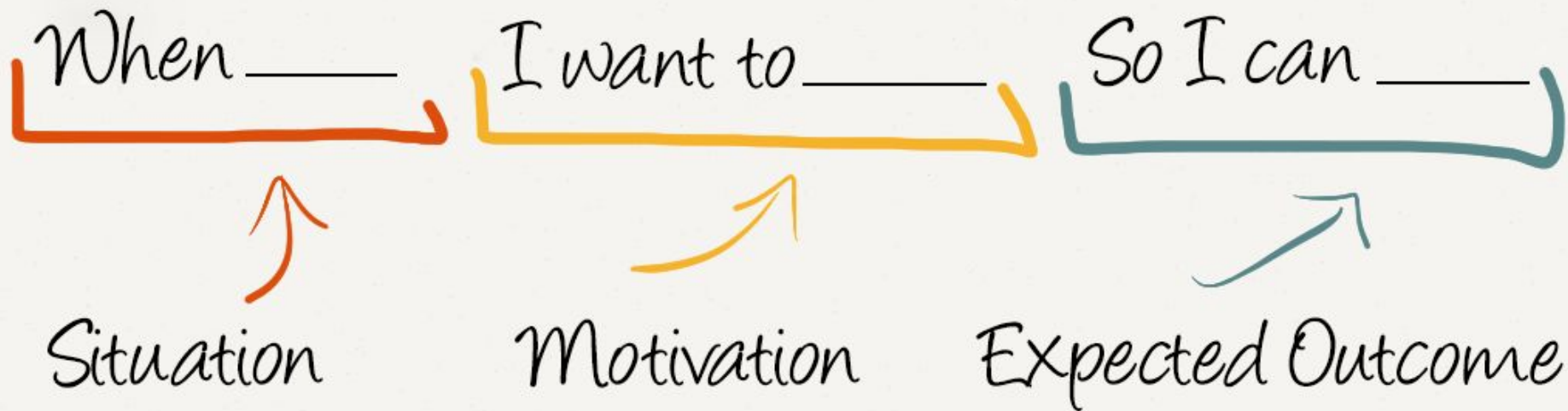




## How about this one?

Tammy loves retro games like Megaman and Zelda for their simple and engaging game mechanics. She wants an exploration game that focuses on discovering new areas and finding hidden treasures. She prefers skill development rather than leveling as a means for engaging greater challenge.





<https://www.productmanagerhq.com/2014/10/what-is-a-user-story/>



The bare bones model of a user story.



# Writing user stories

Writing user stories takes qualitative research. Start by practicing on games you like or on games you are trying to emulate certain aspects of. Read reviews, both positive and negative, and pick a few things out:

- What did the player want?
- What did they get?
- How did they felt about it?

After you get a few answers to each of these questions you can develop the stories around them using the situation-motivation-outcome model.



# Heuristic Evaluation





# Heuristics

- Visibility of system status
- Match between system and the real world
- User control and freedom
- Consistency and standards
- Error prevention
- Recognition rather than recall
- Flexibility and efficiency of use
- Aesthetic and minimalist design
- Help users recognize, diagnose, and recover from errors
- Help and documentation



# Visibility of System Status

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



<http://jux.io/examples-of-the-heuristics-of-usability-in-practice/>

<https://www.nngroup.com/articles/ten-usability-heuristics/>



<https://www.pinterest.com/pin/93801604710031129/>

# 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.

<https://www.nngroup.com/articles/ten-usability-heuristics/>



[https://vignette3.wikia.nocookie.net/halo/images/7/7d/Frunner\\_door\\_common.jpg/revision/latest?cb=20090716105349](https://vignette3.wikia.nocookie.net/halo/images/7/7d/Frunner_door_common.jpg/revision/latest?cb=20090716105349)



# 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.

<https://www.nngroup.com/articles/ten-usability-heuristics/>



<http://www.howcanvideo.com/tutorial/the-spoiler-free-beginners-guide-to-zelda-breath-of-the-wild/>

# Consistency and Standards

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



<http://www.it.bton.ac.uk/staff/lp22/gallery/RichardEdgsonHall%20Of%20Shame.htm>

<https://www.nngroup.com/articles/ten-usability-heuristics/>



# 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.

This heuristic is less relevant to games as errors in games have gameplay significance. Here you want to give players the knowledge and experience to handle situations as they arise. No one likes a cheap death. Unless you are playing Dark Souls.

# 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.



<https://www.brokenjoysticks.net/2015/11/18/every-fps-feels-exactly-the-same/>

<https://www.nngroup.com/articles/ten-usability-heuristics/>



# 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.

In games these can be as simple as allowing for customizable controls or skipping tutorials.



# 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.



[http://play.mob.org/game/altos\\_adventure.html](http://play.mob.org/game/altos_adventure.html)

<https://www.nngroup.com/articles/ten-usability-heuristics/>



# 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.

This where some games have implemented a way to skip hard levels if a player struggles too much. Another method is to give players hints, especially after they fail at a task numerous times.

<https://www.nngroup.com/articles/ten-usability-heuristics/>

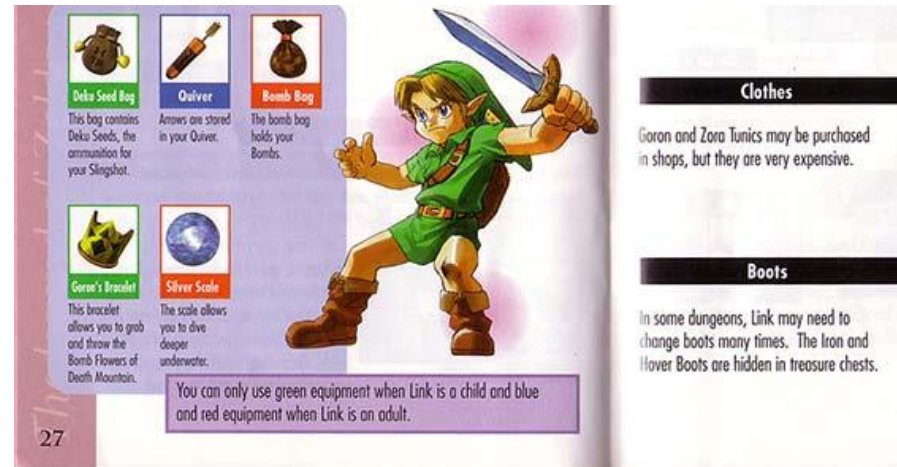


<http://cjrtools.org/mac/games/files/adventure-chronicles.html>

# 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.

<https://www.nngroup.com/articles/ten-usability-heuristics/>



<http://theegg.net/wp-content/uploads/2015/03/zelda-manual-header.jpg>



# User Testing





# When to begin testing with users

Right away. If you have an idea, prototype it as soon as possible and get someone to play it.

You want to be testing near constantly in order to catch errors, glitches, or any other usability issues.

You want to test with real users as often as possible, you and your team are too close to the project and may wave off big issues due to being used to them.



# How Many Test Users in a Usability Study?

5

Yes, five. You can find about 80% of your issues with just five users running through a test.



# What kind of data to obtain

You want to obtain both qualitative and quantitative data.

Quantitative data will mostly be for demographic purposes when testing the users. However, users will all have different systems, so testing and gaining quantitative data on different platforms will go a long way in tailoring the experience for more users.

When obtaining qualitative data, it is better to observe the user than survey them after. They may forget some aspect that went smoothly or brush off small nuisances as unimportant.

## **The User's Journey: Storymapping Products That People Love**

<http://rosenfeldmedia.com/books/storymapping/#blog>

## **10 Usability Heuristics for User Interface Design**

<https://www.nngroup.com/articles/ten-usability-heuristics/>

## **How Many Test Users in a Usability Study?**

<https://www.nngroup.com/articles/how-many-test-users/>

## **User Testing**

<https://www.usertesting.com/>

# Thank You!

You can find more of my work at:

[www.thomasmrigney.works](http://www.thomasmrigney.works)

