# User Experience Design

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# User + Experience

**What does the word 'experience' mean to you?**

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UX is what, where, when, why, and how someone uses a product, as well as who that person is.

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It's important to consider the user's experience so you can…

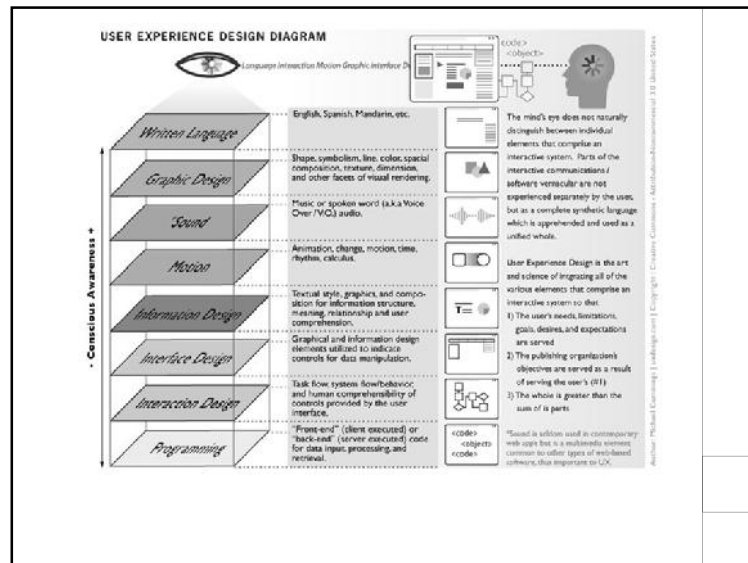avoid this...

and this...

and therefore this...

## User Centered Design

Taking into account the user's needs at every stage of the product life cycle.

It is an interdisciplinary process.

## Why is UX important?

- It's a competitive environment and complex life.
- You want to create a good product.
- Satisfy users. Meet their needs.
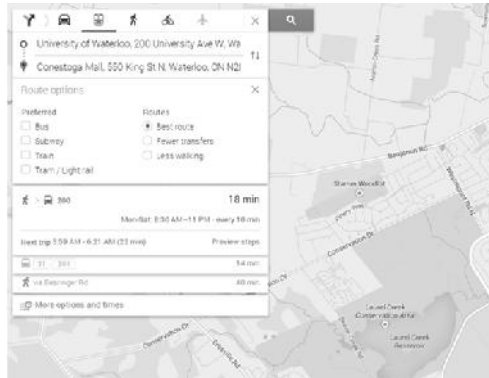- Satisfy stakeholders. Meet business goals.

## Why is UX important?

Designing a good product requires that you completely understand its potential user – needs, wants, motivations, perceptions, attitudes and behaviours.
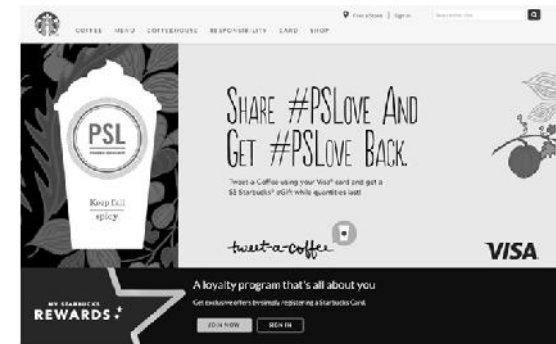
Key principles of
User Centered Design

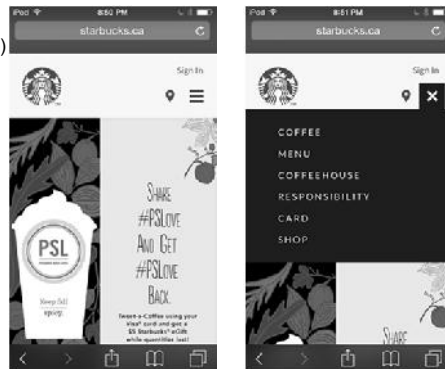## 1. Design for the users and their tasks

**Example:**
Google Maps



## 2. Be Consistent

**Example:**
Starbucks



## 2. Be Consistent

**Example:**
Starbucks (iOS app)



## 3. Use simple and natural dialogue

**Example:**
Lumosity (iOS app)

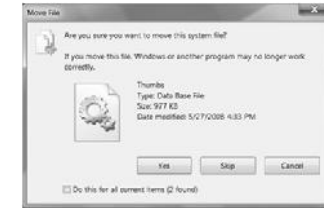## 4. Reduce unnecessary mental effort by the user

**Example:**
Auto-fill

**Example:**
Recently viewed
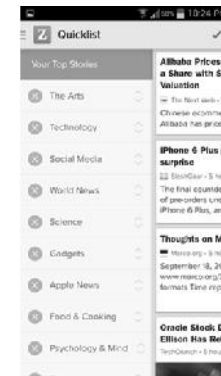
## 5. Provide adequate feedback

## 6. Provide adequate navigation mechanisms
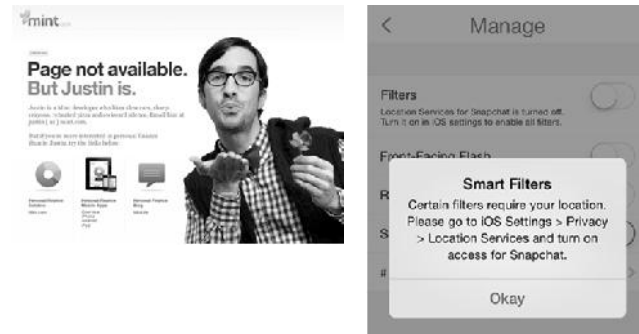
## 7. Let the user drive - give them control

**Example:**
Zite

## 8. Present information clearly



## 9. Be helpful



## 10. Reduce errors



Things to consider when designing for mobile

## Touch Targets

People interact with touch-based user interfaces with their fingers.
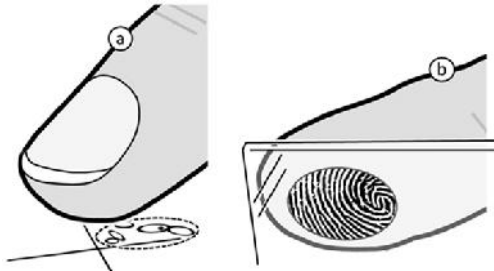


## Touch Targets

User interface controls have to be big enough to capture fingertip actions without frustrating users with tiny targets and possible errors.

## Touch Targets

When targets are placed too close to each other, users can easily hit the wrong one.



**Index finger** and **thumb** overlap on to neighboring targets when they are grouped. User can accidentally trigger unintended actions.

## Touch Targets

- An MIT Touch Lab study of Human Fingertips to investigate the Mechanics of Tactile Sense found that the average width of the index finger is 1.6 to 2 cm (16 – 20 mm) for most adults.

- This converts to **45 – 57 pixels**, which is wider than what most mobile guidelines suggest.

## Gestures

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## Gestures

- The amount of touching we do with our devices can have a physical implication and can affect the overall user experience with devices and applications.

- Gesturing can be tiring.

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## Gestures

- Every touch, every swipe, every pinch and every zoom requires quite a bit of physical motion.

- Your hand moves while the rest of the arm is working to stabilize the wrist, as the other arm steadily holds the device stable.

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## Gestures

- This is a lot of exertion compared to the mouse, where only the hand moves and the wrist rests on a wrist pad and the other hand is not used at all.

- The subtle "cost" of touching the device can have a negative impact on how users feel about the application.

## Gestures

- Eliminate unnecessary gesturing and movement.
  - o Remember the user's prior selection
  - o Make it easy to skip ahead, especially when lists and sequences may be long.
  - o Take advantage of device sensors to understand context (such as time, place, movement, light and sound levels).

## Gestures

- It's important to remember that not every user will know when to user a particular gesture.

- When possible, provide cues, instructions or an alternate means to accomplish each task.

## Testing your designs

## Usability Testing

- Used to evaluate a product by testing it with representative users.

- In the test, these users will try to complete typical tasks while observers watch, listen and takes notes.

## Usability Testing

- Goal is to identify any usability problems, collect quantitative data on participants' performance (e.g., time on task, error rates), and determine participant's satisfaction with the product.

- Effectiveness, efficiency and satisfaction.

## Usability Testing

- You should test early and test often.
- Usability testing lets the design and development teams identify problems before they get coded.
- The earlier those problems are found and fixed, the less expensive the fixes are.

## What is guerilla testing?

## Guerilla Testing

- Quick, low cost, usability testing "in the wild"
- Can be conducted anywhere
- 3 - 5 participants
- 5 - 10 minutes each
- Low - high fidelity prototype

Why conduct guerilla testing?

To understand the users
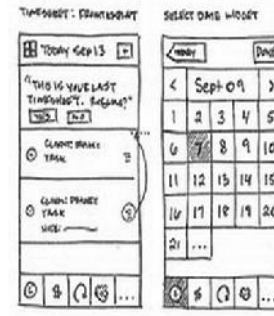
To collect feedback and evaluate design

When to conduct it?

## As soon as the idea is out of your head



## ...with any type of prototype

Low-fidelity prototype

Med to High-fidelity prototype



## How to plan a guerilla test?

## 1. Identify test goal

• Determine what is the purpose of doing the test.

*Example goal statement:*
"Assess the latest version of the mobile video player."

## 2. Identify target participants

- Determine participant characteristics.

*Example participant screener:*
- Users must own a smartphone.
- Users must access mobile video content at least once a week.

## 3. Identify test objectives

- Determine what you're trying to learn.
- What questions are your trying to answer?

· *Example test objectives:*
- Can users easily and effectively use the video player?
- Can users interact with the scrubber?
- Do users understand how to share a video

## 4. Create tasks

- Create user tasks that will allow you to assess your objectives.

*Example tasks:*
- Play a video and view comments
- Share a video

## 5. Create scenarios

- Create realistic scenarios of when users may do those tasks.

*Example scenarios:*
- Let's say a friend told you about a great comment Rob Ford made at the end of this video clip. Can you play the clip and go to the comment?

- You loved the clip and want to send it to another friend. Can you show me how you would do that?
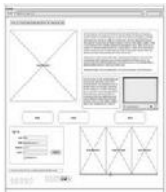
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## 5. Prepare the prototype

- Create a prototype that can be tested.

*Example of prototypes:*



**Sketches**     **Wireframes**     **Interactive prototype**     **Live site/app**

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## Let's try it!

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## Keep in touch!

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## Thanks and Good luck!