

# Introduction of UX Multidevice Design

- Planning your Multidevice Project
- Content Strategies
- Designing for touch devices
- Designing Multidevice Experience

# Evolution

The way we access information has changed dramatically over the last few years, and it's still accelerating.

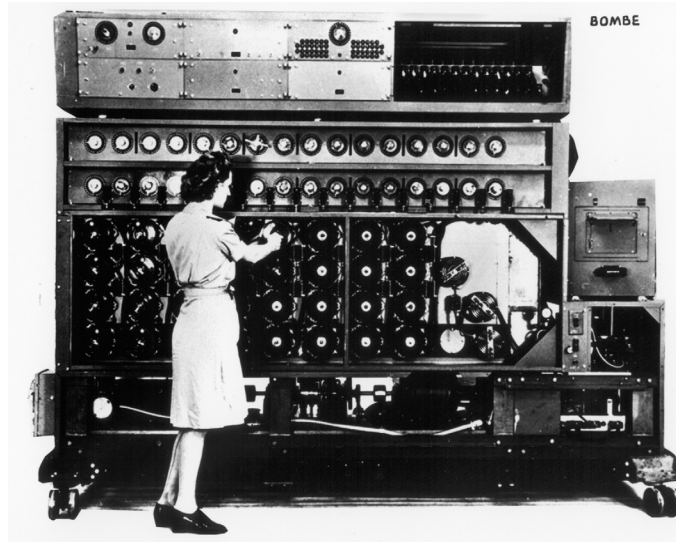
Smartphones and tablets are integral part of our life and responsive web design is the game-changer we needed to take into account the ever-increasing variety of screen sizes.

From Complex Number Calculator (CNC) to iPads and smartphones that we use today, technology has advanced ahead.

Now, with voice UIs becoming more popular, the rulebook is changing once again. User expectations, meanwhile, have grown just as fast, and so developing an effective UX strategy that works across all these devices is a major challenge.



CNC



Bombe

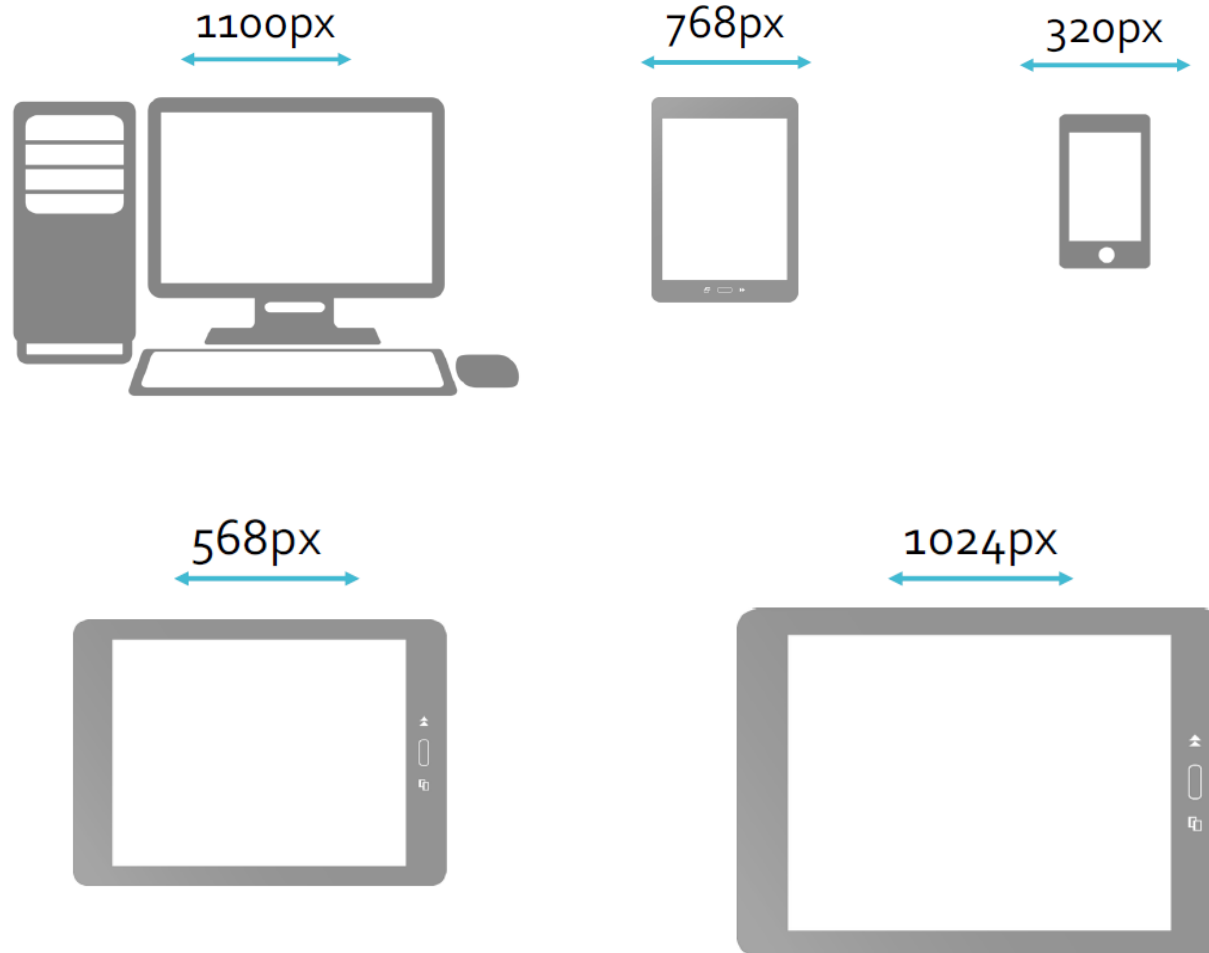


Apple Macintosh



iOS and Android

# No limit to the devices and platforms people use to access web



No limit to the devices and platforms  
people use to access web



# Framework of 4 Cs:

Patrick Haney, UX designer at Hanerino, recommends using a simple framework which is expansion of 3 Cs framework of Michal Levin for Designing Multi-Device Experiences.

- Consistency
- Continuity
- Complementary
- Contextual

# Consistent

This means answering the question 'How do I use this?'

Allow your users to get what they need, no matter what device or platform they use.

Be consistent with your design.

# Continuity

Use a continuous approach.

Allow users to start a task in one place and pick up right where they left off on another device.

Example: Google chrome provides option to sync bookmarks and favorites.

“Creating a continuous path for everyone interacting with your brand is key.” - Patrick

# Complementary

Use of multiple devices together to create a seamless experience that's better than anyone could provide alone.

Example: Smartwatch can be synced with smartphones. These devices complement each other and makes it easier for user to answer calls or track notification while driving or walking.

“From large TVs to screen-free fitness trackers, we use our devices in tandem with others,” Patrick says. “We as designers must consider this ecosystem rather than focusing on single devices.”



# Contextual

It's our job as designers in this multi-device ecosystem to deliver the right thing at the right time, to the best available device.

Who + What + Where + When = Context

# Native App? Web App? Hybrid App?



# Native App? Web App? Hybrid App?

- **Native Apps:**

- These include the apps design to work for a specific device or technology. Example: Apps designed to work in iOS and Android.
- These apps can work offline. Example: Various game apps for Android
- Full use of gestures can be made in them
- Since they are device/ technology specific, full utilisation of the capabilities of that device can be gained
- It is faster in performance
- Can be downloaded from App Store or Play Store
- They do not require web browsers to run them
- Eg. Camera, Messaging

# Native App? Web App? Hybrid App?

- **Web Apps:**

- These are more or less the websites that look and feel more like mobile app.
- Web apps run on various internet browsers like Chrome or Safari
- These apps run online
- They take more time to load and performance is hence slow.
- Example: Websites with mobile responsiveness.

# Native App? Web App? Hybrid App?

- **Hybrid Apps:**

- These apps combine the elements of both web and native apps
- Example: Gmail, Twitter etc...

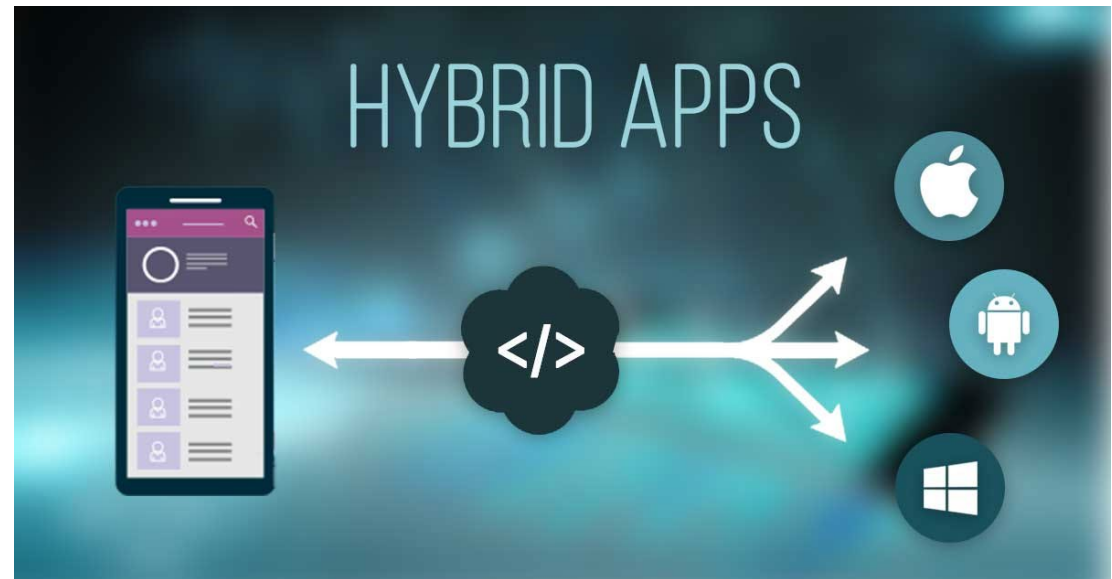


The diagram illustrates the architecture of a hybrid app. It features a dark blue background with a white smartphone icon. Inside the phone, there are three stacked rectangular boxes: a yellow one at the top labeled 'JS', an orange one in the middle labeled 'HTML', and a light blue one at the bottom labeled 'CSS'. Below these boxes, a dark blue banner with white text reads 'NATIVE WRAPPER'. To the left of the phone, there are three small colored circles (dark blue, yellow, orange) and a horizontal line.

## WHAT IS A HYBRID APP?

Hybrid apps use common languages like HTML, CSS, and JS **wrapped in native code** to meet device and operating system requirements.

# Native App? Web App? Hybrid App?



# Content Strategy

*“Perfection is achieved when there is nothing left to take away.”*

*Antoine de Saint-Exupéry, writer and aviator*

When you design for mobile, you must first decide whether to create a *single design* that adjusts to all devices (**Responsive Design**) or *several versions* tailor-made for screens of various sizes (**Adaptive Design**).

You should use a **less-is-more** approach. So, you'll need to choose carefully which features are vital. Then, you'll have to decide *how* to present them best. In any situation, users must be able to quickly find what they want.

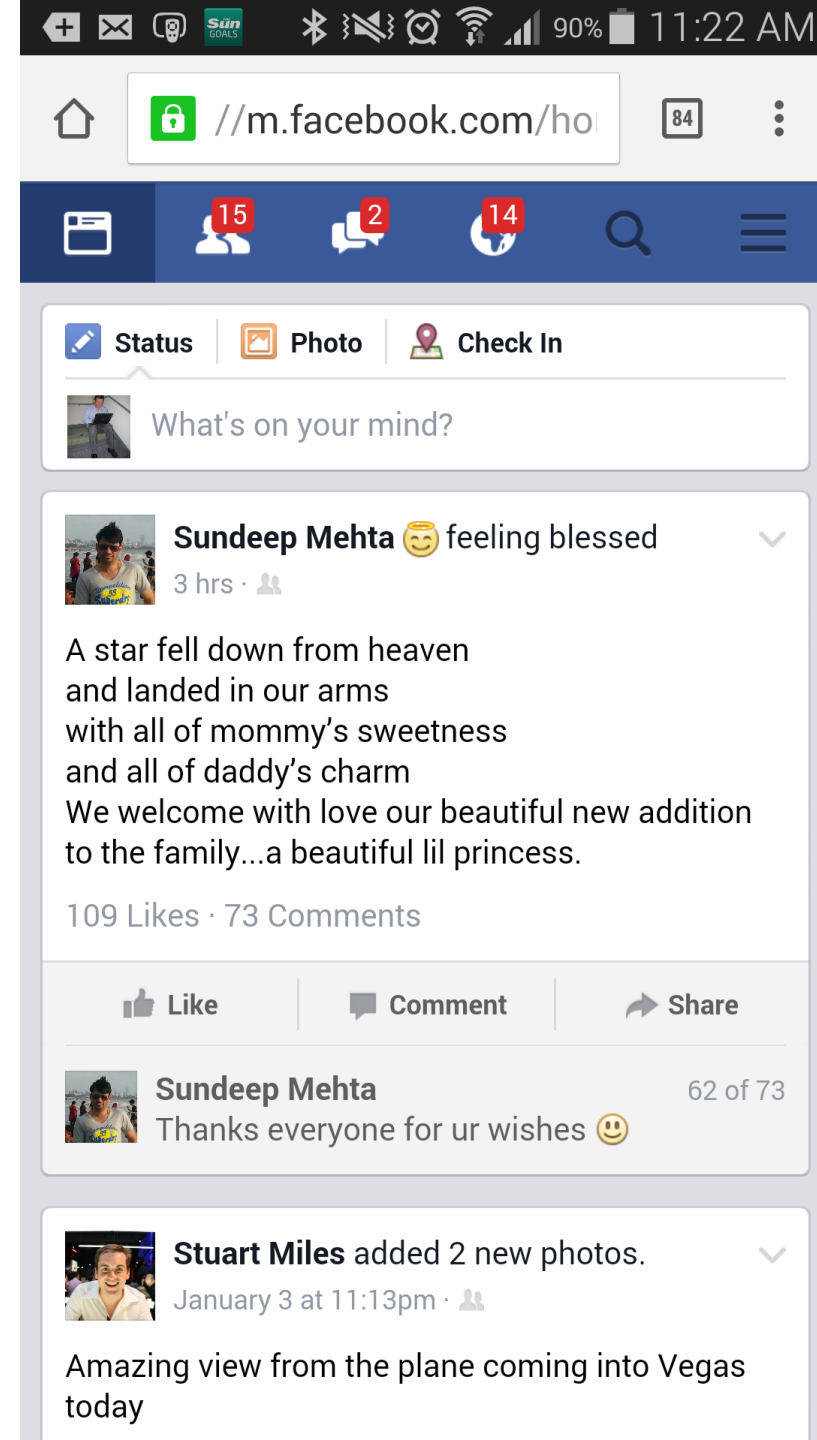
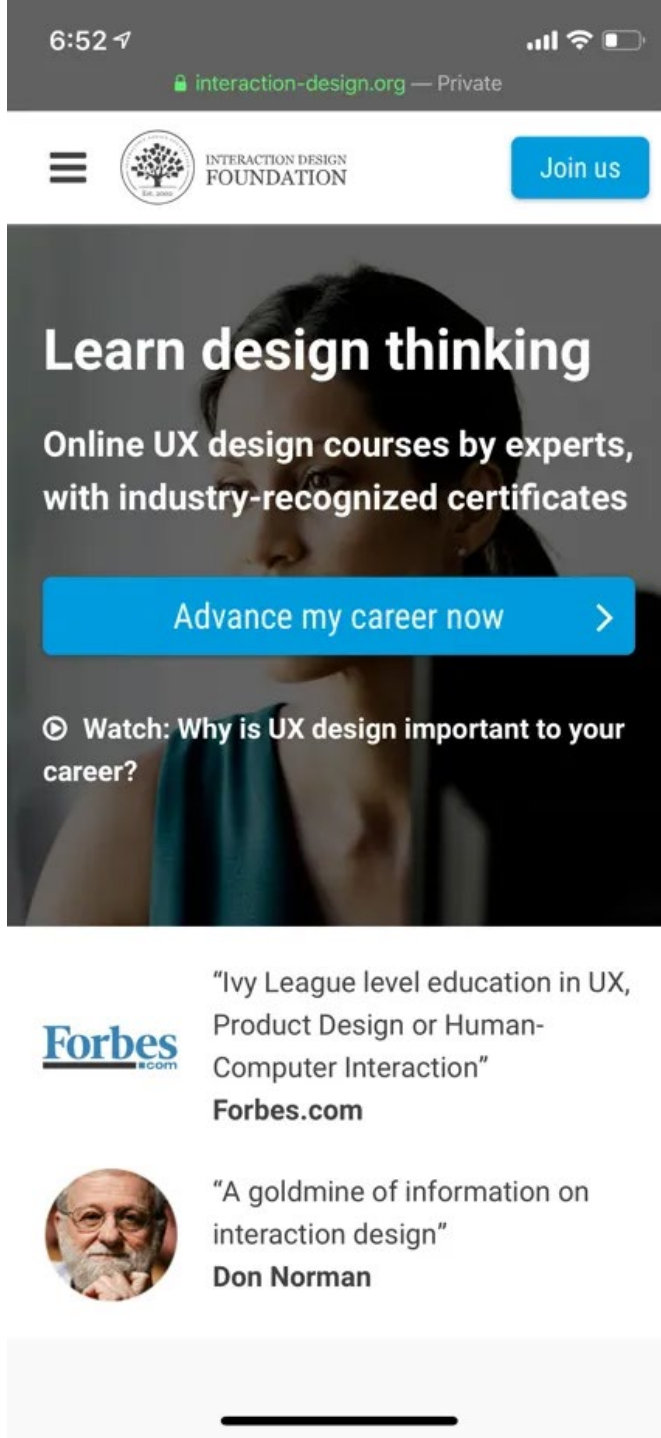
## ***Go-to-device (Mobile)***

*NOTE: Most users prefer to use their phone in portrait mode, so make sure you design for limited width.*

# Minimize Content

- Design for minimal page-loading times (less than three seconds) and cognitive load. Also, 94% of mobile users use portrait mode, meaning less width to work with.
- Keep images (including embedded ones) to a minimum, and small.
- Have clear visual hierarchy.
- Use color and contrast to maximize visibility.
- Make text 11 points or larger.
- Beware of clutter – *every* element must count. Compress information into icons where appropriate. Use *Signifiers*
- Calm pages and complement/ frame content with whitespace. Neat and clean layout should be maintained.
- Include card-style design patterns to easily show actionable content.
- Ensure *all* devices can support content.
- Keep page descriptions short for bookmarks.





# Tips for great Touchscreen UX:

- **Simplify Navigation**

Most users use one hand; fingertips can be large. Therefore:

- Aim for easy-to-use, easy-to-learn/self-evident navigation.
- Create 30x30-pixel/7–10-mm (minimum) buttons/tabs.
- Use full-screen navigation menus, minimum navigation levels and clear labeling, including tabs/icons and graphics.
- Prioritize most-used items at the top. Consider how far users can comfortably reach.
- Give short-key access to features.
- Don't mix navigation patterns.
- Clearly show links. Indicate when the user has activated them.
- Allow one primary action per screen.

## Tips for great Touchscreen UX:

# Hand-reach Comfort Zones on Phones

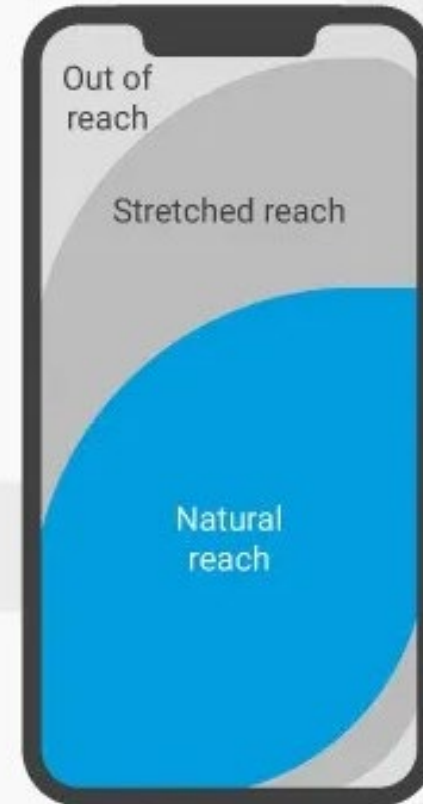
**Left hand use**



**Combined zones**



**Right hand use**



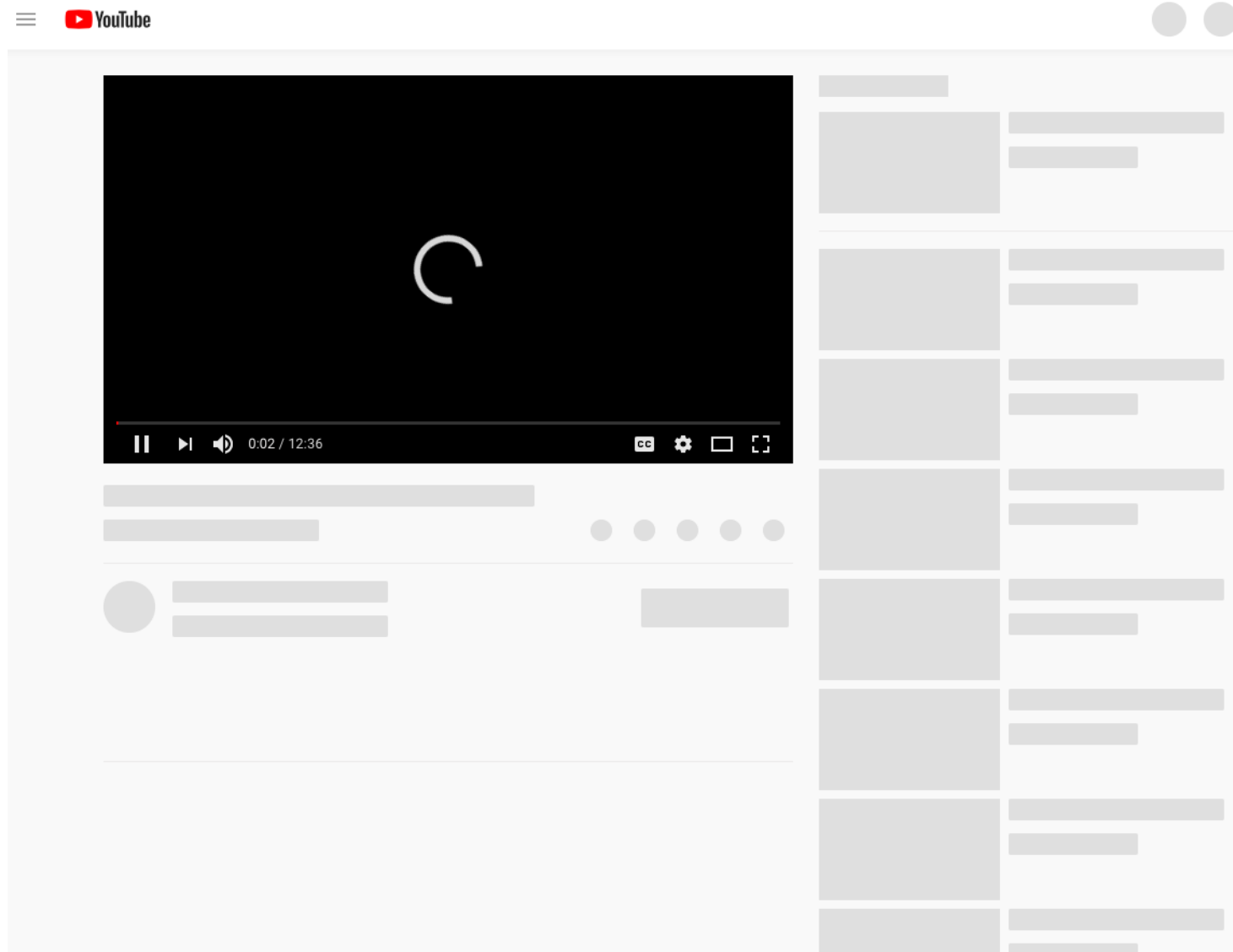
# Tips for great Touchscreen UX:

- **Restrict User Inputs**

Users become frustrated when they must continuously tap buttons. So, design to offer maximum effect for minimum interaction/effort.

- Keep URLs short.
- Pre-fill or minimize required data inputs on forms.
- Include alternative input mechanisms (e.g., voice-controlled).
- Allow permanent sign-in.
- Allow minimal, one-directional scrolling.
- Retain data in case connections fail.
- Offer obvious search features (e.g., a magnifying glass).
- Use skeleton screens to reassure that the system is executing background actions.

# Tips for great Touchscreen UX:



Skeleton Screens

# Summary:

- **Think responsively** (use relative sizing)
- **Think touch-first**
- **Think universally**
- **Think mobile-first** (Adaptive Design)

Next...

# Practical Tips and Tricks of User Experience Design