

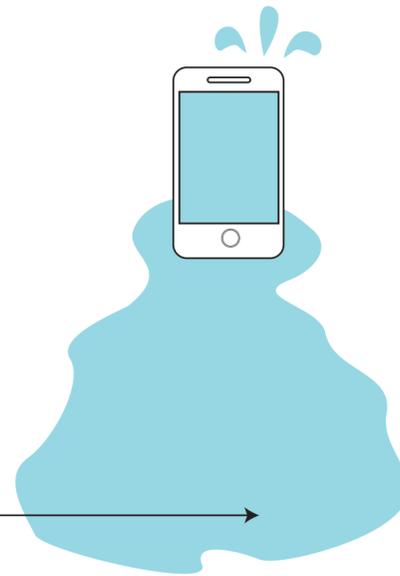
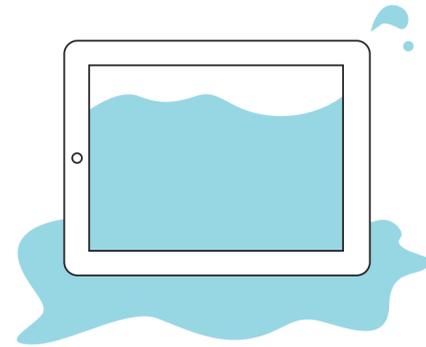
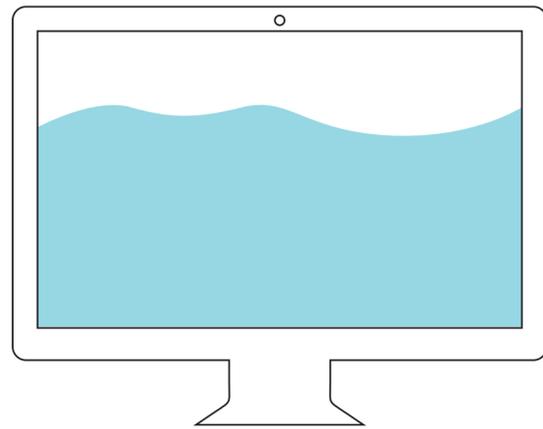
We're going mobile!

Ok, but how?



Responsive Retrofitting vs. Mobile First

While mobile-first optimization produces a product with a simpler, leaner aesthetic, it is not necessarily less time-consuming to produce (and may require even more skill!).

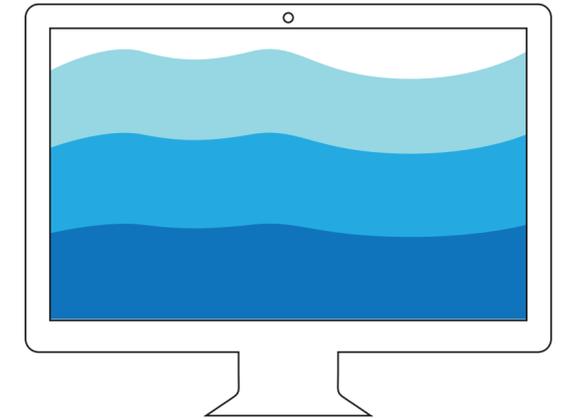
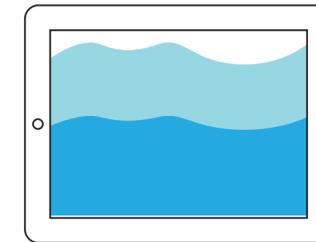


Responsive Retrofitting

Designed for a desktop, but displays and functions reasonably well on a phone without falling apart.

Content that was designed for the desktop view can be made to work on smaller screens, but the user experience may suffer.

"It works on a phone" but it may be difficult/tedious for learners to actually use.



Mobile-first

Designed for use on a handheld device from the start.

The design addresses inherent content limitations as well as navigation issues, rather than requiring the user to cope with the awkward structure.

Can be challenging to start out with so many limitations, but the end product is lean, functional, and only gets better as screen size increases.

UX

What a User Experience Designer does:

- Studies and analyzes behavior of potential users
- Does research
- Outlines functionality

UI

What a User Interaction Designer does:

- Works out the visual design (graphics, colors, typography)
- Creates layouts
- Works according to requirements provided by UX / client

Key considerations about mobile

- Consider how vertical vs. horizontal display impacts user interaction options.
- Mobile screen real estate is small. Consider the constraints for user interactions and on-screen content.
- Review current guidelines about ideal mobile touchscreen target sizes.
- Consider the ergonomic differences between touch screen (mobile) and keyboard / mouse (desktop) functionality. Clicking and rollover is not available in mobile. However, mobile has affordances desktops don't (e.g. expand/contract, shake, accelerometer.)



To app, or not to app...



Mobile websites occur within the mobile browser. Needless to say, they depend on a decent internet connection to function properly, but since the data they display is stored on web servers, they do not occupy large amounts of space on the user's phone.

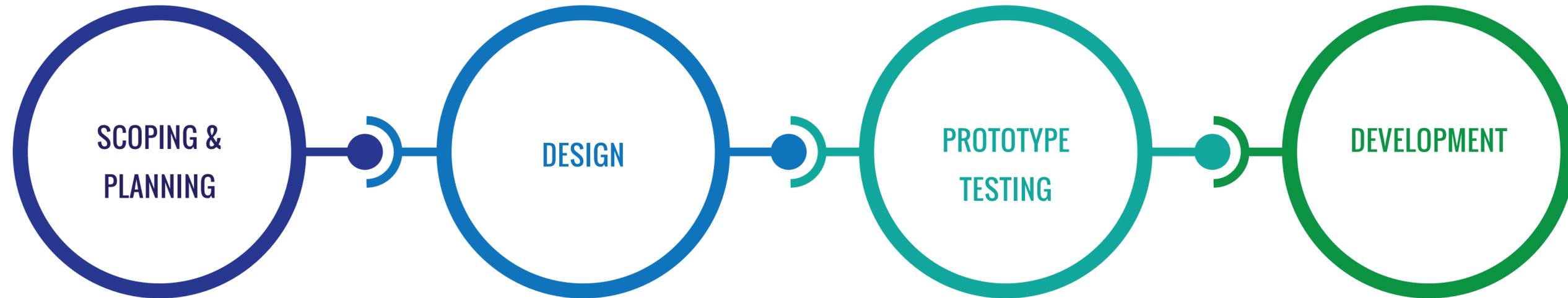
Apps are functional pieces of software that are stored within a phone's memory; however, they may still need internet access to function properly (i.e. Google Maps).

KEY CONSIDERATIONS ABOUT APPS:

- Although apps have clear benefits, they aren't always the best solution. Help clients determine the appropriate solution for their situation.
- Got a lot of video? Consider how much data your program will have. If it's too large, you may not want an app or you may want a web app.
- Consider that apps require users to download any app updates.
- Find out whether company policies and / or LMS can support an app.

An overview of the process

The diagram below is a high-level view of the key stages of scoping through development of a mobile learning program. The pages that follow outline key considerations, tips, and warnings for each stage in the process.





Questions for clients



What are the course completion **requirements**?

Required

Optional

 Mobile or Desktop

 User preference (e.g. phone) generally trumps other factors, e.g., pedagogical

What's the likelihood of **repeated use**?

Repeated

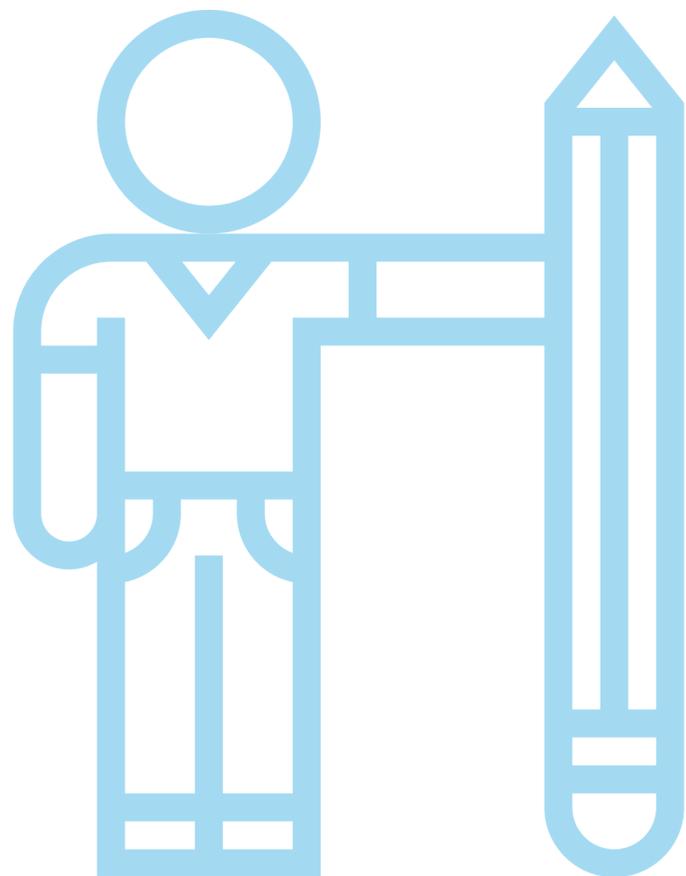
Occasional

 May wish to consider an app (if there are no other obstacles)

 App not recommended



Questions for designers



What are the required **learning interactions**?

Skill application or deliverable production required

 Likely cannot be done effectively via a phone

Observation or information review is adequate

 May be doable on a phone, but deeper learning may be ideal as a follow-on, if skill-building is the goal

Duration necessary for effective learning sessions?

Short bursts (<20 min. workable)

 May work on a phone

Longer interactions required

 Lap/desktop recommended

What is the **robustness of the content**?

Can be streamlined for ease of readability

Learners expect shorter interactions and reading stints on a phone.

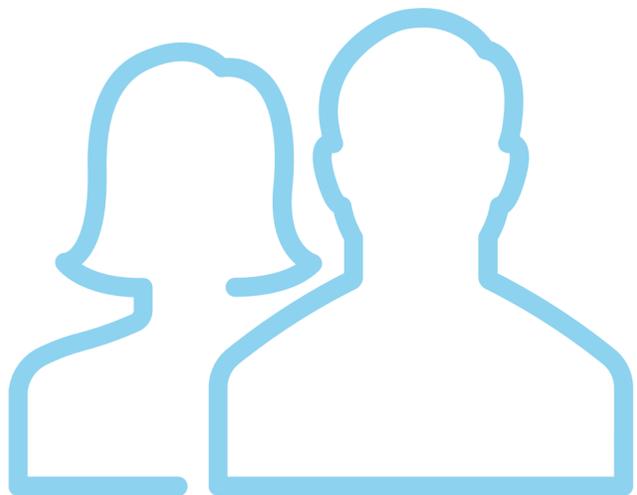
Dense and cannot be trimmed

May include longer usage requirements, especially if required for effectiveness.



SCOPING &
PLANNING

Questions about users



Do all prospective users have the same needs and objectives?

Same needs

 One solution for everyone

Needs may differ

 May need multiple ways to use the program; or may consider separate programs that aren't trying to be everything to everyone

Where will users typically be using the program?

On the go, if possible

 Phone is ideal, if possible given other factors.

Seated at table, desk, bed

 Generally lap/desktop is preferred due to the affordances of the wide screen. However, users may like a phone option if it's practical.

What is the audience's **duration appetite**?

Short bursts (<20min)

Short bursts can be desirable on a phone if the performance objectives are met.

Longer usage sessions tolerated

May include longer usage-session requirements.

You're going mobile: Now what?



Consider learning needs.
"What do users need to learn to do? What makes it hard?"



Consider the affordances of mobile technology:
"What cool things do we see people doing on phones lately?"



Plan for phone-centric types of user interactions: tap, swipe, expand, scroll. No rollovers, minimize typing.



Plan for significantly streamlined content, to be friendly on a small screen.



Plan ample time for interface design/iteration.



For training, if you don't prioritize the learning needs in design, you can really go astray landing on a cool / fun design that doesn't teach much.



Consider how interaction limitations will impact required activities for authentic practice and skill building.



Beware of over streamlining in favor of slick interactions and ease of use, such that you strip the value of the instruction.



Beware of adding unnecessary bells and whistles when expanding to desktop view.

TESTING

Put your design **to the test**



Get client buy in for rapid prototyping and testing.



If possible, include at least two rounds of prototype testing with target audience. At a minimum, test content, design interactions, and duration.



Try lots of different devices when piloting to see the look and functionality.



Prototype testing adds time and expense, and more voices in the mix, including those less knowledgeable about effective pedagogy.

Creativity arises out of the tension between spontaneity and limitations. -Rollo May



Streamlining content: Write for scanability.

Write what you want to say, cut in half -- then repeat.



Consider linking to additional information (i.e. client intranet site) where possible to keep screen content brief.



If including video, shorten it for mobile. Optimal length: 120-180 seconds for a phone.



Don't be afraid of dropping quality (360 p) so the video can stream without buffering.



Beware of endless cycles of feedback and opinions.



Beware of streamlining to the point of a vacuous learning experience.



Some clients may require high-quality video. Alternatives to video (e.g. cartoons) may be a great option, but risks lacking seriousness.



Led by artificial intelligence expert and visionary Dr. Roger Schank, our team of experienced instructional design and facilitation experts have developed and delivered performance improvement solutions to Fortune 500 companies, government agencies, and post-secondary schools for over three decades.

Additional questions and comments may be directed to:

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