Poll: Are you using mobile learning in your...
Mobile Development Experience

- Development for the following platforms:
  - Flash Lite
  - iPhone/Android (Browser)
  - Blackberry (Browser)
  - Windows Mobile

Main Projects:
  - Flash Lite
  - XML
- FBI Prototype (2008)
  - Blackberry Browser
  - HTML/CSS
- iPhone WebApp (current)
  - Safari Browser/Android Browser
  - HTML/JavaScript/XML
The connection:
Some quick things to get you thinking in the right direction
It’s about YOU not your device!

“Fundamentally, 'mobile' refers to the user, not the device or application” - Barbara Ballard – Designing the Mobile User Experience

You ARE mobile

Your device is NOT
How do I choose mobile content?

• Not about putting an entire course onto a mobile device.
  
  — “Don't want to make user go through a large amount of content. Instead, take elements (intro, practice, exit) -- and think about how you can reuse them in creative ways.” – Clark Quinn, Quinновation

• Ask your learners what they want to know or what they want access to when mobile

• Small, succinct pieces work best
Keep it short, think “fun-sized”

- Lengthy, verbose text is not recommended
- People will want to get through “pieces” of training, learn something short
- Think of how your content will display on the devices you are targeting (will the learner have to scroll? How much?)
- If using audio, get to the point... podcasts can drone on
- Think in minutes NOT hours

Minutes

HOURS
What will your learners want to know when they are mobile?

Who are your learners? Possibilities:

- Leadership? \(\rightarrow\) exec summaries/industry news
- Are they worker bees? \(\rightarrow\) detailed task lists
- Are they middle management? \(\rightarrow\) coaching/mentoring
- Everyone? \(\rightarrow\) integrated simulation

\textit{just suggestions, find out from them}\n
Again, where will they be?

- Metro
- Meeting/Presentation
- Waiting for a meeting or appointment
- Are they just plain bored? And looking to be productive
Definitions Anyone?

- ‘e-learning using mobile devices and wireless transmission’ (Hoppe, Joiner, Milrad, & Sharples, 2003)

- M-learning is the term given to the delivery of training by means of mobile devices such as Mobile Phones, PDAs and digital audio players, as well as digital cameras and voice recorders, pen scanners etc. M-learners are seeking lessons in small manageable formats that they can undertake when it suits them – Wikipedia

- The personalised, connected, and interactive use of handheld computers in classrooms, in collaborative learning during fieldwork, and in counselling and guidance. It supports learning that is more situated, experiential and contextualized within specific domains and affords the creation and use of up-to-date and authentic content (Kukulska-Hulme & Traxler, 2005).

- ‘A situation in which a multitude of connected and embedded systems and devices work together to build an ambient computing environment allows [people] both to access learning content from anywhere at anytime, and to communicate with colleagues or lecturers synchronously and asynchronously much more frequently‘ (Hummel and Hlavacs, 2003)

You can decide for yourself
Tablets???
Where does it fit in?

- Your knowledge of e-Learning design Applies!!
- M-Learning augments larger learning program

Source: Ubiquitous knowledge construction: mobile learning re-defined and a conceptual framework
Pedagogical Affordances of mobile learning

- Real time event, data and resource capturing and collaboration
- Enable rich data sharing
- Asynchronous communication, collaboration, and support
- Situated learning – contextualized
- Real time feedback
  - “Smartphones give you wings: Pedagogical Affordances of mobile Web 2.0” Cochrane and Bateman – 2010

“Still further, mobile technology does support the audience effect in that it is easy to “swivel and show” a peer what you are doing. Collaboration is easier since the device is handheld; one does not go to the device; the device goes with the student.” - Source: Anatomy of a mobilized lesson: Learning my way (Looi et-al 2009)

But to add to that

- Persistence - if on the Web
- Access – 5 billion people will have access to a mobile phone by 2015 – Business Week
Motivational factor

Research has shown that the “audience effects” of “publishing” their work, particularly to a peer audience, motivates students to produce higher quality artifacts (Austin, Abbott, Mulkeen, & Metcalfe, 2002; Cohen & Riel, 1989; Gunel, Hand, & McDermott, in press) – Source: Anatomy of a mobilized lesson: Learning my way (Looi et-al 2009)
Mobile learning – a bit of a chronology (as content developers)
In the Beginning...

- Podcasting
  
  Solid, trusty, works on almost all mobile devices

  One way learning – no interactivity
Where We’ve Been
as designers/developers

• 30-40 different operating systems
• Many different form factors
• Inconsistent and non-existent connections to the web
• Many competing standards and closed systems
• Lack of public support/awareness of mobile learning
Where We Are

- Certain Platforms have emerged
- Can build for mobile browsers now
- More people using the mobile web
- People trusting mobile devices as gateways to information

Still Fragmented
- Connectivity and bandwidth inconsistency
- Still targeting 6 major OS

Today comScore released its February market share data for the US. Smartphone penetration is now 19%, with 45 million total smartphones now active in the US. Google’s share jumped to 9%; however, RIM continues to lead with 42% market share.
This Just In: We like these things

Mobile Content Usage
Total U.S. Age 13+
Source: comScore MobiLens

<table>
<thead>
<tr>
<th></th>
<th>Share (%) of U.S. Mobile Subscribers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dec-09</td>
</tr>
<tr>
<td>Total Mobile Subscribers</td>
<td>100.0%</td>
</tr>
<tr>
<td>Sent text message to another phone</td>
<td>63.1%</td>
</tr>
<tr>
<td>Used browser</td>
<td>27.5%</td>
</tr>
<tr>
<td>Used downloaded apps</td>
<td>26.0%</td>
</tr>
<tr>
<td>Played games</td>
<td>21.6%</td>
</tr>
<tr>
<td>Accessed social networking site or blog</td>
<td>15.9%</td>
</tr>
<tr>
<td>Listened to music on mobile phone</td>
<td>12.1%</td>
</tr>
</tbody>
</table>

Operating System Share, Worldwide Smartphone Only

- Jan-10: Other 51%, webOS 19%, Windows Mobile 18%, RIM OS 21%, Symbian OS 5%, Android 24%, iPhone OS 25%
- Feb-10: Other 50%, webOS 18%, Windows Mobile 24%, RIM OS 25%, Symbian OS 5%, Android 25%, iPhone OS 24%
- Mar-10: Other 46%, webOS 21%, Windows Mobile 25%, RIM OS 25%, Symbian OS 5%, Android 25%, iPhone OS 23%
- Apr-10: Other 42%, webOS 23%, Windows Mobile 25%, RIM OS 25%, Symbian OS 5%, Android 25%, iPhone OS 23%

Image: Plus sign and smartphone equal to a heart symbol

Heart symbol: "=" symbolized as a heart

"+" symbol as a plus sign

"iPhone OS" as a smartphone operating system

"Symbian OS" as a smartphone operating system

"RIM OS" as a smartphone operating system

"Windows Mobile OS" as a smartphone operating system

"Android" as a smartphone operating system

"Other" as a smartphone operating system

"webOS" as a smartphone operating system
Where We’re Going

• High Fidelity, Richer experiences as gaming/simulation and learning coalesce
• Convergence of smart phones, media players, gaming devices will yield higher performance, allowing you to do more
• Mobile browsers will continue to gain capability to support these new experiences
• Web based mobile learning will be the model, not native apps – but there’s room for both.... (And I could be wrong, it’s happened before)
• Location-based learning: mobile augmented reality

But the biggest...

• Mobile Producer!!
What can you do right now?

And for free
Poll: Are you using mobile learning in your...
http://www.artviper.net/texttagcloud/
CNN Example
+1 (415) 376-7253
Google mobile

Google SMS

Start Using it Now

To use Google SMS, just text the word "help" to 466453 (GOOGLE).
It’s as Simple as Blogging

• Wordpress and other blog sites are automatically formatting your blog for the mobile, all you have to do is provide the content – Remember – content should still be relevant to a mobile learner
• Formats nicely on webkit based browsers (Android/iPhone/WebOs)
• All the same functionality of regular blog authoring – senses YouTube content and plays the mobile version for the users
Basic HTML – Try it out

- Really basic HTML, with a JavaScript Library that does all the work for you
- Somewhat limited, but definitely a nice option for a quick mobile web app

Technology: [www.jqtouch.com](http://www.jqtouch.com)

Demo: [www.benbonnet.com/iphonedemo/bah.html](http://www.benbonnet.com/iphonedemo/bah.html)

Source: [www.benbonnet.com/iphonedemo/mLearn_source.zip](http://www.benbonnet.com/iphonedemo/mLearn_source.zip)