Introduction to

Designing your Course for Mobile Devices

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what to expect

This session will explore existing mobile technology trends and review best practices on how to leverage the power of mobile devices.
we live in a mobile world

Mobile technology has been the most rapidly adopted technology in history

• 60.1% of the human population has at least one mobile phone
• By 2015, 80% of people accessing the internet will be able to do so from a mobile device
• US mobile advertising market doubled to $4 billion last year and is projected to climb to $7.19 billion 2013.

<table>
<thead>
<tr>
<th>MOBILE SUBSCRIBERS 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total active mobile subscriptions or accounts</td>
</tr>
<tr>
<td>Unique mobile users</td>
</tr>
<tr>
<td>Actual mobile phones in use</td>
</tr>
</tbody>
</table>

Source: TomiAhonen Almanac 2013
we live in a mobile world

The typical user looks at mobile 150 times per day globally

- Messaging related 23 times per day
- Voice call related 22 times per day
- Clock 18 times per day
- Music Player 13 times per day
- Gaming 12 times per day
- Social Media 9 times per day
- Alarm 8 times per day
- Camera 8 times per day
- News and alerts 6 times per day
- Calendar 5 times per day
- Search 3 times per day
- Other random web browsing 3 times per day
- Charging phone 3 times per day
- Voice mail 1 times per day
- Other miscellaneous uses 10 times per day

Total 150 times per day

Source: http://communities-dominate.blogs.com/
we live in a mobile world

Mobile features and Operating System

<table>
<thead>
<tr>
<th>POPULAR MOBILE PHONE FEATURES OF INSTALLED BASE 2012</th>
<th>Installed Base of Smartphones by Operating System 2012 (vs 2011)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMS texting ability ........................................ 100%</td>
<td>1 (2) - Google Android ............................................... 48% (31%)</td>
</tr>
<tr>
<td>Any kind of browser (including WAP) ................................ 98%</td>
<td>2 (3) - Apple iPhone .................................................. 19% (16%)</td>
</tr>
<tr>
<td>MMS multimedia messaging capable .................................... 88%</td>
<td>3 (1) - Nokia Symbian .................................................. 15% (33%)</td>
</tr>
<tr>
<td>Cameraphone (ie has inbuilt camera) .................................. 83%</td>
<td>4 (4) - RIM Blackberry ................................................ 8% (12%)</td>
</tr>
<tr>
<td>Bluetooth .......................................................... 79%</td>
<td>5 (5) - Samsung bada .................................................. 2% (3%)</td>
</tr>
<tr>
<td>3G capable or faster cellular connectivity . 45% *</td>
<td>6 (7) - MS Windows Phone ................................................. 2% (1%)</td>
</tr>
<tr>
<td>WiFi ................................................................. 26%</td>
<td>7 (6) - MS Windows Mobile ............................................... 1% (2%)</td>
</tr>
<tr>
<td>Smartphone .......................................................... 22%</td>
<td>Others ................................................................. 1% (3%)</td>
</tr>
</tbody>
</table>

TOTAL SMARTPHONES IN USE ........................................ 1,320 Million
advantages of mobile technology

Mobile technology offers advantages that other Instructional technology does not:

- Personal mass medium
- Is available at creative impulse
- Capable of gathering accurate tracking data
- Usage patterns and preferences
- Augmented Reality
M-Learning

Strategies and Best Practices

Developing a M-Learning Strategy requires planning, a detailed road-map and knowing the situations and context in which to use mobile learning.

Source: floatlearning.com
Considerations In Mobile Learning

What is M-Learning?

The term **M-Learning**, or "mobile learning", has different meanings for different communities.

Can be defined as: "Any sort of learning that happens when the learner is not at a fixed, predetermined location." In other words, with the use of mobile devices, learners can learn from various locations.

The objective of **M-learning** is to provide the learner the ability to assimilate learning anywhere and at any time.

Considerations In Mobile Learning

Salman Khan: “Let's use video to reinvent education”

Source: http://www.ted.com/talks/salman_khan_let_s_use_video_to_reinvent_education.html
Considerations In Mobile Learning

In order for M-Learning to be effective it should be adopted for specific learning situations.

Drivers to help make the choice clear:

• Compatibility for learning enhancement
• Capabilities of the device and learner interest
• Evaluate service requirements
• Be selective when choosing content
• Balanced Integration

Source: floatlearning.com
Developing a M-Learning Strategy

A mobile device is a unique tool that can be likened to all of the devices below combined:

- Phone
- Networked Device
- Audio/Video Camera (Recording and Playback)
- GPS Enabled
- TV
- Games Console
- Sensor capabilities (Accelerometer)
Developing a M-Learning Strategy

Create learning or support elements as the learner would need/use them. When it comes to learning there is a whole lot more you can do with a mobile device.

Source: http://www.mlearnopedia.com/mlearncon/
Before planning bear in mind technological advancements. It would help to be aware of what’s coming and how it will affect the learning landscape.

<table>
<thead>
<tr>
<th>Year</th>
<th>1st Generation</th>
<th>2nd Generation</th>
<th>3rd Generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>Demand Still Growing in Academic Segment</td>
<td>Device-embedded &amp; Location-based Learning</td>
<td>Always-connected</td>
</tr>
<tr>
<td>2003</td>
<td></td>
<td>Wired Broadband</td>
<td>Multi-purpose</td>
</tr>
<tr>
<td>2004</td>
<td></td>
<td>Remote Tutors, Virtual Labs, and Virtual Classrooms</td>
<td>Handheld Multimedia Devices on 4G</td>
</tr>
<tr>
<td>2005</td>
<td></td>
<td></td>
<td>Off-deck, over-the-air Supply Chain</td>
</tr>
<tr>
<td>2006</td>
<td></td>
<td></td>
<td>Wi-Fi, WiMAX, &amp; Long Term Evolution (LTE)</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
<td>Peer-generated Content</td>
</tr>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td>Group Mobile Video Conferencing</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2011</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Developing a M-Learning Strategy

Steps for implementing M-Learning

1. Plan for mobile delivery
2. Establish the need
   When Trying to remember
   When things change
   When something goes wrong
3. Identify Content
4. Choose a platform (Larger applications)
5. Feedback

Source: http://www.upsidelearning.com/
# CellCast Solution overview – mLearning.com

<table>
<thead>
<tr>
<th>Tools &amp; Methods Employed</th>
<th>Instructor-Led/Classroom Training</th>
<th>Online/elearning</th>
<th>Mobile Learning</th>
<th>Smartphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Delivery Model</td>
<td>Live or Distance Learning</td>
<td>HTML/Flash Content</td>
<td>Audio &amp; SMS-Based</td>
<td>HTML/Media</td>
</tr>
<tr>
<td>Tracked Results</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Present Audio Files</td>
<td>Yes</td>
<td>Yes</td>
<td>via Voice</td>
<td>Via Voice or Podcast</td>
</tr>
<tr>
<td>Present Video Files</td>
<td>Generally via DVD/VHS</td>
<td>Generally Flash</td>
<td>No Video Support</td>
<td>Downloaded or Streaming</td>
</tr>
<tr>
<td>Present Flash Animations</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Limited Support</td>
</tr>
<tr>
<td>Present Simulations</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Limited Support</td>
</tr>
<tr>
<td>Assessment Delivery</td>
<td>Printed/Written</td>
<td>Electronic/Web</td>
<td>Voice/IVR or SMS</td>
<td>Downloaded or Mobile Web</td>
</tr>
<tr>
<td>Typical Module Duration</td>
<td>60 minutes</td>
<td>20 minutes</td>
<td>30 minutes (Qty. 10 x 3-minute sessions)</td>
<td>30 minutes (Qty. 8 x 4-minute sessions)</td>
</tr>
<tr>
<td>Avg. Dev. Time/Module</td>
<td>50 hours</td>
<td>50 hours</td>
<td>10 hours</td>
<td>25 hours</td>
</tr>
<tr>
<td>Avg. Seat Time/Session</td>
<td>60 mins.</td>
<td>20 mins.</td>
<td>3 minutes/session</td>
<td>4 minutes/session</td>
</tr>
<tr>
<td>Access Frequency/Module</td>
<td>1 time</td>
<td>1-2 times</td>
<td>1-2 times</td>
<td>1-5 times</td>
</tr>
<tr>
<td>Social Networking Support</td>
<td>External Systems Only</td>
<td>Text Comments</td>
<td>Voice &amp; SMS</td>
<td>Voice/SMS/Text/image/Video</td>
</tr>
<tr>
<td><strong>Key Advantages</strong></td>
<td>Live instructors are more interactive and engaging; learners better focused for session, less distraction.</td>
<td>Anytime learning for users with access to a network-connected computer; can work at their own pace, some interaction.</td>
<td>Can use any phone, nominal learning curve for users with faster content uptake; Mgrs can create content via phone.</td>
<td>Personalized anytime/anywhere learning with faster content uptake; Managers can create content/media via phone.</td>
</tr>
<tr>
<td><strong>Key Disadvantages</strong></td>
<td>Training is instructor, time and location dependent; added facility costs and travel expenses.</td>
<td>Training is self-service, non-proctored; security concerns may exist, learning distractions are likely.</td>
<td>Only supports simplified content types (narrative, short, bursty); phone requires network signal from carrier.</td>
<td>Requires better expensive mobile devices + expensive data plans; displays vary; content diversity can be a challenge.</td>
</tr>
</tbody>
</table>

**Table 1 – Comparison of Training Tools and Methods by Delivery Modality**
Best practices

• Planning (Go Mobile or Not)
• Content versus Screen Size/Ratio
• Choose appropriate fonts for clarity
• Add interactivity for advanced mLearning
• Media Types for Mobile
• Connectivity and Bandwidth
• Testing and Tracking
The Opportunities for Mobile Learning in the Learning Ecosystem

- Mobile Refreshers
- Discussion Forums
- Video-cast & Pod Casts
- Learning Portal
- Virtual Classroom
- “Just In Time” Performance Support/ Workflow based EPSS.

Source: Elernity Knowledge Center - http://www.elearnity.com/
FIU Online
mLearning Technology
Tools, Features and Examples
What is the Blackboard Mobile Learn App? The Blackboard Mobile Learn App extends and enriches the course experience of the Blackboard Learn learning management system. Blackboard Mobile Learn allows students and educators to access their courses wherever and whenever they want through an interface designed specifically for mobile devices. It supports both accessing and contributing content to courses from mobile devices.

Blackboard Mobile Learn Features:
- Dropbox Integration
- Mobile Test
- Push Notifications
- Announcements
- Grades
- Discussions
- Content
- Blogs
- Journals
- Roster
- Tasks
Students and instructors can easily manage critical course documents from their mobile devices, without ever leaving the Blackboard Mobile Learn app. Not only can students and instructors save their course content to their personal Dropbox, but they can also upload documents to discussions and blogs with a single click.
Mobile Tests

Key Points:
• With Blackboard Mobile Learn, students can now take exams on their iOS and Android devices.
• Exams are fully accessible via the Blackboard Mobile App
• Exams must be designed with the Mobile user in mind.
• Slick new interface on iOS devices
• Using File Response, students can submit images from their phones
• Full Integration with the Grade Center
• Not all exams are automatically compatible
• Students must have the latest version of the App to work
• Existing exams have to be heavily revised to work on Mobile
• No Feedback shown to student, only grade
• No HTML support (bold, italics, underline - ignored)
Push Notifications

Students can now elect to receive automatic, personalized notifications delivered straight to their mobile devices to help them stay informed.

Blackboard Mobile Learn supports the following Mobile notifications:

1. Announcement Available
2. Content Item Available
3. Course or Organization Available
4. Item Graded
5. Test Available
6. Test Due
7. Test Overdue
Discussions

The Discussion Board is a key course communication tool for engaging students. It’s a forum for students to ask and answer questions while allowing instructors to chime in. Students and instructors can easily read-up and contribute to Discussions from Blackboard Mobile Learn— they can even upload media from their mobile device as part of a Discussion attachment.
Additional Features

- Tasks
- Blogs
- Journals
- Content
- Roster
- Announcements
- Grades
Adobe Connect Mobile is an application that allows you to host, attend, present, and completely drive collaboration in online meetings or training - anywhere, anytime, and with virtually any mobile device (iOS and Android). Start and manage meetings directly from your device; join multiuser videoconferences with your device’s camera; share content with other attendees and fully collaborate using whiteboards, chat, polls and more.
Studymate helps students "master the basics" of course material through learning activities, self-assessments, and games. These learning activities are customized for any type of mobile device, whether students are using smartphones and/or tablets allowing the students to sync their Studymate activities and use them offline.
With SP11 you will be able to record video everywhere from the content editor. Users can record video from the content editor and upload it directly to YouTube.

The feature provides the ability for faculty and students to:

• Record a video on the fly using a webcam and have it seamlessly embedded in course materials, interactions, and feedback through the content editor.
• Reuse previously recorded videos by choosing from one’s own “library” of videos via YouTube.
Adobe Captivate 6 software helps you rapidly create a wide range of interactive eLearning and HTML5-based mLearning content.

The feature provides the ability for faculty to:

- Create interactive eLearning content and publish it on mobile devices, including iPads, using HTML5.
- Transform Microsoft PowerPoint presentations into interactive eLearning/mLearning content.
- Make courses come alive with themes, and interactive elements. Include eye-catching quizzes, add branching scenarios, and publish to desktops, mobile devices, and LMSs.
Working with FIU Online to accomplish your Mobile strategy

Instructional Designers assist faculty members in the design and development of online courses. They work directly with faculty members to create/enhance courses and manage course projects from inception to completion. Instructional Designers aim to make instructional materials more engaging, effective and efficient for learning.

Contact your Instructional Designer to Get Started!
Resources


mLearnCon - http://www.mlearnopedia.com/mlearncon/

Float Learning - http://floatlearning.com/

TED - http://www.ted.com/talks/salman_khan_let_s_use_video_to_reinvent_education.html
Q&A
Thank You

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