USER INTERFACE DESIGN FOR MOBILE DEVICES

COURSE DESCRIPTION
Students will come away from this 2-day hands-on workshop-style course knowing how to conceptualize and create intuitive user experiences for mobile devices. UI designers who have worked with traditional applications and Web sites will learn how to transfer their skills to this new medium.

We will cover user research and usability testing techniques, information architecture and task flows, information design & small screen layout. We will also explore techniques for enhancing mobile usability by leveraging mobile’s unique strengths such as personalization, use of GIS data, defaulting, and analytics. Design principles will be taught through an analysis of the most innovative & popular mobile applications across a variety of industries – eCommerce, social media, consumer goods, entertainment, health care, and enterprise.

We will look at the iPhone, Blackberry, Android, and feature phone platforms to deliver an excellent user experience for different devices. Students will gain an awareness of implementation technologies, security, and database access. Students will generate a working mobile UI design with the MobiFlex prototyping tool (http://www.mobiflexinc.com/). Michael Kuperstein, CTO of MobiFlex, will be a guest lecturer to introduce MobiFlex and provide an overview of key mobile technologies. Students will also receive a detailed bibliography of books, Web sites and other resources to help them continue learning about mobile user interface design.

AUDIENCE
Developers, desktop interaction designers, product managers, usability professionals with a good grasp of the principles of user-centered design.

DETAILED COURSE CONTENT

Strategic considerations
- What applications should (and should not) have a mobile version, techniques for creating a mobile version of a desktop product
- How platform affects approach (iPhone/touch vs. Blackberry vs. feature phone), pro’s and con’s of creating an application for a specific device vs. for the mobile web

Mobile information architecture and navigation
- How to translate task/workflow analysis to mobile information architecture & navigation
- How to keep navigation shallow

Mobile User interface design
- How mobile UI design is different from traditional UI design
- How to design to suit mobile’s unique strengths and limitations
- What the best layouts are for a small screen

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- What the best fonts, graphics, colors to use are while minimizing latency
- How to incorporate graphics and multi-media into a mobile application
- How to optimize a standard Web site so it works on mobile devices
- How to incorporate personalization, GIS data, defaults, auto complete, analytics and other resources to minimize user input
- How to provide Forms and widgets
- How to best allow search and browse
- How to write and design information
- How to handle errors and deliver help

Techniques for communicating your design

- Designing Mobile site maps, process flows, click streams
- Creating wireframes for mobile applications

Ways to evaluate and optimize your design

- Mobile usability testing approaches
- Publicly available standards (Apple) and design patterns

Implement your design

- Demonstration of the MobiFlex prototyping tool to generate a working model of the design you’ve created in class
- Demonstration of Dreamweaver’s mobile design capabilities
- Techniques for usability testing your mobile application
- Opportunity to participate in a design review of student work at the end of day 2.

INSTRUCTOR BIOGRAPHY

Kay Corry Aubrey has 20 years’ experience as a user experience researcher and designer. She consults with companies such as Raytheon, AT&T, the Massachusetts Medical Society, and Avaya through Usability Resources Inc, the business she founded in 2002.

Kay is a RIVA-certified Master Moderator and a member of the UPA, GBSIGCHI, and the Qualitative Researchers Consultants Association (QRCA) where she is the Business Editor of the QRCA VIEWS magazine, a qualitative market research journal. Kay teaches graduate-level courses in user-centered research and design for desktop and mobile applications at Northeastern University and the Bentley University program in Human Factors and Information Design.

Kay holds an MS in Information Systems from Northeastern University, an MSW from Boston University, a BA from McGill University, and a Certificate in Graphic Design from the Museum School in Boston.
BIBLIOGRAPHY

User Interface Design for Mobile Devices

WEB SITES

Mobile UI Design

- Android UI design guidelines
  Other good sources are YouTube and Slideshare with keywords “Android UI design”
- Apple iOS Human Interface Guidelines
- Blackberry UI Design Guidelines
- Design4Mobile
  http://patterns.littlespringsdesign.com/index.php/Main_Page
- Glyphish – free iPhone icons
  http://glyphish.com/
- Marlin Mobile – excellent blog
  http://MarlinMobile.com
- Mobile Web Best Practices (W3C)
  http://www.w3.org/TR/mobile-bp/summary
- Mobile Monday (Boston Chapter)
  http://momoboston.com
- Pattern Tap
  http://patterntap.com/collections/
- Global Authoring Practices for the Mobile Web
  http://www.passani.it/gap/

Usability Testing & Validation

- Mobile Best Practices Checker
  http://validator.w3.org/mobile/

Multi-platform Usability Reviews

- http://mtld.mobi/emulator.php (dot mobi)
- https://addons.mozilla.org/en-US/firefox/addon/60 (Firefox Web Developer toolbar)
- http://pukupi.com/post/2059/ (Kyle Barrow's Mimic for Nokia models)
- http://www.deviceanywhere.com/ (Device anywhere)
Prototyping resources

- [http://balsamiq.com/products/mockups](http://balsamiq.com/products/mockups) (Balsamic)
- [http://cacoo.com/](http://cacoo.com/) (Cacoo)
- [http://flairbuilder.com](http://flairbuilder.com) (Flairbuilder – clickable wireframes)
- [http://iplotz.com](http://iplotz.com) (iPlotz – clickable wireframes)
- [http://mobiflex.com](http://mobiflex.com) (MobiFlex – prototyping and fully functioning application for major smartphone platforms)
- Dreamweaver
- Omnigraph (for the Macintosh)
- Visio

BOOKS

- *Tapworthy: Designing Great iPhone Apps*, Josh Clark, O'Reilly, 2010.