AGENDA

1. (10:00-10:05): Approval of December 10, 2010 Meeting Summary (Kathleen Komar)

2. (10:05-10:15): CSG Registry Resolution (Michelle Lew)
   Update

3. (10:15-10:45): Mobile Apps (Rose Rocchio)
   Introductory Information, Discussion for Future Endorsements
   Documents: An Overview of UCLA Mobile
              UCLA Mobile Brochure
              UCSD Mobile Framework Recommendation

4. (10:45-11:00): Report: UC Online Instructional Pilot (Jim Davis)
   Information

5. (11:00-11:15): New Initiatives Update (Kathleen Komar)

6. (11:15-11:30): New Business (Kathleen Komar)

7. (11:30-11:45): Next meeting and adjournment (Kathleen Komar)
ITPB Attendees:  Jim Davis, Derrek Hibar, Jerry Kang, Patricia Keating, Kathleen Komar, Jonathan Kuo, Andrew Leuchter, Michelle Lew, John Mamer, Warren Mori, Janice Reiff, John Riley, Alan Robinson, Gary Strong, Arthur Toga,

Stephanie Hokama, recorder

Absent: Deborah Estrin, Mike Kusunoki, Christopher Lee, Sam Morabito, Tim Stowell, Christopher Waterman

Invited Guests: James Economou

Resources: Ross Bollens, Michelle Chen, Larry Loeher, Tom Phelan, Rose Rocchio, Andrew Wissmiller

Chair Kathleen Komar called the meeting to order at 1:00 PM.

Agenda Item #1: Approval of the Meeting Summary & Announcements (Komar)

The summary from the October 22, 2010 meeting was approved.

The ITPB was notified that AIME had recently filed suit against UCLA in the Video Furnace case. The complaint has not yet been served against the UC Regents. Board members were reminded of the procedural history of the case and the policy statement made by the Board when the Video Furnace incident first arose in the 2009-10 academic year.

Agenda Item #2: CSG Resolution (Komar)

The CSG submitted a proposal for consideration by ITPB. The CSG represents IT staff from both administrative and academic units. As such, improving collaboration and coordination on IT projects could be enhanced by a “registry” of projects. It could also be worked into the CITI process. This would encourage cooperation at an early stage and prevent “reinventing the wheel.”

There was some discussion that two of the recommendations were beyond the scope of CSG, dealing with campus IT investment, but that two other suggestions have potential. There will be further discussion on this issue at the next ITPB meeting.
**Agenda Item #3: Research Informatics and Computational Data Initiative (Davis, Mori, Toga)**

Approximately two years ago, research informatics and data management were identified by the ITPB as a building challenge that needed to be addressed across disciplines on campus. Funding agencies were requiring data management plans. There are multiple sources of data that are growing in volume and type, and there are multi cohorts of faculty and multiple needs. While there is a great diversity of need and situation, there are also layers of common need, including scalable facilities, common data management protocols, intellectual property management, proposal, grant agency requirements, and configuration, management, accessibility, discoverability and search tools. Planning at UCLA has proceeded this past year by conducting scans of capability and need. This planning proposal is to request funds for planning sessions and symposia, to identify areas of leadership for external grants and to prototype scalable services drawing upon existing capability in different areas of the campus.

Art Toga pointed out that fragmentation is both a strength and weakness. The major weakness is that UCLA is not competitive on a national level. This should be a common goal across campus. We need to develop a coherent picture of informatics. The RFP process and review will be conducted and managed by the IDRE and I2 executive committees with oversight by an executive sponsors committee. The process will be open to anyone on campus.

Questions were posed regarding the national versus local issues. Many of the issues in the action plan are national and beyond the scope of one campus. Rather than finding solutions to all the problems, these projects seek to position UCLA to be competitive for the larger grants that address data management solutions. Funding will come from TIER funds that are also being used to plan the campus data center and infrastructure service needs. Larger projects that are identified during this planning phase would be submitted to CITI (not for research). It is a reasonable problem to tackle in order to meet requirements on grant/contract submissions.

*Motion passed to endorse the informatics initiative.*

**Agenda Item #4: IT Strategic Plan: Digital Citizen Concept (Reynolds)**

Kathy Komar began this item with a short report on FACTECH for the Humanities. She said that everyone was happy with the event and were eager to learn new technical skills.

Jackie Reynolds directed everyone to the IT 2020 website ([www.it2020.ucla.edu/digital-citizens](http://www.it2020.ucla.edu/digital-citizens)) to see a list of all the programs designed to produce ethical and innovative digital citizens at UCLA. Fiat Lux has a seminar to discuss illegal downloading, cyberbullying, etc. in response to the incident at Rutgers University. She reviewed other programs such as Lynda.com and First Fridays. By utilizing existing volunteer technical help, they have been able to extend assistance to a varied population, including emeriti/retirees.

*Motion passed to endorse the current compendium of community initiatives that define the digital citizen.*
Agenda Item #5: E-Dossier (Rice)

Tom Rice gave an overview of the academic review process. Although several campus departments have tried to develop online dossier programs, there is nothing that works for all groups. Dossiers are compiled manually and review of the materials usually requires that faculty physically go to the chairs’ offices to review the packet and publications. Four campuses have developed e-dossier programs: Davis, Riverside, San Francisco and San Diego. Tom and Rose Rocchio visited all four and discovered that while there were aspects of each program that would translate to UCLA, none of them were directly applicable. Therefore, a planning phase will incorporate borrowing from the other programs, but would be specifically developed for UCLA. Funds were requested from CITI and the project was recommended for funding.

Tom envisions a program that would be web-based, with drop down menus, integrated student evaluations, direct links to publications, outside letters with templates, and the ability for review to be totally online. Ideally, the program would be able to generate annual reports (such as the number of publications during a specific year in a particular journal) or CVs for grant applications. The budget will allow hiring of three people, and although Tom will be leaving in eight months, this process will be well on its way for the next VC of Academic Personnel.

Agenda Item #6: New Initiatives (Kathy Komar)

A. IT Investment Strategies Subcommittee

In the IT Strategic Plan, it was recommended that an investment strategy be developed to protect IT funding from budget vagaries. Kathy would like to form a subcommittee to explore this topic. If anyone is interested in serving on this committee, please contact Kathy or Stephanie.

B. Faculty Digital Presence (Jerry Kang)

It has become increasingly important for faculty to have an online presence, to showcase their scholarship and to communicate with their students. This serves not only individual faculty interests but the broader interests of the entire University. Unfortunately, many faculty lack the technological sophistication to create and update their digital presence (whether it is through blogs or websites). And departmental websites often provide dated and stale information. Jerry Kang suggested that we develop an easy, off-the-shelf method through which faculty could establish an online presence and directly update their sites with current materials. This would be for everyone, not just researchers with large data sets.

Jerry suggested that the CSG provide technical advice on what options might be available to facilitate faculty digital presence across UCLA.
C. Student Systems Interface

Kathy feels that this should be a priority for ITPB this year. Social Sciences has developed a system that will be reviewed. Again, anyone interested in serving on this committee, please contact Kathy or Stephanie.

The meeting was adjourned at 2:55 PM.
An Overview of:

UCLA mobile
Information on the go with any mobile device

January 31st, 2011
Given by: Rose Rocchio
Office of Information Technology
The Mobile trend

Apple’s Success

Thank you. Ten billion times.
The App Store has reached 10 billion downloads. Thanks for getting us there.

Proliferation of Mobile Devices

Android Growth

Android Growth, Statistics & Projections

Posted Friday, March 13th, 2016 at 3:18 am by Antonio Voilo Comments

Android Growth, Statistics & Projections
Mobile to overtake fixed internet usage

“The Morgan Stanley analyst says that the world is currently in the midst of the fifth major technology cycle of the past half a century. The previous four were the mainframe era of the 1950s and 60s, the minicomputer era of the 1970s and the desktop Internet era of the 80s. The current cycle is the era of the mobile Internet, she says — predicting that within the next five years “more users will connect to the Internet over mobile devices than desktop PCs.””

Mary Meeker: Mobile Internet Will Soon Overtake Fixed Internet
GigaOM article - by Mathew Ingram
Apr. 12, 2010, 2:27pm PDT
Mobile in Higher Ed -> a trend

• According to Educause, 74% of Students either have or intend to buy an internet enabled handheld device. 2010 Study of Student and IT (The 2010 CCLE survey showed that this # is 60% at UCLA based on 454 student responses)

• Students are more likely to remember their phone than their wallet.

• A mobile web presence is not just a desire, but truly an expectation.
The Approach: Native vs Web

Native Application Pros & Cons

- **Pro:** One Billion+ mobile apps downloaded (Apple alone)
- **Con:** Lack of cross-platform portability
- **Con:** Central architecture and distribution
- **Pro:** Commonly have robust APIs and features

The Mobile Web

- **Con:** Perceived lack of deep features and APIs
- **Pro:** Device Agnostic = broadest distribution
- **Pro:** Security is solid as it is web based
- **Pro:** Scalable architecture
- **Pro:** Maintenance of application significantly lower
Mobile Web Framework options

- Fall of 2009
- MIT had built a mobile web framework and made it open source
- Issues were:
  - Server Centric – all the data had to co-exist
  - Platform specific – written entirely for PHP
- Fall of 2009, OIT began building the UCLA Mobile Web Framework (UCLA MWF)
UCLA Mobile Web Framework

- **Principles**
  - Device Agnostic -> community inclusiveness
  - Graceful Degradation
  - Unified mobile presence
  - Technology Platform Independent
  - Scalable, distributed architecture
  - Modern web standards (HTML 5, CSS 3, etc...)
Graceful degradation: Tour Module

Inside Ackerman Union are restaurants offering everything from burgers to a variety of ethnic foods. Ackerman also houses a ballroom, arcade, candy store, portrait studio, and ATMs.
UCLA Collaboration & Governance

- Initially team included OIT, Student Affairs & UCLA Communications, now 15 + units
- UCLA pilot Mobile Steering Committee (includes reps from: OIT, OID, Library, CTS, The College, SOM, ORA, Facilities, Graduate Division & UCLA Communications)
- CSG presentation in May 2010
- FCET presentation in Oct 2010
UCLA Mobile Statistics

- UCLA Mobile launched on 9/2/2010

- Modules include:
  - News, Events (Happenings), Directory, Map, BruinBus, Campus Life (Tour, Student Groups, Career Center), Library, iTunes U & YouTube

- Statistics as of 1/24/2011:
  - 116,628 visits from 61,588 Visitors
  - 161,140 page views
  - ~2 minutes for average visit
UCLA MWF Driving Innovation

*Potential* Student Tools
- A list of all the textbooks need to buy, eTexts integrated
- An Assignment “To Do list”
- Announcements & Grade Alerts
- Office hours & alerts for cancellations
- Course Roster

*Potential* Faculty Tools
- Course Roster with photos
- A Course Announcement Tool
- Calendar functionality – integrating where possible
- Clicker functionality - for in class interaction
- Que of Assignments to Review
- Discussion Board – viewing & participation summary
UC adopting the UCLA MWF

- UCSD’s assessment of the UCLA MWF
- UC interest in collaboration = 6 schools
- UC Contributors to the UCLA MWF
  - UCSD
  - UC Berkeley
  - UC Riverside
- Monthly UC call to collaborate, sharing a code library using SVN (Subversion)
Appendix
Mobile links

- UCLA Mobile Site
  - http://m.ucla.edu

- Framework Documentation Site
  - http://m.ucla.edu/doc

- Mobile Collaboration Site
  - http://ccle.ucla.edu/course/view/Mobile

- UCLAMobile Listserv
  - http://lists.ucla.edu/cgi-bin/mailman/listinfo/uclamobile
  - uclamobile@lists.ucla.edu
A Distributed Mobile Architecture
UCLA Mobile – Student Tools

- Held a Focus group with students last summer
- Working closely with CCLE

2010 CCLE Student Survey (454 Responses)

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<thead>
<tr>
<th>Response</th>
<th>Average</th>
<th>Total</th>
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<tbody>
<tr>
<td>A complete list of textbooks for all courses</td>
<td>42%</td>
<td>192</td>
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<tr>
<td>Class Roster - like Classmates on MyUCLA</td>
<td>17%</td>
<td>77</td>
</tr>
<tr>
<td>Maps on how to get to class</td>
<td>34%</td>
<td>156</td>
</tr>
<tr>
<td>Study list - or Class Schedule - like the one on MyUCLA</td>
<td>63%</td>
<td>287</td>
</tr>
<tr>
<td>A Course Announcements Feed</td>
<td>39%</td>
<td>179</td>
</tr>
<tr>
<td>A Grade Alert</td>
<td>46%</td>
<td>211</td>
</tr>
<tr>
<td>Discussion Board functionality for viewing and posting</td>
<td>16%</td>
<td>83</td>
</tr>
<tr>
<td>An Aggregated Assignments &quot;To Do&quot; list</td>
<td>47%</td>
<td>214</td>
</tr>
<tr>
<td>Flash Card studying applications</td>
<td>38%</td>
<td>173</td>
</tr>
<tr>
<td>Clicker Functionality - for class interaction</td>
<td>24%</td>
<td>109</td>
</tr>
<tr>
<td>See the office hours for all of your instructors on one screen</td>
<td>44%</td>
<td>201</td>
</tr>
</tbody>
</table>
UCLA Mobile – Faculty Tools

- Planning a Faculty tools mobile focus group
- With a focus on both Instruction and Research tools

2010 CCLE Faculty Survey (74 Responses)

<table>
<thead>
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<th>Response</th>
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<tbody>
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<td>No</td>
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<td>Undecided</td>
<td>11%</td>
</tr>
<tr>
<td>Total</td>
<td>70%</td>
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</table>
UCLA Mobile Web Framework Pilot

The increasing trend of mobile learning

At UCLA and across the country, an increasing trend exists toward mobile learning. By recent estimation, over half of college students have internet-capable handheld devices. The Stanford Dean of Students recently cited a finding from his research that “students were more likely to remember their phone than their wallet when heading out”. This the case, a mobile presence for UCLA is not only a desire, but an expectation.

Native apps versus web apps

Generally, two types of applications exists for mobile devices:

- **Native Applications** are platform-specific applications that run natively on specific device hardware, generally with low portability, central distribution and robust hardware interfaces.

- **Web Applications** are Internet applications that run on any device that has a browser, with superior portability but an apparent lack of hardware interfaces. As a note, device browsers and interface still vary enough to require variations in styling.

The mobile device platform market is rapidly and continually expanding. With students as early and frequent adopters of new technologies such as mobile devices, developing a native application that serves a substantial number of devices on campus quickly becomes a challenge. Therefore, the UCLA Mobile Web Framework instead focuses on providing a web-based platform that can adequately serve a vast majority of mobile devices on campus.

A federated mobile identity

As opposed to the traditional web, which is a collection of disparate content linked by page hops and searches, the mobile web focuses on an integrated experience categorized by portals, menus, and directed content. The UCLA Mobile Web Framework pilot will establish a unified identity for the campus’ mobile presence through CSS, Javascript libraries, and other resources and tools, while leaving applications hosted by and under the direct control of their respective departments.

Strategy

The UCLA Mobile Web Framework pilot has several primary objectives:

- Create a device-agnostic mobile framework capable of dealing with the increasing variation in handheld devices.
- Serve as a resource for building mobile applications, providing styling and scripts that take advantage of device-specific features, yet degrade semantically for the vast majority of devices.
- Facilitate a federated UCLA mobile identity: one outward presence comprised of many individual applications.
- Conform to mobile web standards such as W3C Mobile Web Best Practices and the Global Authoring Practices for the Mobile Web.

Anatomy

The framework itself is a library of CSS, Javascript and other assets. By providing markup standards, CSS definitions, Javascript functions, and utility scripts, the framework allows a developer to write a single set of markup that works on all devices supported by the framework, while still leveraging device specific features when available.

The framework, at this time, distinguishes between four different types of phones: WebKit-based (iOS, Android, WebOS, etc.), other rich user interfaces (mouse or touch screen), linear browsing (T9 phones), and no-CSS phones. Then, the page is styled completely differently based on the viewing device. Below is a single markup example page that is rendered on phones that fall under the three different CSS classifications:
In addition to styling, the framework will also allow an application developer a standardized way to interface with phone-specific features such as gestures, geo-location, and more, all through Javascript.

**Implementation**

One of the greatest challenges for mobile developers is the rapidly changing landscape of devices. In the past, applications have had to accommodate this individually. This has added a lot of overhead, both upfront in development and in maintenance later on. The UCLA Mobile Web Framework will allow developers to avoid device-by-device planning completely, instead providing an abstraction layer for developers, the framework itself the only piece that must make device-by-device determinations as long as developers employ its standards.

A central server will host the front splash page, as well as CSS, Javascript and image libraries, and the scripts that serve them to client applications.

The splash page will act as a portal for various mobile sites at UCLA, each hosted and run under their respective department but tied together through a central look and feel. To this end, each application will reference the framework's CSS and Javascript libraries, maintaining a consistent UCLA mobile identity and providing the applications with an enhanced level of rich functionality.

To implement the framework, a developer will primarily need only to implement HTML entity classes (<...class="attr"...>); these classes will, though CSS and Javascript, deliver functionality defined through the framework for each device classification. Some classes will create mobile-styled menus, buttons, and content areas, while others will enable interactive capabilities like Javascript element toggling, touch screen gesture detection, and even geo-location and address book functionality.

The framework documentation will also provide comprehensive information on developing UCLA mobile applications, including specifications for both styling and interface classes in the framework, as well as general HTML recommendations necessary for semantic degradation on non-CSS devices.

**Prototype**

UCLA has begun development of a prototype for the framework. Among the mobile apps used by many surveyed universities, the pilot collaborators have selected several key applications that they believe are essential for the success of the application pilot; as such, in the prototype, intended for launch by Fall 2010, the framework team hopes to have applications in the framework including directory, news, events (Happenings), campus map, campus tour, library and iTunes U, as well as any other applications that have an interest in participating.

**More Information**

Mobile computing mailing list: uclamobile@lists.ucla.edu
Planning and collaboration site: http://ccle.ucla.edu/course/view/Mobile

For administrative information about the project, please contact Rose Rocchio at rrocchio@oit.ucla.edu. For technical information about the framework, please contact Eric Bollens at ebollens@ats.ucla.edu.
UC San Diego Mobile Framework Recommendation

Background
UC San Diego was one of few academic institutions to first establish a mobile presence (the first public University). This was accomplished via external resources that were contracted to build device-specific native applications (iPhone and BlackBerry) and a device agnostic mobile web ([http://m.ucsd.edu](http://m.ucsd.edu)). In early 2010, the vendor was bought out by Blackboard. Subsequently, Blackboard redirected their efforts to optimizing the Blackboard product for mobile devices, which left long term support of MobileEdu in question.

In addition, we have to invest in keeping up with the fast-paced mobile world or face falling behind due to:
- The rapid deployment of smart mobile devices that continue to be introduced to the market.
- The existing mobile browser-based web content (m.ucsd.edu) looking dated due to supporting the lowest common denominator for mobile browsers.
- The mobile content being hard to update due to dependency on external vendor resource.

Statement of Intent
The overall goal of this project is:
- To establish a campus mobile strategy
- To identify frameworks and tools to implement the strategy
- To actively contribute to a framework in collaboration with participants outside UCSD.
- To conform to mobile web standards such as [W3C Mobile Web Best Practices](http://www.w3.org/TR/mobile-best-practices/)

By not developing a campus mobile strategy:
- We remain dependent on external resources (TerriblyClever/BlackBoard) to meet our needs. There is an ongoing cost and enhancement limitation with this approach.
- Individual campus entities will address their own mobile requirements with ad-hoc funds and approaches. This type of response would increase future aggregated cost across the University.
- We elevate institutional risk as there is no standard strategy to deliver secure mobile content.
- Our mobile presence continues to fall behind or diminish.

Analysis Summary
A focus group, consisting of IT-leads across the campus, took part in evaluating and defining the recommendation for a campus mobile framework. The following campus departments were represented in this group:
- Academic Computing and Media Services (ACMS)
- Administrative Computing and Telecommunications (ACT)
- Biological Sciences
- The Colleges
- Libraries
- Scripps Institution of Oceanography (SIO)
- Student Affairs

The following steps took place in the evaluation process:

**Step 1.** Identify relevant mobile frameworks and perform a quick review based on technology, industry standards, cost, maturity, and supported platforms. The following frameworks were reviewed: UCLA Mobile Web Framework, MIT Mobile Web Project, SproutCore, PhoneGap, jQuery Mobile, WebApp.Net, Sencha Touch, iMobileU. This is the link to the reviews:
[https://spreadsheets.google.com/pub?key=0Akg5Mmp3HZPZdGRzTWtUbTFUUKFZWmQ4RE9qMXEyDFE&hl=en&output=html](https://spreadsheets.google.com/pub?key=0Akg5Mmp3HZPZdGRzTWtUbTFUUKFZWmQ4RE9qMXEyDFE&hl=en&output=html)
Step 2. Select the top candidates from above list and create working proof-of-concept apps. Based on the reviews, **UCLA Mobile and Sencha Touch** best met our goals of:
- Delivering functionality via the mobile web browser
- Framework developed using primarily front end technologies
- Rich feature set

In addition, **jQuery Mobile** was a desirable technology that could possibly provide UI element to any chosen framework.

Step 3. Perform in-depth review of proof-of-concepts of chosen platforms. 5 different campus entities (IT/programmers) presented their proof-of-concept mobile applications of UCLA Mobile, and Sencha Touch to the focus group. The following categories were addressed: ease of use, framework features, documentation, cross-platform support, maturity, extensibility, learning curve, and integration with our campus CMS.

Step 4. Make final recommendation. Based on the defined evaluation criteria, the **UCLA Mobile Framework** was selected. In addition, the UCLA Mobile Framework team clarified their plans for sustainability, documentation, collaboration, and licensing.

**Recommendation**

UC San Diego recommends leveraging the **UCLA Mobile framework**, a standards-based lightweight mobile framework which supports all mobile devices that contain a mobile web browser. The following summarizes why it was chosen:
- It is a mobile browser framework, meaning it is device agnostic. This reduces the need to create and maintain platform-specific “apps” as new operating systems emerge.
- It is a “front end”, meaning different applications can leverage the framework without needing to be collocated on the same server.
- It is technology-independent, meaning applications can leverage the framework regardless of whether they are built in JAVA, .NET, PHP, etc.
- It detects the type of device accessing the application using the framework and tailors the user experience to the features of the device.

**UC-Wide Adoption**

UC San Diego supports the effort of a UC-wide adoption of the UCLA Mobile Framework and would be available to help present this recommendation to the UC-wide ITLC and ETLC groups. UC Berkeley will launch their mobile apps in the Spring based on the UCLA framework. UC Riverside and UC Davis are evaluating.

**Supporting (Internal) Documents**

<table>
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<tr>
<th>Project Proposal</th>
<th><a href="https://sfee.ucsd.edu/sf/go/doc4536?nav=1">https://sfee.ucsd.edu/sf/go/doc4536?nav=1</a></th>
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