

# Competition Write Up for IMLS

## Background

The Library Mobile App Competition was a grant-sponsored activity which investigated the creative potential a student team competition could have for informing the design process of mobile applications. The competition format allowed for an open call across disciplines, and was able to attract a more diverse group of undergraduate students than some of the other grant activities, since it was not limited to a particular class or college. Additionally, there were no course requirements, which allowed for a somewhat broader consideration of potential features and functions that each team's app could serve.

The goals of the competition for the library were to identify potential student needs for mobile applications and location-specific access to library data, as well as to assess the viability of the competition format as a repeatable activity for the library's overall mobile development service. For the student participants, the competition provided a chance to earn some prize money, but, more importantly, it gave them a much desired resume-building opportunity to develop and design a plausible idea/solution and then to deliver it a formal business pitch to a real-world client. Unlike many of their class experiences in which the client is entirely hypothetical, the library has real needs, and the ideas developed by each team had the potential to be implemented and generate actual services.

## Requirements and Timeline

The competition was outlined in a Student Information Packet (see attached). This document, which was influenced by similar ones used in a local Business Team Competition and MIT's Entrepreneurship Competition (e.g. <http://www.mit100k.org/>), outlined the requirements for an app, and set a timeline for the individual stages each team needed to complete in order to develop a qualifying mobile application. Each app was required to address observed student needs for discovery of and access to information about library services, collections, and/or facilities. Apps also needed to recognize location-specific needs, and students were encouraged to think of related third party data which might enhance the user experience and complement the library component. Finally, apps needed to offer new functionality that did not duplicate existing library mobile applications.

It is important to note that the final presentation did not require a functioning app; rather, students were encouraged to focus their energies on developing the best idea and pitch, and to conduct investigations of actual student needs related to the library. Final presentations required visual mock-ups and descriptions documenting the identified problems the app was designed to solve and how it would improve the student library experience.

The final piece of the application packet included the criteria judges used for evaluating each team presentation.

Based on recommendations from a faculty member who had successfully run many local Case Competitions, a series of mandatory sessions formed the timeline for the competition. The goal was to set a high bar for participation, to make sure

that teams would stay together through the month-long competition event, and to weed out students with poor time management skills or who were overcommitted and unable to be highly engaged in the design process.

## Timeline

Dates	Event	Mandatory
Oct 23 2012 to Nov 30 2012	Student registration via on-line form	Yes
Dec 5 2012 to Dec 13 2012 (extended to Dec 19 2012)	Students sign <b>Assignment Agreement</b> and <b>Informed Consent form for Student Competition.</b>	Yes
Jan 24 2013	Orientation Session 1 at the Undergraduate Library	Yes
Jan 26 2013	Walking tour of campus	50% of each team required
Feb 11,13 & 14 2013	Presentation Review Sessions (two teams presented on each date)	50% of each team required
Feb 21 2013	Final Presentations	Yes

## IRB

Institutional Review Board (IRB) documentation for studies involving Human Subjects Research was completed for the competition as part of a larger IRB that encompassed the entire grant. It proved problematic to combine the competition IRB as part of a larger IRB, as all questionnaires and research methodologies needed to be approved together, which slowed the process down. The lesson learned was to do an individual IRB specifically for the Competition to reduce start-up time.

The components of the IRB related to this competition included recruitment flyers and procedures, survey questions that were asked as part of a debrief session at the end of the competition, a description of the Competition methods and expected outcomes, and an informed consent form.

## Licensing and Contest Rules

The grant team worked with campus legal services to develop a License Agreement which specifically detailed the ownership and reuse model for the intellectual property generated by the competition (mobile app concepts and any accompanying code). The option the team settled on was one of co-ownership, in which both the teams and the library had rights to develop applications based on competition content. This model seemed the most flexible, and provided for both library needs to generate actual functioning apps, and rewards to the students for their planning and work. All students were required to sign off on the licensing agreement as part of their application process.

The Contest Rules were posted on the competition recruitment website, (<http://www.library.illinois.edu/studentapps/overview>) and were also developed in consultation with campus legal services. This document copied some information

from the licensing agreement and the student information packet, and also detailed specific requirements for participation, such as age, undergraduate standing at the university, and a stipulation that library employees were ineligible, to prevent a conflict of interest.

### **Student Recruitment**

A multi-pronged approach was used to recruit students for the contest. Flyers were posted in high-use buildings on campus, and recruitment emails were sent out to departmental student listservs, such as advising listservs. In addition, student clubs with a focus related to mobile app development were contacted and asked to distribute information to their members. A web-based application form was used, which in addition to demographic information such as major asked students to answer three specific questions:

1. Why are you interested in this competition?
2. What do you see as the future of mobile computing, particularly in the academic environment?
3. What unique skills would you bring to a team as part of this competition?

### **Team Formation**

All applications were reviewed by the grant team. The goal was to have 4-6 teams, with a maximum of 5-6 members per team. A total of 36 applicants applied. 31 were approved, 5 students were placed on a stand-by list. The final number of applicants prior to the orientation meeting, was 27. Five teams were pre-formed by 19 of the applicants who found their own team members. There were 7 applicants who needed to be assigned to teams. A total of 6 teams were created; the five that consisted of their own pre-selected members with an additional member assigned to them, and a new team of all the remaining members. At the final presentation there were 25 remaining applicants.

The teams consisted of students from a number of disciplines including industrial design, graphic design, computer science, statistics, industrial engineering, architecture, marketing, civil and engineering engineering, general engineering, urban planning, new media and art.

One of the findings of the study is that students who preselected their team members worked well in terms of commitment and producing a quality presentation, but tended to exclude the additional member that was assigned to the team. The single team which consisted entirely of members selected by the grant team also functioned well, and indeed won one of the top prizes. In the future, the best practice identified was to have teams consisting either entirely of self-selected members, or entirely of individually appointed members.

Additionally, 6 teams proved too many for a single final presentation before a judging panel. This pushed the event to over three hours, (20 minutes for the presentation, five minutes for questions from the judges and five minutes for judge's reflections). Fatigue on team members and judges became apparent. A suggested number of teams for a final competition with a single panel of judges would be 4 teams. Another option is to have two final rounds, and have different panels judge teams simultaneously. This method was used in some of the local case

competitions, and allows for greater participation on the student end, although it does require more judges and administrative coordination.

### **Orientation Session (January 24)**

This introductory session for all team members occurred on a Thursday evening. In addition to a team meet and great (including pizza and soda), a presentation by the grant administrators provided the rationale for the competition, the goals and timeline, examples, judging criteria, and an opportunity for questions and answers. Team members then met to begin a discussion of their ideas and when to meet. Some of the self formed teams had already met to discuss ideas.

### **Competition Site Visit Session**

The campus tour occurred on a Saturday morning. Teams met at the Undergraduate Library. There were three tour groups established, each consisting of 2 team leaders (Grant administrators) and two teams. Each group was given a time frame for visiting five locations. Each group had about 15-20 minutes at each location to examine the space and discuss how a mobile app might answer student's research needs in that location. At the end of the tour, teams turned in a one paragraph summary of their top observations from the session. Questions they were to consider included:

- What research needs might students have in this location?
- What library resources or services would be helpful for students to access in this location?
- What are the related class needs that students might have in this location?
- What other features of a mobile device or app might benefit student research, studying, or class needs in this location?

### **Observations from the Tour Leaders for the competition site visit**

Not all students printed off the email that was sent that provided the questions they should think of while visiting the sites. Some of the group leaders printed off copies once they arrived at one of the Libraries. A leader from another group took time to read off the questions again at each tour site.

The following are some excerpts of reflections made by the group leaders while watching the students in the various venues.

#### **Grainger**

Group 1 Leader Observations: We noticed that a student in the competition picked up an I-Share book while we were in front of the Grainger Library circulation desk. Other things we noticed students doing included playing with the Grainger kiosk in the entryway, and picking up handouts from the information sheets in front of the desks. We noticed also that Grainger at this time of day is rather sunny and quiet all around.

Group 2 Leader Observations: Grainger was the last stop for students in this group. We let them know the various areas of the Library they could explore. Although the group leaders stopped by the kiosk and made a few comments, the two teams went off to other places. One team simply went to a table and spent fifteen minutes writing up their summary of their observations. When they turned it in they said they had already spent time at Grainger and actually had ideas before the tour of what they wanted to do, so used the day to explore any other modifications to their ideas, based on some of the locations. The other group walked around a bit and sat down to write their summary too. Individually, before leaving, both teams mentioned that one of the main observations they had was the difference in noise levels at the various places and also the importance of finding social networking opportunities to help students find appropriate venues to study/work/connect.

### **Union:**

Group 1 Leader Observations: When we arrived at the Illini Union students began looking at the kiosk/map in the entryway. The students were taking pictures with their phone of the kiosk and also tapping and interacting with the map display of the kiosk.

Group 2 Leader Observations: The Union was very busy with students in many areas. The teams both walked around the spaces and were noting the way groups were interacting and the devices they had available and were using. The teams also were looking for the types of places students could go to work quietly. They did not seem too interested in exploring the more social areas (such as the food places or the bowling/activity areas).

### **Lincoln Hall:**

Group 1 Leader Observations: When we arrived at Lincoln Hall we noticed there was some sort of event for Greek volunteers. Students were mostly drawn to hanging out in the classrooms here, while considering what apps to design and what functionality would be useful in this location.

Group 2 Leader Observations: Unfortunately, most of the rooms were locked (Saturday) and the teams were not able to really explore the spaces and commented that it would be better to have them do this exploration on a day when they could access these spaces and see how they are being used. We did chat about thinking of classroom/lecture hall/theatre configurations and to consider those venues when considering an App.

### **Espresso Royale Cafe:**

Group 1 Leader Observations: As we arrived one student noted that “everyone is on Facebook here” – the Industrial Design students continued their practice of taking many pictures in this location. The students went down stairs while one group stayed upstairs. The students asked to stay at least five extra minutes while they talked amongst themselves outside of the café.

Group 2 Leader Observations: The student teams here both sat at different tables and spent time looking at what others were doing. When we were leaving both commented on the noise level and the difficulty for groups to actually talk in this type of environment, as well as even finding a spot to get together. On the walk to the next location one of the teams mentioned how important it would be to have an app that let them know what was available elsewhere for group spaces, which is what they were investigating and said that the Lincoln Hall visit also helped them think about the importance of groups connecting with other groups in their subject area/class.

### **Ikenberry:**

Group 1 Leader Observations: The Ikenberry commons is expansive. It features an exercise room, a fairly large food store, and a dining hall. We left students to explore the Information Commons library location and found that they were engaged with taking notes on an iPad mini when we were leaving the building.

Group 2 Leader Observations: This was the first stop for our group. We reminded them the questions they should consider as they explored the area. The students were already familiar with this location, but tried to look at it through the eyes of what would help students in research efforts. Interestingly, in addition to noticing that students had laptops or mobile devices, one team was commented about the need for visually presenting information to prompt them to do an action (like the print poster that might encourage them to check out a book).

### **Observations from the Students for the Site visits**

Joe\_ can you put stuff here from their paragraphs?

#### **Lessons Learned**

- Provide the handout of questions to consider at the time of the tour
- Provide a scenario of what a team might do on their observation
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### **Presentation Review Sessions (February 11-14)**

Two weeks prior to the final presentation teams presented their presentation to some of the grant team. Only two teams presented on any evening and were allowed one hour to set up, present and then to discuss feedback and questions from the grant team. This review session was valuable in a number of ways.

#### **Testing the technology.**

The first was to give the teams an opportunity to see if their technology worked or if they needed to make modifications. This was especially important for three groups. One group had not formatted their presentation in a way that could be viewed without downloading some other program. Another team wanted to practice plugging in switching over to an iPad in order to show their product. This required getting the appropriate cables and

working with the switching process. The other group wanted to practice linking to an online video.

### **Modifying layout, fonts and colors**

A couple of the teams had not considered the impact of their presentation on a large screen. The grant team advised various teams to step away from the front of the room and walk halfway to the back of the room and make some observations on what they saw on the screen. In one case the group had used a small font in green. From a distance it was not even visible. Another group noticed that there was so much white space on the screen and could enlarge the font and images to be more readable. Another group thought about possibilities in rearranging some of the content to make better use of the space.

### **Feedback**

After each team presented, the grant team asked them some questions, such as: What did they have left to do? What do they feel is unique about their proposal; and what might they do differently?

Each grant team member then provided feedback, asked additional questions or provided suggestions on areas the team might want to consider as they proceeded. The feedback was presented in a positive way, acknowledging the excellent work done and areas that were done particularly well. Examples of some feedback was to consider: labeling diagrams; adding additional visuals on some text heavy slides; modifying some of the case use studies to be more specific to library resources the app will address; taking more time to highlight certain key features from the survey they undertook; reorganizing a few slides to help the flow of the presentation; fleshing out a particular function of the app (if unclear); emphasizing certain critical components; and providing a final recap of the value of the app;

The grant team also provided suggestions for the groups to help each other in their presentation by noting eye contact, utterances such as “um”, and “kind of” Some teams asked relevant questions pertaining to ideas for other things they might include or not include. Some teams asked about what to wear and other logistical questions. The teams were briefed on what to expect the day of the competition, and next steps for getting the presentation to the Project Manager.

In general, the teams had all done an impressive job at the review session. They all had nearly complete, professional presentations, had memorized their speeches, were audible and energetic. A couple of teams wanted to know if what they presented was something that could be done. We reiterated that the purpose of the grant was to sell an idea based on needs of students, but that what they had presented was definitely in the realm of possibilities. One concern is answering whether or not it is possible, because it might influence what they do or do not include in the final presentation.

## **Final Presentation and Judging (February 21)**

The final presentation occurred during a big snow storm. Two of the five judges was not able to get to the presentation. However, three judges was sufficient and five may have been too many.

- A nice presentation room was reserved and food ordered and set up an hour before the competition. The grant team brought their own computer, projector and screen.
- The students were asked to arrive 30 minutes before the start of the competition to test that their presentation was loaded correctly. They also then drew for the order they would present, Judges arrived fifteen minutes early to be debriefed.
- Teams were only allowed in the room after their team presented. They were asked to be outside the room 10 minutes before their time slot in case we were running early.
- Each slot was for 30 minutes (20 minutes for the presentation, 5 minutes for judges question and answers and 5 minutes for judges to confer while the next team set up).
- At the end of the competition judges conferred and brief comments were made by the hosts and the judges regarding the impressive work of the students.
- Teams were called up to received certificates (finalists) and certificates and their awards for the top three teams. An enlarged image of the checks were provided for the photo that evening and the real checks to be distributed the following week.

### **Lessons Learned**

- The presentation review sessions were beneficial. We saw the suggestions that were given taken to heart and improvements were made, which resulted in better presentations and explanations of what the apps would do to solve an existing problem.
- Three judges is sufficient.
- There should be more time built in at the end of each presentation for judge questioning and conferring. They wanted more time for the first few presentations than they had allotted.
- Teams should be instructed to stay in a place close by in case teams end early.
- In one venue, four teams should be the maximum number in order to minimize exhaustion of both the judges and the last teams to go.
- It would be good to video tape the presentations for later use (clips) and to hear descriptions that would be useful for later app development.

## **Lessons Learned and Some Best Practices**



- Regular email communication from the Grant Project Manager to the students was valuable and necessary to keep everyone informed and to make sure that timelines were met.
- It may become necessary to disqualify a member of a team due to inactivity or nonparticipation. Some language in the competition guidelines about possible disqualification should be included.

**Findings for Mobile Apps to Develop as a result of the Competition  
(forthcoming)**