

# Revisions

## **Revisions based on feedback received on May 3**

Based on the feedback given by the Library Lab committee, communicated through Sebastian Diaz and Sue Kriegsman, the following changes have been made to this proposal

- We have expanded the population set to include all members of the Harvard Community
- We have included a sampling from a professional school, the Law School, in hopes that we can gain insight into how different types of community members engage the collection
- We have reworked our incentive structure. Students no longer receive an iPad at the beginning of the study
- We have added Constantine Boussalis and Travis Coan of the Law School's Empirical Research Services group to the investigators list. Having their full participation will ensure a properly run, high-quality study

## **Revisions based on feedback received on April 23**

Based on feedback given by the Library Lab committee and consultation with the Law School's Empirical Research Services group, the following changes have been made to this proposal

- We have focused on collecting data to solve one problem: loan periods. Given this, we think that profile students for an entire term is the best approach
- We have decided to produce a mobile application that will support both iOS and Android devices
- We have indicated that all work will be done by members of the Library Innovation Lab without cost to the Library Lab grant



# Where the Wild Books Are

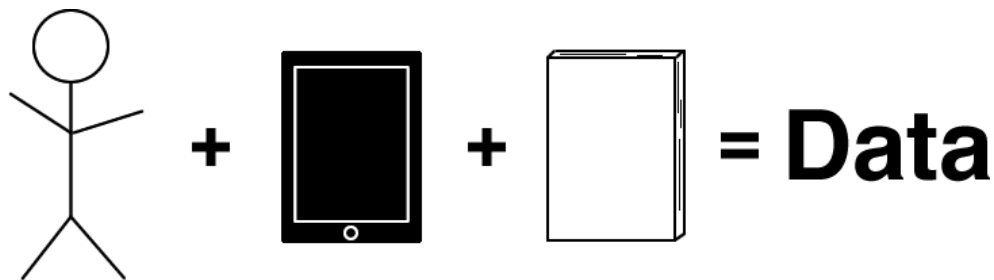
## Library Lab Grant Proposal

---

### Overview

The Harvard Library has limited empirical data describing how the community engages with the collection. This proposal offers to substantially increase that dataset.

Below, we outline the details of a term-long study that will help us profile location, time of day, time of year, and frequency of use of physical library materials within the Harvard community. In particular we hope this study will allow us to suggest, based on measured data, loan period policies.



### The study

Over the 15 week term, participants will be asked to take a picture of the barcode, using the mobile application, of every library holding they use, each time they use that holding. Over the period of the term, we hope to build an accurate profile of how the participants engage with the collection from the timestamp and geolocation data provided by the mobile device.

Two sets of students, one set from the College and one set from the Law School, will be recruited for the spring 2013 term. Upon agreeing to participate in the study each student will meet with study administrators to sign an IRB consent form, discuss privacy concerns, and review details of the study. During the initial consultation, students will install an application on their personal mobile device that will help them track their usage of physical library items.

In addition to the two sets of students, we will open up the study to everyone who has library privileges and would like to participate. This group will contribute data just as the two student groups, but will be introduced to the study through a project website. While the “opt-in” nature associated with this third set of students makes generalizing to the library community difficult (if not impossible), it will allow us to collect data on a wider range of library patrons.

### **Target populations**

Three groups will be sampled: Harvard College students, Harvard Law School students, and all members of the community that have library access.

300 students from the College and 200 students from the Law School will be randomly selected to participate in the study.<sup>1</sup> Given that students are randomly selected from their respective populations, these samples permit us to make statements about these two groups of students more generally. The ability to generalize is important when designing programs and policies to better serve the patrons in these two groups. Moreover, given that we are offering significant incentives for participation (see the next section on “Participant incentive”), we expect the highest level of compliance among students in these two groups and thus the highest quality of data. Nevertheless, after developing the mobile application, it will cost very little to open the study to the Harvard library community at large. As such, we plan to make the mobile application available to anyone with library privileges.

Contrasting usage patterns across these three populations will provide insight on how library usage between these populations differ and how best to serve each one in their own library and across the system as a whole.

### **Participant incentive**

Participants will be providing data that will help the library system. If altruism is not enough to motivate participants to contribute to the study, a chance to win an iPad might be; students from the College and Law School sample sets will participate in a weekly drawing for a chance to win one of the iPads in that week's giveaway. Drawings will occur every week of the study resulting in a total of 50 iPads distributed over the course of the term.

---

<sup>1</sup> Based on an effective sample size calculation, these numbers provide a margin-of-error of 10%, assuming a response rate 75%.

Students from the College and Law School sample sets will also be given a \$10 Coop gift card at the beginning of the study. Research demonstrates that a token gift at the beginning of a study greatly increases both the response rate and compliance.

At the end of the analysis phase of this project, participants will be able to log into a website and view their library usage over the course of the study and compare their engagement with aggregates from the three populations that were sampled.

### **The tools**

We plan to develop a mobile application that will run on Apple iOS and Android devices. This mobile application will allow a student to log her activity with physical library materials with minimal work on the part of the participant.

Upon registering with the app, participants will be able take a picture of the barcode of the item they are using. When the barcode has been captured, that image is sent, along with a geolocation and a timestamp to a service that logs the information and associates it with the student's account.

### **Data analysis and data sharing**

The Law School's Empirical Research Services group will analyze the data and tease out patterns. This analysis will be used to build a report that will be distributed publicly.

We will also provide a bulk-download of the term-long study data so that others can do their own analysis.

### **Loan period policy and other practical applications of the data**

Loan period policy is difficult for libraries to determine. We do not understand how students use items during the long loan periods. That is, when, in the course of the time the student has materials out, does the student actually use them? Right up close to the deadline? All throughout?

By tracking student usage through an entire term we can establish a profile of behavior that can help us establish well-informed loan periods.

In addition to loan periods we might be able to use the data at least a couple of different areas:

- Library operation hours – Is the library open when students are using library materials?
- Study areas – Do students use the library resources in the library? In their dorms? In the Yard? At Crema Cafe?

### **Proposed funding**

Weekly iPad awards:

50 \* \$500 per iPad = \$25,000

Small, token handouts:

500 students \* \$10 Coop gift card = \$5,000

Software development, data analysis, and project management:

\$0 -- No charge for work performed by the investigators

Mobile device development tools:

\$500

Total: \$30,500

### **Principal Investigators**

Matt Phillips of the Library Innovation Lab

Annie Cain of the Library Innovation Lab

Travis Coan of the Law School's Empirical Research Services group

Constantine Boussalis of the Law School's Empirical Research Services group