



# ***HACKING THE LIBRARY***

**ENG 3599**

***HACKING THE LIBRARY***

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# ***WELCOME TO HACKING THE LIBRARY***

## ***WE'RE CREATING A NEW KIND OF LIBRARY AT OLIN***

We're building it ourselves. We've focused on our physical space and community experience. And we've been doing this work in the margins -- evenings, Summers, all points in between. Except during class time.

## ***HACKING THE LIBRARY IS DIFFERENT***

- We're focusing on software and systems
- We're doing this work inside the curriculum

Let's take all of the of creativity, problem-solving and prototyping energy of an Olin course

and feed it back into The Library. While here at Olin and the currency is credit, not cash, let's give back to the Olin community, and communities beyond our own.

## ***WHY HACK LIBRARIES?***

### **Penetration**

17,566 Public Libraries - more than Starbucks or McDonalds

### **People**

1.5 billion in-person visits to public libraries across the U.S., 4 million/day

### **Libraries could use our Help**

Libraries want R & D, they just can't afford it. They have the ideas but need help building technologies that meet the needs of their unique communities.

### **In Service of Democracy**

Libraries are founded on the belief that democracy relies on an educated citizenry. In keeping with this civic mission, Libraries

created and adopted their own Bill of Rights.

The **American Library Association** affirms that all libraries are forums for information and ideas, and that the following basic policies should guide their services.

**I.** Books and other library resources should be provided for the interest, information, and enlightenment of all people of the community the library serves. Materials should not be excluded because of the origin, background, or views of those contributing to their creation.

**II.** Libraries should provide materials and information presenting all points of view on current and historical issues. Materials should not be proscribed or removed because of partisan or doctrinal disapproval.

**III.** Libraries should challenge censorship in the fulfillment of their responsibility to provide information and enlightenment.

**IV.** Libraries should cooperate with all persons and groups concerned with resisting abridgment of free expression and free access to ideas.

V. A person's right to use a library should not be denied or abridged because of origin, age, background, or views.

VI. Libraries which make exhibit spaces and meeting rooms available to the public they serve should make such facilities available on an equitable basis, regardless of the beliefs or affiliations of individuals or groups requesting their use.

*Adopted June 19, 1939, by the ALA Council; amended October 14, 1944; June 18, 1948; February 2, 1961; June 27, 1967; January 23, 1980; inclusion of "age" reaffirmed January 23, 1996.*

## ***WHY HACK THE OLIN LIBRARY?***

### **Small, but not Too Small**

The Olin Library and Olin Community is the perfect test bed. We're not too big, nor too small. We're forgiving. We like experimentation. Across Faculty, students and staff, HtL can deploy prototypes to a meaningful demographic spread and sample size to gauge response.

## **A Meaningful Playground**

The Library plays an important role for the college but we are not mission critical. A hiccup in Library Services is very different than a hiccup with Email.

## **People, Budget and Vision to “Escape” Projects into a New “Business as Usual”**

The Library is an ecosystem of people, services, projects and more. We are uniquely positioned to support and maintain projects that are well documented and that continue to be of great value to the community.

## **Prototype a Course to Open Source Pipeline**

Our Library is a perfect proxy for public libraries. We share many of the same problems & opportunities. The Olin Library is uniquely positioned demonstrate the utility of successful projects, and evangelize on their behalf.

## ***HOW DOES HACKING THE LIBRARY DIFFER FROM OTHER OLIN COURSES?***

### **HtL emphasizes \*software\***

Some projects (can) include a hardware component, but some are pure software, and software is a substantive component of all of them.

### **HtL emphasizes \*delivery\***

Your final project will be assessed on the basis of how easily it could be adopted by a future team. Compelling, well-thought out documentation and explanation of your project is essential

### **HtL emphasizes \*scoping\***

Projects should be tightly scoped, enabling a higher production value and performance than any project you have produced at Olin.

### **HtL focuses on projects related to the \*library\***

The Library as an archive, an institutional memory, an experience, a media channel, and as physical space.

# ***WHAT IS A LIBRARY?***

## **Li-brar-y**

/lībrerē/

A building or physical space, with an accompanying digital space, that captures, manages and transmits knowledge to all.

## **The O-lin Li-brar-y**

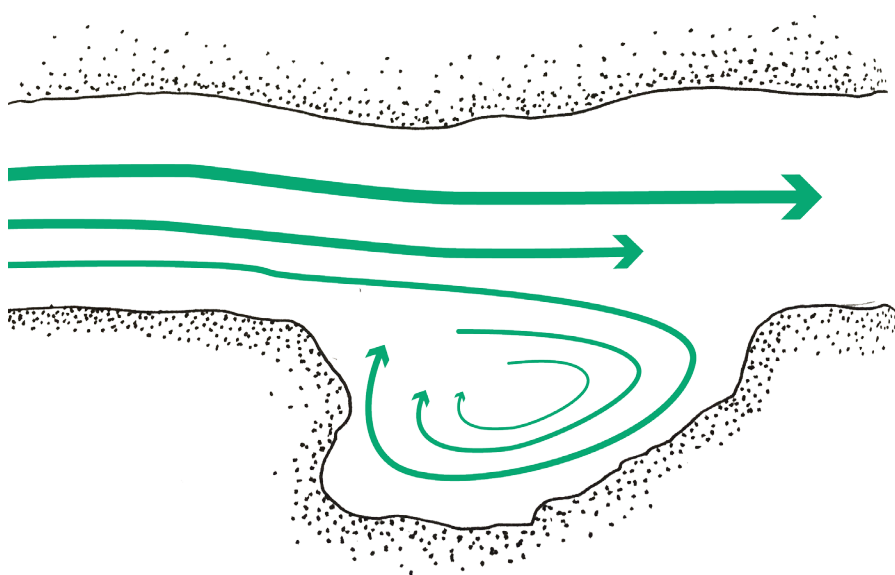
/THē älin lībrerē/

The Olin Library is a hybrid physical place & digital space designed to facilitate, capture, manage and transmit the knowledge and culture of Olin College.

Libraries are a civic good, a institutional vestige from a nobler time. They run on real estate taxes & endowments, keeping their budgets tight and their buying power tighter.

Consequently, “the market,” except for a few companies, has not developed products for them. Libraries have remained an innovation backwater. But that’s actually great for us:





*Outside the major currents of commerce libraries have remained a uniquely fertile frontier.*

- There's significant amount of both un-met, and as yet unidentified need
- Market disinterest has left low-hanging fruit in the products & services spaces
- At the interesection of Information & Space, Libraries couldn't be more modern in their mission

# *CONTEXT*

**“ The flow of energy through a system acts to organize that system.”**

*Harold Morowitz, Energy Flow in Biology, 1968, Whole Earth Catalog, 1969-1972*

Olin is Lossy.

Some of the most treasured Olin-ness dissipates as data exhaust. Where does the course work, the carpe conversation, the community events, where does it go? In Hacking the Library, we want to surface these existing flows of community energy to benefit Olin.

**The flow of energy through Olin is not organizing Olin as much as it could.**

# ***HOW WE WORK***



**Identify**



**Capture**



**Organize**



**Share**

## **Identify**

Identify existing flows of energy through the Olin ecosystem (students, events, carpe conversations, POE projects)

## **Capture**

Capture this information through scraping, sensing or surveying

## **Organize**

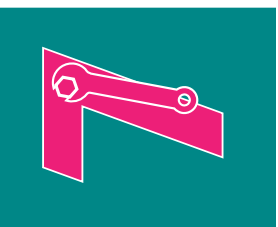
Organize this data into structured, repurposable information available through an API

## **Share**

Share your information. Possibilities include: chatbots, visual radio, sonos, slack, email, sms, webpage, twitter]

## ***INPUTS***

- Foot Traffic
- Resource Circulation
- Email Lists
- POE Projects
- Carpe
- Community Events
- Quirky Olin-ness
- Podcasts
- Video
- Music
- Webpages
- Animated GIFS



## ***OUTPUTS***

- Visual Radio
- library:olin.edu
- Chatbots
- Community Calendar
- Physical Interfaces
- Touchscreens
- Receipt Printers
- A Visitor Log Book
- Visualizations
- The Landing Table
- The Circ Desk

## ***FROM PROVOCATIONS TO PROJECTS***

In Hacking the Library, projects will be selected from these “Provocations”. Consider each of these titles as a problem domain. We’ve been living in libraries for a while. We believe these general directions will ensure value to our Library, the Olin community and Libraries writ large.

And also because these directions seem fun. If you can’t see the fun in any of them, just ask. If you have an idea not on this list, pitch us. Our ears are open you’ve just got to convince us of your vision.

# ***COMMUNITY CALENDAR***

## **The Pitch**

Let's build a visually compelling, ever-evolving multi-media calendar to schedule and store the life & time of Olin.

## **The Problem**

There is no clear place for students, faculty, staff and visitors to see what's happening (and what's happened). That's bad for everybody, the people looking for things & and the people scheduling things.

## **The Opportunity**

Let's reimagine what a "calendar" can be. Perhaps we're building a time-based community bulletin board? We've yet to see an exciting institutional calendar. Anywhere. Let's change that.

# ***CARPE CARPE***

## **The Pitch**

[Carpediem@lists.olin.edu](mailto:Carpediem@lists.olin.edu) is a virtual institution. Let's build a new interface for it.

## **The Problem**

There's not enough carpe happening on Carpe. There's too much noise, checking is too infrequent. It's not fun.

## **The Opportunity**

Let's reinvigorate Carpe through design, output channels, new capabilities.

# ***OF PODCASTS & PLAYLISTS***

## **The Pitch**

Sound and Libraries don't historically mix, but they should. There's only more and more podcasts, music, video, etc. Podcast Discovery Interface to install in Library space.

## **The Problem**

Headphones are too much activation energy and anti-social, but managing acoustics is essential.

## **The Opportunity**

Build a physical, walk-up-to-able interface for discovering audio of all types with minimal friction.



# ***THE STUFF OF STORYTELLING***

## **The Pitch**

Shape how Oliners create & organize media.

## **The Problem**

The library has the tool & gear to help us document and create across media. But our system for storing, discovering and sharing what we make has two major flaws:

- We don't connect people with the tools they need and the training needed to use them
- There's no easy way to store, annotate and organize the data they create

## **The Opportunity**

This topic covers a lot of ground, examples may include:

- Creating a discovery interface gear
- Creating a system to sync SD card data to a the network, add metadata, and wipe
- Building add-on modules to our Library catalog to make checkout and checkin easy and inviting.

# ***PROJECT ARCHIVES & PROJECT PORTFOLIOS***

## **The Pitch**

We don't have a record of the creativity at Olin. Let's document and organize all of the amazing work done here and create useful, on-demand student portfolios in the process.

## **The Problem**

Students create amazing work every semester at Olin but there is no infrastructure to capture, organize and disseminate this great work.

## **The Opportunity**

The archival world is very standardized - for good reason - but it can be difficult to find the activation energy and budget required to start recording, digitizing and indexing our things. Let's create an archival system that serves the Library by adhering to these standards, and serves the students by building refined, share-able portfolios.

# ***VERSION CONTROLLED COURSE CATALOG***

## **The Pitch**

Imagine an experience where it's easy to see the history of a course - the website, the teaching team and all projects at your fingertips.

## **The Problem**

Olin's courses are designed to evolve, that is a lot of what makes Olin special. But we don't capture this process. We don't have a system to track their evolution and the student work, syllabi and notes created at each stage.

## **The Opportunity**

Course catalogs serve a specific purpose during registration season - help students select courses that meet graduation requirements and support their learning goals. They are purposeful but uninspiring to look at after the semester has closed. Let's change that and make it interesting and useful to see how our course offerings change over time.

# ***SMART PEOPLE COUNTERS***

## **The Pitch**

Let's map a day in the life of a space

## **The Problem**

Right now, there is no way to know what spaces in the library (or on campus) are popular. We can assume, based on observation, feeling, and what's left behind, where people are but we don't have data to support our assumptions.

## **The Opportunity**

Build a lightweight, low cost way to see the flow of people and things in the library and beyond.

# ***TOOLBOT***

## **The Pitch**

Design a new kind of relationship between Library Patrons and the Tools they borrow.

## **The Problem**

People borrow the Library's Tools (Power Drills, DSLR Cameras, Gimbal) but they don't return them in a timely fashion. Our tools are bigger ticket items with much shorter lending periods, to continue to grow our collection we need to resolve this issue.

## **The Opportunity**

Build a lightweight, Tools "chatbot" that can nudge you (in a fun way) to return overdue items.

A toolbot could be designed to answer questions on availability, and if asked, could also deliver "how to" resources, operating manuals, etc.