



User Research Project: Part 1

Research Report & Playbook

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executive summary

Objective

At a high level, the objective of the User Research Study is to understand the research, teaching, and learning needs of various user groups on campus and identify space and service opportunities to support those needs. In parallel, the project will inform the Library Renewal architectural design process and, with Library and Learning Excellence faculty and staff, design new staffing and service models for Library and Learning Excellence (L/LE).



Process

The research study will be conducted in collaboration with the Library User Research Task Force and takes place in 2 parts. The first, which this document captures and took place between Nov - Dec 2013, explored the research, teaching, and learning experiences and needs on campus, and the role of the library on campus. It included interviews with faculty, postdocs, graduate students, and leadership across 23 schools in all 6 colleges; observations of study spaces on campus; and workshops with faculty, students, and Library faculty and staff.

The second part of the research study will include more breadth and depth of user engagement and research questions, quantitative research, designing the staffing and service model with Library faculty and staff, and informing the architectural design process of the Library.

The outcomes of the first part of the study include insights, a user experience model / "moments," goals, guiding principles and "plays."

Insights

- Boundaries between research, teaching, and learning are blurring.
- As people become more specialized, they are more likely to work in silos. Bringing them out requires effort.
- Mastering skills is just as important as mastering content.
- Physical and digital tools and spaces must work together seamlessly.
- There are many resources and library services that students & faculty are not aware of but could benefit from.
- Students should be able to apply their knowledge and skills across disciplines.
- While collaboration is an important part of research, teaching, and learning, there is still a need for quiet, individual work – and the environments to do it in.

User Experience Model

The user experience model describes 5 "moments," which can be thought of as goals that users are trying to achieve within their research, teaching, and learning experiences.



Discovering: Finding the right information, content, people, and tools.



Focusing: Filtering information and identifying what's next.



Growing: Mastering new skills and building relationships.



Creating: Expressing and applying ideas.



Showcasing: Testing and sharing with the community.

executive summary

Campus Playbook

The campus playbook contains a number of “plays,” or concepts, which are opportunities for the campus to support the five “moments” and address the key goals listed below. Plays created so far are summarized on the following page.

As a playbook, campus plays can be applied where and when as needed, and exact mechanics are to be developed when a play is applied to a specific context. Which, and how, plays are part of the Library Renewal needs to be determined. The current playbook is not comprehensive and does not represent all ideas to be considered for the campus or Library; additional plays will be created in Phase 2.

Goals

The greatest opportunities for impact lay where institutional and user goals align. These include:

- **Whole Scholar:** Develop knowledge, skills, and interests across disciplines, so that scholars can apply what they know in a wider context and be prepared for the real-world.
- **Innovative Teaching & Learning Methods:** Apply innovative teaching and learning methods in informal and formal settings to continually improve learning experiences and outcomes.
- **Interdisciplinary Collaborations:** Form interdisciplinary and vertically-integrated teams to pursue new areas of work and impact.
- **Campus Communities:** Form communities of practice that capture the diverse interests on campus, where students, faculty, and staff can belong and actively participate.






- **Inspiration & Serendipity:** Inspire people to explore and do new things that excite them.
- **Innovation & Entrepreneurship:** Promote and support innovation and entrepreneurship and build relationships with external communities that enable projects to have impact.

Guiding Principles

When implementing “plays,” consider the following:

- **Integrate in one place:** Create go-to places for related spaces, services, and resources.
- **Connect physical and digital:** Connect physical and digital “spaces,” services, and resources, augmenting one with the other.
- **Enable flow:** Keep different types of spaces close to one another so that people can easily switch amongst activities.
- **Meet people where they are:** Put things close to where people already are, where they go, and what they do so that new things are likely to be used and become part of existing habits and routines.
- **Be agile:** Keep spaces flexible and adaptable to change.
- **Be “neutral”:** Create spaces that are not owned by one discipline; they are important for interdisciplinary work.
- **Make things visible:** Showcase services and resources.
- **Be a platform:** Help people learn and do things themselves.
- **Reach out to users:** Enable services to be proactive and personalized, e.g.: ask users to opt-in for notifications and recommendations.

executive summary

Play	Overview	 discover	 focus	 grow	 create	 showcase	Goals addressed
Virtual browsing environments	Through interactive technologies and applications, virtual browsing environments will enable users to navigate, identify and use collections with ease, beyond what's possible with physical browsing and materials use.	●				●	Inspiration & serendipity
Themed communities	Through a competitive process every year, emerging communities of practice can "own" a neighborhood to focus on proposed projects, share resources, connect with experts, showcase their work, and increase membership in the community.		●	●	●	●	Whole scholar, interdisciplinary collaboration, campus communities, inspiration & serendipity
Innovation & entrepreneurship center	Located centrally to student activities, the innovation & entrepreneurship center includes spaces, services, resources, active programming, and programs to help students kick-start and develop new ideas.	●	●	●	●	●	Interdisciplinary collaboration, campus communities, inspiration & serendipity, innovation & entrepreneurship
Teaching & learning studio	The Teaching and Learning Studio provides spaces, technology, resources, and services dedicated to learning about, creating content for, and testing innovative teaching & learning methods.		●	●	●		Innovative teaching & learning methods, interdisciplinary collaboration, campus communities
Project rooms	With project rooms, teams can not only book a collaborative work area for an extended period of time, but also experts' time and equipment altogether.		●		●		Interdisciplinary collaboration
Pop-up showspaces	Pop-up showspaces highlight the activities that take place at Georgia Tech and provide opportunities for people to break out of their departments and buildings. As a mobile kit-of-parts, they're easy to pack up, move around, and customize.	●				●	Whole scholar, inspiration & serendipity
Research navigators	Research navigators help students, faculty, and staff tackle administrative tasks and guide them through standard processes and procedures so that they can focus on doing research.		●				Whole scholar
Peer-to-peer events	Encourage users to lead their own events by guiding them through the process and providing some structure to get them started.	●		●		●	Whole scholar, inspiration & serendipity
Loyalty program	A loyalty program at Georgia Tech incentivizes users to try new things and be active participants in the community. Completing tasks can grant long-term privileges and/or accrue points that can be redeemed for awards.	●		●			Whole scholar, campus communities, inspiration & serendipity
Quiet spaces	A mix of centralized and distributed quiet space where people can focus and be part of a scholarly atmosphere alongside others. The space may include special features / functions that encourage deep focus and/or serendipity.	●	●		●		Inspiration & serendipity
Scholar's event hub	Dedicated to faculty, students, and staff for hosting events on research, teaching, and learning. The Center provides services for the "before" and "after" of events as well – for example, presentation practice in the actual space and archival services for sharing materials online (e.g.: SMARTech).	●		●		●	Whole scholar, campus communities, inspiration & serendipity

executive summary

Library Vision Statement

Draft vision statement for the library as an organization:

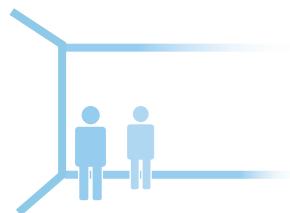
Georgia Tech Library will define the technological research library of the 21st century.

We will enable people to explore the past and design the future by bringing together inspirational spaces, curated content, expert guidance, and scholarly communities.

Shifting Library Directions

The Library Renewal project is an opportunity to redefine the technological research library of the 21st century. Driving the renewal is the Library's partnership with Emory University – Georgia Tech will be moving its physical collections to the shared Library Service Center and have seamless access to Emory resources (and vice versa).

There were many ideas for the future library and the roles it could play in providing content, spaces, expertise, and tools & resources; helping users discover content; and building the community, including:



Spaces: Provide a variety of flexible spaces, such as for quiet study, meeting and collaboration, multimedia production, classes, and “playing”; Dedicate and showcase spaces for discipline-specific and /or pilot projects that are always changing; Create spaces for groups that don't have any on campus; Preserve the library as the place for serious, scholarly activity.

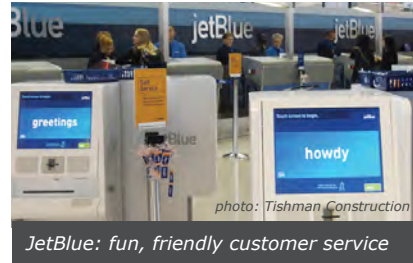
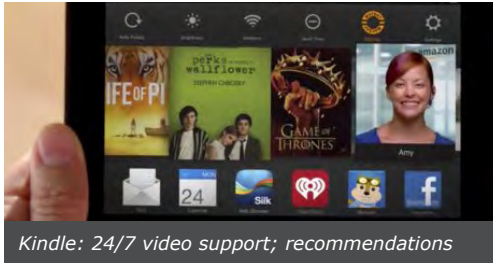


Services: Provide services through many channels, in a proactive and unobtrusive manner as well as on-demand; Provide more services and workshops; Organize collaborative initiatives to bring people together across disciplines; Collaborate with staff and students and be part of their teams.



Content: Make resources, content, new scholarship, and activity visible; Showcase unique Library collections; Make recommendations; Continue to grow the collection, perhaps to include people (e.g.: “check out” expertise / experts' time).

executive summary



Strategies

In thinking about what to include in the Library and how:

- Consider the Library Towers and Clough Commons as one complex and complement what the Clough Commons offers
- Leverage the organizational culture of prototyping and experimenting to figure out what works best
- Create spaces that offer users something they can't replicate on their own; as an example example, concerts deliver experiences beyond the music / recording itself
- Make services and expertise more visible, and deliver and push content and services to where users are
- Distinguish between the Library as an institution vs. the building
- Make the Library more accessible to visitors
- Consider how the library will evolve over time, much like landscape grows and changes over time
- Collaborate with people and organizations across campus to build tools and create programming
- Stay flexible and on the leading edge, especially with technology

Library Storefront

A critical part of the library will be its storefronts in the physical and digital environments. The storefronts should engage users and communicate the Library's resources, services, and value to users.

- Be a one-stop shop with multiple channels of service
- Proactively uncover needs without being intrusive
- Orient visitors and point them to where they can go / what to do
- Be clearly branded and advertised, that refreshes how people view the library
- Be an open-access space, with no barriers to the storefront or library
- Be a place to try things out
- Include exhibitions that are interactive and promote discovery and serendipity
- Show what's available and popular in the library
- Integrate fun, whimsy, humor
- Be distributed, e.g.: pop-ups in colleges

project background

An overview of the project objectives, process, and activities.

- ◇ project background
- ◇ project process

project background

The Library's partnership with Emory University to open and share an off-site Library Service Center created an opportunity to renovate the Library Towers and in doing so respond to the changing research, teaching, and learning needs of the Georgia Tech community.

Through an ethnographic study of users and activities, from undergraduate learners to senior faculty and thought leaders, we aim to understand and identify opportunities to support the ideal research, teaching, and learning experiences on campus and create "plays" to be implemented strategically and/or opportunistically.

For the Library specifically, the research project will help define its vision, roles, and service model.



**Research Insights
and "Playbook"**



**Library Design
Input**



**Library Services
Model**

project process

Overview

The research project consists of 2 parts and will be carried out in collaboration with the Library's User Research Task Force. Each phase includes groundwork to define the research questions and approach, understanding & visioning through user research and engagement, then analysis & recommendations.

The first part (Nov - Dec 2013) was a quick exploration into the following questions to inform and jumpstart the Library Renewal programming process:

- What are the current and ideal research, teaching, and learning experiences on campus?
- What's needed to support those experience?
- What role should the library play?

The second part (3-4 months) will refine the research questions, include more breadth (i.e.: more participants and user groups) and depth (i.e.: extended research into key users and/or topics), quantitative research methods, developing the service model of the new Library; and prototyping new concepts.

Part 1 Activities

The first part included:

- 25 interviews with faculty and postdocs & 13 interviews with graduate students
- ~14 hours of observations across Clough Commons, the Library, Student Center, Scheller College of Business, Architecture Library, and Octane Coffee
- A visioning retreat with Library faculty and staff
- 5 visioning workshops with leadership, faculty, graduate students, and Library faculty and staff
- Additional material was drawn from a Library Undergraduate Advisory Board meeting and departmental faculty and graduate focus groups conducted by subject librarians and CETL.

Interviews and focus groups included users from 23 schools / colleges:

- College of Architecture: Architecture, City & Regional Planning, Industrial Design, Music
- College of Computing: Computer Science, Interactive Computing
- College of Engineering: Chemical & Biomedical Engineering, Civil & Environmental Engineering, Electrical & Computer Engineering, Materials Science & Engineering, Mechanical Engineering
- College of Sciences: Applied Physiology, Biology, Chemistry & Biochemistry, Earth & Atmospheric Sciences, Mathematics, Physics
- Ernest Scheller Jr. College of Business
- Ivan Allen College of Liberal Arts: Economics; History, Technology, & Society; International Affairs; Literature, Media, & Communication; Public Policy

Georgia Tech experience

What is the research, teaching, and learning experience at the Institute level? Users spoke about the current state at Georgia Tech and how they see it evolving and changing as the Institute responds to external trends, the strategic plan, and users' goals and motivations.

- ◇ about Georgia Tech
- ◇ current and future research, teaching, and learning
- ◇ insights
- ◇ a look at campus

about georgia tech

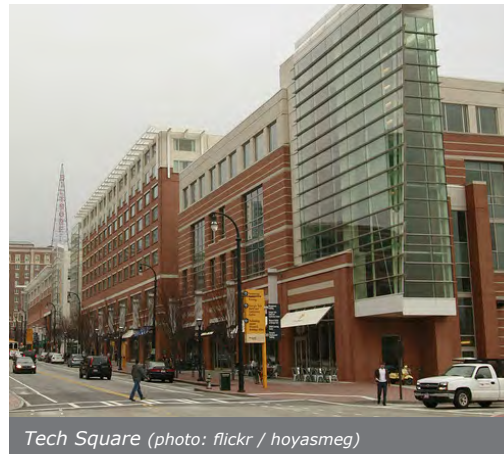
Georgia Tech has grown quickly from being a trade school to a regionally recognized technological university to a globally recognized institution for the sciences, technology, and engineering. Its focus on applied research is reflected strongly in its academic and research programs, partnerships, campus life, and culture, and there is an entrepreneurial and innovative mindset at every level. People are not afraid to get their hands dirty and to prototype and test new ideas.

Outreach and service are also important at Georgia Tech. With initiatives such as Tech Square and partnerships with MidTown, the Institute engages with the local community and aspires to spearhead the revitalization and economic development of the surrounding area.

Moving further into the 21st century, the Strategic Plan calls upon the Institute's populations to become "leaders in influencing major technological, social, and policy decisions that address critical global challenges."



Biotechnology Complex (photo: Gary Meek)



Tech Square (photo: flickr / hoyasmeg)

Founded: 1885 as the Georgia School of Technology and renamed in 1948 as the Georgia Institute of Technology

Academics: 6 colleges – Architecture, Computing, Engineering, Ivan Allen (Liberal Arts), Scheller (Business), and Sciences – 36 Bachelor's degrees, 62 Master's degrees, and 46 doctoral degrees

Student Body: ~14,500 undergraduate (14,000 FTE) and 7,000 graduate (6,150 FTE) students

Faculty: ~ 1,000 instruction (90% tenure or tenure-track), 350 post-doc, and 1,200 research professional faculty

Non-Faculty: ~ 420 instruction and 270 research non-faculty

Research: 3,187 research awards granted in 2013 totaling ~\$621,600,000

Carnegie Classification: research profile RU/VH (very high research activity), size and setting L4/HR (large 4-year, highly residential), undergraduate profile FT4/MS/LTI (full-time 4-year, more selective, lower transfer-in), undergraduate instructional program Prof+A&S/HGC (professions plus arts & science, high graduate coexistence), graduate instructional program CompDoc/NMedVet (comprehensive doctoral [no medical/veterinary])

current & future research, teaching, and learning experiences

Reflecting on trends in teaching methods and pedagogy, research tools and practices, and service models, faculty, graduate students, and campus leadership discussed the current state of research, teaching, and learning at Georgia Tech and how they envision them evolving. In some cases, future directions replace the current whereas in others it's additive.

external trends

Shifts in how people are teaching, learning, and using technology.



IBM – “In five years, the classroom will learn you.”

Data-Rich & Personalized

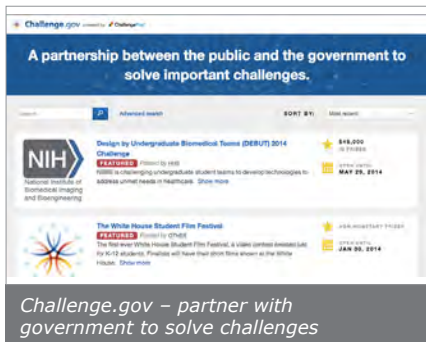
Businesses have long been mining and using “big data” to uncover novel patterns and insights about their consumers. Now, educational institutions are using “learning analytics” to personalize learning experiences for students (Open Education Database).



Fayetteville Public Library – first fab lab in a public library (photo: Flickr/Fay Free)

Creator Culture

The trend towards creation and maker culture continues, with user-generated content and self-published products increasing in past years. Higher education is in a position to prepare students for the “creator society” and curricula have already begun to highlight media creation, design, and entrepreneurship (New Media Consortium).



Challenge.gov – partner with government to solve challenges

Problem Solving-Focused

Today’s students need to develop skills in self-evaluation and research, so that they can “assess what they need to learn in order to solve a problem” then tackle it. In the “classroom,” this often happens through flipped courses and project-based learning with real-world clients or scenarios (Association for Supervision and Curriculum Development).



LinkedIn Maps

Distributed

Technology has enabled people to connect to others and to information around the world, at any time. With such breadth, the challenge now is to manage and navigate those networks and connect to the right things, while they continually expand.

current & future: research

There are many directions and emerging areas of research at Georgia Tech, giving rise to opportunities for interdisciplinary collaborations across and off-campus.

> Current State

- Research remains largely a solitary pursuit. Researchers are creating more interdisciplinary and/or vertically-integrated teams, though finding the right connections at the right time can be a challenge.
- Institutional programs are facilitating collaboration, e.g.: interdisciplinary research institutes (IRIs) which bring together researchers under 10 research areas, and the vertically-integrated projects (VIP) program to encourage undergraduate participation.
- Research is becoming more data-intensive.
- Research can be a competitive environment. There is a high “administrative overhead” and complexity is increasing.
- Undergraduates are becoming more involved in research, giving them real-world, hands-on experience.

>> Future Expectations

- People emerge from silos across campus to contribute to interdisciplinary, vertically-integrated project teams. Ideally, collaboration comes about organically.
- Research is networked: technology has made it possible to share data and information efficiently, and to work with others in real-time wherever they are. In the future, there may be virtual “labs” where researchers can work together online.
- As collaboration increases and research becomes more sophisticated, there needs to be seamless transitions amongst tools. Digital and physical tools need to work together.
- Research leads to breakthroughs and new territories.
- Administrative tasks do not distract from research.



Data-intensive – immersive viz, NCSU Hunt Library



Distributed & collaborative – Microsoft



Interdisciplinary – IRI, Georgia Tech (photo: Gary Meek)

current & future: teaching

Faculty are changing the way they interact with students, placing more emphasis on problem-based learning to prepare them for the real-world.

> Current State

- Many courses are lecture-style (e.g.: large, introductory classes).
- There is increasing interest in problem-based and active learning (e.g.: “studios” and “labs” vs. lectures), though existing spaces do not support these new methods of teaching and learning well.
- For those who are trying to do something new and different, the results / impact are unknown and need to be measured.
- Instructors can be distant from their learners (e.g.: “sage on a stage”).
- Designing courses and content is a solo pursuit that happens “behind closed doors.”
- For graduate students, teaching can be a chaotic process. While some embrace teaching, others see it as something to “get through.”

>> Future Expectations

- Instructors can build on collective knowledge to develop new ways of teaching and learning (process and content), rather than pursue them independently.
- Teaching and learning become learner-directed, facilitated by instructors instead of led.
- Teaching enables learners to grow in unexpected places.
- Courses incorporates more creative thinking and “making.”



current & future: learning

Initiatives at the Institute and course levels aim to provide students with more choices and breadth in how they learn (e.g.: which courses, what topics, what deliverables), so that they can direct their own learning experiences.

> Current State

- Undergraduates are focused on maintaining high grades and there are few incentives to take risks. GPA-based scholarships are important for many students at Georgia Tech.
- Inspiration and exposure to others' research is important for overall learning development – being better researchers, designers, problem-solvers.
- Faculty and staff are instrumental in helping people do new things, e.g.: orienting undergraduates to research processes, identifying non-traditional resources, supporting and advising on new teaching strategies.

>> Future Expectations

- The learning process is directed by learner, supported by feedback and touchpoints with instructors along-the-way.
- Classes actively engage and challenge students in a variety of ways, e.g.: frame their own projects, present what they learned through a web site instead of a group paper.
- Students apply their learning to real-world problems.
- Students are excited to learn, inspired, and apply what they learn to other disciplines.



Project-based learning – CUSD



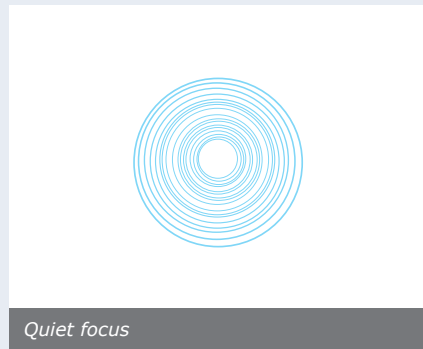
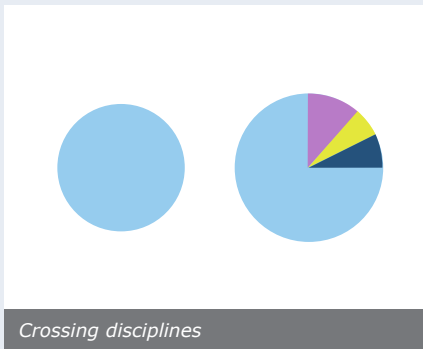
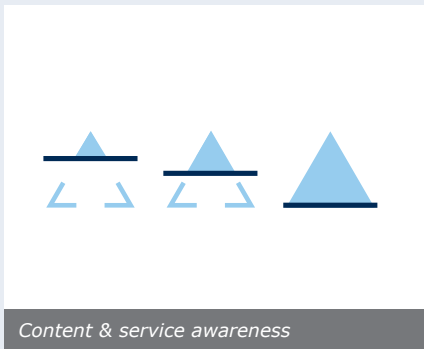
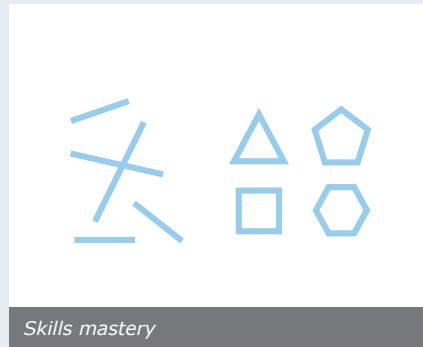
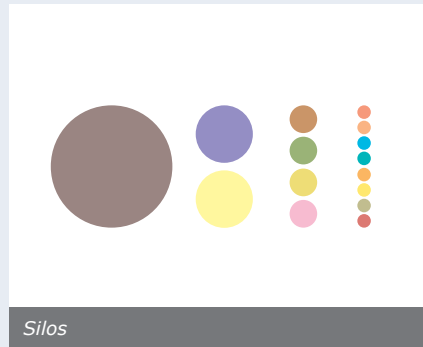
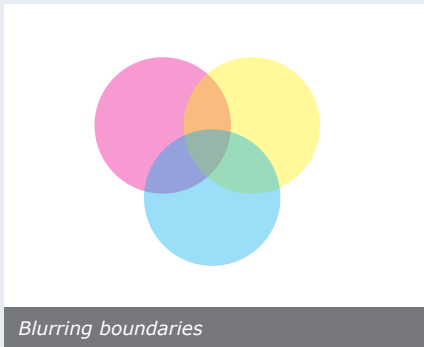
Multimedia – Seattle University Library



Mobile and online – MIT Open CourseWare

insights

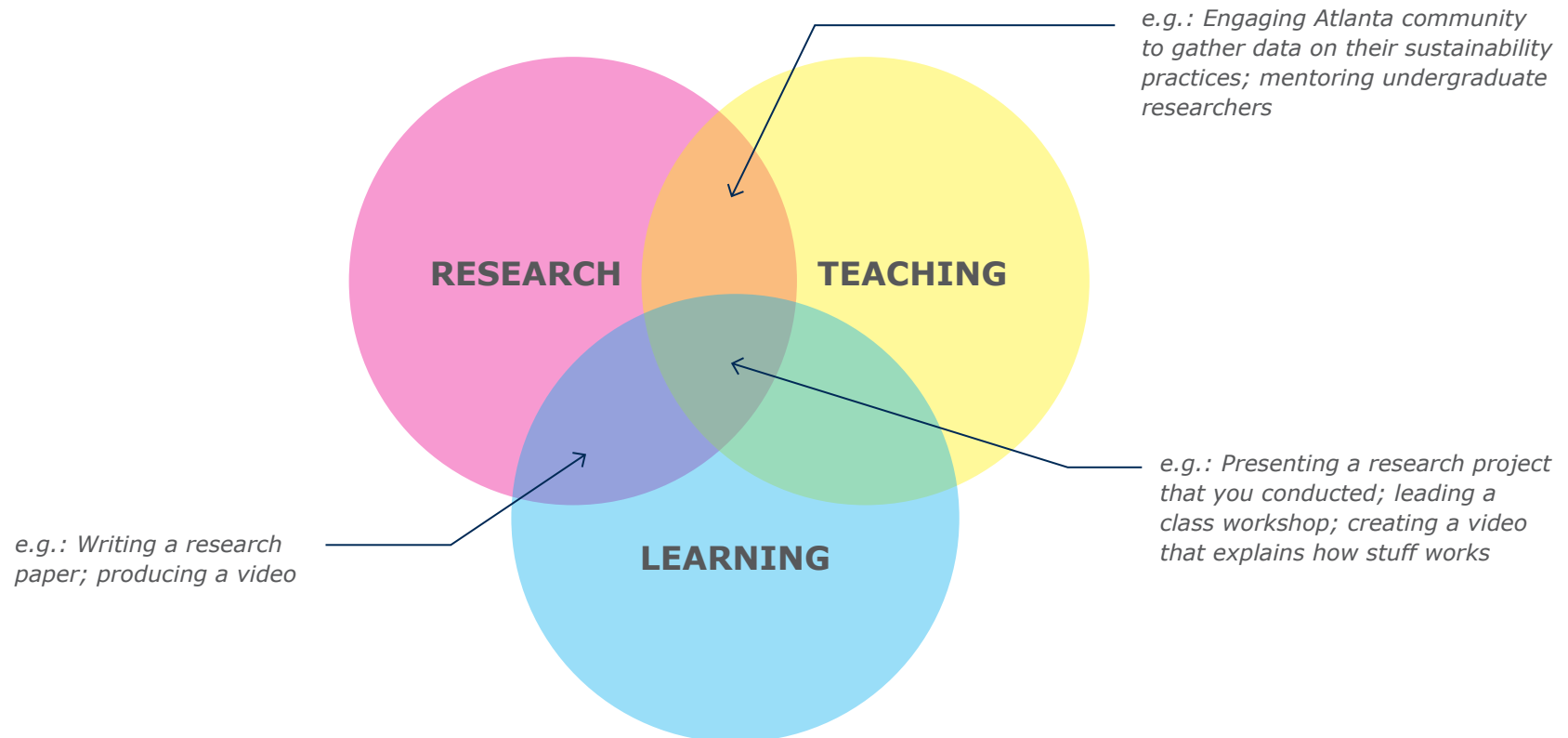
Across conversations, there were seven big ideas – in essence, drivers behind what’s happening at the Institute and important areas to address that will impact all people at Georgia Tech.



insights: blurring boundaries

Boundaries between research, teaching, and learning are blurring.

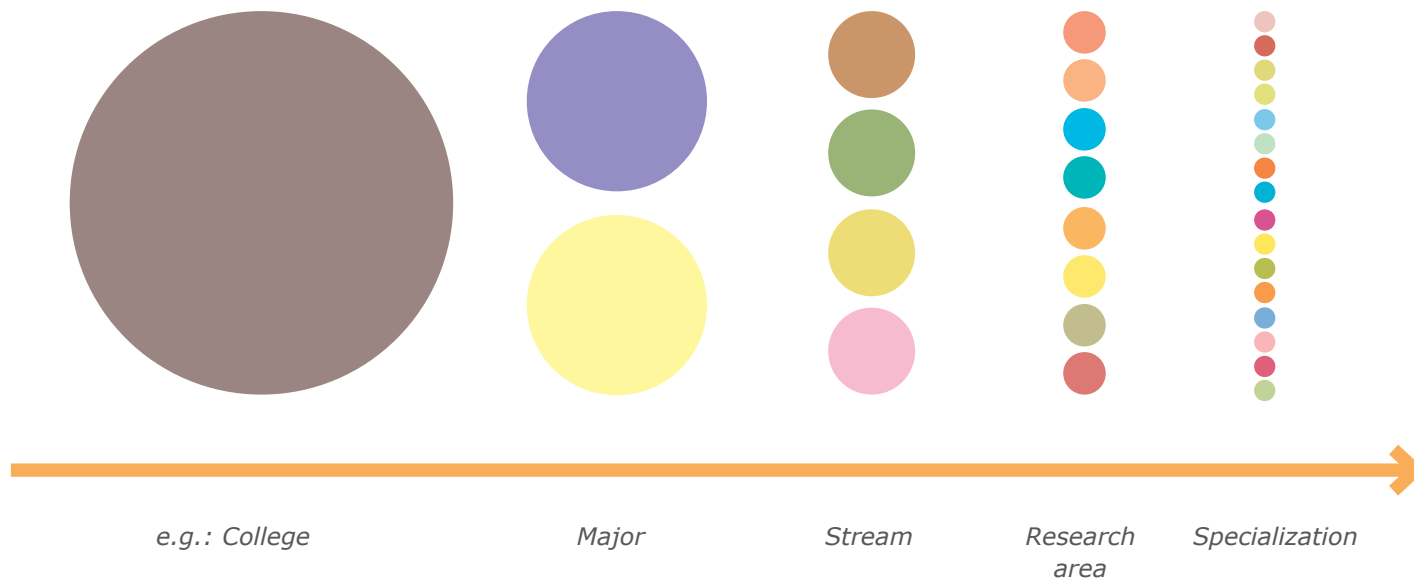
Though we speak about research, teaching, and learning as distinct activities, boundaries among them are blurring. Interviewees spoke of research as a way to learn, and learning as part of the teaching process. In fact, some participants envisioned no boundaries amongst these practices in the future, as succeeding in one means incorporating elements of the others.



insights: silos

As people become more specialized, they are more likely to work in silos. Bringing them out requires effort.

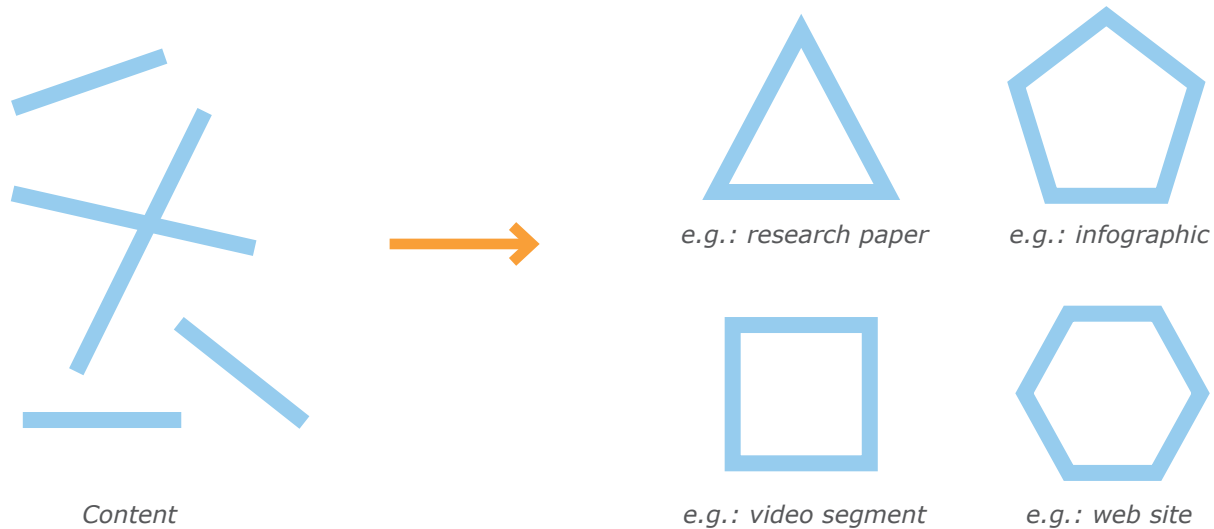
As people advance in their studies and become more specialized, they naturally slide into silos and become members of those communities. Collaborating across disciplines requires more effort. Physical space can also reinforce silos – buildings that are self-contained and encourage interaction within (though positive in their own regards) may give residents few reasons to leave, and distance from other desirable spaces may discourage mixing across buildings.



insights: **skills mastery**

Mastering skills is just as important as mastering content.

New ways of teaching and learning often call upon users to present content through multimedia, such as videos, data visualizations, posters, and web sites. Now, everyone needs to know the basics of a wider base of hardware and software in order to communicate effectively and creatively, and be job-ready.



insights: supporting physical & digital

Physical and digital tools and spaces must work together seamlessly.

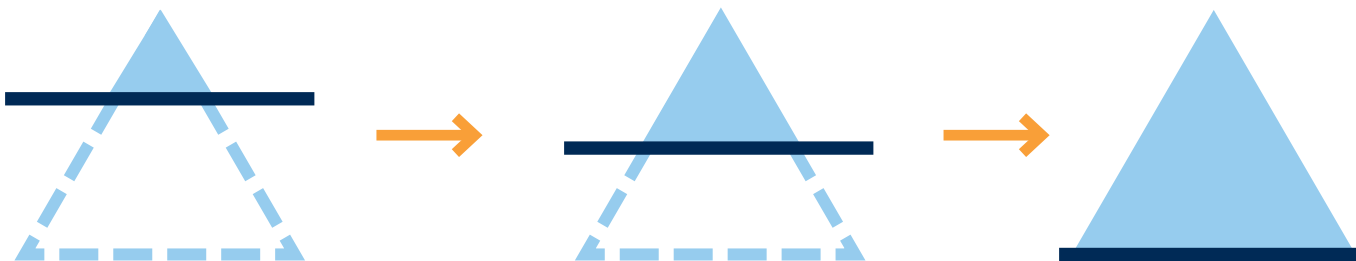
Across many activities, people are using both physical and digital devices. Just as digital devices must connect with one another seamlessly, physical and digital devices must work together as well. And as people continue to use both physical and digital tools, their “footprints” are also increasing. For example, a student studying for an exam might spread out notes, textbooks, a laptop, and multiple mobile devices. Digital devices have not reduced the amount of space we need, only added to what we need to find a place for.



insights: content & service awareness

There are many resources and library services that students & faculty are not aware of but could benefit from.

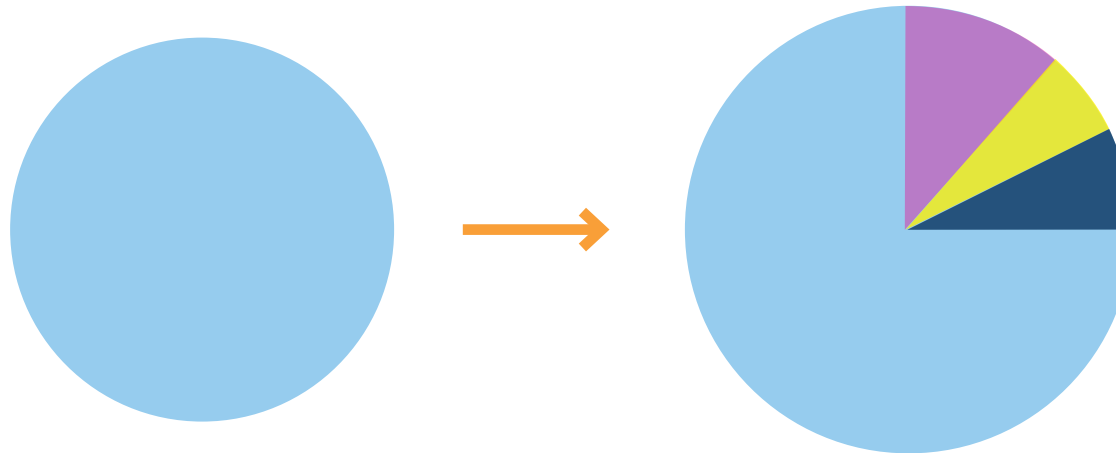
Anecdotes indicate that many students and faculty are not aware of the collections and services that the Library has to offer. Of those who do use the collections and services, some scratch the surface of what's available, others dig deeper to find what they need, and a handful are "superusers" who go off the menu and work with librarians extensively to get and do what they need. As the physical collections move to the Library Service Center, it will be particularly important to make the collections visible (including those that are born-digital) and to showcase the expertise and services of Library faculty and staff.



insights: **crossing disciplines**

Students should be able to apply their knowledge and skills across disciplines.

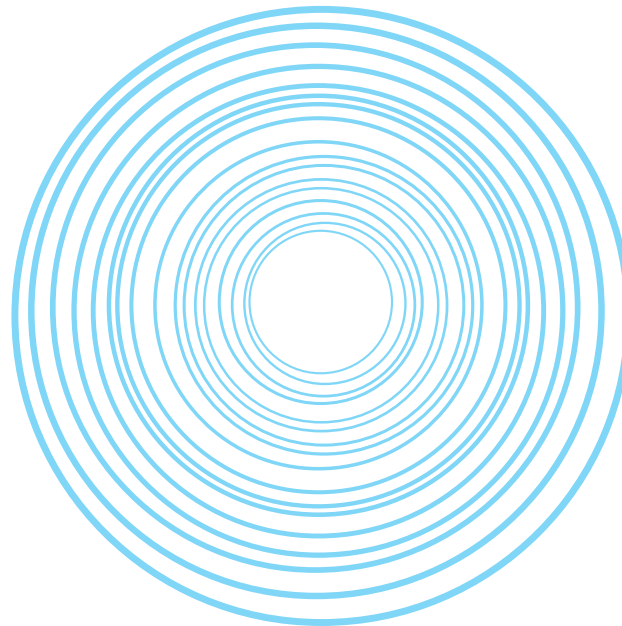
Students often cannot avail themselves of the opportunities to explore other fields – for example, for science and engineering students to pursue social sciences and arts programs (and vice versa). Having a balance—being exposed to new topics and thinking across disciplines—is an important part of the learning experience and for molding graduates who are ready to tackle challenges in the real-world.



insights: quiet focus

While collaboration is an important and growing part of research, teaching, and learning, there is still a need for quiet, individual work – and the environments to do it in.

As we create environments to support collaboration and cross-disciplinary work, we must also retain and create environments for quiet, focused individual work, where users can “get away,” concentrate, reflect, and recharge. Not only do such spaces inspire scholarly activity, but they are also integral in supporting the range of user preferences, personalities, and learning styles at Georgia Tech.



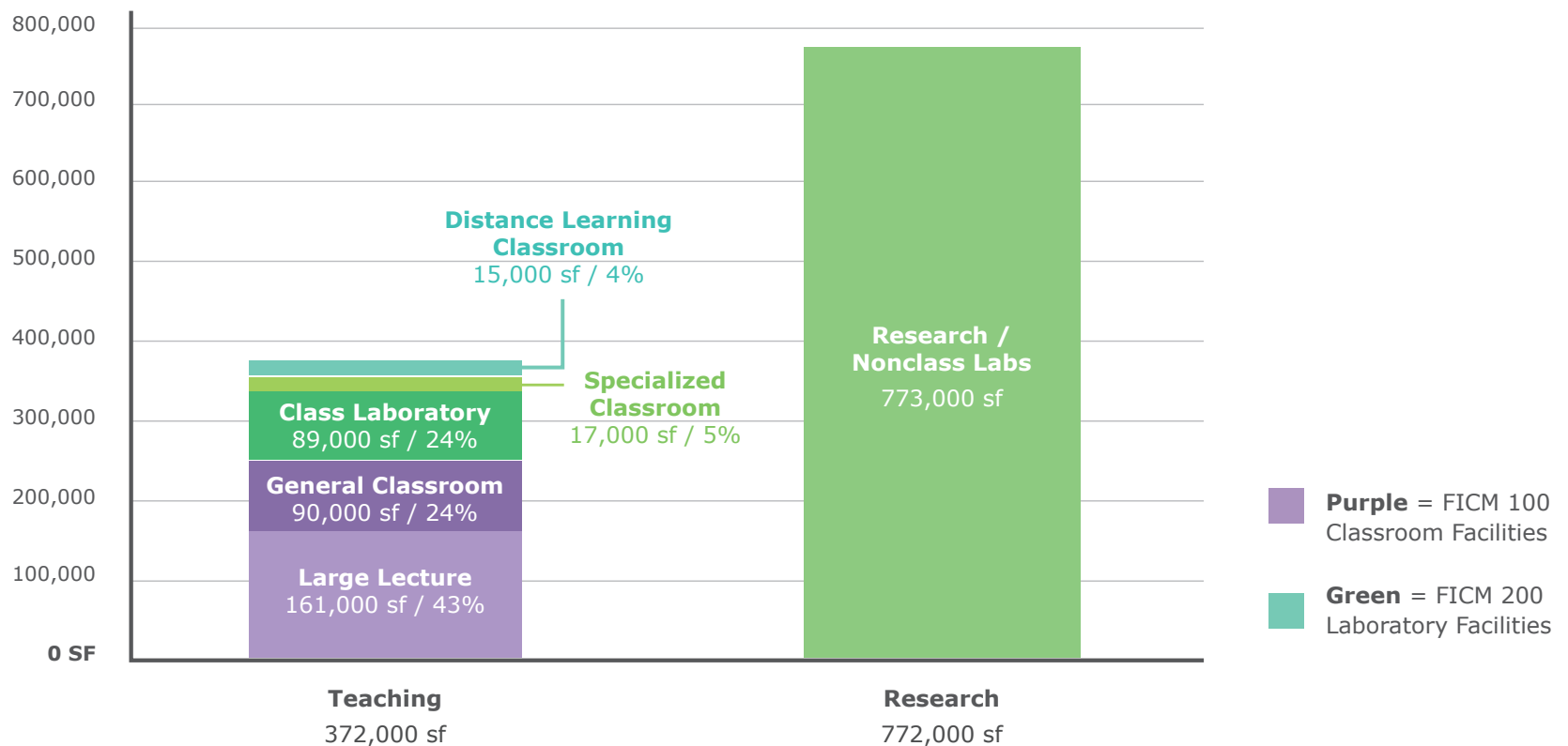
a look at campus

What spaces are available on campus for research, teaching, and learning?

Data is collected from publicly available Capital Planning & Space Management datasets, at <http://space.gatech.edu/spaceaccounting>

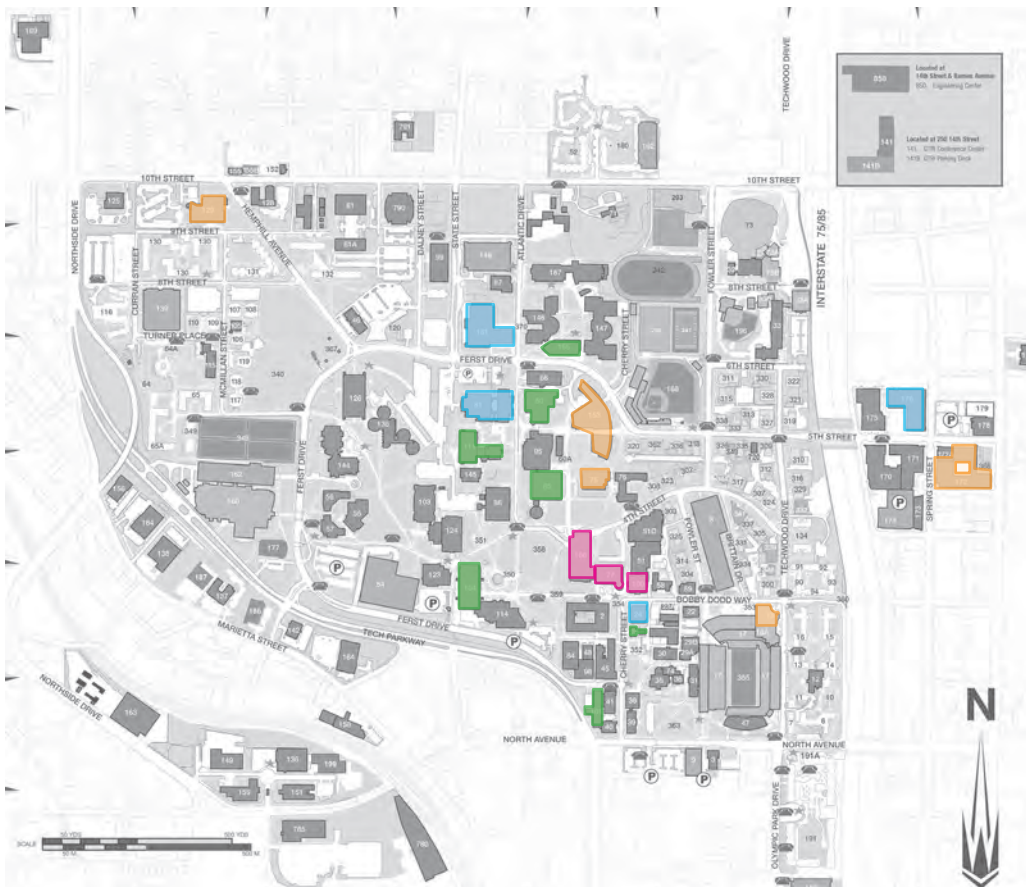
a look at campus: labs & classrooms

For formal / scheduled classes and research on the main campus, there is ~372,000 sf of classroom and lecture space and ~772,000 sf of research (non-classroom) lab space; both exclude service areas (e.g.: storage, equipment rooms, preparation rooms).



a look at campus: study facilities

The majority of study facilities (FICM code 400) on campus are in the Library Towers, Clough Undergraduate Commons, Architecture Library, College of Business, and Klaus Computing Building. Study facilities are not restricted to a particular discipline or unit and include study spaces, stack spaces, open-stack study rooms, processing rooms, and study service areas. Detailed analysis is needed to pull out spaces that are not for study (i.e.: stacks, service and processing areas).



Study Area

- < 1000 sf
- 3,000 - 5,999 sf
- 1000 - 2,999 sf
- 6000+ sf

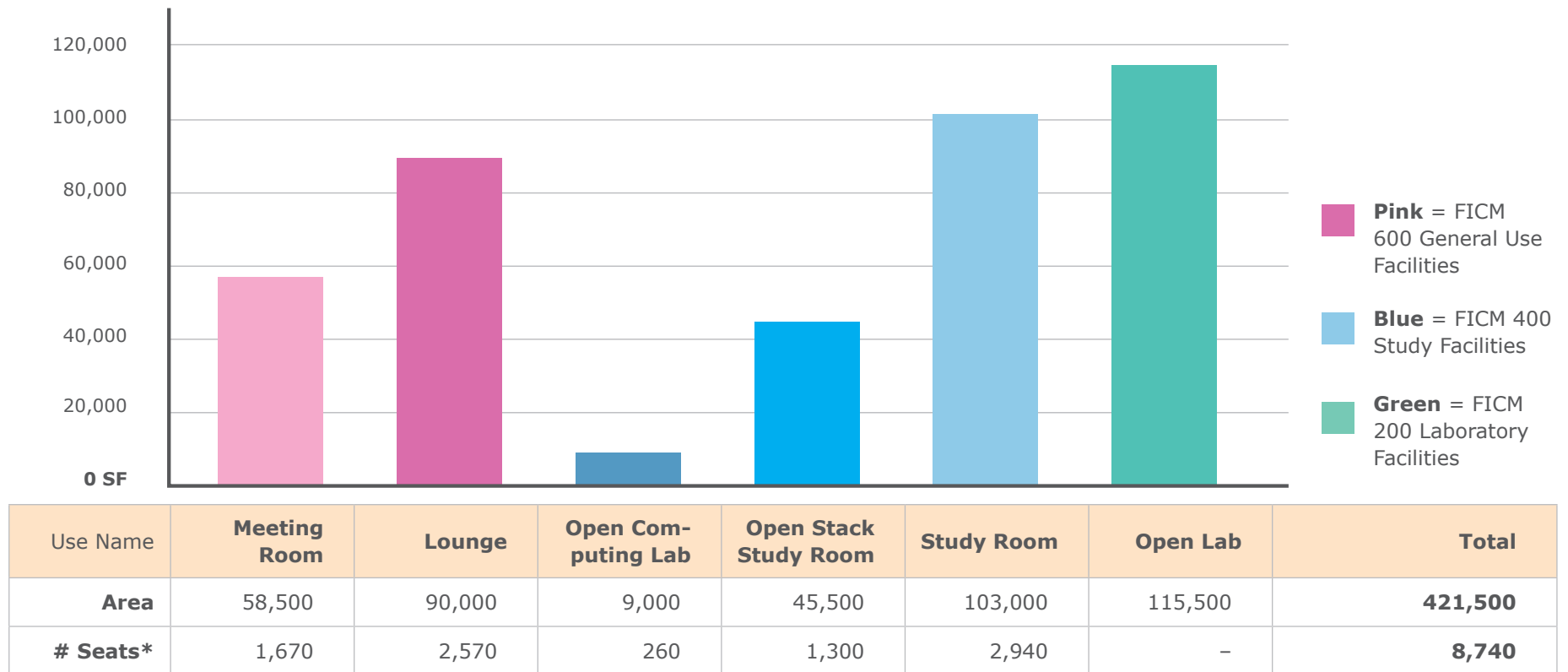
Bldg	Building Name*	Area (sf)
24	Smith	335
176	Centergy One	612
181	Marcus Nanotechnology	656
81	Howey	782
85	Van Leer	1,184
104	Student Center	1,235
25	OMED (Chapin Bldg)	1,277
165	Whitaker	1,303
101	Knight	1,426
111	Mason	1,748
50	Computing (COC)	1,787
153	Klaus	3,184
129	Inst. for Paper Sci & Tech	3,552
18	Athletic Center	3,923
172	College of Business	5,710
75	Architecture (West)	5,741
166	Clough Commons	25,933
77, 100	Library Towers	119,700 [^]
	Total	180,323

*Does not include residence halls (~33,400 sf distributed across ~30 buildings) or buildings with < 100 sf study space (2 total).

[^]Currently includes ~70,000 sf stacks.

a look at campus: **study / work spaces**

Taking a closer look at study facilities and other possible study / work spaces on campus, such as lounge and meeting rooms within the General Use category and open laboratories within Laboratory Facilities, there is ~ 421,000 sf of space (or, 8,740 seats) where students can work at any time. Open labs may serve particular disciplines though are for open, informal instruction and work; open labs include such spaces as music practice rooms, computer labs with specialized software, or language labs.



*The Council of Education Facilities Planners International (CEFPI; 2006) recommends user seating at 35 sf / seat. Seats were not estimated for "open lab" as such specialized spaces often have different standards.

user experience

What is the research, teaching, and learning experience at the user level? In speaking to undergraduates, graduate students, faculty, and staff, we distilled five key “moments” that make up great research, teaching, and learning experiences and that we should support. To make each “moment” concrete, we have presented example experiences, users’ current experiences in pursuing each moment, and what they hope to do in the future.

- ◇ users
- ◇ “moments”

users

In our first phase of research, we categorized participants as either an undergraduate student, graduate student (masters, PhD, postdoc), faculty, or staff.



Undergraduates



Graduates



Faculty



Staff

users: **goals & motivations**

Through interviews and workshops, users described their goals and motivations. At a high level, this is what we heard:



Undergraduates

- Earn high marks in class
- Graduate with real-world experience and job skills
- Prototype and implement their ideas
- Become innovators, entrepreneurs, and leaders



Graduates

- Publish papers in high-impact journals
- Finish and defend their dissertations
- Secure tenure-track positions in academia
- Impact and help others through their work
- Continue with hands-on research after graduation
- Be effective learners, educators, and researchers

users: **goals & motivations**

Through interviews and workshops, users described their goals and motivations. At a high level, this is what we heard:



Faculty

- Empower students to succeed, inspire them, and give them opportunities to build their skills, knowledge, confidence, and creativity
- Truly collaborate across disciplines on- and off-campus
- Lead change at Georgia Tech that enables students to pursue what interests them and prepares them for the next step
- Create an impact through their work
- Continuously finding new areas for research and impact

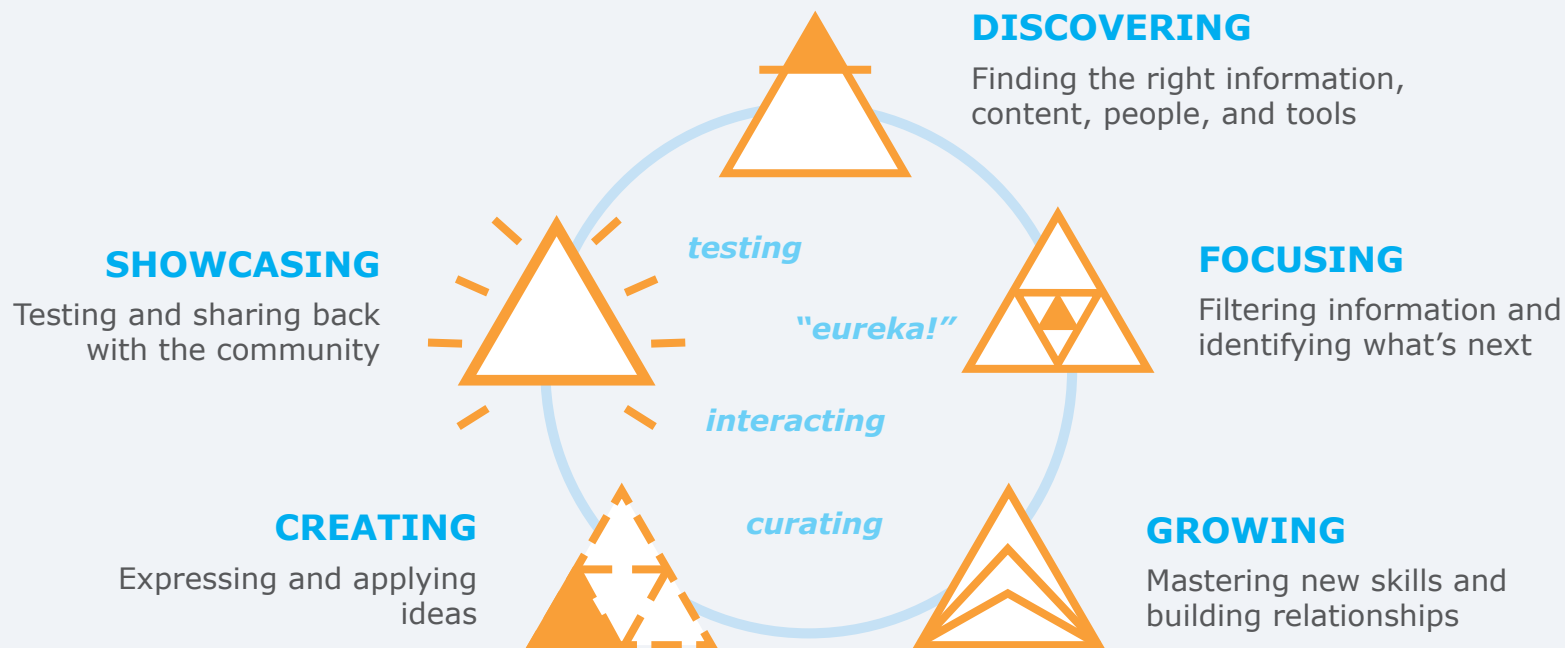


Staff

- Secure resources and funding to make ideas possible
- Get the information and resources that others need in front of them
- Support evolving ways to teach, learn, and do research by continually building their skills
- Work with users toward a common goal

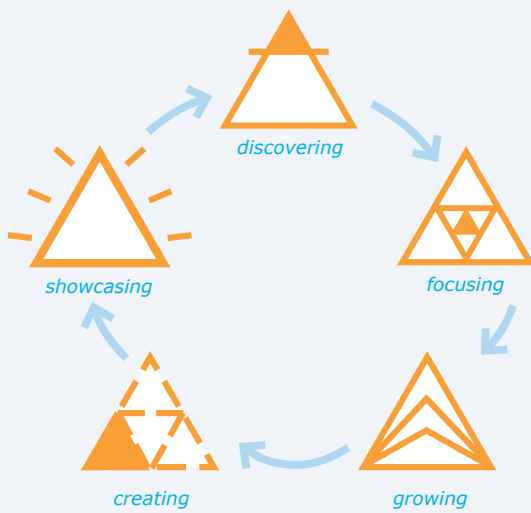
moments

Users told stories about their day-to-day work and what helps them be successful. From this, we distilled 5 key “moments” that make up great research, teaching, and learning experiences. To help people at Georgia Tech excel, we need to support these five moments. In addition to the key moments, there are activities that can happen throughout as part of any moment, such as interacting with others, curating information, testing ideas, and having that “eureka!” moment.

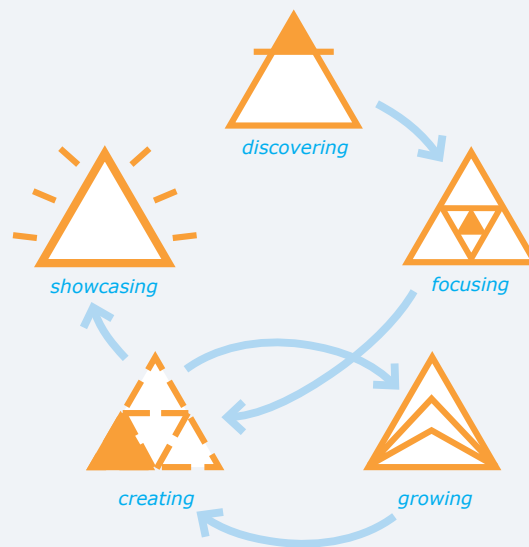


moments

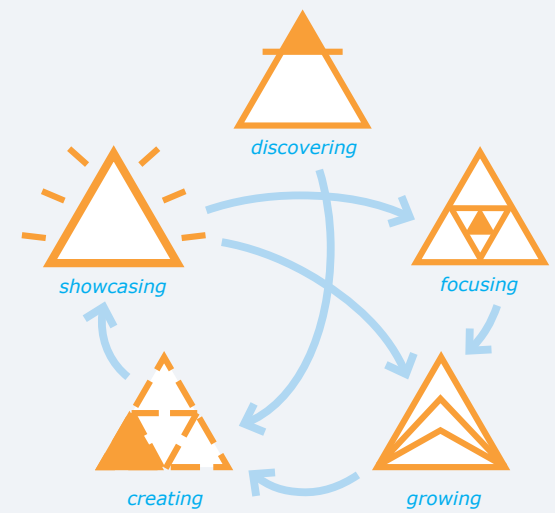
Since research, teaching, and learning are blurring, we thought about how people work in terms of *projects*. Within a project, moments generally occur in a cycle though there are certainly loops that occur within. Below are examples of how users might move amongst moments, and the following pages present “experience maps” as examples of how moments might play out in projects.



Scenario: Focusing and building skills in order to create, then showcasing, which prompts discovery for others.



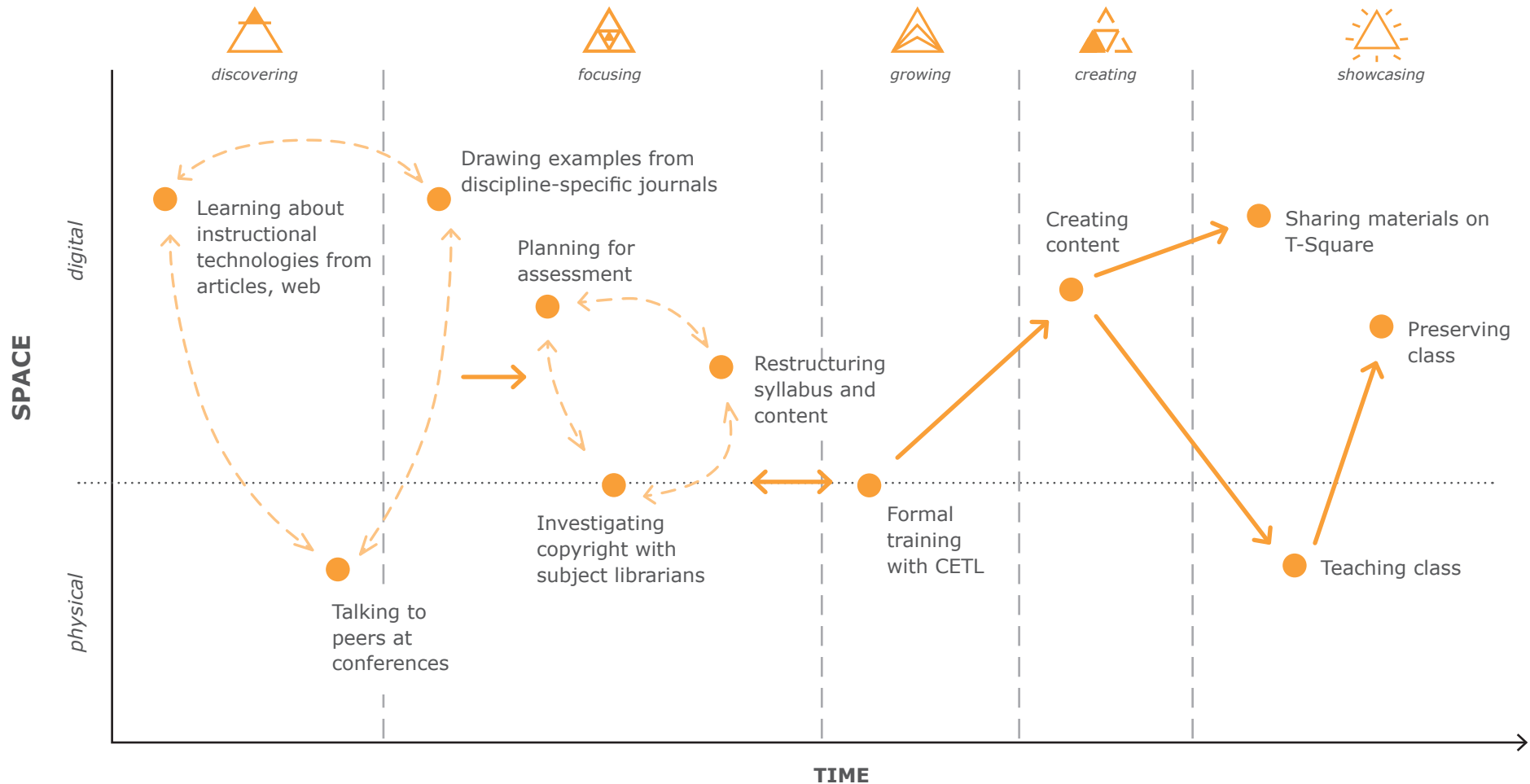
Scenario: Moving straight from focusing to creating, and in doing so identifying areas for growth.



Scenario: Iterating and improving ideas by showcasing them and getting feedback.

moments: experience map

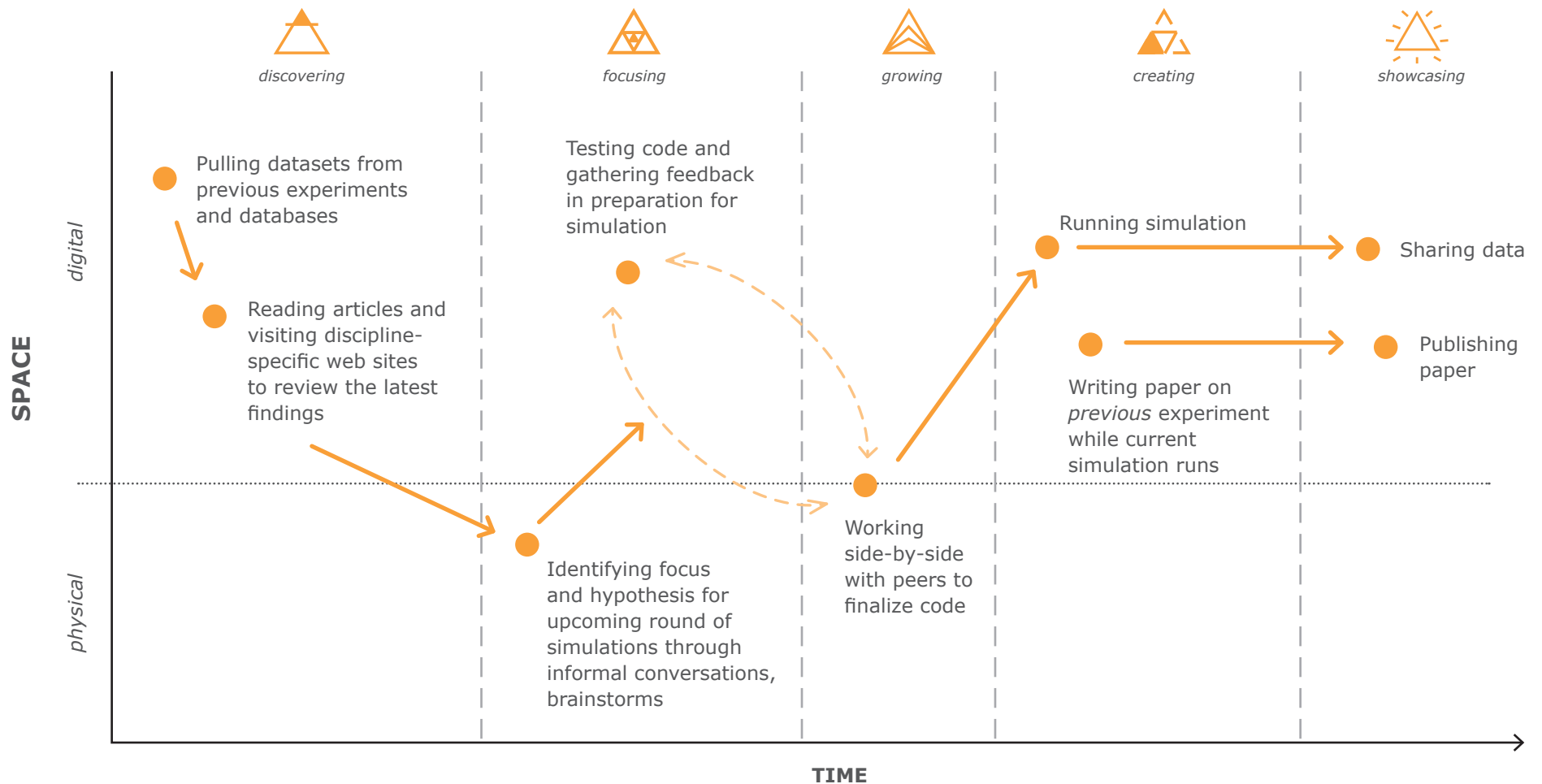
As an example of how “moments” play out, here is a current experience map of:
A faculty member flipping a classroom



*Note: These experience maps were created by Library faculty and staff and brightspot and is one representation of how the experience or activity may be approached.

moments: experience map

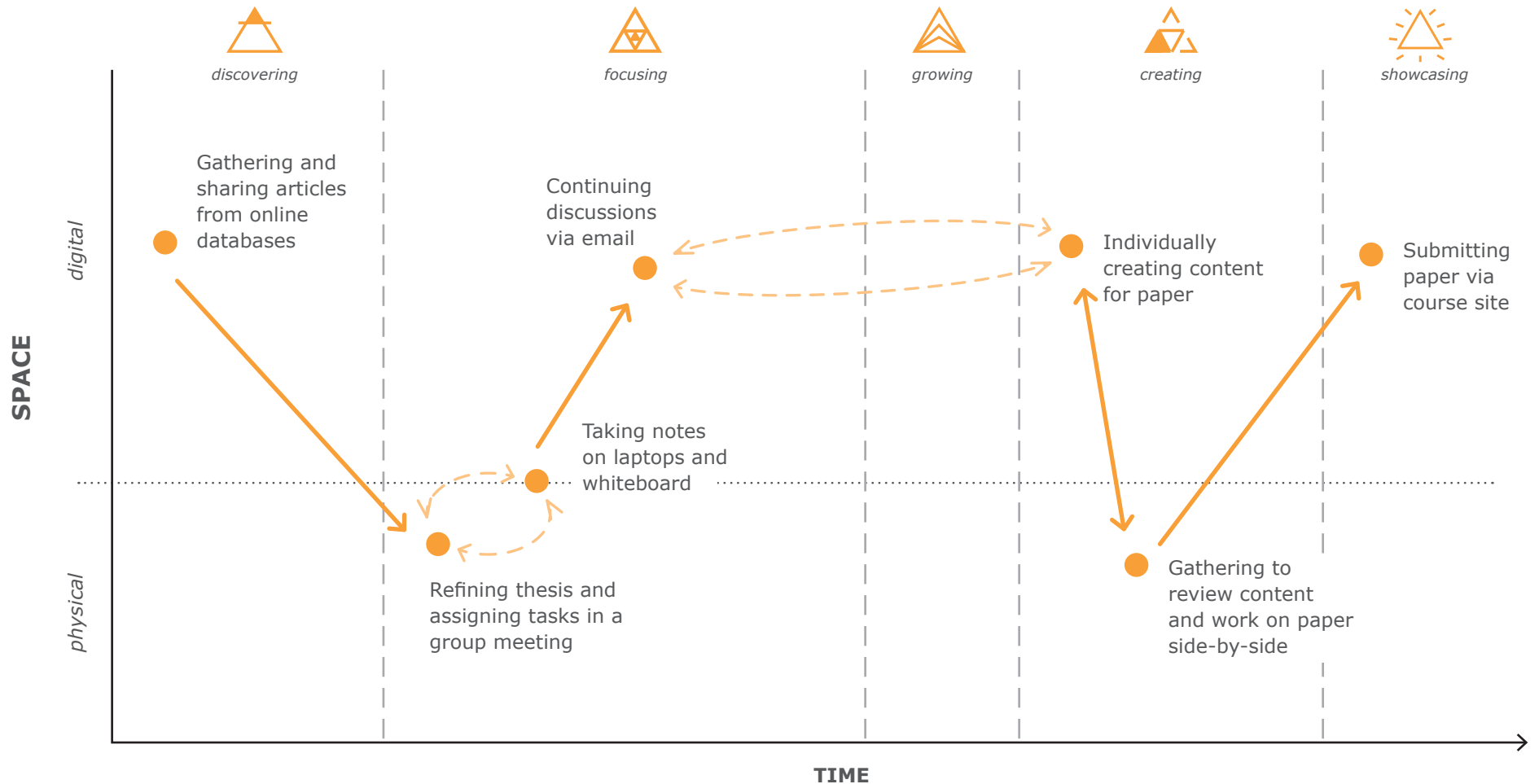
As an example of how “moments” play out, here is a current experience map of:
A graduate student participating in a research group



*Note: These experience maps were created by Library faculty and staff and brightspot and is one representation of how the experience or activity may be approached.

moments: experience map

As an example of how “moments” play out, here is a current experience map of:
A group of undergraduate students writing a final paper together



*Note: These experience maps were created by Library faculty and staff and brightspot and is one representation of how the experience or activity may be approached.



discovering

Finding the right information, content, people, and tools.

Having the right information, content, people, and tools for a project is instrumental to its success. With a seemingly limitless network of possibilities to explore, people need to strategically navigate and identify what they need. At the same time, surprises and serendipitous discoveries can lead to new ideas and opportunities.

Goals

- Retrieve resources independently and quickly
- Find something unexpected that inspires new ideas and directions for work
- Break out of their silos; interact with people that they would never encounter in their day-to-day routines
- Help others find and use information, and develop appreciation for materials (e.g.: Special Collections)

How people “discover”

- Search via Library web site and Google Scholar
- Browse Library stacks and catalogue; serendipity tends to occur when browsing stacks or flipping through journals
- Read core reference collections
- Work with librarians to identify and retrieve resources
- Get guidance from listservs, social networks, external experts
- Attending and networking at lunches, events, conferences
- Through automatic updates / emails



Temple University media collection



Betahaus



discovering

Finding the right information, content, people, and tools.



Clemson Social Media Listening Center



Google Stockholm Virtual Map

Wants and expectations

- Access to collections globally; all resources searchable and easy to download
- E-browsing experience analogous to physical browsing; better user interfaces
- Fewer points of entry – e.g.: one search can reach all resources
- Experts who can help navigate, filter, and evaluate content
- New ways to digitally navigate, interpret, and manage information, sources, and data – e.g.: a timeline that tracks the evolution of an idea through seminal papers and citations
- Real-time information feeds & displays
- Spaces, services, and programs that encourage people to meet others – whether intentionally or not
- To form collaborative teams organically
- Communities become sources for discovery



Loyola Student Services Hub



University of Sao Paulo



focusing

Filtering information and identifying what's next

With information in hand, people need to focus in order to assess what's relevant, identify what fits into the picture and what gaps there are to fill, and determine what they want to do next. It requires time, concentration, and, often, guidance from others to understand what to do next.

Goals

- Fully immerse in the task at hand, with few distractions
- Easily switch among activities and mindsets (e.g.: exploratory and analytical) while remaining in the same space
- Test ideas quickly
- Get help from the right people at the right time, in the right ways
- Identify something they have a passion to pursue
- Minimize downtime (e.g.: between research cycles)

How people "focus"

- Select the right space for their needs, from quiet to buzzing spaces
- Spread out materials on physical and digital surfaces (e.g.: large workspaces, multiple monitors, large visualization spaces)
- Use whiteboards to visualize thinking
- Work with collaborators for extended sessions and book rooms to "own"
- Develop ideas through conversations with peers, advisors, and experts – ad-hoc and scheduled
- Write proposals
- Iterate improvements (e.g.: to experiment design)



NCSU Library

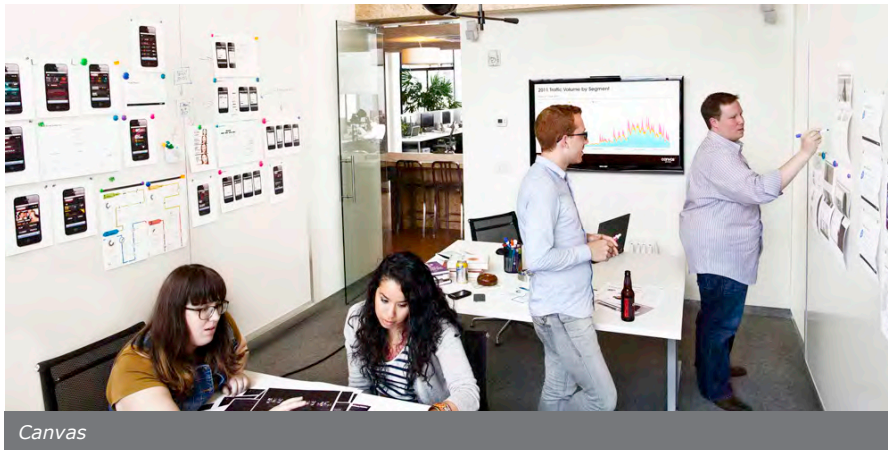


U. Chicago Manusetto Reading Room



focusing

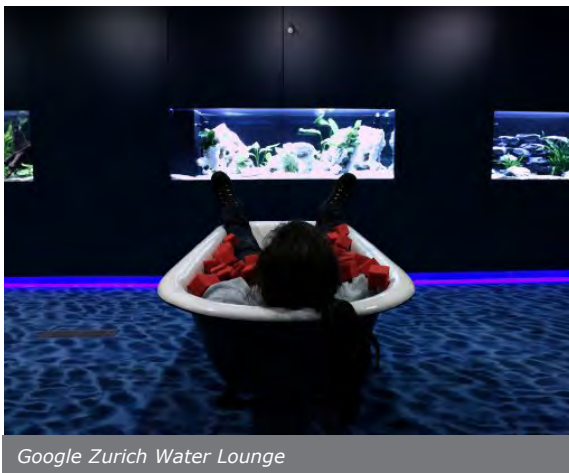
Filtering information and identifying what's next



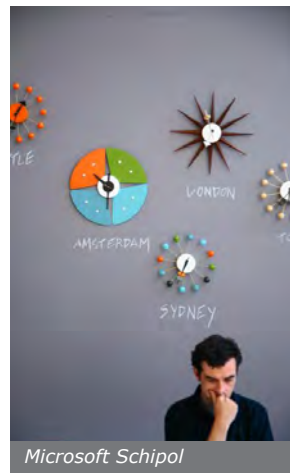
Canvas

Wants and expectations

- Project rooms that groups can “own” for extended periods of time (e.g.: multiple days), where they can spread out, pin up materials, and “personalize” the space
- Access to experts (around the world) at anytime, from wherever you are
- Working in interdisciplinary teams to push into new territories
- Seamless virtual collaboration with collaborators across the globe; working in virtual “labs”
- Natural and inspiring settings



Google Zurich Water Lounge



Microsoft Schipol



growing

Mastering new skills and building relationships.

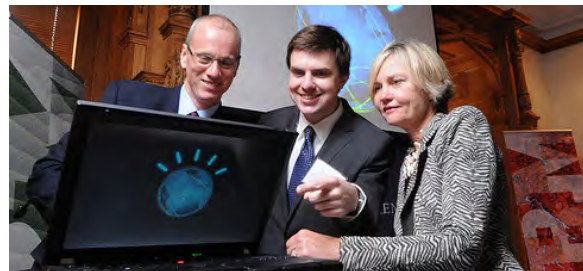
As people advance in their time at Georgia Tech, they aspire to be better at what they want to do. Intentionally and with experience, they master new skills, take on new roles, and develop relationships that enable them to grow.

Goals

- Execute ideas as envisioned
- Learn things they can apply (e.g.: teaching methods)
- Build confidence in their abilities
- Become “job-ready”
- Keep on top of the latest tools and technology (e.g.: what students and industry are using)
- Take on new roles, e.g.: as innovators, entrepreneurs
- Achieve something beyond immediate expectations

How people “grow”

- Participate in informal and formal learning opportunities, e.g.: lectures, events, workshops, conferences, courses / classes
- Reach out to experts for consultations
- Connect with Atlanta-based companies and Georgia Tech groups to gain real-world experience, such as shadowing, volunteering, short-term jobs, working in labs
- Participate in co-curricular activities, groups, committees
- Work with peers to learn the skills they have
- Prototype and iterate



Formal training – e.g.: IBM Analytics Skills Program

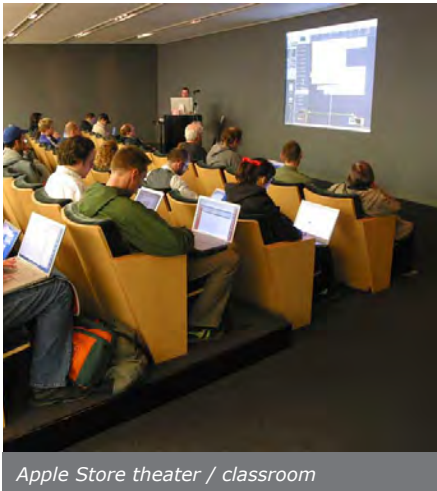


Exploratorium Maker Faire

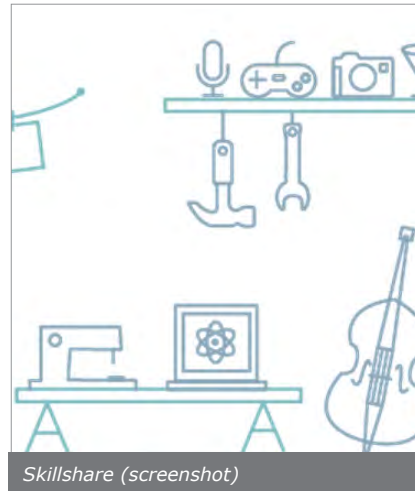


growing

Mastering new skills and building relationships.



Apple Store theater / classroom



Skillshare (screenshot)

Wants and expectations

- More workshops to learn new skills (e.g.: for teaching, media creation, data management)
- Help with “heavy duty” statistical analysis
- Share expertise and knowledge (e.g.: for innovative teaching methods) more effectively
- Engage more undergraduates in research so that they get hands-on experience
- Enable students to direct their own learning, and become better designers and problem-solvers
- Continue to learn from peers (students) – they’re usually available at the right place and time, and interaction with peers is more “frictionless”



Smithsonian EdLab



creating

Expressing and applying ideas.

From papers to books to videos to virtual models to 3D prototypes and mobile apps, there is a growing diversity of “products” that people are using to express and apply what they know.

Goals

- Express (new) ideas through their own “words”
- Prototype and implement innovative ideas
- Solve problems
- Have impact beyond academia

How people “create”

- Use variety of media and tools — written, verbal, visual, aural, and tactile — such as a research paper, radio show, video, or 3D prototype
- Iterate: draft, prototype, pilot
- Collaborate with others, e.g.: side-by-side work, group brainstorming, synchronous collaboration through online tools (such as Google Docs)
- Explore ideas through large-scale visualization and whiteboarding
- Partner with local, regional, and national entities



U. Mary Washington Think Lab



Stanford d.School (photo: d.school / Noah Webb)



creating

Expressing and applying ideas.



Duke Fuqua lecture hall



NCSU Visualization Lab

Wants and expectations

- More spaces for data visualization and “making”
- More spaces for groups to spread out, pin up, and leave up materials, e.g.: project rooms
- Expand beyond the local or national community to collaborate more on a global scale – whether it’s for research, active learning, or data sharing
- Physical and digital tools that work together seamlessly



showcasing

Sharing back with the community

In a scholarly environment, sharing back information and content is a critical step. Beyond adding to collective knowledge, it can have positive impacts on individuals, disciplines, institutions, communities, and beyond.

Goals

- Publish in high-impact journals and channels
- Disseminate work to a wide(r) audience
- Inspire others – pique their interest and instill a sense of discovery
- Contribute to the research community
- Catalyze change and influence others to follow
- Secure funding

How people “showcase”

- Present at conferences and events (external and at Georgia Tech)
- Host outreach events
- Submit to journals, publish books, write in magazines and blogs
- Curate exhibitions
- Display student projects digitally and physically
- Share open source software, packages
- Make resources available digitally (e.g.: submitting to repository)



University of Michigan MFA arts show



Georgia Tech Research & Innovation Conference



showcasing

Sharing back with the community



Purdue Hall for Discovery and Learning Research

Wants and expectations

- Past work is archived and can be accessed online (e.g.: previous years' class projects), *and* is referred back to (e.g.: students create and archive materials, but don't look back to them)
- Exhibition spaces around campus that showcase Georgia Tech materials and student / faculty work
- Seminal events, such as dissertation defenses, that are hosted in a central location and promoted to the public
- Blockbuster showcases of work that draw users to places (e.g.: a fully immersive environment takes users on a journey through the universe)
- Help with scholarly communication decisions, e.g.: which conferences to attend, how to "build a brand," best options for disseminating research



NCSU Hunt Library Immersive Viz Lab



Stanford Wallenberg Hall

campus playbook

The campus playbook contains a number of “plays,” which are opportunities for the campus to support critical “moments” in research, teaching, and learning and address key goals of the Institute and users. In our research so far, we have heard about opportunities to greater support innovation and entrepreneurship, cross-disciplinary knowledge and collaboration, campus communities, and focused individual work.

As a “playbook,” campus plays can be applied where and when as needed. For each play, we have suggested how it might work and the kit-of-parts needed, but exact mechanics need to be developed when the play is applied to a specific context. Plays include “neighborhoods” (integrated space and service concepts), new faculty and staff roles, and events and programs to engage the Georgia Tech community.

Which, and how, plays are part of the Library Renewal needs to be determined in collaboration with Library & Learning Excellence and the design team. The plays presented here are also not comprehensive of what’s been suggested or what will be considered for the campus or the Library. In addition to the plays, there are many other ideas to explore, develop, and validate in Phase 2 of the Project. Ideas suggested so far are listed after the plays, and ideas for the Library specifically are included in the Library Renewal section of this report.

- ◇ goals
- ◇ summary of plays
- ◇ principles
- ◇ plays
- ◇ other ideas

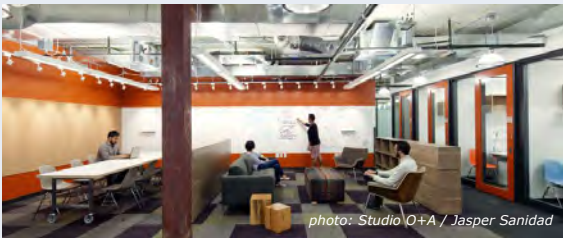
goals

For greatest impact, campus plays address goals that both the Institute and users have:

- **Whole Scholar:** Develop knowledge, skills, and interests across disciplines, so that scholars can apply what they know in a wider context and be prepared for the real-world.
- **Innovative Teaching & Learning Methods:** Apply innovative teaching and learning methods in informal and formal settings to continually improve learning experiences and outcomes.
- **Interdisciplinary Collaborations:** Form interdisciplinary and vertically-integrated teams to pursue new areas of work and impact.
- **Campus Communities:** Form communities of practice that capture the diverse interests on campus, where students, faculty, and staff can belong and actively participate.
- **Inspiration & Serendipity:** Inspire people to explore and do new things that excite them.
- **Innovation & Entrepreneurship:** Promote and support innovation and entrepreneurship and build relationships with external communities that enable projects to have impact.

plays

Plays are new “neighborhoods,” faculty and staff roles, or events and programs that address institutional and user goals and enable users to immerse in the key “moments” of research, teaching, and learning experiences.



Neighborhoods

Neighborhoods bring together related spaces, services, people, and resources around a common theme in order to create a more supportive and connected experience for users and enable units to work together.

Example at Georgia Tech: Level 2 of the Clough Undergraduate Commons, where academic student services—including their user spaces (e.g.: tutoring spaces), services (e.g.: drop-in tutoring hours), and resources (e.g.: course textbooks, previous exams)—are brought together for greater proximity to, convenience, and awareness for undergraduates.

Roles

New faculty and staff roles create opportunities to better connect with users – for example by providing personalized services and helping navigate the diversity and depth of information and resources on campus. New roles have some space implications, though the focus is on new service models and delivery.






Example at Georgia Tech: Clough Commons “Help Desk” staff, who are able to answer any questions that undergraduate students may have, and in particular on academic advising and technology.

Events & Programs

Events and programs provide new ways to engage students, faculty, and staff with what’s happening on campus and the interests / pursuits of people at Tech. Some are led by the Institute, some by users, and others co-created.

Example at Georgia Tech: Clough Art Crawl, which provides an opportunity for students to display and view art by their peers in a highly-trafficked area of campus.

summary of plays

Play	Overview	 discover	 focus	 grow	 create	 showcase	Goals addressed
Virtual browsing environments	Through interactive technologies and applications, virtual browsing environments will enable users to navigate, identify and use collections with ease, beyond what's possible with physical browsing and materials use.	●				●	Inspiration & serendipity
Themed communities	Through a competitive process every year, emerging communities of practice can "own" a neighborhood to focus on proposed projects, share resources, connect with experts, showcase their work, and increase membership in the community.		●	●	●	●	Whole scholar, interdisciplinary collaboration, campus communities, inspiration & serendipity
Innovation & entrepreneurship center	Located centrally to student activities, the innovation & entrepreneurship center includes spaces, services, resources, active programming, and programs to help students kick-start and develop new ideas.	●	●	●	●	●	Interdisciplinary collaboration, campus communities, inspiration & serendipity, innovation & entrepreneurship
Teaching & learning studio	The Teaching and Learning Studio provides spaces, technology, resources, and services dedicated to learning about, creating content for, and testing innovative teaching & learning methods.		●	●	●		Innovative teaching & learning methods, interdisciplinary collaboration, campus communities
Project rooms	With project rooms, teams can not only book a collaborative work area for an extended period of time, but also experts' time and equipment altogether.		●		●		Interdisciplinary collaboration
Pop-up showspaces	Pop-up showspaces highlight the activities that take place at Georgia Tech and provide opportunities for people to break out of their departments and buildings. As a mobile kit-of-parts, they're easy to pack up, move around, and customize.	●				●	Whole scholar, inspiration & serendipity
Research navigators	Research navigators help students, faculty, and staff tackle administrative tasks and guide them through standard processes and procedures so that they can focus on doing research.		●				Whole scholar
Peer-to-peer events	Encourage users to lead their own events by guiding them through the process and providing some structure to get them started.	●		●		●	Whole scholar, inspiration & serendipity
Loyalty program	A loyalty program at Georgia Tech incentivizes users to try new things and be active participants in the community. Completing tasks can grant long-term privileges and/or accrue points that can be redeemed for awards.	●		●			Whole scholar, campus communities, inspiration & serendipity
Quiet spaces	A mix of centralized and distributed quiet space where people can focus and be part of a scholarly atmosphere alongside others. The space may include special features / functions that encourage deep focus and/or serendipity.	●	●		●		Inspiration & serendipity
Scholar's event hub	Dedicated to faculty, students, and staff for hosting events on research, teaching, and learning. The Hub provides services for the "before" and "after" of events as well - for example, presentation practice in the actual space and archival services for sharing materials online (e.g.: SMARTech).	●		●		●	Whole scholar, campus communities, inspiration & serendipity

principles

When implementing plays, consider the following:

- **Integrate in one place:** Create go-to places for related spaces, services, and resources.
- **Connect physical and digital:** Connect physical and digital “spaces,” services, and resources, complementing one with the other.
- **Enable flow:** Keep different types of spaces close to one another so that people can easily switch amongst activities and test things out. For example, between individual and group work, learning and social interaction, and making and thinking.
- **Meet people where they are:** Put things close to where people already are, where they go, and what they do so that new things are likely to be used and become part of existing habits and routines.
- **Be agile:** Keep spaces flexible and adaptable to change.
- **Be “neutral”:** Create spaces that are not owned by one discipline; they are important for interdisciplinary work.
- **Make things visible:** Showcase services and resources.
- **Be a platform:** Help people learn and do things themselves.
- **Reach out to users:** Enable services to be proactive and personalized, e.g.: ask users to opt-in for notifications and recommendations.

play: virtual browsing environments

Through interactive technologies and applications, virtual browsing environments will enable users to navigate, identify and use collections with ease, beyond what's possible with physical browsing and materials use.



Cleveland Museum of Art - Gallery One digital collections browsing (by Local Projects)



DOK Delft Heritage Browser



Seattle Public Library



How It Works: There are many possibilities and use cases for a virtual browsing environment; they range in complexity and choosing the appropriate application(s) is key. Virtual browsing environments should go beyond replicating a physical browsing experiences – they should offer something more. At a minimum, users should be able to browse virtual bookshelves, see additional information about resources (e.g.: related resources, popularity), discover resources through unique filters and arrangements, see previews, get recommendations, save citations, and explore curated collections. A web-based browsing application should be available for basic activities as well, such as getting recommendations and discovering new content.

Kit of Parts: Multiple screens, soft seating, work surfaces (e.g.: to jot down notes, work with physical materials while browsing digitally)

Value to Users: Engaging browsing experience that helps users discover new and unexpected resources. Greater awareness and understanding of what's available.

Value to Georgia Tech: Makes materials visible even if they're off-site or born-digital. Encourages collections use and enables users to make the most of what's available. Showcases materials that are unique to Georgia Tech.

play: themed communities

Through a competitive process every year, emerging communities of practice can “own” a neighborhood to focus on proposed projects, share resources, connect with experts, showcase their work, and increase membership in the community.



How It Works: A competition every year selects a handful of groups to build communities of practice in designated “neighborhoods.” Selected groups commit to pursuing proposed projects, conducting outreach to engage new members, and showcasing their work-in-progress and final outcomes through exhibitions and events. As the themes of these neighborhoods change every year, these neighborhoods become the go-to spaces to engage in the newest directions of work at Georgia Tech. Suggestions for community structures include: user groups (e.g.: postdocs), work processes (e.g.: authors), and topics or challenges (e.g.: sustainability).

Kit of Parts: Themed communities include flexible individual and group spaces, exhibition and event spaces, and project rooms. Resources can be loaned for the long-term to keep in the community. Faculty and staff provide content expertise, and exhibition, event, and programming support.

Value to Users: Provides interdisciplinary groups with a space they can own and establish a community of practice. Gain support for their work and draw in more members.

Value to Georgia Tech: Supports interdisciplinary collaboration and encourages people to pursue their interests. By bringing multiple communities together, enables efficient service delivery and increases chances for serendipity.



play: innovation & entrepreneurship center

Located centrally to student activities, the innovation & entrepreneurship center includes spaces, services, resources, active programming, and programs to help students kick-start and develop new ideas.



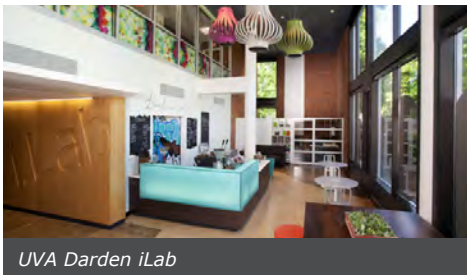
UIC Innovation Center



UVA Darden iLab (photo: Elli Williams)



Ryerson Digital Media Zone (photo: Lisa Sakulensky)



UVA Darden iLab



How It Works: As the central one-stop shop and first line of contact for all innovation and entrepreneurship (I&E) inquiries, administration, and support services, the Center drives and nurtures I&E on campus and provides spaces and services for the full life-cycle of an I&E project (e.g.: brainstorming, prototyping, pitching). As a hub for the ecosystems, it enables a seamless user experience, coordinated service delivery, master events and program calendars, space and resource sharing, and connections to communities and nodes of activity off- and on-campus. Importantly, the Center is a showcase of ideas that attracts external partners and investors alike.

Kit of Parts: Service point / zone, consultation spaces, exhibition areas, large multipurpose event space, project rooms and incubator spaces, instruction spaces, drop-in work areas, informal work and gathering spaces, meeting rooms, specialized spaces (e.g.: media production, presentation practice), staff and guest workspaces.

Value to Users: Provides guidance and connections in a complex system. Platform of spaces, tools, and people to help them succeed.

Value to Georgia Tech: Anchors and displays innovation and entrepreneurship on campus. Central, dedicated space encourages like-minded people to meet, recruit project members, and share ideas. By helping users navigate the ecosystem, increases participation and likelihood of success.

play: teaching & learning studio

The Teaching and Learning Studio provides spaces, technology, resources, and services dedicated to learning about, creating content for, and testing teaching & learning methods.



Harvard Hauser Digital Studio (photo: Eric Ouyang)



How It Works: Users at the Learning & Teaching Studio can explore and test teaching and learning methods, and in particular create content for flipped classrooms and MOOCs. The Studio is proximate to teaching & learning experts, so users have immediate access to help when needed. The Studio also provides one-on-one consultations and side-by-side work sessions with experts, hosts faculty-oriented events, and leads courses on a variety of topics, such as new technologies, making the case for curricular change, and designing assignments. There are opportunities to partner with or be operated by units such as CETL.

Kit of Parts: Consultation spaces, media studios, flexible multipurpose instruction and event spaces, dedicated faculty workspaces, “test” classrooms with the latest instructional technology, workspaces for staff and “resident” experts

Value to Users: Expand teaching skills and have the tools to create the courses and learning experiences they envision. Test new content and methods in a safe environment.

Value to Georgia Tech: Supports Institutional goal to innovate in teaching and learning. Builds a community of instructors that can help one another and champion innovative methods. Helping instructors do well means that students will have better experiences in the classroom.



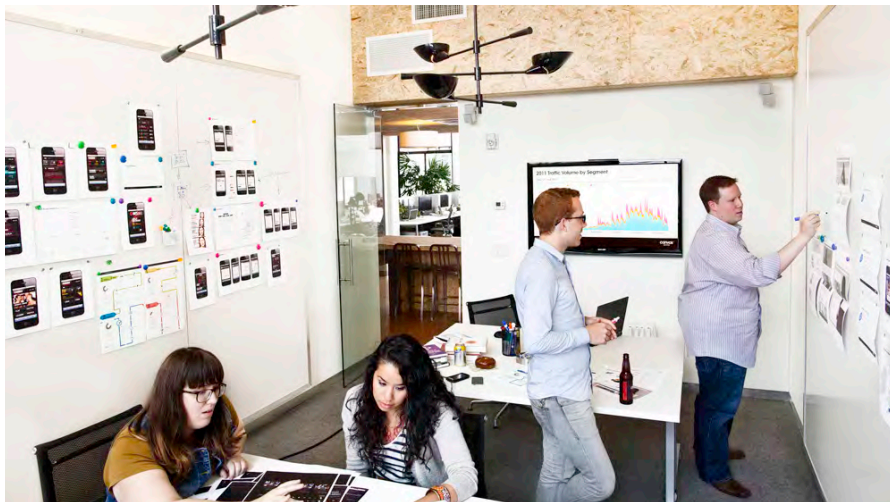
NYU Digital Studio (photo: Jeffrey Bary)



RIT Teaching & Learning Studio

play: project rooms

With project rooms, teams can not only book a collaborative work area for an extended period of time, but also experts' time and equipment all at once.



Canvas, NYC



How It Works: Project rooms enable groups to book spaces, tools / equipment, and experts (such as subject librarians, meeting facilitators, and video production experts) at the same time, for example for a flipped “office hours” where experts come to you and your work. Project rooms and experts can be reserved using different strategies, such as (1) case-by-case basis, via proposals, (2) credit system, or (3) open reservations.

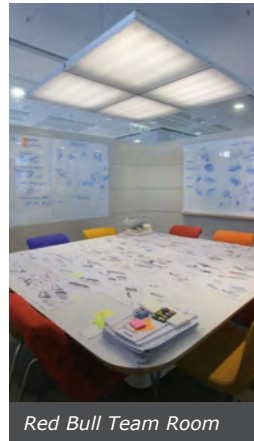
Kit of Parts: Project rooms are similar to meeting rooms. They include movable, modular furniture; ample wall space for writing and pinning up materials; and basic technology. Project rooms can also be specialized, such as “making” intensive or data visualization spaces.

Value to Users: Able to “own” a space and focus for extended periods of time. Minimizes time lost in looking for spaces, setting up, breaking down, and re-situating. More in-depth consultations; being able to show / point to specific work.

Value to Georgia Tech: Provides neutral spaces that promote collaboration and working on complex projects. Can adjust operations to meet demands throughout the year.



TU Delft Library Project Rooms



Red Bull Team Room

play: pop-up showspaces

Pop-up showspaces highlight the activities that take place at Georgia Tech and provide opportunities for people to break out of their departments and buildings. As a mobile kit-of-parts, they're easy to pack up, move around, and customize.



Parsons – movable storage and display



SF Mobile Museum



How It Works: Pop-up showspaces are platforms to showcase what's new at Georgia Tech that are always moving and changing, and can be set up in high traffic spaces on campus or within different schools and departments (e.g.: a biology project in an architecture building). They include physical and digital components, and can be static or interactive – for example, showspaces might come to life every Tuesday with hands-on demonstrations and Q&A sessions with the people behind the work.

Kit of Parts: Showspaces must be self-contained and securable. Includes vertical surfaces and/or monitors for displaying content and integrated storage. Can include additional surfaces for presentations / demonstrations and power supply as needed.

Value to Users: Having a kit-of-parts takes guesswork and effort out of building exhibitions from scratch. Mobility increases audience reach. Creates opportunities to gather feedback and interact with audiences.

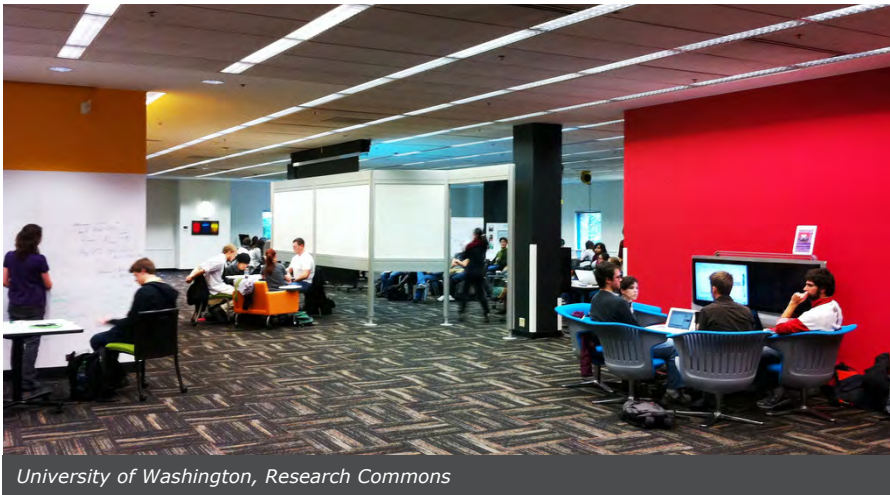
Value to Georgia Tech: Reinforces Georgia Tech's activities in research, innovation, and entrepreneurship on a regular basis. Infuses a sense of wonder and discovery across campus and creates fun, informal learning opportunities. By constantly changing and moving around, increases chances for serendipitous encounters.



Exploratorium - movable exhibitions and demonstrations

play: research navigators

Research navigators help students, faculty, and staff tackle administrative tasks and guide them through standard processes and procedures so that they can focus on doing research.



University of Washington, Research Commons

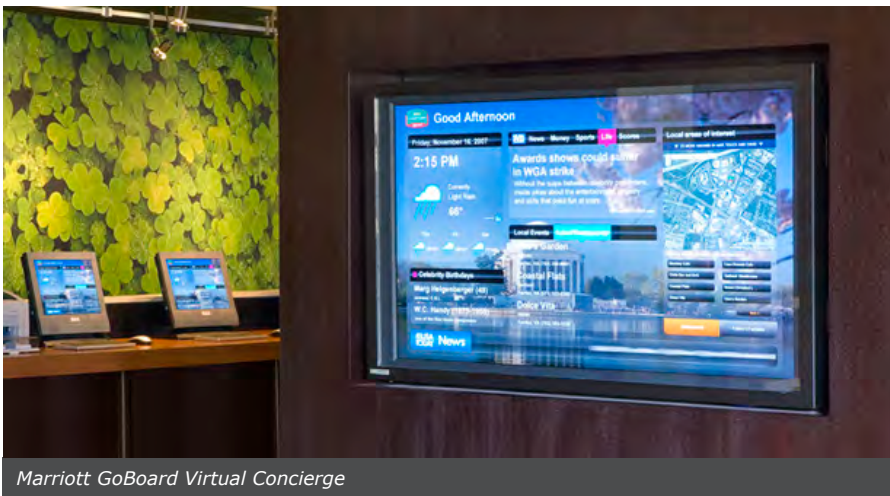


How It Works: Research navigators are experts at navigating and executing tasks that often distract researchers from being researchers. Through consultations and tools, navigators help researchers identify what they need to do, map out the process, and get things done. They also host drop-in hours, events, and programs over the academic year. Research navigators are well-networked and can refer users to other services and people – but only when absolutely necessary; research navigators should be the main point of contact for researchers and retain “clients” over time.

Kit of Parts: Research navigators have a central workplace where users can drop-in, with a service point for welcoming users and short consultations, individual and collaborative staff workspaces, and consultation rooms for extended meetings with users. Research navigators can also be stationed in other neighborhoods, such as the themed communities and I&E Center.

Value to Users: Minimizes time spent on admin tasks and frees up time for research. Eases stress of navigating complex systems.

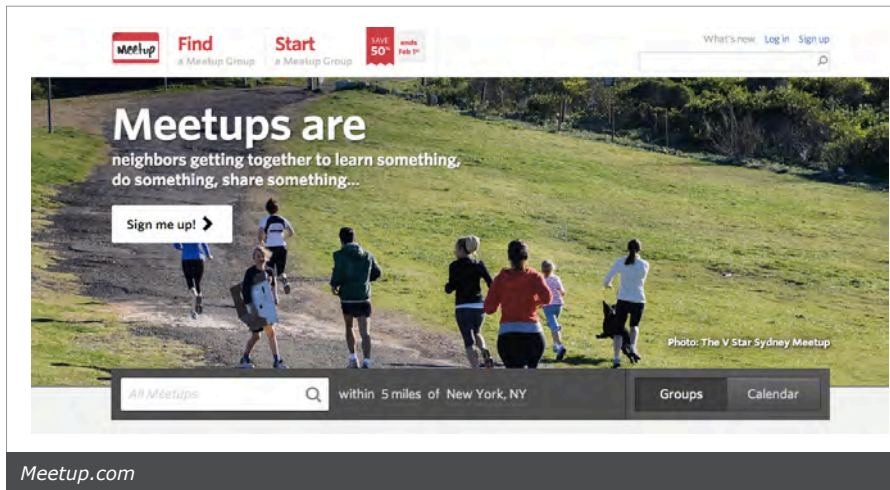
Value to Georgia Tech: Helps researchers be researchers and shows commitment to enabling them to do their best work. Opportunity to save time for researchers and administrators by streamlining processes, minimizing error, etc. Research navigator can be key differentiator and attractive benefit of doing research at Tech.



Marriott GoBoard Virtual Concierge

play: peer-to-peer events

Encourage users to lead their own events by guiding them through the process and providing some structure to get them started.



How It Works: Create a “menu” of events for users to choose from (e.g.: meet-ups, hackathons, pitches, readings, and how-tos) and a “toolkit” that helps them plan and lead these events successfully. Provide dedicated venues and regular scheduling (e.g.: Hackathons every Thursday evening). Establish a program for the semester and solicit proposals from the Georgia Tech community. Event leaders would then get event, technology, and marketing support.

Kit of Parts: Selection of event spaces, such as flexible multipurpose spaces, auditoria, workshop spaces, and outdoor spaces. Toolkit to help event leaders plan their events; it would include, for example, tips for leading activities, suggested durations of agenda items, marketing tips, and so forth.

Value to Users: Provides a structured avenue for hosting campus-wide events and lends legitimacy and prestige. Having a toolkit enables those with limited event experience to do well.

Value to Georgia Tech: Enlivens campus with a diversity of event types. Brings people together across campus to learn, have fun, and be inspired. Shows that it’s important to balance academics and extra-curricular activities.



play: loyalty program

A loyalty program at Georgia Tech incentivizes users to try new things and be active participants in the community. Completing tasks can grant long-term privileges and/or accrue points that can be redeemed for awards.

2

INDIVIDUAL
Core benefits for one, plus one series: \$85

DUAL
Core benefits for two, plus one series: \$125

SELECT:
First Series included, each additional Series \$40
Click on the icons below to add Series or to learn more.

SOCIAL

INSIDER

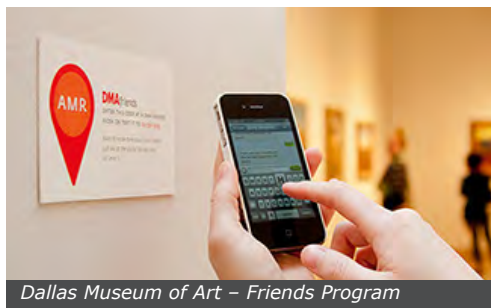
LEARNING

FAMILY

PHILANTHROPY

TOTAL: \$85
— Core benefits for one
Tax deductibility: [Mozart.fm](#)

Whitney Museum of Art – Curate-Your-Own Membership Program



How It Works: The loyal program creates a system of incentives to explore what's offered at Tech, such as going to the library or attending an event. Groups across campus can elect to participate in the loyalty program and create their own tasks and rewards. In general, points are accrued by completing activities and can be redeemed for specific awards and/or unlock privileges. For example, being a frequent ILL user might grant a longer loan period for the next year. There can be opportunities to partner across groups, such that points can be redeemed outside of the group it was awarded in. Rewards should aim to add value to the user experience – that is, be more than collecting points and redeeming “stuff.”

Kit of Parts: Web-based and mobile application for the loyal program, with a platform for providers to manage their perks and program members.

Value to Users: Incentivized to try new things and rewarded for participation and loyalty. Feel appreciated and part of a community.

Value to Georgia Tech: Enables groups across campus to establish long-term relationships with users. Can provide a glimpse into the preferences of its communities / users.

play: quiet spaces

A set of centralized and distributed quiet spaces that inspire scholarship and learning for faculty, students, and staff, where they can be “alone, together” and work individually, with opportunities for respite and discovery.



photo: One Flew South

Natural scenery, One Flew South, Atlanta GA



Quirky phone booths (photo: Spector Group)



How It Works: Quiet spaces should include centralized spaces, such as a reading room, and distributed quiet areas, such as carrels, nooks, and phone booths, to support quiet work wherever needed and so users can be “alone, together” or simply alone. Quiet spaces should update the traditional reading room and carrel in functionality and aesthetics — they should be outfitted for work with physical and digital materials (i.e.: provides outlets, large work surfaces), enable deep concentration, and support respite and discovery when those moments are needed. There are opportunities for interiors, collections, and technology to support a scholarly, focused, and serendipitous environment, for example through rotating browsing collections, natural settings / materials, or wi-fi / phone-free “cold spots.” There should be proximate respite spaces, where users can refresh without losing focus completely.

Kit of Parts: Shared workspaces (e.g.: large tables) and individual workstations with power outlets and task lighting; informal seating; small enclosed workspaces.

Value to Users: Provides spaces for concentration and getting work done (especially for users who don’t have appropriate spaces on campus).

Value to Georgia Tech: Continue to support and enable a critical activity in working and learning.



Duke Fuqua Library Reading Room

play: scholar's event hub

Provide dedicated spaces for faculty, students, and staff to host events on research, teaching, and learning, with services to support the "before" and "after" of the event, such as presentation archival.



Central Michigan University conference room



How It Works: A small hub for research, teaching, and learning events, such as symposia, speaker series, dissertation defenses, and meetups, adds to the portfolio of spaces available on campus for faculty, students, and staff to share their work and meet with peers. In addition to typical event services, such as technology support and catering, the scholar's event hub would provide a greater range of services to support what occurs before and after an event, including media production (e.g.: video production consultations, image search assistance), presentation practice in the event spaces, and material archival and sharing (e.g.: uploading presentations to SMARTech).

Kit of Parts: Selection of event and meeting spaces, such as auditoria and medium to large meeting spaces; lobby and gathering / spill-out spaces; informal meeting / work areas; catering kitchen; staff spaces and consultation rooms

Value to Users: Provides low-cost opportunities to present work and meet peers; helps users with full experience of hosting an event, including activities that would benefit attendees (e.g.: archival)

Value to Georgia Tech: Encourages Georgia Tech to share their work and increases amount of work shared (at event and online); sets precedent for level of service and user experience (for presenters and attendees)



Open conference area in atrium

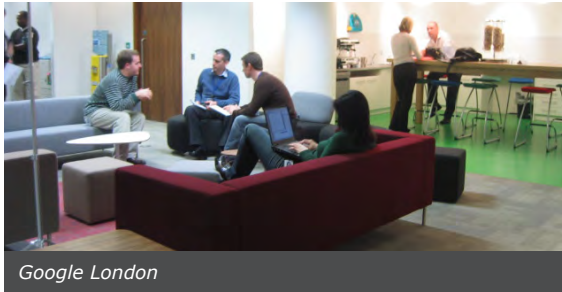


Archival services

other ideas

In addition to the plays in this document, there are others to further explore and refine in Part 2. On the following pages are ideas / concepts that participants have suggested – they include spaces in high demand; services to help with research, teaching, and learning; tools and resources; and events and programming.

other ideas: spaces



Entrepreneurship & Innovation

- Innovation hub
- Entrepreneurship hub close to center of campus or in Library

Meeting

- Large spaces for events
- State-of-the-art videoconferencing
- "Problem salon" to support problem-based learning communities across disciplines, including archiving and broadcasting solutions to the world
- Interdisciplinary rooms with the resources and expertise needed for those areas
- Faculty club
- Presentation practice spaces

Making

- Central, organized makerspace program funded by Tech Fees with emphasis on peer-to-peer learning
- Tinkering / makerspace for exploring old hardware and software
- Makerspace that emulates real world studio working environment
- Multimedia studio
- Hacking, rapid prototyping "lab-lets"
- Flexible spaces where students and faculty can "play"

Other

- Airport lounge-like spaces to "dock"
- Active learning classrooms
- Configurable black box spaces

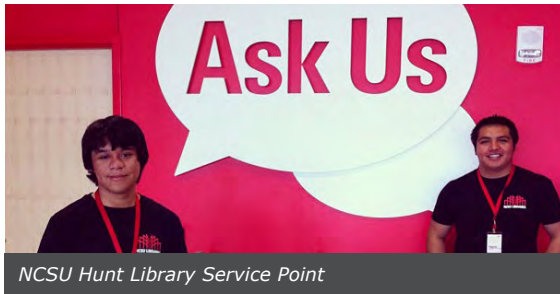
Support

- Lockers for safe storage of resources and tech

Showcasing

- "Visibility machine" – exploratory space that inspires imagination and collaboration by encouraging visitors to discover objects and ideas that "feed [the] eyes"
- Doctoral defense presentations (and practice in the same room)
- Large-scale immersive / data visualization
- Exhibition spaces; showcases of Tech's contributions
- Places for specialized information access, e.g.: data visualization, planetarium

other ideas: **services and programming**



Research Services

- Help putting together dissertation – workshops and/or consultations
- Information on copyright and intellectual property
- More data support

Communications Services

- Communications Center expert for graduate-level work
- “Slide librarians” – help creating presentations, tracking down images, etc.



Events & Programs

- Digital equivalent of “book club” to discuss content
- Expanded class and workshop offerings
- Seminar series, lectures, Q&A sessions
- Campus research “open house” day
- Research methods courses / modules, taught by the Library and built into the curricula
- Peer-led workshops on technology and software

Events & Program Support

- More support for exhibits and programming in Library and Clough



Library Services

- Decentralized library services
- Longer ILL loan period
- More online instruction to increase access and usage
- Centralized printing

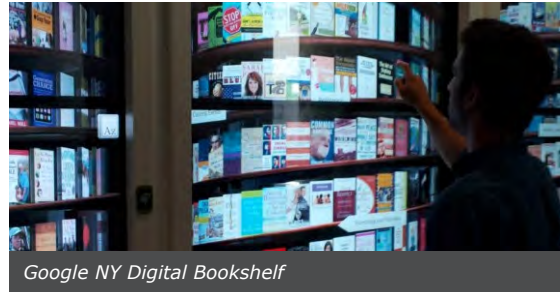
Visitor Services

- More, easier visitor parking
- Better wayfinding and navigation for visitors

other ideas: resources and tools



Texas Tech Libraries Roving Reference



Google NY Digital Bookshelf



Drexel University Library Laptop Lending

People

- Bring in expert docents to attract visitors
- Designers to assist faculty and graduate students with structuring research studies (e.g.: SPSS, data analysis support)

Content

- Access to archived student work and lectures
- More datasets
- Content, instruction providers in subjects not represented at GT

Content Models

- Virtual analog to browsing experiences
- Special collections model (small, highly curated collection of print resources, artifacts, etc.) across campus
- Random access digital browsing
- Dynamic data streams / feeds of news, data, searches
- Monthly email with Library reminders and updates
- Library Wiki with quick answers to top user questions

Technology

- Technology / tools for check-out (e.g.: video cameras)
- Tools, technology that individuals cannot afford
- Centralized equipment to manage cost

library renewal

Focusing in on the library, what role will it play on campus and which “plays” should it implement as part of the Renewal project? This first part of the research project has begun to craft the vision statement and directions for the library; further conversations, research, and service modeling in Part 2 will enable the organization to define its future role and offerings.

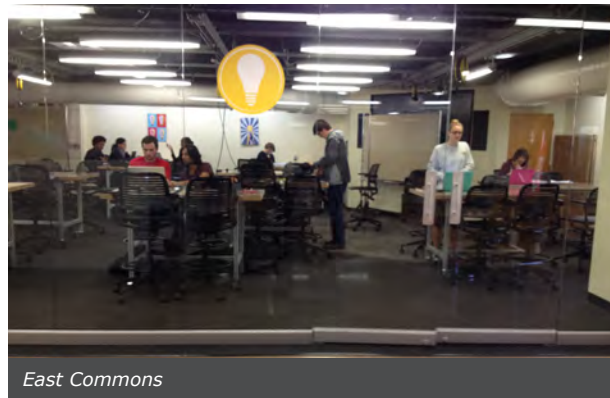
- ◇ current state
- ◇ shifting directions
- ◇ vision statement
- ◇ strategies
- ◇ library storefront
- ◇ external research

current state

The Georgia Tech Library occupies the Price Gilbert Memorial Library and Crosland Tower (jointly known as the “Library Towers”) and operates the Clough Commons. Over the past years, spaces in the Library have been piloted and renovated to meet the changing needs of the student and faculty body and now include, among others, a variety of flexible individual and collaborative work areas (some with computers), a Multimedia Studio, quiet study areas, and a home for StartUp Exchange.



"Mission Control" and 2 West



East Commons



Collaborative Computing



Café

By the Numbers

Collections

- 1,060,000 titles
- 24,000 electronic journals
- 250,000 e-books
- 43,000 Georgia Tech research and campus publications in SMARTech

Library Usage (2013)

- 1.34 million visitors (gate counts)
- 98,000 items circulated (including gadgets and media)
- 2.47M articles & books downloaded
- 452 instruction sessions; 8,724 attendees (2013)

Clough Commons Usage (2012-13):

- 2.5 million visitors (door counts)

current state: observations findings

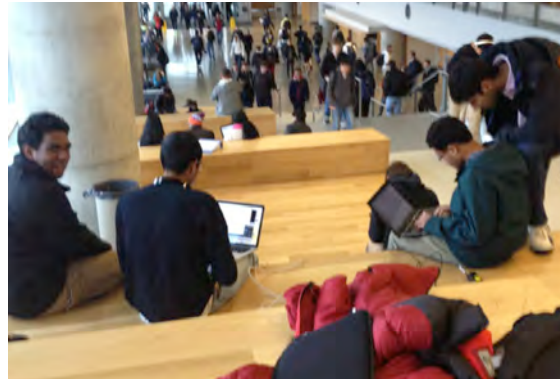
Observations in the Library and Clough Commons along with “intercept interviews” (quick interviews with users in-context) with undergraduates suggest that students work in the Library when they need to concentrate and “get work done.” Clough Commons also supports focused work, but is also more frequently used in-between classes and as a gathering space – it is a convenient place to “drop in,” is centrally located, and provides spill-out spaces near classrooms.

Activities and behaviors observed in Library and Clough



Spreading Out

Students often spread out laptops, textbooks, and notes around them and end up “claiming” tables. Whenever possible, students tended to spread out around a room as well, preferring to look for an empty table before asking to share a table.



Fluctuating Group Sizes

When working in more open spaces, group sizes grew or shrank as peers dropped-by for casual conversations or to meet. Students would then look for additional seats as needed but remained “anchored” to the original meeting space unless moving was necessary.

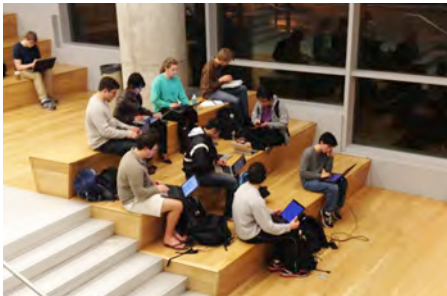


“Alone, Together” through Headphones Quiet

Students made their own “quiet” through headphones. Some users expressed a preference for noisier spaces; others enjoyed being “alone, together.” Such spaces enabled students to easily switch among focusing, taking breaks, and conversing with peers.

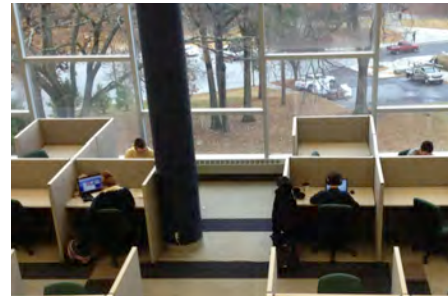
current state: observations findings

There are a number of unique spaces in the Library and Clough that amplified what works well or has room for improvement, such as the stairs in Clough and the quiet carrels, Collaborative Computing area, and Multimedia Studio in the Library.



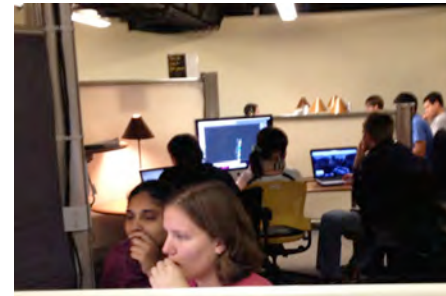
Clough Commons Stairs

Situated along a main circulation path, the stairs were a popular working and socializing space where users are willing to “make do,” particularly if they were in-between classes or could not / did not have time to find other spaces to work. It supported individual and small group work at laptops well, but spreading out materials and large group work poorly, though both occurred multiple times.



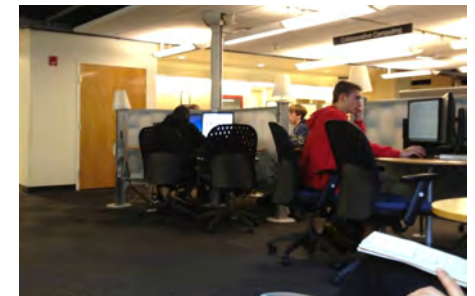
Quiet Carrels

This space is devoted to (individual) quiet / silent study. Students were occasionally in groups and multi-tasking (eating, watching TV, on phone). Carrels provide great acoustic and visual privacy, though can also provide a false sense of privacy – some groups would sit at neighboring carrels and talk occasionally.



Multimedia Studio

Because of the specialized technology in the space, this space felt more “owned” by the students. The space was lively and full when observed, with groups working over longer periods of time. Groups worked at the stations and on their laptops simultaneously.



120° Workstations

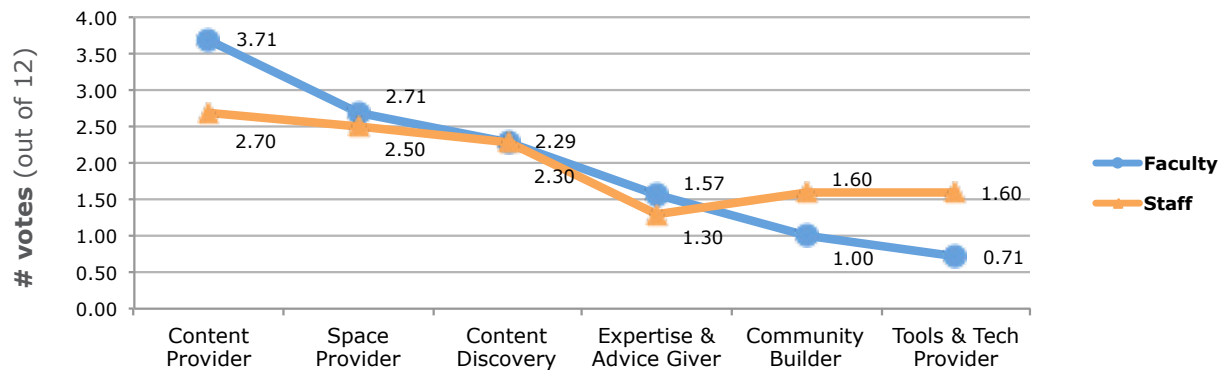
The 120° tables with dual monitors provided space for 2-3 students working side-by-side. When students needed to work together while having their own screens, however, the partitions made collaborating difficult. Swiveling around to see a peer’s screens was the easiest workaround. This meant sitting at adjacent rather than at the same pod of workstations.

shifting directions

The Library Renewal project is an opportunity to redefine the technological research library of the 21st century. Located in the heart of campus, the Library is physically and conceptually poised to be a gathering place for the Georgia Tech community and a crossroads for its many users, disciplines, interests. While supporting and enabling collaboration and meeting, the Library should also continue to provide spaces for sustained scholarly study, such as quiet reading rooms, for students, faculty, and staff. Also driving the renewal is the Library's partnership with Emory University – moving physical collections to the shared Library Service Center and having seamless access to Emory resources (and vice versa).

Library Roles

In a workshop with the Library Faculty Advisory Board (LFAB), we discussed potential roles that the Library could play, and in what proportions. Each faculty and staff member distributed 12 dots across the 6 roles to indicate their thinking. Results below have been normalized.



Content Provider: Build the collections and resources that users need	Expertise & Advice Giver: Guide users through their projects (e.g.: consultations)
Space Provider: Provide a variety and quantity of spaces to support user activities	Community Builder: Facilitate connections among people to help create and strengthen communities
Content Discovery: Help users identify and acquire resources	Tools & Tech Provider: Provide the latest tools and technology that users need to do their work

Discussion

- The pulse-taking activity presents a somewhat traditional view of the library with Content Provider as the primary role.
- The Library should provide spaces for people to come together across disciplines and showcase GT work
- While Tools & Tech Provider received the lowest number of votes on average, there was significant discussion about providing technology for presentation, meeting, visualization, collaboration, and browsing.
- Upon discussion and reflection, the role of Content Discovery overlaps with Expertise and Advice Giver, as one of the key services and expertise offered by the library is assistance with finding new / appropriate content.
- Library expertise and services should be more visible, especially as collections move to the Library Service Center.

shifting directions: ideas for the library

Many users also view the Library as a dynamic space for bringing people and ideas together—physically and digitally—to communicate, collaborate, and problem-solve, while retaining spaces for quiet, focused, sustained work. They provided examples of what could be in the future library.

Spaces

- Variety of flexible spaces, such as for collaboration, multimedia production, meeting and conference, formal classes, and “playing”
- Spaces for serious academic work, e.g.: quiet work alongside others.
- Serene spaces to recharge, “get away”
- Dissertation defense spaces, for practice and presentation
- Small scholarly event center with catering and archival services; could be a faculty space
- Spaces dedicated to and that showcase specific disciplines and pilot projects, that are always changing (e.g.: yearly)
- “Studios” with spaces for sustained collaboration and a core collection (e.g.: ~1000 books on-hand)
- Spaces for groups that don’t have any on campus, e.g.: post-docs
- Faculty space to promote collaboration and connections

Services

- Organize collaborative initiatives to bring people together across disciplines
- Provide more services, such as writing support for graduate students; content discovery and screening; teaching support; data access, use, and management; and networking
- Collaborate with staff and students – be part of the team, e.g.: embedded in the research process and departments
- Provide (personalized) services in a proactive and unobtrusive manner as well as on-demand
- Provide services through many channels, e.g.: online, kiosks, roving staff, video links, on-demand, mobile apps

Content

- Showcase people and their projects; broadcast new content and scholarship
- Make activity visible, e.g.: through dynamic digital content feeds
- Express “Georgia Tech”
- Display library collections
- Highlight the arts and creativity
- Enable users to see how they contribute to the “scholarly record”
- Make recommendations based on past “purchases” and browses
- Create people “catalogues” that can be checked out like books; leverage communities for content discovery

shifting directions: graduate personas

In thinking about the future, Library faculty and staff created personas to capture some of the more unique needs and user characteristics that they need to support in the future. In part 2 of this research project, these personas can be used to identify people to engage, develop use cases, and test recommendations. Full portraits of each persona are in the appendix.



The Researcher

Engaged in several research projects at a time and very academically-focused. Aims to publish and secure a tenure-track position.



The Entrepreneur

Balances coursework and a side project that he's looking to bring to market. Always networking and presenting ideas informally.



The Novice Seeker

Takes advantage of what's available and has a wide network of sources (from librarians to blogs). Tends to ask for help "just-in-time."



The Conductor

Research group leader who collaborates with internal and external groups. Always available for in-person or virtual meetings.



The Designer

Architecture student who splits her time between lectures and the design studio, and an extensive user of print collections.

**Note: The Library Task Force that created these personas also prioritized them to provide a sense of where we should focus and where there are greatest opportunities for innovation. They are presented from highest to lowest priority from left to right and top to bottom.*

shifting directions: faculty personas

In thinking about the future, Library faculty and staff created personas to capture some of the more unique needs and user characteristics that they need to support in the future. In part 2 of this project, these personas can be used to identify people to engage, develop use cases, and test recommendations. Full portraits of each persona are in the appendix.



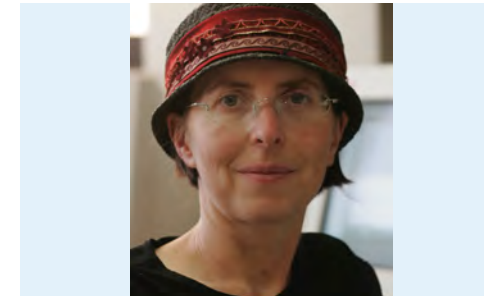
The Futurist Inventor

Shaping the future, one project and student at a time. Highly mobile, connected to others, and comfortable with all things digital.



The Expert Connector

Experienced and passionate academic who mentors and leads students and depts. to be their best. Innovator in teaching & learning.



The Tenure-Track Jr Faculty

Passionate about research, and learning to juggle the many roles of a faculty member. Always looking to connect with others.



The Progressive Traditionalist / Thinker

Performs cutting-edge research with multidisciplinary teams. Mentors and aims to instill a sense of discovery in students.

**Note: The Library Task Force that created these personas also prioritized them to provide a sense of where we should focus and where there are greatest opportunities for innovation. They are presented from highest to lowest priority from left to right and top to bottom.*

shifting directions: archives personas

In thinking about the future, Library faculty and staff created personas to capture some of the more unique needs and user characteristics that they need to support in the future. In part 2 of this research project, these personas can be used to identify people to engage, develop use cases, and test recommendations. Full portraits of each persona are in the appendix.



The Cutting-Edge Educator

Uses technology to flip the classroom and partners with archivists to create hybrid analog / digital classes.



The Architectural Historian

Uses text and image reproductions extensively, particularly oversized architectural drawings, for research and teaching.



The Sustainer

Long-time user and partner of the Archives, who integrates historic materials into class sessions and projects.



The Student Assistant

Serious and dedicated to the Archives. Works on physical collections processing and digital projects, and loves spending time mining online archival collections.

vision statement

The following is a draft vision statement for the Library as an organization; the vision for the library building should be in support of this:

Georgia Tech Library will define the technological research library of the 21st century.

We will enable people to explore the past and design the future by bringing together inspirational spaces, curated content, expert guidance, and scholarly communities.

vision statement, **unpacked**

What this means:

A network for discovering and retrieving (living) information.

A “launching pad” for turning information into knowledge, advancing ideas, and experimenting.

Georgia Tech Library will define the technological research library of the 21st century.

We will enable people to **explore the past** and **design the future** by bringing together **inspirational spaces**, **curated content**, **expert guidance**, and **scholarly communities**.

Showcase physical and digital content and activity by and at Tech.

Inspire users to create new scholarship and allude to “what’s next.”

Help people carry out their visions and proactively uncover needs. The Library is not just about its spaces and collections, but is driven by its people and their expertise and knowledge.

Bring people together from across campus to share and collaborate. Connect them to communities around the world.

strategies

Conversations with Library leadership, faculty, and staff have identified several challenges as well as strategies to forming the new library. To name a few, it will be a challenge to re-frame the library for (non-)users and to draw them in (especially if they view the Library as its collections and see that as being accessible online), and to engage graduate students and faculty when many of their needs are filled in their departments / colleges or online.

- Consider Crosland Tower, Gilbert Memorial Library, and Clough Commons as one complex and complement what the Clough Commons offers (e.g.: more spaces and services for faculty and graduate students in the Library).
- Leverage the organizational culture of prototyping and experimenting to figure out what works best.
- Create spaces that offer users something they can't replicate on their own; for example, theaters have large screens and sound system that movies are best viewed with, and concerts deliver experiences beyond the music / recording itself.
- Make services and expertise more visible, and deliver and push content and services to where users are.
- Distinguish between the Library as an institution vs. the building.
- Make the Library more accessible to visitors.
- Consider how the library will evolve over time, much like landscape grows and changes over time.
- Collaborate with people and organizations across campus to build tools and create programming.
- Stay flexible and on the leading edge, especially with respect to technology.

library storefront

A critical part of the library will be its storefronts in the physical and digital environments. As the first line of contact, the storefronts should engage users and communicate the Library's resources, services, and value to users. Library faculty and staff envisioned the storefronts to:



photo: Flickr/lindsayloveshermac

Apple Store: consistent branding; showroom



photo: Tishman Construction

JetBlue: fun, friendly customer service



Craigslist: crowdsourced content



Kindle: 24/7 video support; recommendations



Sporting events: camaraderie



Zoo Atlanta: engages all senses

- Be a one-stop shop with multiple channels of service, such as self-serve kiosks and displays, roving service providers, and access to remote individuals (e.g.: via videoconferencing or chat). The storefront(s) could be thought of as one experience where physical and digital elements complement one another (e.g.: as in an augmented reality experience).
- Proactively uncover needs without being intrusive
- Orient visitors; point out where to go / what to do
- Be clearly branded and advertised, that refreshes how people view the library
- Be an open-access space – no barriers to the storefront; allows access to the whole library
- Be a place to try things out; a showroom
- Include exhibitions that are interactive and promote serendipity, making new discoveries and connections
- Show what's available and popular in the library, e.g.: gadgets, study rooms, computers, printers
- Integrate fun, whimsy, humor
- Be distributed, e.g.: pop-ups in colleges

external research

There are several topics that have been top-of-mind for the Library since the beginning of (and even before) the research project — how to make services visible, creating a library “storefront,” connecting the physical and digital, and supporting serendipitous discovery. To bring further perspective into these topics, we reviewed resources and real-world examples. From this, we learned about trends and changing user needs, and gathered recommendations and strategies. Complete reports and sources can be found in the appendix.

external research: making services visible

Users' needs and how libraries are being used are changing. Successfully making services visible will require aligning service offerings and delivery to users' unique needs and behaviors, building service providers' skill sets to meet changing needs, and leveraging people to connect users to resources.



photo: Subhashish Panigrahi

Users

- User behavior differs by discipline, level, and co-working approach
- Use tools to push content and services to where users are (physically and digitally)
- Users demand 24/7 access, instant gratification, and 'the answer'
- Test new models for partnering with users to meet their needs, e.g.: monitoring activities in real-time through the LMS

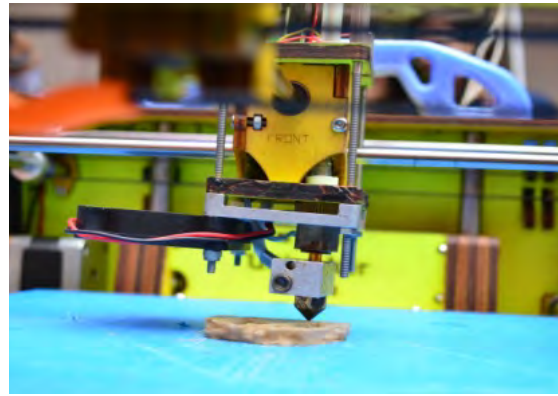


photo: NCLibrary / Guarav

Services

- Emerging needs require new skill sets, so librarians need to identify and train for the changing needs of researchers.
- Re-organize services to be more transparent and user-friendly, and to meet students and faculty in whatever physical or virtual spaces they inhabit
- Marketing should be in-your-face and ubiquitous, demonstrating how library services improve the efficiency and efficacy of scholarly endeavors



photo: Kim Hansen

Resources

- Get librarians where they are needed - embedded in departments and classes, doing outreach, and using new skills
- Develop discipline-specific tools and just-in-time, point-of-need "quick" tools, such as text and video tips
- Provide research skills sessions at the point-of-need, with content developed in partnership with faculty.

external research: creating a storefront

External research on storefronts emphasize that they should quickly adapt to the diverse needs of patrons, give new and returning patrons an instinctive sense of place, and inform users about the services and programs offered at the library.



photo: Duke University



photo: flickr / Elmastudio



photo: University of Michigan

Flexibility

- Users want flexible spaces that can be reconfigured to their needs
- New ways of learning are changing demands for space, e.g.: spaces that support both learning and socializing

Creating a “Feel”

- Library should be seen as a “wunderkammer” or “cabinet of curiosities” where the collections are not static but used for branding and promotion (Aurand, 2011)
- The storefront should remind people of the unique mission of the library and promote interaction among users
- The storefront should engage the senses of a broad audience

Advertising Services

- Signage and arrangement of service points facilitates wayfinding. Digital signage can be informative, entertaining, and inviting
- Print, due its static nature, is often invisible but can still be best for directional signage
- The storefront should be welcoming to get students “in the door” (Blackburn, 2010)

external research: connecting physical & digital

Increasingly, information is curated and shared in a hybrid interaction model that combines both physical and digital input.



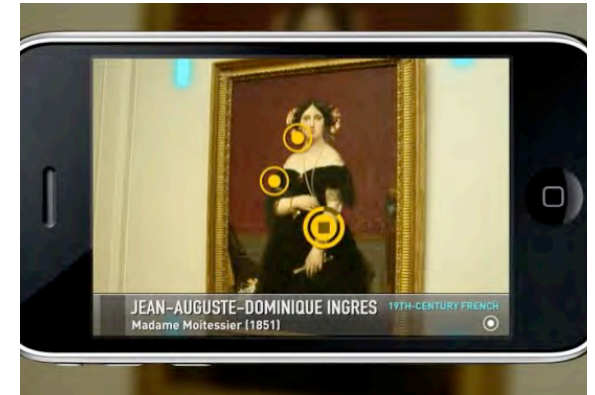
Digital Gateway

- Providing complementary or more in-depth information about content in the physical environment through a digital interface.



Physical Computing

- Providing digital content that is informed or shaped by what is going on in the physical environment. Physical inputs combine with a digital platform to create a hybrid interaction model.



Digital Overlay

- Embedding the physical world with digital triggers or tags (i.e. augmented reality). Similar to physical computing, a hybrid interaction model is created, but in this instance the digital layer acts as the trigger.

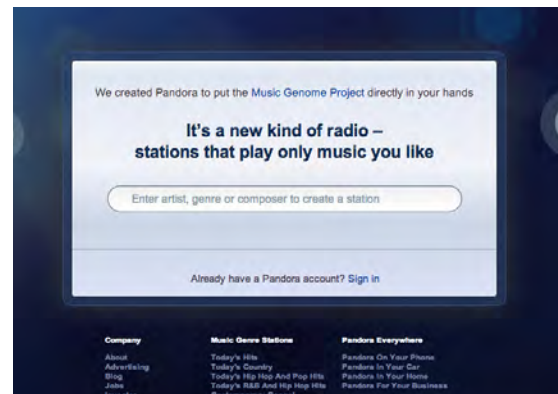
external research: supporting serendipity

Serendipitous discoveries or encounters can lead to significant progress or breakthroughs. These are a few ways to design for serendipity.



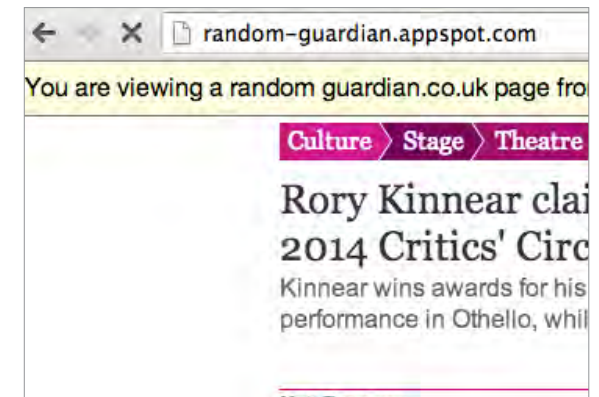
Curation

- Organizing and presenting content is the most common tool for foster serendipity. Tools support both content discovery (e.g.: Google news 'editors picks') or serendipitous connections between people (e.g.: Meetup)



Recommendation Engines

- Providing recommendations based on data mining is another vehicle for serendipitous discovery. Sites like Pandora or Netflix provide users with a constant stream of recommendations and relevant content.



Random Access Tools

- Randomly displaying or sharing content is another way to promote serendipity. The Guardian's website offers a random access tool that displays an article from their archives at random.

next steps

What's to come in Part 2 of the research project.

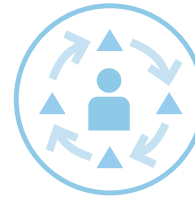
next steps

Part 2 of the research project will span 3-4 months. In that time, we will continue the research from Part 1 with the User Research Task Force, co-create staffing and service models with Library faculty and staff, and advise on the architecture design process of the Library.



More breadth and depth

- Engage a wider range of participants for input
- Conduct “deep dives” with users and engage them in longer activities (e.g.: through shadowing them in specific and day-to-day activities; journaling)
- Integrate quantitative methods (e.g.: surveys)
- Use library personas to identify areas for focus and innovation and inform library space and service decisions



Service provider experience model

- Complement the user experience model and moments with the service provider side experience model and moments.



Advise on library design

- Advise the design team through review comments and meetings / workshops, with particular focus on the library program



Co-create library service model

- With L/LE faculty and staff, develop the service ecosystem and service experiences of the future library; use service blueprints to articulate how services they will be delivered through front-of-house and back-of-house
- Advise on staffing roles, skills, and descriptions needed to support new services
- Help plan, implement, and evaluate service model prototypes



Prototyping / piloting

- Help plan, implement, and evaluate 3 “plays” from the campus playbook