

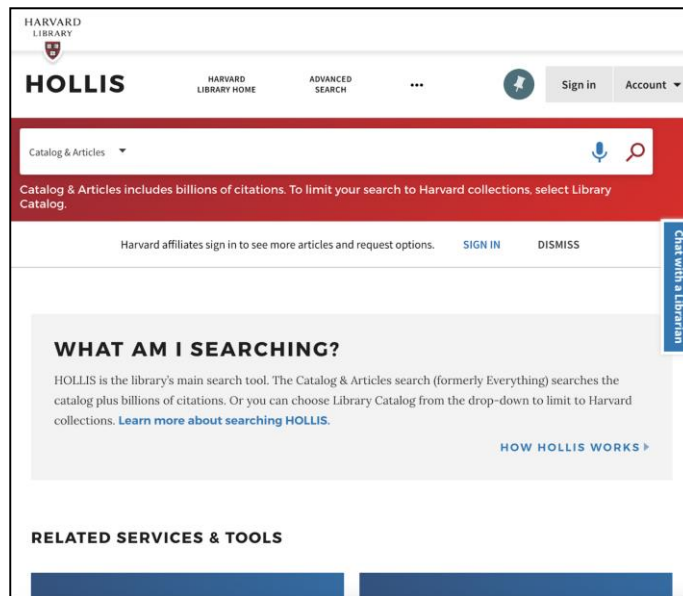
A blue-tinted photograph of a library or study area. In the foreground, a person is leaning over a table, looking at a book. In the background, another person is sitting at a table, working on a laptop. The room is filled with wooden tables and chairs, and several lamps with conical shades are lit, creating a warm and focused atmosphere. The text "Being Human Centered in the AI Era" is overlaid on the left side of the image in a white, sans-serif font.

Being Human Centered in the AI Era

Reimagining Discovery at Harvard Library

Scope of Library Discovery

- 1 billion journal articles
- 19M physical volumes
- 9M ReCAP partner titles – print
- 4M ebooks & journals
- 2M images
- 15K archival finding aids
- 10K geospatial layers





“Intimidating.”

“Inconsistent”

“Overwhelming”

“A nightmare”

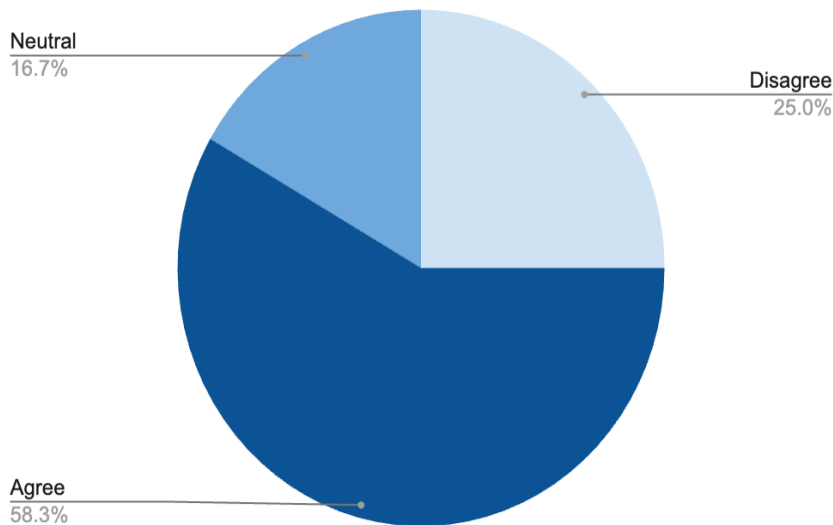
Feedback from faculty members and PhD students, on finding special collections

Influence of ChatGPT on Searching

Students & researchers are using traditional search tools less often, in favor of ChatGPT and other search tools that support natural language queries.

Generative AI chatbots reduce my reliance on traditional research tools like Google or library catalog

Fall 2024 Survey with 200+ students

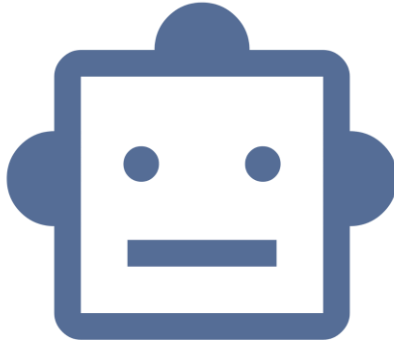


Exploratory Research & Planning

3 Key Findings from User Interviews

1. Users want more *explanation* of why results are in the output.
2. Users want *recommendations* for related materials or search terms.
3. Researchers who are new to special collections and archives are *unsure how to start*.

3 Opportunities of AI



Project Goals

1. **Simplify searching** Harvard's vast collections using conversational search, visual browsing, and AI-generated summaries.
2. **Improve access** to books, videos, images, and new technologies like 3D and virtual reality.
3. **Use AI technology** to improve search results, highlight important sources, and offer better ways to explore topics.

Discover unique and rare materials

Many items are available online to anyone - no Harvard ID required.

Ask a question or use keywords to find materials like photographs, collection guides, maps, and manuscripts. →

DIGITIZED ONLY

What's the history of Black empowerment in America?

What are examples of Japanese brush painting of seasons?

What poems of Emily Dickinson's include handwritten marginalia?

WHAT IS COLLECTIONS EXPLORER?

Collections Explorer uses AI to search Harvard Library's collections. Currently, it only searches items from special collections.

[HOW THIS SYSTEM WORKS](#)



THIS SYSTEM IS EXPERIMENTAL

The AI features may make mistakes. We recommend checking the results. Your feedback is welcome.

[TAKE THE SURVEY](#)

What does Harvard have on the history of germ theory development? →

This is an experimental system with limited data. The AI features may make mistakes; we recommend checking results. Learn [how this system works](#).

DIGITIZED ONLY

SHOW ALL FILTERS ▾

10 OF 200 RESULTS

HIDE SUMMARIES

 PART OF
[Hancock family papers](#)

Name

1920

[View Digitized Item](#)

About this material

Generated by AI

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

 PART OF
[Hancock family papers](#)

Name

1920

[View Digitized Item](#)

About this material

Generated by AI

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

AI-generated

YOU MIGHT ALSO TRY

How did public education campaigns of the 19th century intersect with germ theory?

What are techniques for antiseptic surgery?

How does animalcular theory relate to germ theory?

How did germ theory change healthcare?

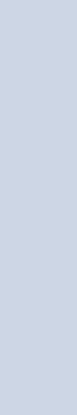
What is the role of mass media in promoting germ theory about tuberculosis?

NEED ARTICLES OR BOOKS

TRY HOLLIS CATALOG

GIVE US YOUR FEEDBACK

The Human-Centered Library



“I don't consult many materials because I get **overwhelmed** with how information appears.”



USER EXPERIENCE

Encompasses all aspects of the end-user's interaction with the company, its services, and its products.

Meets user needs

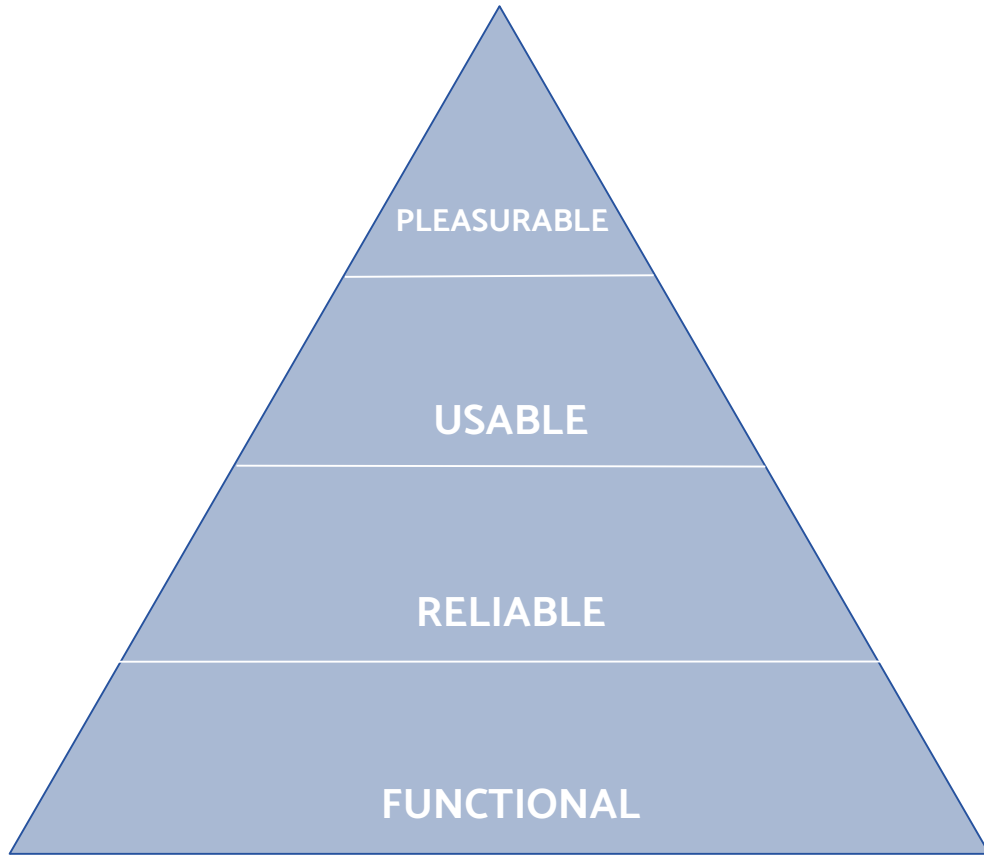
Without fuss or bother

Sparks joy

Products or services are delightful to use.

Seamless integration

Between multiple in-person service points, online interfaces, and other experiences.



Aaron Walter's Hierarchy of User Needs

The pyramid puts focus on foundational UX before putting resources into delighting people; bad experiences are more memorable than good ones.

What do you need to know?

Broadly

in higher
education &
peers

Locally

at your
institution

Hyperlocally

at your library

What do you need to know?

Broadly

in higher
education &
peers

Locally

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institution

Hyperlocally

at your library

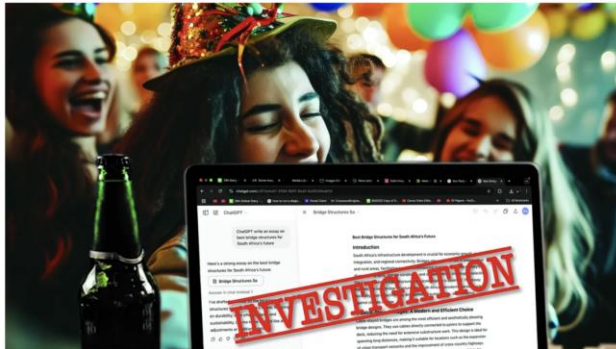
National & Local News

DAILY MAVERICK

DEFEND TRUTH

HIGHER LEARNING INVESTIGATION

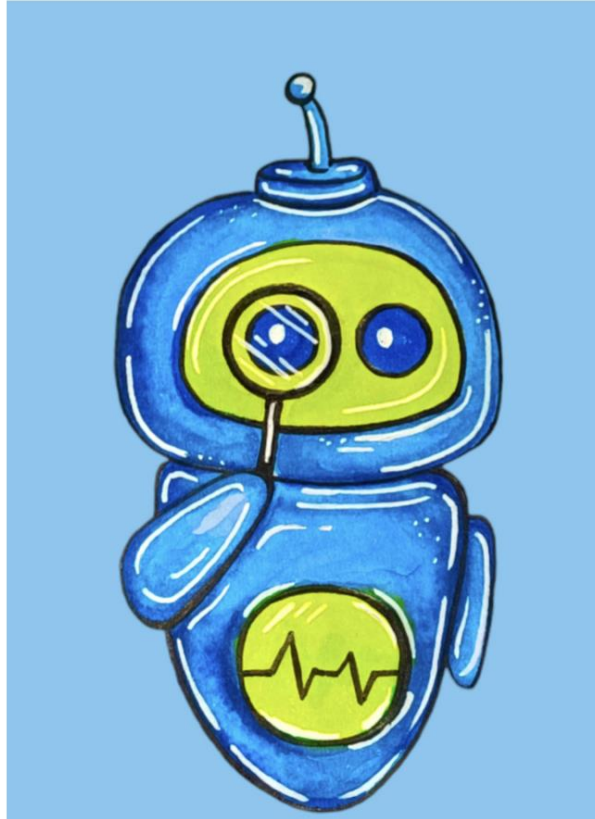
CheatGPT crisis – SA universities faced with a burgeoning degree of AI-written academic assignments



Student News

I spy with my little AI

by Aleka Kruger | Aug 13, 2024 | Breaking Headlines, News



COGENT EDUCATION
2024, VOL. 11, NO. 1, 2295654
<https://doi.org/10.1080/2331186X.2023.2295654>

cogent

INFORMATION & COMMUNICATIONS TECHNOLOGY IN EDUCATION | OPEN ACCESS [Check for updates](#)
RESEARCH ARTICLE

ChatGPT use in universities in South Africa through a socio-technical lens

Kudzayi Savious Tarisayi

Curriculum Studies, Stellenbosch University, South Africa

ABSTRACT

As artificial intelligence proliferates, so do associated hopes and fears. This study explores such tensions within South African higher education following ChatGPT's launch, analyzing perceived threats alongside opportunities for responsibly harnessing benefits. Adopting a socio-technical framework recognizing technology's interdependence with social systems, it investigates institutional uncertainties regarding unchecked AI adoption. Whilst findings reveal significant concerns about impartiality, critical faculties and employment impacts, evidence also indicates artificial intelligence, if transparently governed, could enrich scholarship. However, effectively leveraging such opportunities necessitates updated policies fostering accountable assimilation rather than reactionary resistance. Through a systematic literature analysis, this study contends that conceptualizing tools like ChatGPT as amplifying rather than automating academia's technical capacities, with protocols ensuring human oversight, provides the most constructive paradigm. Rather than technologies threatening academics' relevance, an agile, ethical integration strategy upholding rigorous pedagogical, research and assessment standards while expanding inclusion and insight is advocated. The conclusions caution against vilifying innovation but urge policymakers to foster frameworks transparently aligning artificial intelligence's trajectory with academic integrity. Ultimately, the socio-technical approach promoted underscores technological disruption's potential, if governed accountably, to strengthen rather than undermine scholarly excellence.

ARTICLE HISTORY

Received 2 November 2023
Accepted 6 December 2023

KEYWORDS

Artificial intelligence;
ChatGPT; academia;
uncertainties and fears

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Malaysia

SUBJECTS

Information &
Communication Technology
ICT; Legal, Ethical & Social
Aspects of IT; Higher
Education

Introduction

Artificial intelligence has developed rapidly in recent decades and has had a significant impact on academia (Zawacki-Richter et al., 2019). Following the launch of ChatGPT in November 2022, uncertainties

Where do you need more information?

Broadly

in higher
education

Locally

at your
institution

Hyper-Locally

at your library

Search all FAQs

Try "printer help" or "Zotero"

SEARCH ▶

Chat with a Librarian



CHAT

 LET'S CHAT! 

Monday-Friday

9am-5pm

Chat is intended for brief inquiries from the Harvard community.



EMAIL

Reach out to librarians and other reference specialists by email using our [online form](#). We usually respond within 24 hours Monday through Friday.



MEET

Talk to a librarian for advice on defining your topic, developing your research strategy, and locating and using sources. [Make an appointment now.](#)

Elements of the Human-Centered Library



ELEMENTS OF THE HUMAN-CENTERED LIBRARY

METHODS

Find focus with research questions and the right approach

PEOPLE

Align with stakeholders and find the right participants for your questions

CULTURE

Transform your organization to put users at the center of every decision



1) METHODS

“Let’s do a
focus group.”



Research Questions

Research Questions

What are student perceptions of the library catalog?

Are students using generative AI chatbots more frequently than traditional search tools for information discovery?

What types of students are satisfied or dissatisfied with library study spaces?

What kinds of furniture would graduate students prefer?





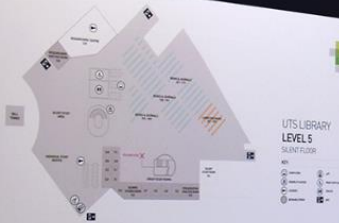
Why are first-time visitors struggling to locate key sections in the library?

*Conduct observation & interviews
Exploratory & qualitative*





Level 5



- ↳ Books & journals 657-999
- ↳ Large size books
- ↳ Lockers Lift
- ↳ Group study rooms 5.c-5.f Researchers' centre 5.r →
- ↳ Individual study rooms 5.h-5.p. Researchers' meeting room 5.q →
- ↳ Olympic Studies room 5.g Toilets →
- ↳ Presentation practice room 5.b Print & copy station →
- ↳ Silent study room 5.a
- Silent floor

PSST!
THIS IS A
SILENT
FLOOR

Library Directory

Lift ↗

5

Researchers' Centre
Silent Study Rooms & Spaces
Group & Individual Study Rooms
Presentation Practice Rooms 5.a
Lockers

Silent Floor

Books & Journals 657-999
Large Size Books

4

Lecture Room 4.a
Training Rooms 4.b and 4.c
Reading Studio
Group Study Rooms
Silent Study Room
Presentation Practice Room 4.e
Lockers

Quiet Floor

Books & Journals 270-454
Child Library
Curriculum Collection

3

Games Room
Group Study Rooms
Computer Lab 3.j

Books & Journals 000-349
Monitors

2

Entrances & Loans Desk
Research Help Desk
Print & Copy Point
Security
Events Space
Admin & Technologies Rooms
Training Room 2.c

Entry/Exit

Open & Closed Reserve
Newspapers
Reference Collection

Do users notice the signage?
Do users understand how to find their way?

*Conduct survey and review reference statistics
Evaluative & qualitative*

← Lockers Lift
↙ Group study rooms 5.c-5.f Researchers' centre 5.r →
↙ Individual study rooms 5.h-5.p. Researchers' meeting room 5.q →
↙ Olympic Studies room 5.g Toilets →
↙ Presentation practice room 5.b Print & copy station →
↙ Silent study room 5.a
Silent floor

SILENT
FLOOR

Library Directory

⌂ Lift ↗

5

Researchers' Centre
Silent Study Rooms & Spaces
Group & Individual Study Rooms
Presentation Practice Room 5.b
Lockers
Books & Journals: 657-999
Large Size Books
♿♿♿ ↗

Silent Floor

4

Lecture Room 4.a
Training Rooms 4.j and 4.k
Examination Rooms
Group Study Rooms
Silent Study Room
Presentation Practice Room 4.e
Lockers
Books & Journals: 270-454
Child Library
Curriculum Collection
♿♿♿ ↗

Quiet Floor

3

Genios Room
Group Study Rooms
Computer Lab 3.j
Books & Journals: 050-349
Machines
♿♿♿ ↗

2

Entrances & Loans Desk
Research Help Desk
Print & Copy Room
Security
Events Space
Administration/Techniques Rooms
Training Room 2.c
Open & Closed Reserves
Newspapers
Reference Collection

Entry/Exit

Methods



Interviews



Surveys



Observation



Prototyping

A Venn diagram consisting of two overlapping circles. The left circle is light yellow with a thin yellow border. The right circle is blue with a thin blue border. The circles overlap in the center. The text is placed within each circle.

Generative Research

Develop a deeper understanding of your users and the problem you're trying to solve for them.

Evaluative Research

Evaluate a service, website, or concept and collect data to help improve it.

Qualitative Data



Quantitative Data



01

What is your research question?

02

Are you exploring or evaluating?

03

Do you need qualitative or quantitative data?



2) PEOPLE

Stakeholders

Leaders



Partners





Welcome to **LIBRARY.HARVARD**



Try "Santo Domingo" or "Media Lab"

SEARCH ▸

Need to search for books, articles, or other materials? [Use HOLLIS.](#)



[Main Level](#)
[Cabot Science Library](#)

MONDAY, APR 30, 2018

Widener Library



OPEN TODAY

9:00 AM – 12:00 AM

Lamont Library



OPEN TODAY

24 Hours

Cabot Science Library



OPEN TODAY

24 Hours



**SEE ALL
LOCATIONS & HOURS ▸**



Overstretched **Owen**

SEAS Student

Age 19
Occupation Student
Lives In Lowell House

UX Goals

Get a better understanding of where there are **group study spaces** to reserve with power & white boards.

Learn about content he never knew existed in the libraries, like sheet music.

Make it easier to **find and save articles** he needs for his classes.



Engaged **Ella**

Faculty Member

Age Mid 40s
Occupation Professor
Lives In Belmont, MA

UX Goals

Easily **connect with librarians** to provide in-class instruction.

Expose students to the vast richness of Harvard's library resources, specifically through library training.

Make searching **less overwhelming**, especially for students & connect graduate student advisees to appropriate subject databases.



Rigorous **Richard**

Visiting Researcher

Age Late 40s
Occupation Research Fellow
Lives In Brooklyn, NY

UX Goals

Get **location details** for Harvard libraries & archives that have the items that he's interested in.

Prepare for his visit and get as much information as possible in advance before arriving at Harvard.

Search all Harvard libraries and archives for **digitized resources** related to his topic.



Curious **Carlotta**

GSE Alum & DCE Student

Age Early 30s
Occupation ESL Teacher
Lives In Medford, MA

UX Goals

Get a clear understanding of the privilege rules around **borrowing materials and using library spaces**.

Access **online images** owned by Harvard.

Stay abreast of **current events** at the libraries, especially new exhibits.



Hamburger Menus and Hidden Navigation Hurt UX Metrics



Kara Pernice and Raluca Budiu

June 26, 2016

 Share

Summary: Discoverability is cut almost in half by hiding a website's main navigation. Also, task time is longer and perceived task difficulty increases.

Our quantitative usability testing of hidden menus (such as hamburger icons) and visible menus (such as links across the top of pages) reveals that:

- **Hidden navigation is less discoverable** than visible or partially visible navigation.
 - When navigation is hidden, users are less likely to use navigation.
 - If people use hidden navigation, they do so later in the task than if it were



Stakeholder: “Hidden navigation is cleaner. I want it to feel easy.”


Research from Nielsen Norman Group that hamburger menus reduce usability

The Hamburger-Menu Icon Today: Is it Recognizable?



Kate Kaplan

June 13, 2025

 Share

Summary: Hamburger menus are a more familiar pattern today than 10 years ago, but the same old best practices for hidden navigation still apply.

Now: The Hamburger Is a Familiar Pattern

Over the past decade, the hamburger menu — much like its namesake — has become a classic. As mobile-first design took hold, it offered a clean, space-saving solution, and when design leaders like Apple and Amazon adopted it, others followed. Its growing ubiquity helped standardize its meaning: **Through repeated exposure, users learned to recognize and interpret the icon with increasing confidence.**

In recent research conducted for the book [Digital Icons That Work: A Comprehensive Guide to Enhancing Experience with Effective Iconography](#), participants were shown dozens of hamburger icons in context and asked to predict their function.

Participants

Where do you need more information?

Broadly

in higher
education

Locally

at your
institution

Hyper-Locally

at your library



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Lamont Library



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24 Hours

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24 Hours



[SEE ALL
LOCATIONS & HOURS ▸](#)





PARTICIPANTS

PARTICIPANT POOL

Orientation Events
Email Lists
Newsletters
Tabling

INCENTIVES

Finance Rules
Gift Cards
Branded Swag
Coffee
Ask!

OUTREACH STRATEGIES

Relationships
Meet them where they are
Embedded students



3) CULTURE





**Look for opportunities to bring colleagues along
in UX work**

*Use co-creation methods or involve staff with note
taking and results presentations*

Practice: Building Capacity









The UX Cookbook



The UX Cookbook

Handcrafted recipes to get you started with everything UX — user research, design, usability testing, and more. We're always cooking up new recipes, so check back frequently!

🔍 All recipes ▾

<h3>A/B Testing</h3>  <p>A/B Testing Research & testing Let the user help you pick a design.</p>	<h3>Card Sorting</h3>  <p>Card sorting Research & testing Group cards to guide information architecture design.</p>
<h3>Competitive Analysis</h3>  <p>Competitive analysis Research & testing Prototyping & visual design Get ideas from similar products.</p>	<h3>Content Inventories</h3>  <p>Content inventories Content strategy Catalog and audit your web content to evaluate its value.</p>
<h3>Content Style Guides</h3>  <p>Content style guides Content strategy Support consistent writing with standards and guidelines.</p>	<h3>Diary Studies</h3>  <p>Diary studies Research & testing Document user journeys over time.</p>
<h3>Empathy Mapping</h3> 	<h3>Impression Testing</h3> 

Communication: **From Evidence to Action**



Content

Search by title

- > Research Repository
 - Mirador 3 Usability Testing
 - Archival Discovery User Research
 - Web Archiving Systems Usability Testing
 - SEAS Library Program Group
 - Canvas Reserves Tool (RList) Usability Testing
 - Research Process
 - Google and HOLLIS+ Infographic Research Study
 - HGL Usability Testing on OGP
 - Canvas Library iframe User Testing
 - Baker Library Website Prototype Testing
 - Dumbarton Oaks Website Cardsort

Strategy: Embed UX in High-Level Planning

Strategic Plan

2022–27

Mission & Vision

VISION:

The Libraries: NC State's competitive advantage.

MISSION:

The NC State University Libraries is dedicated to empowering creative teaching, world-class research, and expansive community engagement. Our innovative offerings support NC State's faculty in exploring society's grandest challenges, enable our students to become successful thinkers and problem-solvers, and help to enrich lives across North Carolina and the world.

Goal 1

EMPOWER STUDENTS FOR A LIFETIME OF SUCCESS AND IMPACT.

With a focus on experiential learning and affordability, the Libraries supports students on their path

- Support students' well-being with empathy and creativity and expand outreach and engagement, seeking, welcoming, and supporting individuals and ideas from across the state and beyond.
- Expand the Libraries Student Scholarships program for student employees, offering employment as both an experiential learning experience and a pathway for financial and philanthropic support.

Goal 2

ENSURE PREMINENCE IN RESEARCH, SCHOLARSHIP, INNOVATION AND COLLABORATION.

The Libraries provides robust collections, technology-rich spaces, publicly accessible exhibition platforms, and a comprehensive suite of scholarly services to support faculty at every stage of the research lifecycle. We are committed to excellence in education and discovery and to supporting research and scholarship that solve problems and advance the greater good.

- Position the Libraries as a leader in developing



This is an experimental system with limited data. The AI features may make mistakes; we recommend checking results. Learn [how this system works](#).

 DIGITIZED ONLY[SHOW ALL FILTERS](#) ▼

10 OF 42 RESULTS

 HIDE SUMMARIESYOU MIGHT ALSO TRY ^{AI} COLLECTION GUIDE

Correspondence and reports by John Collins Warren, Hersey Professor of Anatomy and Surgery

1814-1827 and undated.

Includes Digitized Items

About this Material

Generated by AI

This collection primarily documents the activities of John Collins Warren, a prominent surgeon and educator at Harvard. Among his achievements, Warren is noted for performing the first public surgery in the U.S. under ether anesthesia in 1846. The collection includes correspondence and reports related to his administrative roles and teaching, but does not provide a comprehensive history of anesthesia.

 COLLECTION GUIDE

Boston Lying-in Hospital records

History of the development of anesthesia

Origins and evolution of anesthetic techniques

Timeline of major breakthroughs in anesthesia

Key figures and discoveries in the history of anesthesia

The history and progress of anesthetic administration



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 COLLECTION GUIDE

Boston Lying-in Hospital records

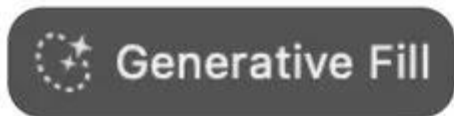
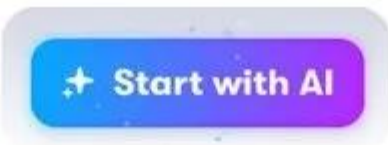
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Origins and evolution of anesthetic techniques

Timeline of major breakthroughs in anesthesia

Key figures and discoveries in the history of anesthesia

The history and progress of anesthetic administration





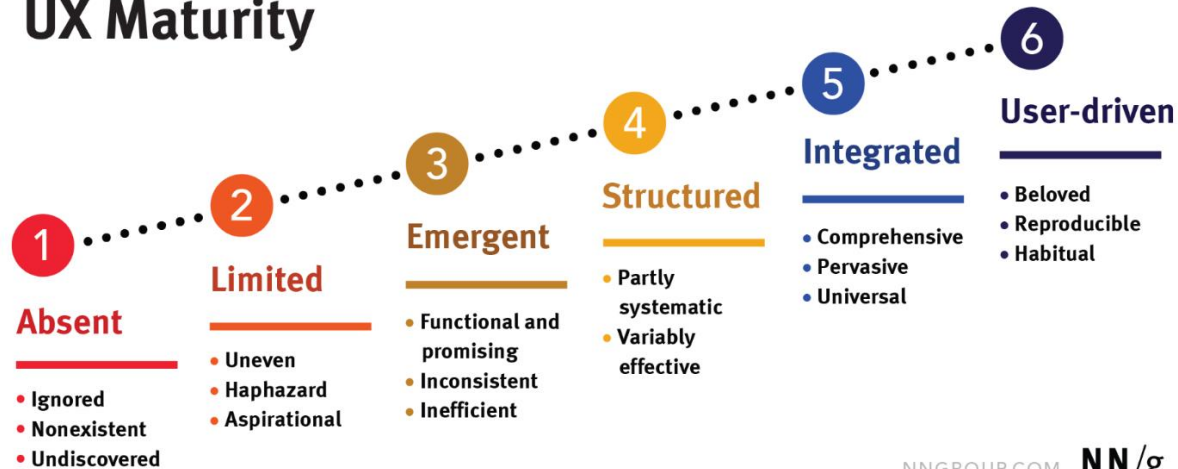
“The sparkle is too cute for Harvard!”

“What does it mean? No idea.”

UX Maturity & AI

UX Maturity Scale

Stages of UX Maturity



UX Maturity Scale

For Libraries

Stage 1-2	Apathy or hostility to UX practice; lack of resources and staff for UX
Stage 3	Ad hoc UX practices within the organization; UX is practiced but unofficially and without dedicated resources or staff; leadership does not fully understand or support UX
Stage 4	Leadership beginning to understand and support UX; dedicated budget; UX is assigned to a permanent position
Stage 5	The UX lead or group collaborates with units across the organization and contributes UX data meaningfully to organizational and strategic decision-making
Stage 6	UX research data is regularly included in projects and decision-making; a wide variety of methods are practice regularly by multiple departments
Stage 7-8	UX is practiced throughout the organization; decisions are made and resources are allocated only with UX insights as a guide

Why UX Maturity matters in the AI Era

Risks

when we
ignore people

- Bias
- Mistrust
- Harm

Benefits

when we
center people

- Trust
- Fairness
- Inclusion









Being Human-Centered in the AI Era

