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UC HathiTrust ETAS Assessment - Summative Report to CoUL

Submitted by the UC HathiTrust ETAS Liaisons group for the Council of University Librarians 9/22 meeting

UC HathiTrust ETAS Assessment - Summative Report to CoUL

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Executive Summary

Owing to the University of California (UC) Libraries' longstanding and substantial contributions to and membership in HathiTrust, the UC libraries have been able to share digital versions of our aggregated, in-copyright print holdings that overlap with the HathiTrust Digital Library through the [HathiTrust Emergency Temporary Access Service \(ETAS\)](#) throughout much of the COVID-19 pandemic, during which significant restrictions have been placed on physical access to library buildings and collections. Anecdotally, ETAS has been well-received and used by eligible UC users, who, along with library staff, have expressed appreciation for this emergency service as it provides an important form of access continuity, based in the principles of Fair Use and Controlled Digital Lending (broadly referred to as CDL, though referred to here as CoDiLe).

Per CoUL endorsement, the systemwide UC HathiTrust ETAS Liaisons (ETAS Liaisons) group has conducted an assessment of the service, including collections and usage data analyses and a user survey, to gather data points to help inform CoUL's discussion and decision making about the potential for CoDiLe at UC. This report summarizes findings from an interim set of data investigations about UC use of ETAS, conducted from January-March 2021, as well as continued and new data investigations conducted from April-August 2021. While the assessment project has referred to and interpreted usage data to identify trends and substantiate direct user responses to survey and interview questions, it is worth noting that conducted user engagement investigations represent small samples of UC ETAS users and as such, the implications shared here could be further understood, and potentially evaluated, in the context of additional studies of user experience with ETAS and/or CoDiLe.

Significant Trends

Consistent with findings shared in the ETAS Assessment Interim Report (see Appendix F), the ETAS Liaisons have learned through data investigations conducted both for and subsequent to that report that HathiTrust ETAS use steadily grew from service launch in April 2020 and peaked with about 1,110 unique daily users for the core months of the Winter/Spring 2021 term (February-April). Unique daily user counts declined through the summer of 2021, tapering off as UC libraries individually deactivated through August and September 2021. Evaluation of ETAS use at UC revealed significant patterns:

- Frequent use of a small but significant number of titles accessed by multiple users or used repeatedly by the same user, which accounts for the majority of all ETAS use and a long tail of titles accessed one time each, for the remainder
- Marked use of content for course reading and research for publication, often of humanities titles (especially those classified as history of Asia, language and literature, and history of the United States), and more recently published content.

Now, having engaged directly with both UC Libraries staff and users through surveying and interviewing, the Liaisons have affirmed that users come from a wide range of academic disciplines, inclusive of humanities, social sciences, and sciences, and with a number of specific use cases, from finding course readings to conducting research for scholarly publications. ETAS functionality appears to support some use cases well (e.g., citation checking) and others not so well (e.g. fieldwork and other pursuits that rely

on textual annotation). Surveyed users expressed satisfaction with being able to find content they needed, sometimes with welcome surprise at what was available. Some of users' expressed dissatisfaction with limitations of the service (e.g. slow loading, cumbersome in-text navigation) could be remedied with user experience improvements, though some reflect intentional constraints (e.g. download restrictions) informed by HathiTrusts' interpretations of fair use, as well as the constraints in navigation and functionality related to the characteristics of digitized content.

Consistent with a downward trend in physical print collection circulation over the past 10 years, much of the content accessed via ETAS comprises titles that have not physically circulated for quite some time. However, the most frequently accessed titles in ETAS do overlap with titles frequently accessed in print. As such, UC ETAS use demonstrates both a revitalization of long-dormant material and an ability to support access to popular content via a parallel format. UC Libraries have promoted and enhanced ETAS use since its launch, through outreach, routine referrals made by library staff or our systems (e.g., links integrated into discovery services), promotion on the main campus library website, and - in the case of UC Berkeley - through direct support of eReserves for remote teaching and learning. These efforts have often resulted in demonstrated increases in traffic to HathiTrust, and use of ETAS resources.

Implications for Controlled Digital Lending

Per the CoUL-endorsed ETAS Assessment Project Proposal, this report functions to inform UC Libraries' understanding of the HathiTrust ETAS user experience, including how this mode of digital access to print collections has satisfied the needs of UC faculty and students, and what implications this experience may have for UC libraries considering CoDiLe beyond ETAS. The trends and findings surfaced through the ETAS assessment project data investigations, including targeted user engagement, imply that:

- There are some acknowledged limits for users working with HathiTrust ETAS specifically, and with any delivery mechanism based on current controlled digital lending principles more generally.
- UC users used the service during emergency conditions, without the option to access physical titles that were made available via ETAS, and as such may have been more tolerant of less-than-ideal digital content delivery.
- HathiTrust may hold viable and valuable potential for providing a CoDiLe service, especially considering the significant portion of the UC Libraries' collective print collection that thus far overlaps with HathiTrust's digital corpus. If the UC Libraries were to pursue CoDiLe with HathiTrust, we should partner with and ensure that HathiTrust is able to support the use cases and expectations that UC faculty, students, and researchers would bring to such services and that enable them to do their work effectively.
- CoDiLe holds promise as a strategy to support eReserves for access to in-copyright content, even outside of an emergency context (as evidenced by UC Berkeley's successful use of ETAS for eReserves and Fall 2021 pilot to continue with a locally developed CoDiLe for eReserves platform in ETAS' stead).

- CoDiLe may be an effective tool to unlock further potential from UC's collectively-held in-copyright print collections outside of an emergency context - for example, in support of humanities research, teaching, and learning activities.
- HathiTrust and the University of Michigan were in control of, and responsible for, determining that the contours of ETAS were established in a way they felt were within the bounds of fair use, relieving members--including UC--from that obligation. For any UC CoDiLe efforts, UC will have to make its own legal and risk assessments.
- The content characteristics analysis (by topic, publication date, and language distribution) conducted for this report on both ETAS-available content and the ETAS content actually used by UC users provides a solid baseline from which to identify potential gap filling initiatives through digitization and digital access provision, some of which could be conducted with CoDiLe delivery options in mind.

Introduction and Context

Per the CoUL-endorsed ETAS Assessment Project Proposal, this report functions to inform UC Libraries' understanding of the HathiTrust ETAS user experience and how this mode of digital access to print collections is satisfying the needs of UC faculty and students.

Beginning in early spring 2020, in response to the COVID-19 pandemic, the UC Libraries needed to limit or completely restrict physical access to library buildings and physical print collections. As a result of our longstanding membership in and contributions to HathiTrust¹, UC Libraries have been able to share digital versions of our aggregated, in-copyright print holdings that overlap with the HathiTrust Digital Library through the [HathiTrust Emergency Temporary Access Service \(ETAS\)](#). From April 2020 through August/September 2021, this has resulted in UC users gaining access to more than 13 million digital volumes in HathiTrust², thus supporting continued work by faculty, students, and staff as they engage in teaching, learning, and research remotely. As of late August 2021, all UC Libraries are beginning to emerge from the severe restrictions and/or significant reductions in building and collection access imposed by health and safety considerations. Accordingly, by the time this report is submitted to CoUL, all campuses will have deactivated ETAS.

Many UC users have been appreciative of the continuity of access that ETAS has afforded while libraries' physical collections have been unavailable or partially available through very limited means. However, as the service name suggests, ETAS is offered as a temporary solution to eligible members. Many UC faculty, students, and staff likely incorporated ETAS access to in-copyright content, while available, into their practices; the digital service discontinuation resulting from library reopenings is being met with some frustration, despite the ability to access physical collections once more.

While HathiTrust has not stated plans to implement CoDiLe outside of emergency contexts, CoUL has endorsed a California Digital Library (referred to as CDL in this report) recommendation³ to conduct a systemwide assessment of faculty and student experience with ETAS in order to better understand how effectively emergency digital access to in-copyright print content is supporting their work. This assessment has been taken on as a defined, multi-phase project by the systemwide UC HathiTrust ETAS Liaisons (ETAS Liaisons) group.⁴ The ETAS Liaisons group was initiated in March 2020 to support UC

¹ See Roger Schonfeld, Research Library Digitization Has Found Its Moment (April 21, 2020) <https://sr.ithaka.org/blog/research-library-digitization-has-found-its-moment/> and UCNet, HathiTrust: A digital library revolution takes flight (May 13, 2020) <https://ucnet.universityofcalifornia.edu/news/2020/05/hathitrust-a-digital-library-revolution-takes-flight.html>

² Eligible UC users are those actively engaged in the research, teaching, and learning mission of the University. During these significant pandemic-imposed disruptions to normal library services, these users can authenticate to HathiTrust and check up on of the available 6.4M+ in-copyright volumes made available through the ETAS service in addition to the more than 6.7 million public domain or Creative Commons-licensed volumes that HathiTrust makes available to users in the United States.

³ See CoUL Controlled Digital Lending pre-read (circulated September 21, 2020) https://docs.google.com/document/d/1FS-jy5zkn71lnPR5Z2TiA7mmjOtCbztCVlulatTFh_4/edit?usp=sharing

⁴ The full UC HathiTrust ETAS Liaisons group includes original DOC nominees from each campus as well as those added since: Salwa Ismail (UC Berkeley), Chan Li (UC Berkeley), Rice Majors (UC Davis), Antoinette Avila (UC Irvine), Fabiola Chavez (UC Merced), Alison Scott (UCLA), Angela Horne (UCLA), Carla Arbagey (UC Riverside), Selena Chau (UCSB), Gary Colmenar (UCSB), Sarah Lindsey (UCSC), Annette Marines (UCSC), Sarah McClung (UCSF), Roger Smith (UCSD), Liz Miraglia (UCSD), Renata Ewing (CDL), Paul Fogel (CDL), Lisa Schiff (CDL), Kathryn Stine (CDL, convener). See [Appendix A](#) for ETAS assessment project roles.

Libraries in launching ETAS for their respective library communities and has met regularly to address implementation issues related to this temporary service, from outreach and communications to troubleshooting access issues and adherence to terms of service.⁵ Findings from the ETAS Assessment Project should put the UC Libraries on a path to identifying the core attributes users need in a service providing lawful digital access to in-copyright print content.

In March 2021, the ETAS Liaisons group presented an Interim ETAS Assessment Report (see Appendix F) to CoUL, which included the following high-level findings:

- The ETAS usage trajectory from service launch through the end of the Winter/Spring 2021 terms demonstrates the **emerging ROI on mass print digitization and digital content delivery via HathiTrust** for UC faculty and student users as use increased steadily over the course of the 2020-2021 academic year and seemed to follow the contours of each academic term.
- There is a relationship between digitized print use through HathiTrust ETAS and physical print use leading up to the pandemic. The **top titles accessed via ETAS through the Fall 2020 term were also highly circulated in physical print form** in the years leading up to ETAS implementation. Additionally, the **majority of ETAS use has been of titles that did not circulate much prior to service implementation** and many represent disciplines that are not always associated with assumed HathiTrust corpus strengths.
- UC Berkeley's **responsive digitization approach during the pandemic for electronic course reserves provides us with a use case of a UC library and its patrons productively adapting to access constraints and opportunities** during the pandemic. UC Berkeley found that during the Fall 2020 and Spring 2021 terms, content digitized and made available via ETAS for eReserves has actually been accessed more than the other ETAS titles.

Since sharing the ETAS assessment interim report with CoUL in March 2021, the project has aimed to better understand and characterize service users, their needs with digital copies of print content for various purposes, and their satisfaction with ETAS. The Liaisons group has built upon baseline use analysis conducted in the first assessment phase, further contextualizing those findings by describing user motivation and investigating how the use of ETAS does or does not fit into users' overall research, instructional, and learning flows. This summative report includes findings from the additional areas of investigation that had been recommended in the interim report and have now been carried out:

User engagement

- Conduct surveying to capture users' own reporting on their motivations, follow-through, and satisfaction with finding or using ETAS-available content.
- Evaluate the potential for and, as determined useful and feasible, conduct user interviews supplemental to surveying.

⁵ See Questions about/Suggestions for ETAS by UC Libraries (compiled with ETAS and HathiTrust input, April 2020-present) <https://docs.google.com/document/d/11zvfgbAq8jpEG2i76EZhOgKbVRR7TE1FqxEA5vh5zAo/edit?usp=sharing>

Continued data gathering

- Conduct content analysis of titles both available and accessed via ETAS.
- Learn from UC Libraries staff about:
 - Remote reference interactions regarding HathiTrust/ETAS
 - Provision of/Requests for alternative formats for ETAS-available content
 - Referral paths to HathiTrust originating from UC web addresses and/or taken by UC users

Summary Trends and Findings

As of September 2021, data investigations outlined in the CoUL-endorsed ETAS assessment project proposal⁶ and recommendations from the ETAS assessment interim report have been deployed per the data gathering and analysis methodologies described in [Appendix B](#). In aggregate, these investigations have resulted in the following high-level trends and findings:

- **ETAS use rate and trajectory of use**
 - **Steady growth and sustained use in alignment with academic calendar:** From the time of service launch in April 2020, use peaked with about 1,110 unique daily users for the core months of the Winter/Spring 2021 term (February-April). Unique daily user counts declined through the summer, tapering off⁷ as the UC Libraries individually deactivated through August and September 2021, though have not dipped below the lowest average count for the full 2020-2021 academic year. See [Appendix C, figure 1](#). Unique ETAS checkouts by UC users totaled more than 370,000 over the course of its implementation from April 2020-August 2021.⁸
- **Characterizing ETAS use and ETAS-available content**
 - **Characteristics of ETAS-available content - Topics, Publication Dates, and Languages:** Analysis of LC classification distribution for a significant portion of metadata describing content available to UC users via ETAS⁹ shows language and literature, world history (especially history of Asia and the United States), and social sciences are very strongly represented.¹⁰ Most of the content made available to UC users via ETAS was published from the early-mid 1960s up through 2010, with concentrations in the mid-1960s, 1980s, and around 2000, and while the majority of this content is in English, to a much lesser degree Spanish, German, French, Chinese, and Russian are among the other

⁶ See ETAS Assessment Project Proposal (endorsed by CoUL, December 2020)

<https://docs.google.com/document/d/15XvdBBSTA0iUoY-DF7oO11CiFj0v9shwixDt6LFUoo/edit?usp=sharing>

⁷ An exception to this tapering trend can be found in August 2021, when an outlying spike of brief, but extensive user was recorded from UCSB users. This contributed to a slight increase in unique daily users for this month.

⁸ To put this figure in the context of print circulation - acknowledging that ETAS checkouts are not precisely equivalent to checkouts of physical materials - the UC Libraries statistics for 2018-2019 (the last pre-pandemic period) circulated more than 1,440,000 items. See <https://libraries.universityofcalifornia.edu/about/facts-and-figures>

⁹ Analysis of ETAS-available and ETAS-accessed content characteristics for topics was conducted using a set of MARC records pulled from WorldShare by UCSC staff based on a list of OCLC numbers from the UC-HathiTrust overlap report indicating titles to which UC users have had ETAS access (based on their overlap with the UC collective print collection).

¹⁰ Anecdotally, and prior to ETAS launch, HathiTrust has been assumed to include resources of particular suitability to research in the humanities, though it includes content from a much broader range of domains.

languages highly represented and this distribution reflects that of the HathiTrust corpus as a whole. See [Appendix C, figures 2a-c](#).

- **Characteristics of content accessed via ETAS - Topics:** Analysis of LC classification distribution for a significant portion of the metadata describing content accessed by UC users via ETAS¹¹ shows that the most frequently accessed topics include language and literature, world history (especially history of Asia and the United States), science (especially Chemistry¹²), social sciences, psychology, and fine arts.¹³ Titles classified as being about Asian history make up the second largest set of ETAS-available content for UC users (European language literature is the largest set) and are the most accessed with very frequent unique daily uses. The table below is also available in [Appendix C, figures 3a-b](#).

LC subclass and use comparison, sorted by most accessed titles

LOC Subclass	% ETAS Titles Available	% ETAS Titles Accessed *	% Cumulative Unique Daily Users
1. DS - Asia	4.78	6.72	6.05
2. PQ - French, Italian, Spanish, Portuguese Literature	6.07	3.75	3.39
3. PN - Literature (General)	2.23	3.71	3.81
4. F - US Local History / British America (including Canada) / Dutch America / French America / Latin America, Spanish America	2.91	3.43	3.46
5. E - America / United States	1.28	2.71	3.89
6. PL - Languages and Literatures of Eastern Asia, Africa, Oceania	3.45	2.48	2.42
7. N - Visual Arts	1.32	2.41	2.27
8. PR - English Literature	2.21	2.38	2.34
9. PS - American Literature	1.78	2.29	3.38
10. HD - Industries, Land use, Labor	3.25	1.85	1.47
11. ML - Literature on Music	1.08	1.8	1.63
12. Z - Books (General), Writing, Paleography, Book industries and trade, Libraries, Bibliography.	1.9	1.75	1.44
13. B - Philosophy (General)	1.15	1.69	1.54
14. HQ - The Family, Marriage, Women	1.03	1.66	1.98
15. PA - Greek Language and Literature, Latin Language and Literature	0.56	1.6	2.02
16. BL - Religions, Mythology, Rationalism	0.84	1.55	1.28
17. RC - Internal Medicine	1.09	1.55	1.2
18. No LOC Subclass	2.45	1.54	0.9
19. QA - Mathematics	1.3	1.38	1.27
20. M - Music	1.7	1.31	0.74
21. D - History (General)	1.18	1.24	1.22
22. ND - Painting	0.93	1.23	1

- **Characteristics of content accessed via ETAS - Publication Dates and Languages:** Users have also most frequently accessed content that was published from the late 1980s through mid 2000s (mid-aughts). Usage and content coverage data show a steady parallel increase in availability and use of content as publication dates get more and more recent, and there is a marked increase in use of very recently published titles

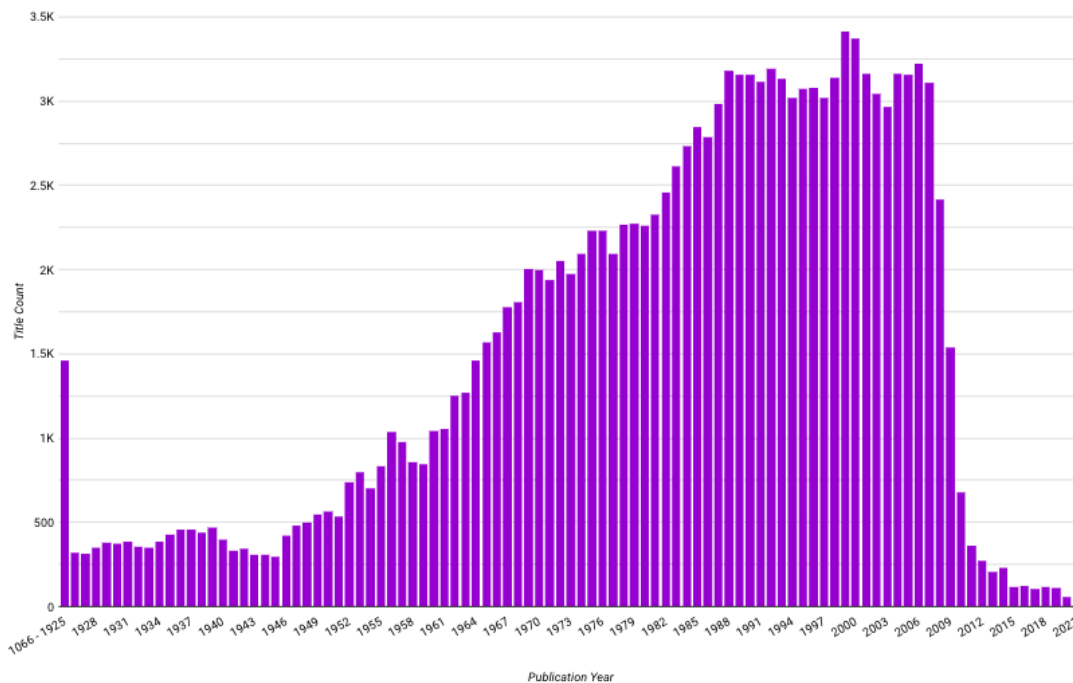
¹¹ Based on analysis of OCLC metadata extracted by UCSC staff for overlapping in-copyright titles between the UC collective collection and their digital versions in HathiTrust. See Appendix B for more detail.

¹² Much of the robust use of Chemistry content, including many serials, has been understood to have been on the part of a single user, associated with UC Merced.

¹³ These represent the LC main class topics for most frequently accessed content. In particular, looking to LC subclass distributions, frequently used content covered Asian history, United States history, chemistry, and literature generally, from the United States, or in romance languages. See [Appendix C, figures 3a-b](#).

despite availability waning. Users have also most accessed content published in English, followed distantly by content published in Spanish, French, German, Japanese, Chinese, and other languages. That said, the most frequently accessed titles included those in English, German, Russian, Japanese, and Tagalog. The graph below is also available in [Appendix C, figures 3c](#).

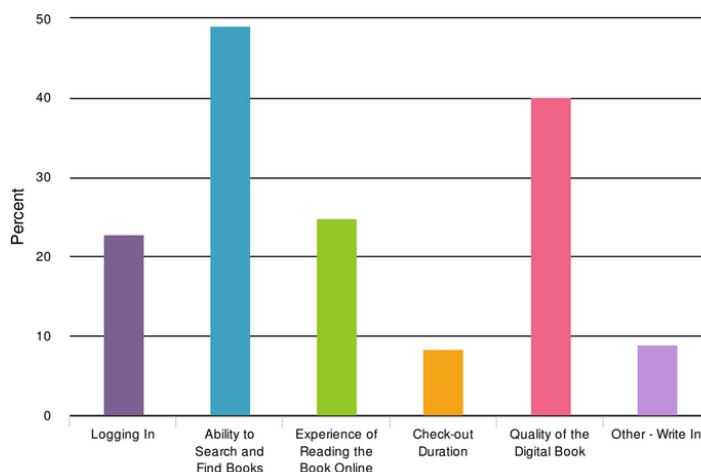
Accessed titles by publication year



- **Multiple uses and a long tail:** More than 162,000 titles have been accessed via ETAS over the 17 months of service availability to UC users (April 2020-August 2021). About 30% of monograph titles and about 45% of serial titles were accessed more than once, indicating that in addition to repeat use/use by multiple users, there is a significant “long tail” of single use content, accessed by just one user. Content that was most frequently checked out (~2% of monograph titles and ~6% of serial titles that were checked out 10 or more times) has accounted for 28% and ~51% of total use, respectively. See trends and findings from the interim report, linked to from Appendix F.
- **Student, faculty, and researcher common use cases¹⁴ include:**
 - **Required course reading:** Course instructors have been using ETAS for required course reading, along with undergraduate and graduate students. Notably, during the spring semester of 2021, 20% of the Berkeley ETAS usage came from the course reading materials. The use per title for course materials in ETAS was 27 times greater than the use per title for non-course materials.

¹⁴ A satisfaction survey launched over two separate weeks in late June and then late July 2021 netted more than 150 responses from UC community members who logged in to use ETAS identifying with various campus roles, disciplinary domains, and characterizing their purposes for using ETAS, and what they found to be both satisfactory and dissatisfactory aspects of their experience with the service. See Appendix B for a description of methods and findings from the survey, and Appendix D for the survey instrument.

Features that surveyed users found most satisfying



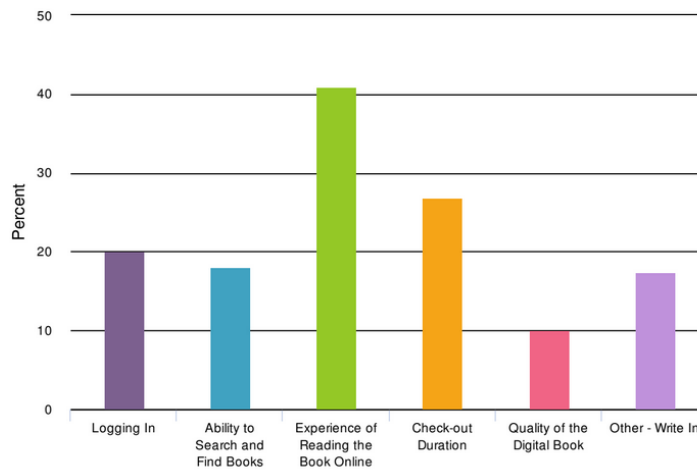
- **User dissatisfaction:** Commonly reported unsatisfactory aspects of ETAS that surveyed users¹⁷ cited include their experience of reading the book online and the checkout duration. Additionally, surveyed users were dissatisfied with not being able to download content and with slow loading time, and in some cases expressed preference for physical print versions of the titles they work with. See [Appendix C, figure 8e](#). Anecdotally, library staff have shared that common challenges with the service include not finding sought content, navigational issues relating to login, issues with service functionality, image quality, and frustrations with intentional limitations on in-copyright content delivery. Library staff have also reported learning from users that some use cases are not well-supported (collaborative work, fieldwork, close textual reading, and teaching large classes), as well as frustrations with the interface and checkout duration.

Selected Patron Comments:

- *“The emergency access through HathiTrust only has one hour. It's not what I am looking for. I need much longer time to read the book.” (from a chat reference log, 2021)*
- *“It was all pretty good. I still prefer print editions. The check out duration makes me value the book more. Thanks.” (from user survey response to a question about what was most unsatisfactory in their ETAS experience, summer 2021)*
- *“Reading. It loads a bit slow. And can't really locate the precise pages of the books easily.” (from user survey response to a question about what was most unsatisfactory in their ETAS experience, summer 2021)*

¹⁷ Ibid.

Features that surveyed users found most unsatisfying



- **Digital compared to physical use:** Some users have expressed a preference for using physical print copies of ETAS-available content, though across survey responses, individual interviews, and gathering library staff insights, this has not been a strongly or frequently expressed perspective. Some users have noted that digital versions of print content do not compare well to physical versions in that they don't afford annotation, the text structure is sometimes less easy to navigate, and they are not available for uninterrupted, longer checkout periods as are physical copies. At times, the preference for the physical print copies may also have to do with discipline specific use preferences or needs (i.e. art historians preferring the quality of physical print books).
- **ETAS compared to other eBooks use:** Some users have compared ETAS-available content from HathiTrust to their experiences using other eBooks (often those used via licensed publisher platforms), noting that HathiTrust content is obviously scanned and not as easily navigable as what they might expect (e.g., moving from a structured table of contents into and around the text body).
- **Comparing ETAS use to physical circulation¹⁸**
 - **Revitalizing collections:** Consistent with the steady decline in physical print content circulation over the past 10 years, the majority of content accessed by UC users via ETAS did not circulate in physical form for years prior to the service being implemented, suggesting that ETAS is bringing new life to long-dormant collection content and/or physical content that is typically only used onsite. Based on the campuses' data, 9%-35% of accessed ETAS titles were checked out in physical print form in the last three years. See trends and findings from the interim report, linked to from Appendix F.
 - **Accessed alternatives for print versions:** The *most frequently* accessed titles in ETAS often did circulate in physical print form, with 10-85% of the top 20 most used ETAS titles having circulated in the three years leading up to ETAS, depending on campus. The top subjects covered by content accessed in both physical print form and in digital form

¹⁸ Use cited here is up to March 2021.

via ETAS are similar across the campuses, such as languages, literature, social sciences, history, fine arts, philosophy, etc., suggesting that ETAS access also demonstrates the potential for digital surrogates to be used as their print sources have been. See trends and findings from the interim report, linked to from Appendix F.

- **Referring users to ETAS**

- **Meeting resource sharing requests:** From June 30, 2020 to July 31, 2021 Request provided an ETAS link for 42% of requests for UC materials (not overall requests). Once presented with an ETAS link, a user did not continue to pursue their request 63.5% of the time. ETAS links may have satisfied 27% of the requests for materials held by UC libraries. See [Appendix C, figures 6c](#).
- **Alternative versions of ETAS-available content:** Campus-by-campus, librarians report that few users have requested borrowing ETAS-available content in another form (e.g., as a physical copy - loaned from an institution that is not ETAS-active, or a higher quality version digitized locally). That said, library staff have reported that key reasons users were interested in or offered alternative versions of ETAS-available content include dissatisfaction with lack of downloading ability and short checkout period/need to renew frequently. Additionally, some users have reported preferences for physical versions of ETAS-available content in cases where digitization quality impedes legibility utility of images and where affordances of a physical version or a different kind of online delivery better support needed functionality (e.g., navigating to/from the text, table of contents, footnotes, index, etc.). See [Appendix C, figure 7](#).
- **Local digitization and ETAS:** Beginning with the 2020-2021 academic year, UC Berkeley implemented a new process to quickly respond to user requests for new digital content digitization, submitting those materials to HathiTrust for ETAS access (benefitting all UC), primarily in support of remote teaching and learning needs.¹⁹
- **Growing user awareness:** Chat reference logs sampled from the January-August 2021 show that users who have reached out to library staff are often already familiar with HathiTrust and ETAS, a shift from the findings from the Fall 2020 term.
- **References in UC discovery platforms, websites:** While referrals directly to HathiTrust ETAS are challenging to isolate, Google Analytics shows that referrals from UC-originating links more than quadrupled in the first 6 months of service implementation as compared to the 6 months prior. This accounts for UC users landing on HathiTrust pages (not just ETAS-available catalog records or content pages) from various library discovery systems (such as library catalogs, Primo, library proxy, Melvyl, Ebsco, special collections, etc.), and generated millions of pageviews (ETAS or otherwise) from service launch through June 2021. In particular, when work was put into supporting and smoothing UC users' discovery paths directly to HathiTrust content, either in discovery platforms or from campus websites, use increases. UC Santa Cruz identified a

¹⁹ UC Berkeley has been well-positioned to extend and expedite submissions of newly digitized content to HathiTrust in response to user requests during the pandemic as they had a pre-existing, well understood workflow in place for submitting locally-digitized content. See presentation on this initiative for HathiTrust Community Week (October 29, 2020) <https://www.youtube.com/watch?v=QdTteaEqv0>

significant increase in HathiTrust content usage when the content links, including those directly to ETAS-available content, were added to their catalog. See [Appendix C, figures 6a-b](#).

- **Librarian experience supporting users with ETAS**
 - **Interest in continuing and improving ETAS:** Library staff who responded to targeted questionnaires about their experiences supporting users with ETAS have generally expressed a desire to see the service continue up until, and even after, their libraries are fully open. Staff also provided suggestions to improve user instructions, promotion of and education about the service; to lengthen the default check-out duration; and to consider special cases (such as user medical conditions) that would allow for supplemental forms of access (such as printing or downloading). Since launching the service for UC Libraries, ETAS Liaisons have fielded and addressed user inquiries about those same issues, as well as questions related to user eligibility.
 - **ETAS service provision impact on library staff:** Implementing this new service has also required new time and resource investments on the part of the dedicated ETAS Liaisons group as well as other campus library staff who have, for example, integrated service referrals and troubleshooting into user interactions or adapted library systems to represent HathiTrust/ETAS content. Additionally, library staff in access services have integrated steps into their workflows to assure that print copies of ETAS-available content did not circulate to UC users from ETAS-active campuses.
 - **Use of the service:** Some library staff members responded to the ETAS satisfaction survey for UC users, reporting that they use the service for their own library work, including assisting patrons, conducting research on in-copyright content,²⁰ and outreach.²¹

Implications for Providing Lawful Digital Access to In-Copyright Print Content

The trends and findings surfaced through the ETAS assessment project data investigations, including targeted user engagement, imply that there are some limits to users working with HathiTrust ETAS, specifically, and with any delivery mechanism, more generally, that is based on current controlled digital lending principles. While the assessment project has referred to and interpreted usage data to identify trends and substantiate direct user responses to survey and interview questions, given the relatively small samples of UC ETAS survey respondents and interviewees, the implications compiled below could be further understood with additional studies of user experience with ETAS and/or CoDiLe.

Limits of HathiTrust ETAS Specifically, CoDiLe Generally

UC users confronted some limitations in accessing content via HathiTrust ETAS, including:

²⁰ For example, UC San Diego has used ETAS access to support their staff investigation into digitized content quality for in-copyright materials.

²¹ Of note, one of the most popular monograph titles accessed by UC users via ETAS was *Gauchos and the vanishing frontier*, which was included in a UC Santa Barbara library-developed scavenger hunt for students, which may account for it being frequently checked out.

- Limited duration of check-out timeframe
- Efficacy and/or suitability of:
 - Content coverage by subject/domain, language, and publication date
 - Digitization quality (especially for domains reliant on high-quality images)
 - Platform functionality (including slow content loading, navigation within a volume²²)
- Constrained access, established by whether the user is actively involved in the university's teaching, research, and public service mission

Some limitations users faced are tied to more general conditions for providing lawful digital access to in-copyright print content, the most common being their inability to download (and relatedly, annotate copies of) any in-copyright content for reference beyond a defined check-out window. Additionally, the number of concurrent users allowed for a given title is determined by total print copies physically held by UC Libraries, which follows a common principle for CoDiLe (maintaining a 1:1 own-to-loan ratio).

The Emergency Context for HathiTrust ETAS

Recognizing that HathiTrust ETAS was deployed during emergency conditions, we have heard from users that:

- When libraries' physical collections are inaccessible, users can tolerate less-than-ideal digital content provision.
- Users are accustomed to functionality they expect from other eResources, including clean, formatted, and structurally navigable content, and some felt HathiTrust content did not always meet those expectations (e.g., it clearly originates from scans, in-volume navigation is not perfect).
- Students are looking for inexpensive access to the course materials they need and appreciated HathiTrust ETAS as an alternative to other ways of getting course-related content (e.g., renting online texts).
- While the HathiTrust digital library includes a vast amount of significant content and provides functionality to help users find, choose, and work with this content, the interface was not designed specifically to support CoDiLe. ETAS came together quickly in order to respond to necessities arising from pandemic conditions at HathiTrust partner campuses. Increased HathiTrust use due to ETAS has highlighted - in addition to expressed interest in ETAS continuation - areas for improvement, in both the user interface and functionality.

Potential of HathiTrust for Lawful Provision of Digital In-Copyright Content Access Beyond ETAS

As evidenced by our experience with ETAS, HathiTrust may hold viable and valuable potential for providing a CoDiLe service, especially considering the significant portion of the UC Libraries' collective print collection that thus far overlaps with HathiTrust's digital corpus.

²² The issues users reported with not being able to successfully navigate within HathiTrust texts need further diagnosis though some issues may be mitigated by changes made to the HathiTrust book viewer in summer 2021. Navigation issues may originate either from interface or upstream digital content conditions.

- During ETAS about 33% of print titles physically held across the systemwide collective collection (as reported to HathiTrust),²³ were made available to UC users in digital form.
- About 25% of the UC Libraries collective collection's titles determined to be in-copyright by HathiTrust were made available to UC users exclusively during ETAS.
- Of all the in-copyright titles available to UC users via ETAS, about half included at least one item digitized by UC Libraries and the other half digitized by other HathiTrust member contributors.
- Much of the content accessed by UC users via ETAS:
 - was published from the late 1980s through mid-2000s (mid-aughts)
 - was from languages/literatures, history, and social sciences fields, though use data also shows some use of content from other domains, including science titles
 - did not circulate in physical print form in the years leading up to service implementation, demonstrating the potential for reviving discovery and access to dormant content
- A smaller, but notable, number of most-frequently accessed titles during ETAS were also heavily circulated in physical print form leading up to ETAS.
- Usage statistics have demonstrated, and users have reported, that non-English (including European languages, Tagalog) and, particularly, non-Roman script titles (including Chinese, Korean, Japanese, Arabic, Hindi, Marathi) were a welcome discovery and supported both research and teaching.

HathiTrust ETAS access in many ways mirrors the strengths and weaknesses of the UC Libraries physical print collections, reflecting both the scale of these collections and what has been digitized from them, as well as our collecting and digitizing gaps. It is worth noting, for instance, that mass digitized content from UC print collections that has been contributed to HathiTrust does not typically include recently published titles (those from 2010 on), as UC has focused on content already in or likely to be in the public domain.

CoDiLe with HathiTrust

If the UC Libraries were to pursue CoDiLe with HathiTrust, we should ensure that HathiTrust is responsive to the use cases and expectations that UC faculty, students and researchers would bring to such services and that enable them to do their work effectively. Such efforts would not just ensure HathiTrust as a viable discovery and delivery platform for CoDiLe, but could also increase the utility of HathiTrust more generally. These efforts include working with HathiTrust to improve the user experience wherever possible and to enhance HathiTrust-managed and shared data (usage and metadata) to help facilitate service improvements.

CoDiLe for eReserves

CoDiLe holds promise as a strategy to support eReserves for access to in-copyright content, even outside of an emergency context. UC users often accessed titles via ETAS that were included in course reading lists. At UC Berkeley in particular, the library established an end-to-end responsive local digitization to ETAS-availability workflow that resulted in substantial use of titles for eReserves. They have now launched a locally-developed eReserves follow-up service for the fall 2021 term, and assessment of such

²³ Based on the most recent analysis of UC-HathiTrust overlap data.

a service outside of an emergency context will likely be of interest to any evaluation of CoDiLe going forward.

CoDiLe for Other Use Cases

CoDiLe may be an effective tool to unlock further potential from UC's collectively-held in-copyright print collections outside of an emergency context for other uses in addition to eReserves. For example, this report points to emerging evidence that ETAS served humanists (those working in history, area studies, literature) especially well, though this finding, and its application to CoDiLe delivery, could be substantiated further through more detailed understanding and definition of humanists' particular use cases.

UC Libraries Risk Tolerance Regarding CoDiLe

HathiTrust and the University of Michigan were in control of, and responsible for, determining that the contours of ETAS were established in a way they felt were within the bounds of fair use, relieving members--including UC--from that obligation. For any UC CoDiLe efforts, UC will have to make its own legal and risk assessments. Because the works involved, the circumstances, and the audience are all potentially different outside an ETAS context, UC may reach different determinations about what constitutes legal access to in-copyright content.

Intentional Digital Collection Development

The content characteristics analysis (by topic, publication date, and language distribution) conducted for this report on both ETAS-available content and the ETAS content actually used by UC users provides a solid baseline from which to identify potential gap filling initiatives through digitization and digital access provision, some of which could be conducted with CoDiLe delivery options in mind. With improved data from HathiTrust and the new insights we are poised to gain into our collective UC Libraries collection via the SILS, the libraries can expand upon our systemwide capacity for conducting coordinated, intentional, digital collection development and use assessment. Sound findings from collection analysis as well as assertions of impact and fit to systemwide priorities can also inform digitization resourcing and funding strategies.

Appendix A - ETAS Assessment Project Roles

Following CoUL's endorsement of [proposed ETAS assessment work](#), the UC HathiTrust Emergency Temporary Access Service (ETAS) Liaisons group established and implemented a project plan for three phases of work, the first two of which were conducted in parallel from January-March 2021, the third of which was conducted from April-August 2021. The group organized as follows to conduct these investigations, with designated co-leads for data gathering and analysis design and implementation, supported by input from the full team and, as needed, campus library staff:

Phase 1: Baseline usage

- **UC ETAS usage trends** (data shared by HathiTrust)
Data investigation co-leads:
Renata Ewing (California Digital Library), Chan Li (UC Berkeley)
- **Fulfillment during UC ETAS implementation**
Data investigation co-leads:
Renata Ewing (California Digital Library), Sarah Lindsey (UC Santa Cruz)
- **UC user-reported experiences with ETAS** (remote reference, librarian perspectives, user polls)
Data investigation co-leads:
Antoinette Avila (UC Irvine), gary colmenar (UC Santa Barbara)

Phase 2: Contextual framing

- **UC Physical print collection circulation data leading up to ETAS**
Data investigation co-leads:
Carla Arbagey (UC Riverside), Fabiola Chavez (UC Merced), Chan Li (UC Berkeley)
- **Literature scan regarding physical vs. digital print collection access during the pandemic**
Data investigation co-leads:
Angela Horne (UCLA), Chan Li (UC Berkeley), Annette Marines (UC Santa Cruz),
Roger Smith (UC San Diego)

Phase 3: User engagement, ETAS content characterization, and follow-up data investigations

- **Satisfaction surveying and follow-up user interviews**
Data investigation co-leads:
Antoinette Avila (UC Irvine), Selena Chau (UC Santa Barbara), Angela Horne (UCLA), Rachael Hu (California Digital Library), Chan Li (UC Berkeley), Kathryn Stine (California Digital Library)
HathiTrust support contacts: Roger Espinosa, Angelina Zaytsev
- **Content characterization**
Data investigation co-leads:
Carla Arbagey (UC Riverside), Selena Chau (UC Santa Barbara), Renata Ewing (California Digital Library), Paul Fogel (California Digital Library), Sarah Lindsey (UC Santa Cruz), Kathryn Stine (California Digital Library)
Data expertise and provision provided by: Claudia Conrad (California Digital Library), Barbara Cormack (California Digital Library), Tamara Pilko (UC Santa Cruz), Lisa Wong (UC Santa Cruz)

- **Provision of/Requests for alternative versions**

Data investigation co-leads:

Carla Arbagey (UCR), Kathryn Stine (CDL)

- **Referral data analysis**

Data investigation co-leads:

Renata Ewing (CDL), Chan Li (UCB)

User Engagement Design Lead: Rachael Hu, California Digital Library

Project Manager: Kathryn Stine, California Digital Library

A dedicated task group comprised of Carla Arbagey (UC Riverside), Renata Ewing (CDL), Rachael Hu (CDL, lead for user engagement research design), Chan Li (UC Berkeley), Rice Majors (UC Davis), Annette Marines (UCSC), and Kathryn Stine (CDL) developed the initial ETAS assessment proposal that resulted in work carried out through all phases of this project.

Appendix B - Data Investigation Methods and Summary Findings

UC ETAS Satisfaction Survey

Findings and Trends Summary:

The following findings are based on 157 responses to a survey launched in the HathiTrust ETAS interface, post-authentication, during late June/early July and again in late July/early August 2021. Respondents were affiliated with 9 UC campuses (all but UCSF) and represent a diverse array of disciplinary areas and campus roles.

- Graduate students were the most represented among survey respondents (45.2%) with faculty (19.7%), undergraduate students (18.5%), and library staff (12.1%) also significantly represented. Remaining respondents included researchers, instructors, administrative staff, and others.
- Twice as many respondents' indicated that they were most satisfied with the Ability to Search and Find Books as indicated they were dissatisfied with this aspect of the service.
- Responses were split roughly 3:2 on whether the Experience of Reading the Book Online was unsatisfactory or satisfactory.
- At least four times as many respondents indicated that the Quality of the Digital Book was satisfactory versus unsatisfactory
- 35 respondents listed "other" as their main purpose for using HT ETAS and those reasons broken down included using ETAS for personal interest reading, for other work tasks (e.g., course reading development/prep), and 17 entries that specified "research."
- 11 respondents marked "other" in responding to HT ETAS meeting information needs. Noted issues included content not being comprehensive or current enough, ETAS not being an adequate ILL substitute, and lacking functionality (inability to annotate text, for example).
- 25 respondents marked "other" for the question about what was most unsatisfactory using HT ETAS and those reasons included issues with functionality, such as slow loading, inability to download, difficulty searching, and other interface issues.
- 14 respondents marked "other" for the question about what was most satisfactory using HT ETAS and those reasons included access to online books, with immediate availability and ability to work with vast, hard to find collection materials.

Data sets consulted:

- UC user responses to embedded satisfaction survey in HT ETAS interface, launched twice (end of June 2021 and end of July 2021)

Data caveats:

- The surveys were conducted during the summer at a time of decreasing overall ETAS use and when there is much less active teaching and learning happening across the UC system.
- Breakdown/percentages shared in survey findings are specific to this pool of ~150 respondents so should be understood in that context.
- Users were able to select more than one option for some questions.

Analysis approach:

- The survey tool used provided visualizations of how users addressed constrained-option response questions.
- Free text responses were analyzed for trends and their relationship to the constrained options.

UC ETAS Follow-up User Interviews

Findings and Trends Summary:

- A small sample size of 5 user interviews were earmarked to further augment the detail and context related to user motivation for main use cases uncovered in the satisfaction survey. Users provided additional information on how they discovered HathiTrust ETAS and what their access path was leading into the service as well as when and why they would return to work with volumes of interest. They further characterized for us why they responded in certain ways in the survey in relation to the features that they found most satisfactory and most unsatisfactory.

Data sets consulted:

- As of this report's submission, 3 UC users, drawn from a pool of volunteers, have participated in 30-minute interviews conducted in August 2021. 2 additional interviews are anticipated to be scheduled in September 2021, with findings potentially submitted as an addendum to this report.
- Interview questions can be found in Appendix E.

Data caveats:

- While interviewees were selected to represent a spread of campuses, roles, disciplinary backgrounds, use cases, and familiarity with HathiTrust, it is important to note that the pool of interviewees represents a very small sample of UC ETAS users.

Analysis approach:

- Interviewee responses were analyzed for substance and trends that relate to those determined from other ETAS assessment data investigations.

Content Analysis of ETAS-Available and ETAS-Accessed Titles

Findings and Trends Summary:

Coverage: Analysis of LC classification (using the main class and subclass) distribution for content available to UC users via ETAS shows:

- The main classes P (language and literature, 25.38%); H (social sciences, 11.3%), and D (world history, 8.86%) are strongly represented in the available content, followed by B (philosophy,

psychology, and religion, 4.21%); E (history of the Americas, 4.19%), Q (science, 4.03%), and N (fine arts, 3.96%).

- The main classes broken down by subclass show that PQ (French, Italian, Spanish, Portuguese Literature, 6.07%); DS (Asia, 4.8%); PL (Languages and Literatures of Eastern Asia, Africa, Oceania, 3.45%), HD (Industries. Land use. Labor, 3.25%); and F (US local history / British America [including Canada], 2.91%) have the highest representation in the available content.
- Much of the content was published from the early-mid 1960s through 2010, with high concentrations in the mid-1960s, 1980s, and around 2000.
- The majority of this content (48.56%) is in English, to a much lesser degree Spanish (8.46%), German (6.70%), French (5.44%), Chinese (4.76%), and Russian (4.32%) are among the other languages highly represented and this distribution reflects that of the HathiTrust corpus as a whole.

Use: Analysis of LC classification (using the main class and subclass) distribution for content accessed by UC users via ETAS shows:

- The following LC subclasses have higher usage relative to the amount of content available in ETAS: DS (World History: Asia, 6.72% of all accessed titles vs. 4.78% of titles available in ETAS); PN (literature [General]), 3.71% of all ETAS titles accessed compared to 2.23 of titles available, as well as E and F (History of the Americas), and PS (American literature).
- The following LC sub-classes have less usage relative to the amount of content available: PQ (French, Italian, Spanish, Portuguese Literature), PL (Languages and Literatures of Eastern Asia, Africa, Oceania), HD (Industries. Land use. Labor), PG (Slavic, Baltic, Albanian Languages), HC (Economic History and Conditions), and PT (German, Dutch (Northern European + Afrikaans) modern & ancient Literature).
- In general, the more recent the publication year, the greater the usage relative to the amount of content available. And generally the older the publication year, the less it was used relative to the amount of content available (See Appendix C figure 4b).
- While 48.56% of all ETAS content available was in English, 61.73% of the titles actually accessed were in English, followed by Spanish (5.08%), French (3.98%), German (3.93%), and Japanese (3.02%).

Data sets consulted:

- OCLC MARC records for titles available to UC users via ETAS (pulled, distilled and provided by UCSC technical services staff)
- HathiTrust Usage Reports for ETAS content
- HathiTrust Overlap Reports (recording the overlap of UC holdings with all ETAS available content in the repository)
- HathiTrust Metadata Management System (Zephir)

Data caveats:

- The comparison of item-level data (ex. usage of specific items) with title-level data (i.e. using OCLC number) can introduce challenges and requires the clustering or aggregation of items.
- Cataloging or metadata subjectivity, inaccuracies, and omissions (publication dates with wildcards, ex. "19??") can contribute noise. In addition, there may not be complete coverage of certain fields across all data being analyzed.
- When aggregating and comparing data sets from disparate sources, it can be challenging to find reliable and consistent match points.

Analysis approach:

The HathiTrust Overlap Reports were mined for all of the OCLC numbers of titles available to UC users via ETAS (and not previously available). These OCLC numbers were used to extract MARC records from OCLC WorldShare, which were then parsed to extract critical data fields. The HathiTrust ETAS Usage Reports were transformed to cluster the item-level data at the title level. All resultant data was added to a database to allow more efficient linking and analysis of the data.

Provision of/Requests for Alternative Versions of ETAS-Available Content

Findings and Trends Summary:

- Respondents included librarians of all types and library staff from collections and ILL/fulfillment
- Most survey respondents reported users were dissatisfied with lack of downloading ability and short checkout period/need to renew frequently. Comments note that the number of complaints was generally small (mentions of less than a dozen complaints per term were common).
- Alternative versions were provided either by library staff or if requested by the patron: most were local scans, ebooks, or lending the print item from a non-ETAS library. Staff reported that provision of an alternate format was relatively infrequent or rare.
- Some interesting points from the comments:
 - Suitability of the content/format for uses:
 - A patron needed print content in order to do fieldwork
 - Musical scores via HT ETAS didn't work for one patron's needs [presumably to use for playing music?]
 - Quality of the reading experience:
 - Not having links within a book (most e-books have a linked TOC and/or index), such as Chicago Manual of Style, making it difficult to use that type of content
 - HT ETAS scans are cut off, hard to read, or pages do not load
 - Characterizing the HT reader as "clunky" and noting that users are used to downloading content, generally a pdf, and reading at their leisure, dipping in and out on multiple devices, searching for what they need, possibly even marking the pdf up with notes.

Data sets consulted:

- [Survey question responses](#) from UC Libraries staff re alternative version provision/requests

Data caveats:

- All campuses represented with at least one library staff member from each campus responding

Analysis approach:

- Quantifiable data visualized within Google Forms, qualitative data (free responses) analyzed by co-leads

Titles Accessed via ETAS by UC Users

Findings and Trends Summary:

- Surprises include:
 - Textbook use, especially in chemistry
 - Diversity of foreign language titles
 - Use of HT copy when another eFormat is available (i.e. jstor, other ebook license)
 - Previously unknown areas of research interest: Filipino content
- Unique qualitative feedback:
 - “ETAS has been incredibly helpful for ethnic studies, where e-books are not a given, even for recently published books.”
 - "The frequent use of both newer as well as older publication dates demonstrates the value of even older publications especially if instructors are willing to use them in their courses."
 - “Sincerely hope that UCLA Library continues to provide access to Hathitrust for instructions in area studies, from the lists, one can easily tell that instructions in area studies relied on Hathitrust heavily during the pandemic as there are very small percentage of books available electronically.”
 - “The low counts for arts and humanities titles that appear on this list, to me, speak to individual research projects or papers. Many of these titles seem to fit the scope of courses and the topics students would pursue for individual research papers. So while the usage counts are low, they are in fact being used! I say this because usage counts often focus on high counts; low counts are deemed as not important.”
 - Over 40% of the eReserve titles that are available in ETAS have been used. We are planning to look at this percentage by course and by department. The pulse survey also revealed that a very high percentage of the students from a few small departments have relied on HT ETAS for their course reading, such as Medieval Studies, Slavic Languages and Literatures, Scandinavian, although the titles from those courses didn't show up in the top used list.
 - “We sent about 100 ETAS links out to faculty. I didn't check everyone in the report, but I was surprised not to see more of them in the top 20.”

Analysis Approach:

A short survey was distributed to appropriate staff at UC libraries by the UC ETAS Liaisons. A list of most accessed ETAS titles for each UC campus during (roughly) Fall 2020 and Winter/Spring terms was included with the survey. The survey included five questions about the most accessed titles.

Results:

- We received 17 complete responses, at least one from each UC library.
- Respondents included: 2 East Asian studies librarians; a department head (IAS and LSC); a Collection Strategist / ETAS Liaison; a Science Collections Librarian; a Subject Specialist; a Head of Collection Development; a Earth & Marine Sciences Librarian (liaison librarian for Scripps); a Night/Weekend Services Coordinator; Head of Reference; a Research & Engagement Librarian; electronic reserves; a Teaching & Instruction Librarian; Collection development; Reserves & Media Coordinator; Assessment Librarian; Research support/liaison librarians team; rss librarians
- Question #1: Were any of the top titles on your campus ereserves list or included in course management-based - or other - reading lists?
 - 9 respondents reported that some of the most accessed ETAS titles at their campus had been included in campus ereserves, course management, or other reading list
 - 3 respondents reported that no top accessed ETAS titles had been included in any reading list
 - 5 respondents either did not know or did not answer the question.
 - Highlights:
- Question #2: What are the titles or topics you recognize as pertinent to specific classes or research areas at your campus? Please provide details.
 - 13 respondents provided answers for this question
 - 4 respondents said they did not know or were unsure
- Question #3: If any of these titles or topics surprise you, please tell us why.
 - 6 respondents were surprised
 - 7 were not surprised
 - 4 did not know or did not answer
- Question #4: If there are any titles or topics missing that you thought you'd see here, please describe them.
 - 7 respondents described missing topics and/or titles
 - 6 responded there was nothing missing
 - 4 did not know or did not answer
- Question #5: Please share any other thoughts you have about these titles.
 - 7 respondents provided their thoughts
 - 2 said they had no thoughts about the titles
 - 8 did not know or did not respond

Data sets consulted:

- [UC Campus Title Reports: Fall 2020 & Winter/Spring 2021](#)
- [HT ETAS Assessment - Accessed Titles Survey](#)
- [HT ETAS Assessment - Accessed Titles \(Questions & Responses\)](#)

Data Caveats:

Data is qualitative and from a small set of UC librarians and/or staff, it may not be representative.

UC Referral Paths to HathiTrust

Findings and Trends Summary:

- During the 14 months of period (from April 2020 to June 2021), over 48,000 UC users landed on HathiTrust page from various library discovery systems, (such as library catalog, Primo, library proxy, Melvyl, Ebsco, special collection, OAC, etc), and generated more than 2M pageviews. Library discovery system is the second largest referral channel, after the authentication channel. UCSC also identified a huge increase in HathiTrust content usage when the content links are added to their catalog. Library discovery systems are very successful in discovering HathiTrust content by UC users.
- Library websites and campus websites are the other two major successful access points to HathiTrust content. Over 34,000 UC users landed on HathiTrust pages from library websites and campus websites (generating over 1.9M pageviews) which are proven to be very successful in connecting with UC users on HathiTrust content discovery.
- Library guides, even though they didn't generate the majority of traffic, have directed almost 5,000 users and over 73K pageviews to HathiTrust content.
- Over 3,400 users (identified by Google Analytics) discovered HathiTrust content from their campus learning management systems (generating over 158K pageviews). They are not ranked as the highest channels, compared to others. However, the access from local learning management systems could likely be masked by their authentication channels.
- UCR noted that one collection website whose print copies were highly used before, has also become a popular referral site for HathiTrust content. It illustrates that their users were able to find and also actively use the digital copies when the print was inaccessible.

Data sets consulted:

- [UC Referrers Report for ETAS Analysis](#)
- [Referral Reports for UC Campuses](#)
- [Questionnaire Results](#)
- [Questionnaire results in Google sheet](#)

Data caveats:

- When accessing the HathiTrust site, if a user is routed to the university's login screen and then back to HathiTrust site, the authentication site will be recognized as the referral site no matter where the user comes from. The content discovery activities before the login screen will not be identified. Based on the data, the authentication is identified as the top referral site among all channels.
- However, the authentication channels won't account for all referrals. If a user has logged in with their university in their browser and has an active session, they won't be routed through the

university login process again during the active session and therefore, the channels they used to find HathiTrust content will be revealed separately.

- Campus websites are identified as one of the top referral sites. Due to the lack of the details, how users land on the HathiTrust site from campus sites are always not clear.

Analysis approach:

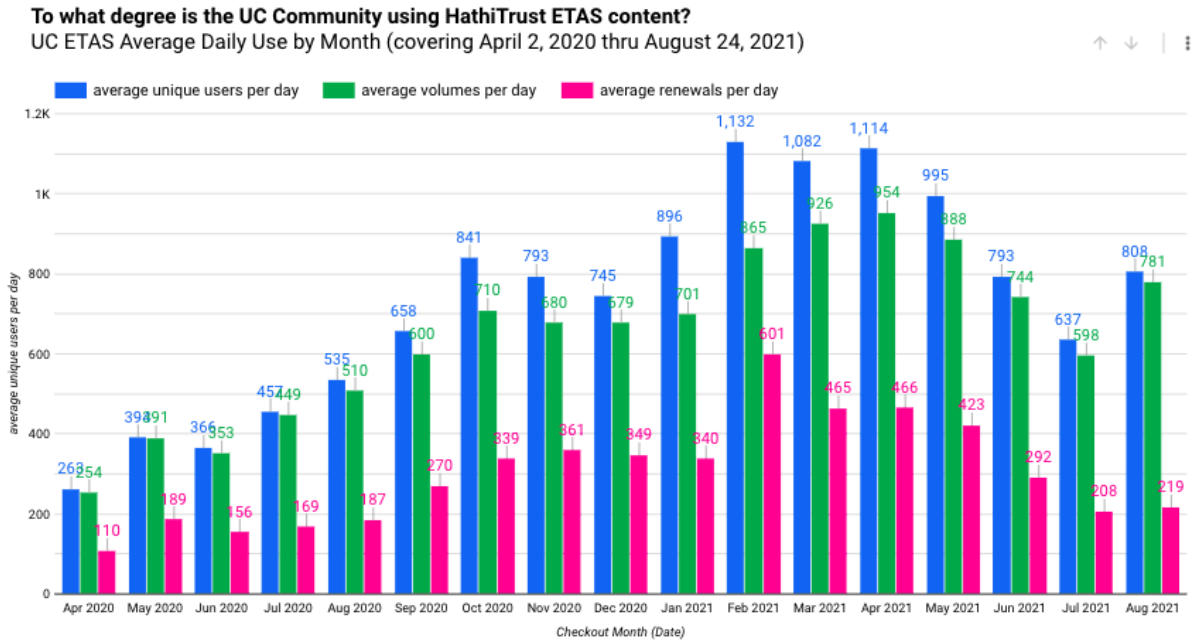
- We have analyzed the Google Analytics referral report to identify the top referral channels and conducted a survey to campus library staff to learn more context and possible explanations on the referral report. The findings are based on both the referral data and survey responses.

Appendix C - Selected Data Visualizations and Tables

Data Caveats: Many of the visualizations in Appendix C were created using HathiTrust log data and/or Google Analytics data

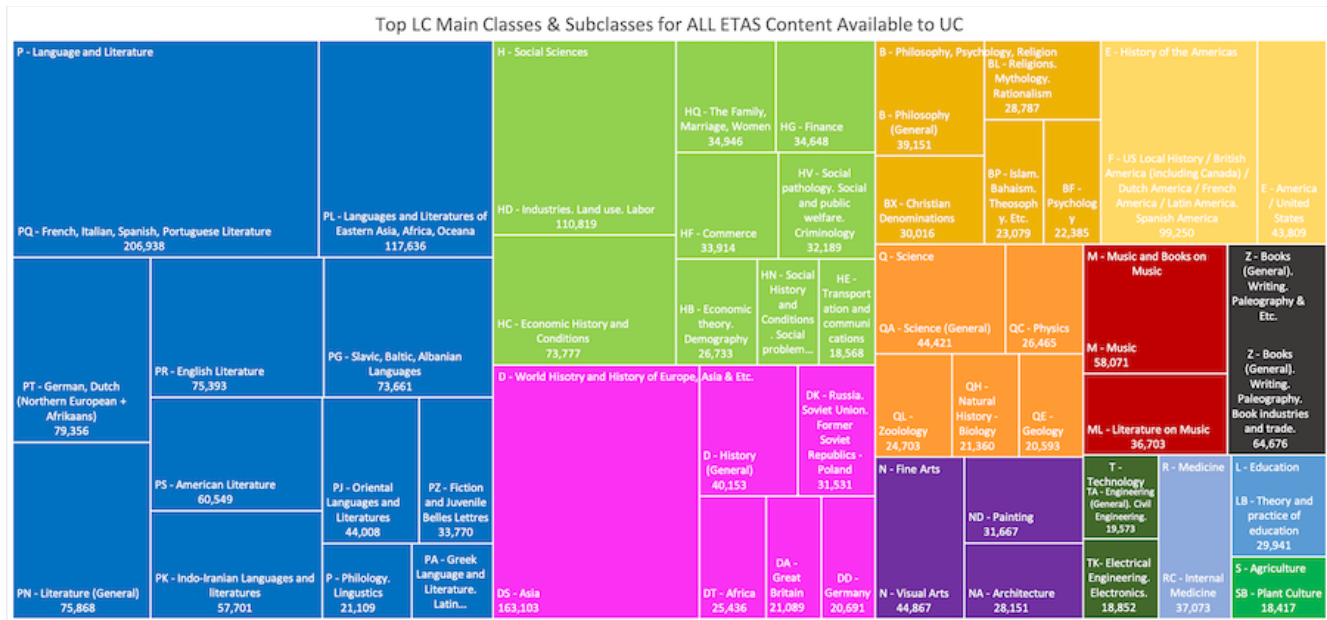
- Google Analytics: Google Analytics data cannot be used to report exact numbers for HathiTrust use because it often relies on sampled data. In addition to using sampled data, free Google Analytics accounts have a limit of 10 millions hits per month, and the HathiTrust website gets over 30 million hits per month. Google Analytics data for HathiTrust may be used to reveal data trends rather than exact numbers (e.g., referrals, locations of users, etc).
- HathiTrust log data: HathiTrust log data are captured within HathiTrust applications and track requests to deliver materials, including logins, ETAS volume check outs, and ETAS volume renewals. The log data can only report on those users who log in, and therefore does not include data about UC users who did not log in to HathiTrust via their UC credentials.

Figure 1. UC ETAS Average Daily Use by Month



Figures 2a-b. Characteristics of Content Available to UC Users via ETAS - Topics

Distribution of top LC Main classes and subclasses for all ETAS content available to UC users



Distribution of top LC Subclasses for all ETAS content available to UC Users

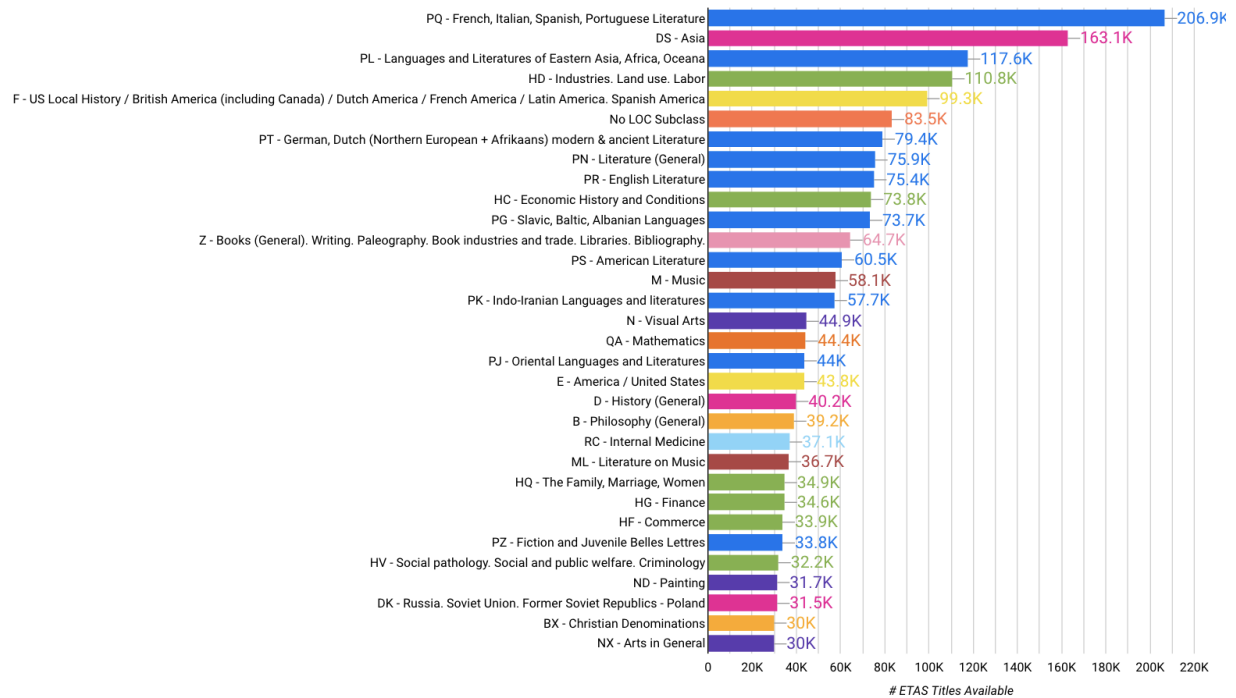
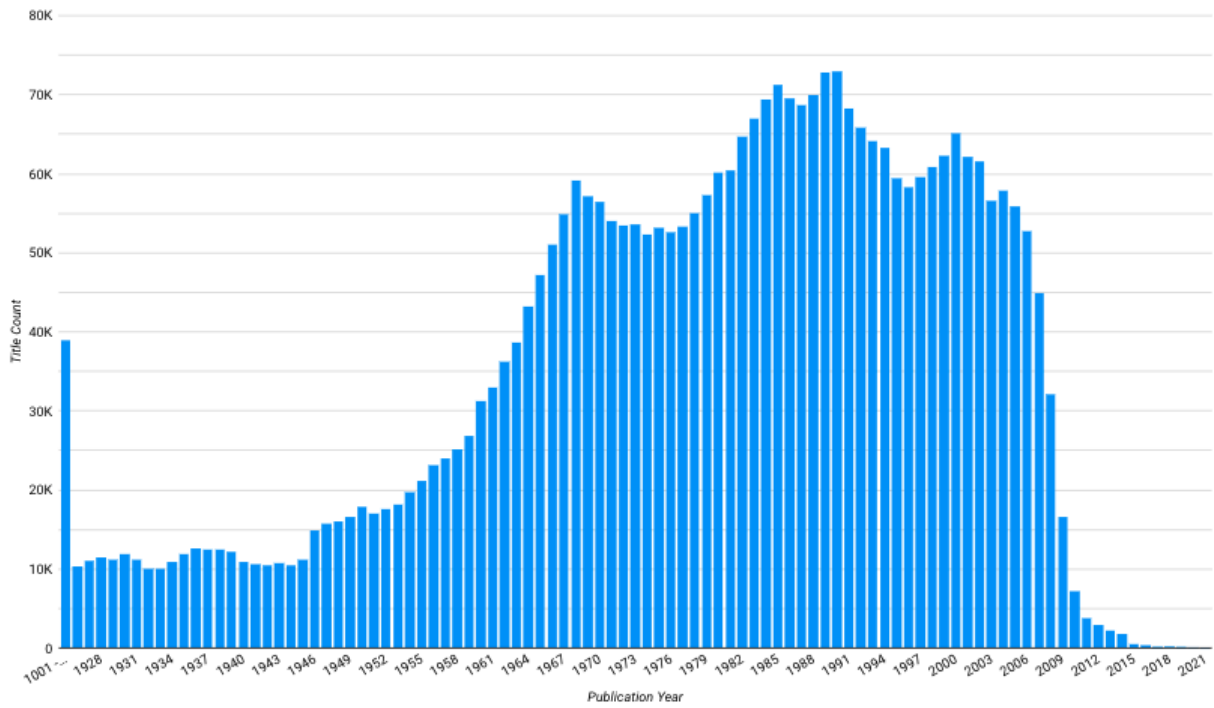


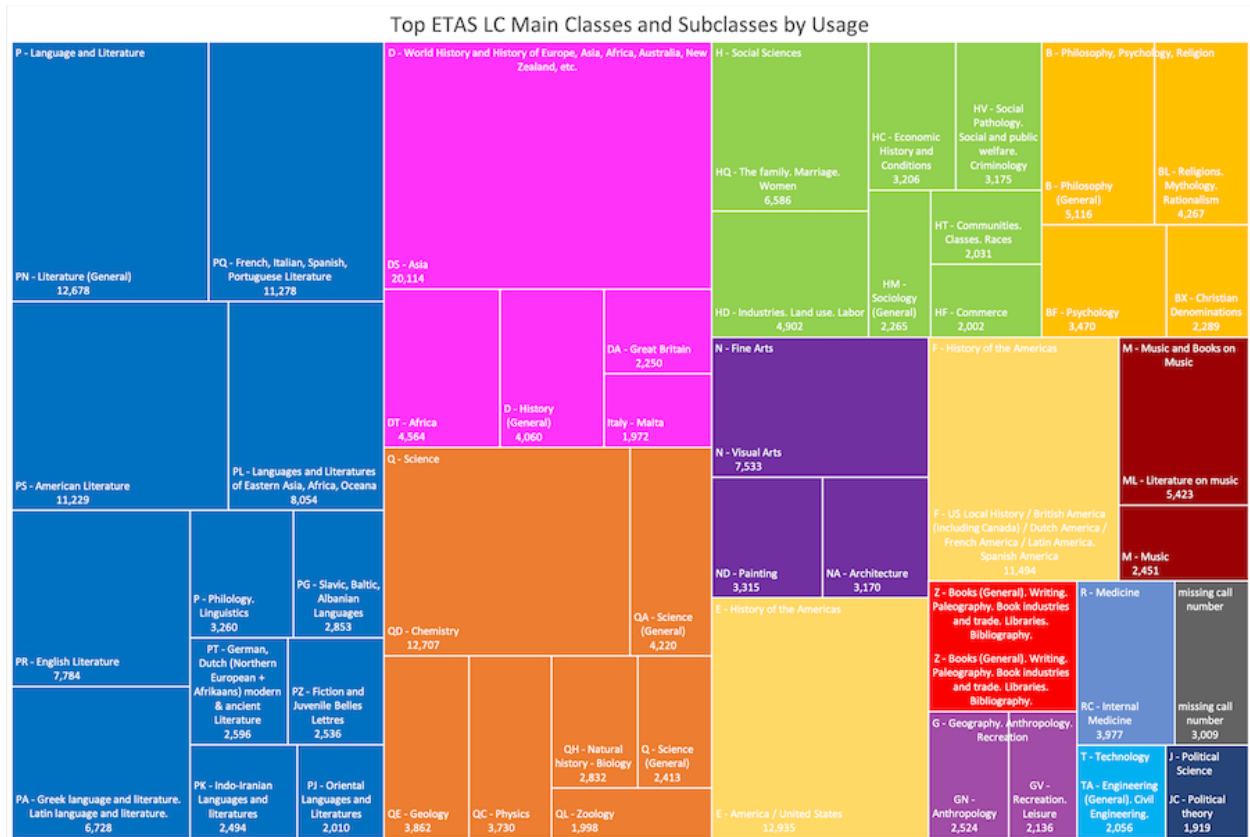
Figure 2c. Publication Date distribution of content available to UC Users via ETAS

Titles available by publication year

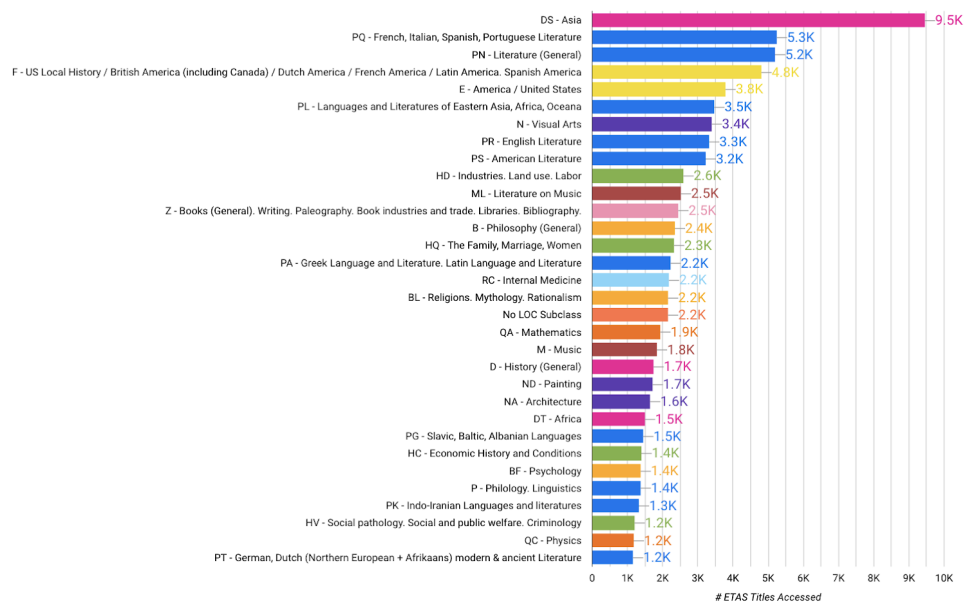


Figures 3a-b. Characteristics of Content Accessed by UC Users - Topics

Distribution of top LC Main classes and subclasses for ETAS content most accessed by UC Users (by cumulative unique daily users)



LC Subclass distribution by cumulative unique daily users



Figures 3c. Characteristics of Content Accessed by UC Users - Publication Dates

Titles accessed by publication year

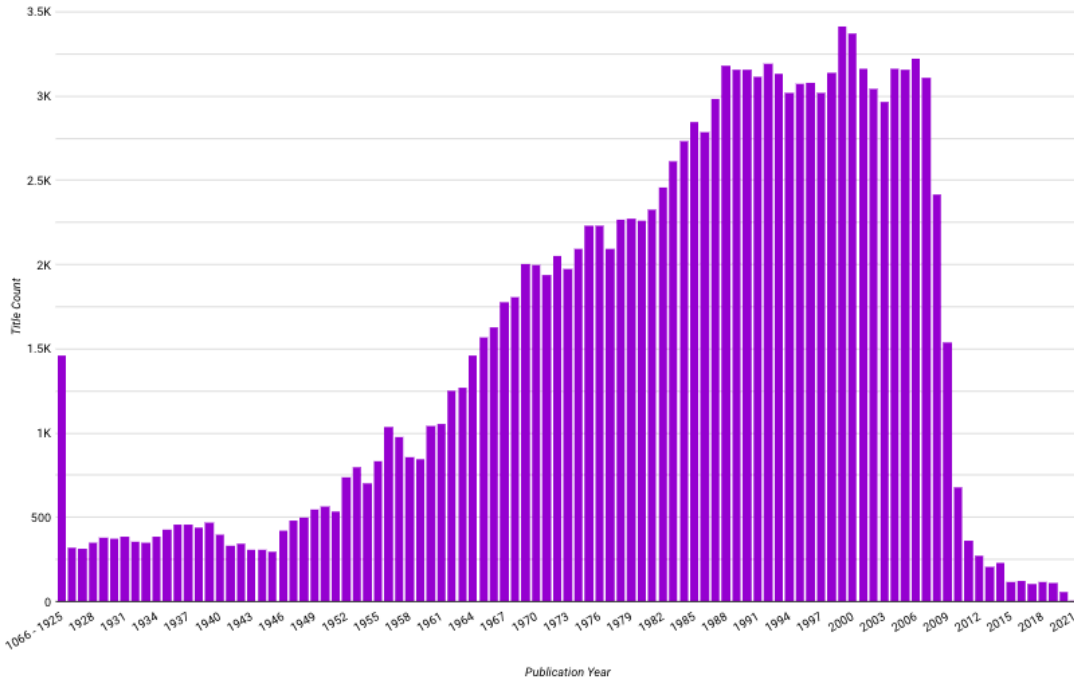


Figure 4a. ETAS Monograph Titles Most Heavily Used by UC Users

What ETAS content is the UC Community accessing?

ETAS Monograph Titles Accessed by UC Users, from April 2, 2020 - August 25, 2021

title	author	language	rights date	total checkouts	total renewals
1. Adventures in the screen trade : a personal view of Hollywood and screenwriting / William Goldman.	Goldman, William, 1931-	eng	1983	1,114	264
2. Gauchos and the vanishing frontier / Richard W. Slatta.	Slatta, Richard W., 1947-	eng	1983	578	481
3. Dogmas and dreams : a reader in modern political ideologies / edited by Nancy S. Love.		eng	2011	565	349
4. Proud shoes : the story of an American family / by Pauli Murray.	Murray, Pauli, 1910-	eng	1978	563	570
5. The early history of Rome : books I-V of The history of Rome from its foundations / translated by Audrey de S@incourt ; with an introduction by R.M. Ogilvie ; and a preface and additional material by S.P. Oakley.	Livy.	eng	2002	559	314
6. The Aeneid / Virgil ; translated by Robert Fagles ; introduction by Bernard Knox.	Virgil.	eng	2006	498	370
7. Handbuch der organischen Chemie. Die Literatur bis 1. Januar 1910 umfassend / herausgegeben von der Deutschen Chemischen Gesellschaft, bearbeitet von Bernhard Prager und Paul Jacobson ; unter st@ndiger Mitwirkung von Paul Schmidt und Dora Stern.	Beilstein, Friedrich Konrad, 1838-1906.	ger	1940	485	544
8. Health economics / Jay Bhattacharya, Timothy Hyde, Peter Tu.	Bhattacharya, Jay,	eng	2014	439	363
9. Dancing : the pleasure, power, and art of movement / Gerald Jonas ; preface by Rhoda Grauer.	Jonas, Gerald, 1935-	eng	1992	413	179
10. The ball is round : a global history of soccer / David Goldblatt.	Goldblatt, David, 1965-	eng	2008	384	173
11. The best we could do : an illustrated memoir / Thi Bui.	Bui, Thi,	eng	2017	369	328
12. Elementary Japanese / by Yoko Hasegawa ; with Wakae Kambara [and others].	Hasegawa, Yoko, 1950-	eng	9999	366	184
13. Gmelin handbook of inorganic chemistry = Gmelin Handbuch der anorganischen Chemie / prepared and issued by Gmelin-Institut f#r Anorganische Chemie der Max-Planck Gesellschaft zur F#rderung der Wissenschaften.		eng	9999	358	0
14. Language files : materials for an introduction to language and linguistics / editors Hope C. Dawson, Michael Phelan (Department of Linguistics, The Ohio State University).		eng	2016	347	358
Grand total				313,570	139,335

Figure 4b. ETAS Serial Titles Most Heavily Used by UC Users

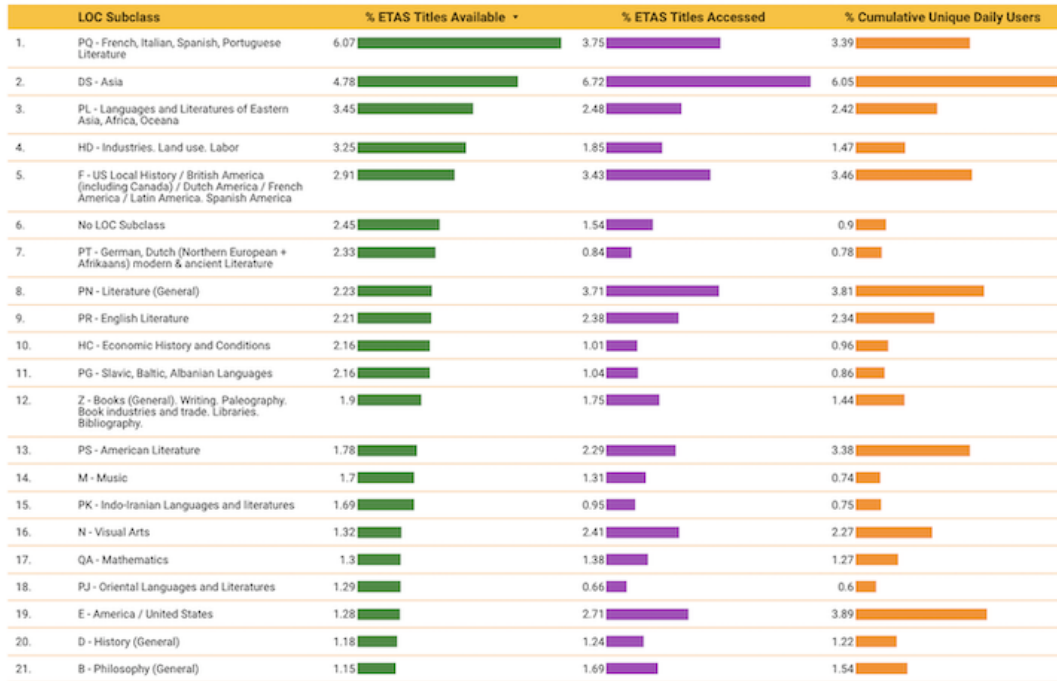
What ETAS content is the UC Community accessing?

ETAS Serial Titles Accessed by UC Users, from April 2, 2020 - August 25, 2021

title	language	rights date	total checkouts	total renewals
1. Chemical abstracts.	eng	2009	4,209	4
2. Chemisches Zentralblatt.	ger	1963	665	0
3. Referativny# zhurnal: Khimii#ja.	rus	1982	626	0
4. Liwayway.	tgl	1968	551	351
5. Chemisches Zentralblatt.	ger	1921	462	0
6. Chemisches Zentralblatt.	ger	1883	410	0
7. Gendai shiso# = Revue de la pensee d'aujourd'hui	jpn	2007	321	338
8. Druzhba narodov.	rus	1999	317	651
9. Zhurnal analiticheskoi# khimii.	rus	1966	258	0
10. Nikkei bijinesu = Nikkei business.	jpn	1996	230	372
11. al-Musl#awwar.	ara	1977	229	57
12. Chemisches Zentralblatt. Vollst@ndiges Repertorium f#r alle Zweige der Reinen und angewandten Chemie.	ger	1918	217	0
13. Cahiers du cin#ma.	fre	1985	213	21
14. The modern review.	eng	1938	195	7
Grand total			57,584	14,364

Figures 5a-b. Comparing ETAS-available and ETAS-accessed Content - Topical Coverage, Use

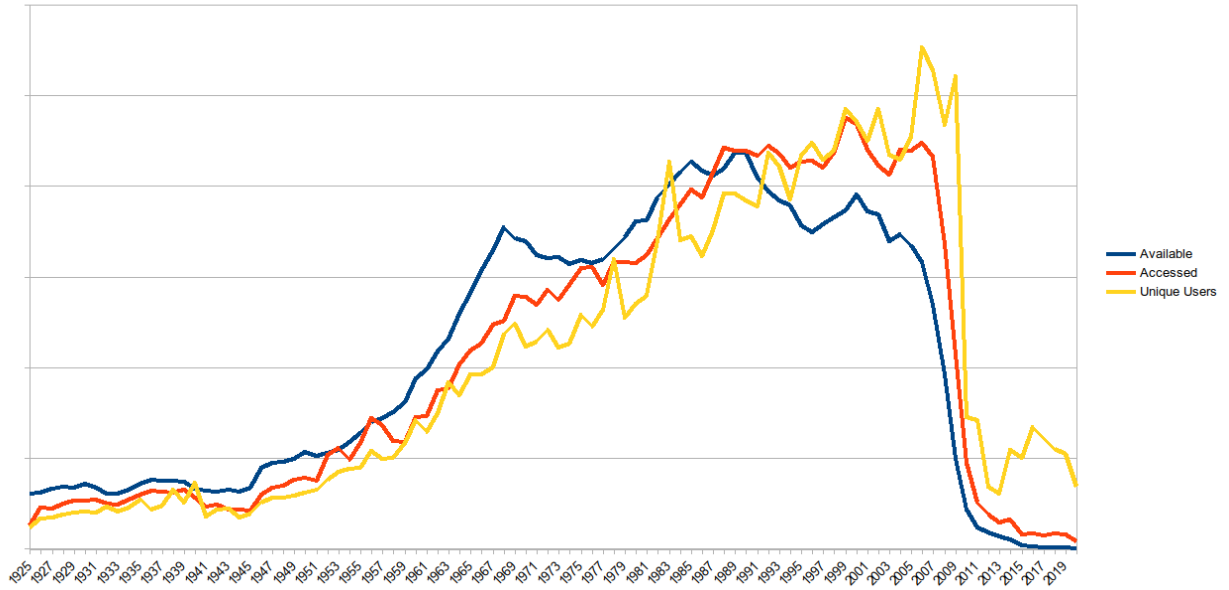
LC subclass and use comparison, sorted by most common topics



LC subclass and use comparison, sorted by most accessed titles

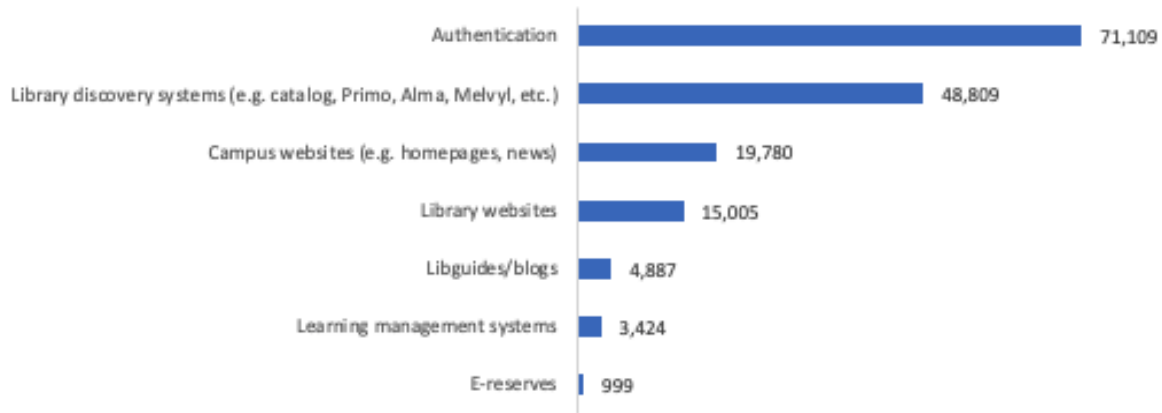


Figure 5c: Comparing ETAS-available and ETAS-accessed Content - Publication Dates, Use Trends

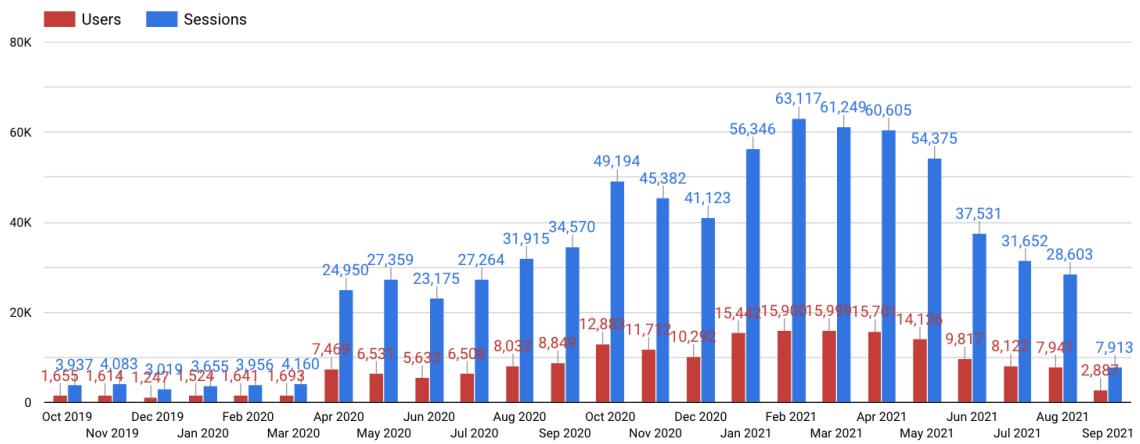


Figures 6a-c. Referral Path Findings

Top UC referrers to HathiTrust by types of referral channel, April 2, 2020 - June 24, 2021



Referrals from UC sources to HathiTrust by month, October 1, 2019 - September 13, 2021



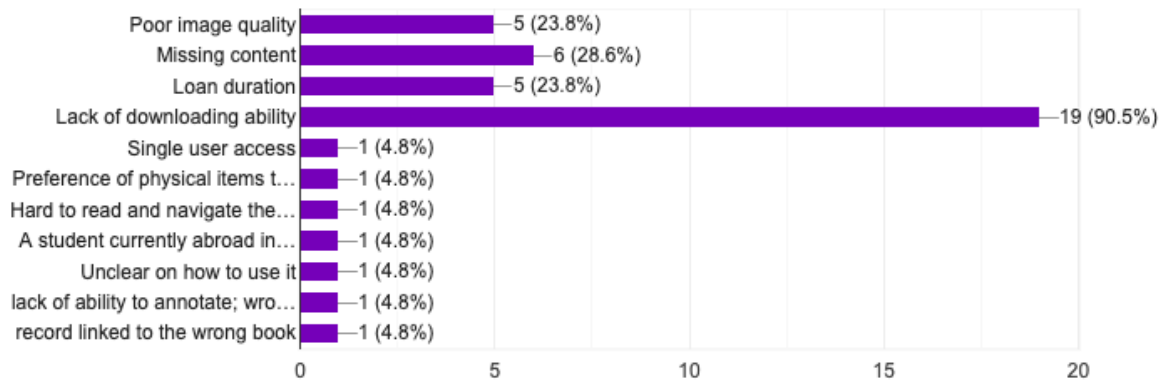
ETAS data report for ILL Request service, June 30, 2020 to July 31, 2021

Borrowing Campus	ETAS Links Presented	ETAS Links Clicked	Total ETAS Requests Placed	Requests Not Placed	Total UC Requests Placed	Total OCLC Requests Placed	Total aLL Requests
UCB	312	228	112	200	748	6,348	
UCD	1,307	995	441	866	1,244	1,312	
UCI	569	383	246	323	1,620	4,005	
UCLA	2,269	1,801	647	1,622	1,903	13,669	
UCM	252	159	114	138	740	2,794	
UCR	381	300	130	251	927	3,573	
UCSB	1,123	771	455	668	1,672	7,196	
UCSC	222	126	121	101	921	2,047	
UCSD	584	363	285	299	6,300	2,931	
UCSF	80	58	36	44	825	2,077	
Totals	7,099	5,184	2,587	4,512	16,900	45,952	62,852

The ETAS Data Report is a statistical report that shows HathiTrust ETAS-related activity within UC's ILL Request program, which is now retired as of the UC library moving to systemwide Alma in late July 2021. The report shows that from June 30 to July 31, 2021, a total of 62,852 requests were placed by users at UC campuses. Of these requests, 16,900 (or 27%) were for materials held by the UC system and 45,952 were for materials not held by UC. During this timeframe ETAS allowed authenticated UC users to access scanned versions of volumes held across the UC system - it does not allow UC users access to digitized volumes held outside the UC system. Request provided an ETAS link for 7,099 of the requests for UC held materials (or 42%). After being presented with the ETAS link, 4,512 of the potential UC borrowers did not continue to place a request. This suggests that when presented with an ETAS link, UC borrowers may have found ETAS materials to be satisfactory 63.5% of the time. And ETAS links may have satisfied 27% of the requests for materials held by UC libraries.

Figure 7. UC user dissatisfaction that led to alternative format request/provision, as reported by library staff

21 responses



Figures 8a-e. Satisfaction Survey Findings

Figure 8a: Survey Respondents by Selected Roles

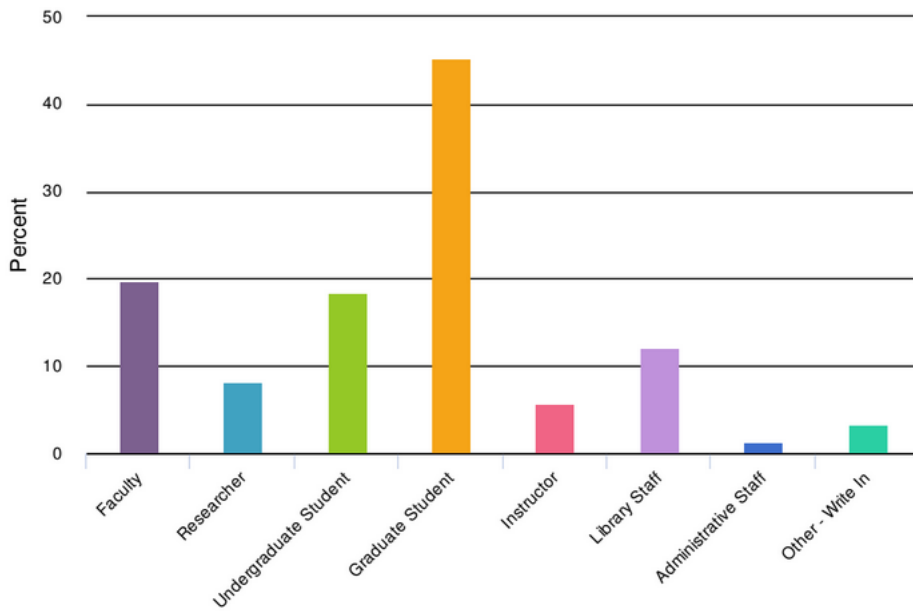


Figure 8b: Survey Respondents by Discipline

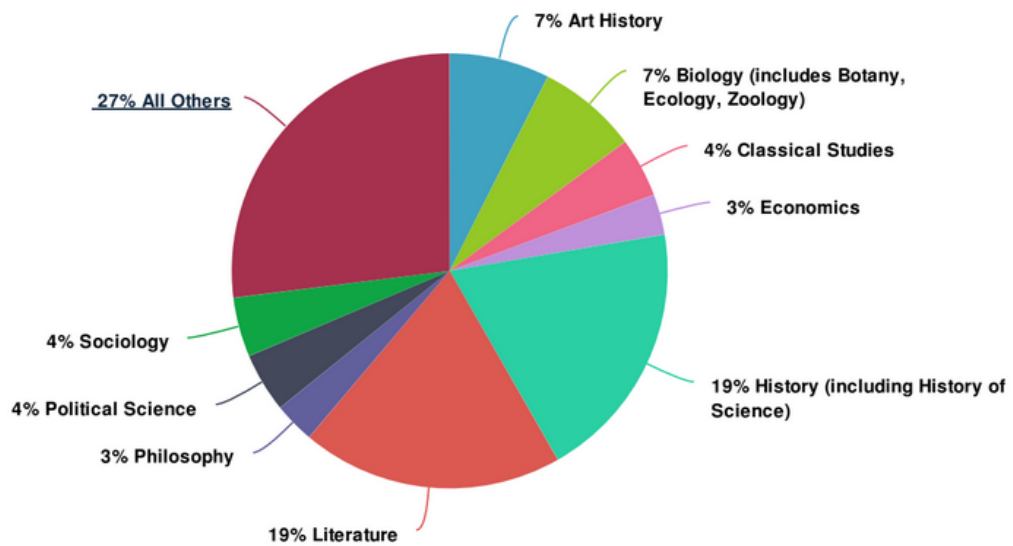


Figure 8c: Main Purpose for Using HathiTrust ETAS

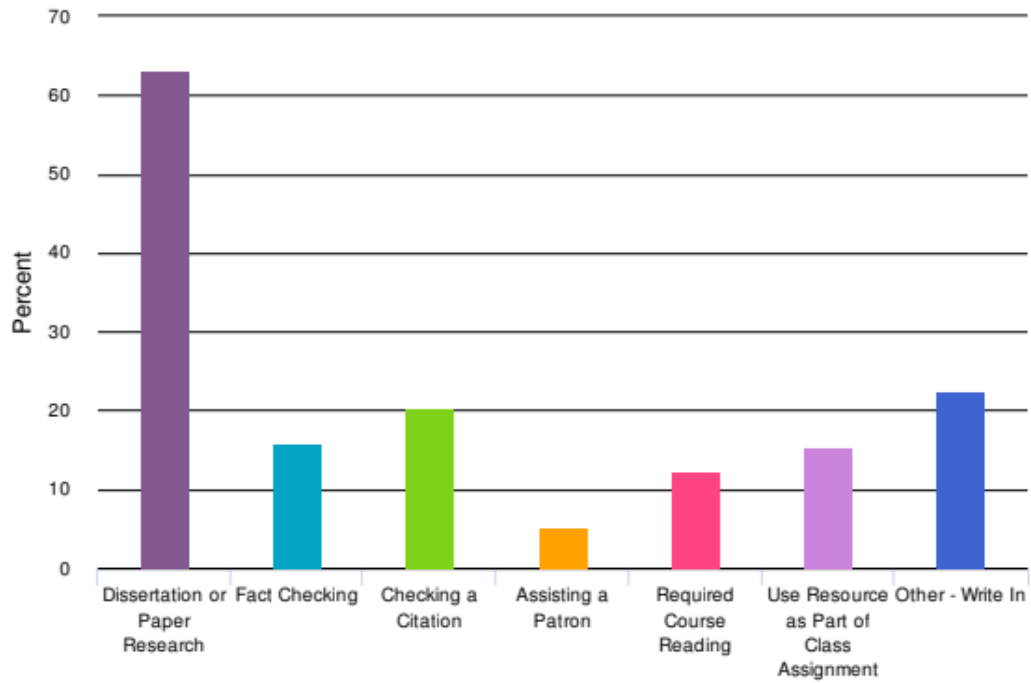


Figure 8d: Features that Users Found Most Satisfying

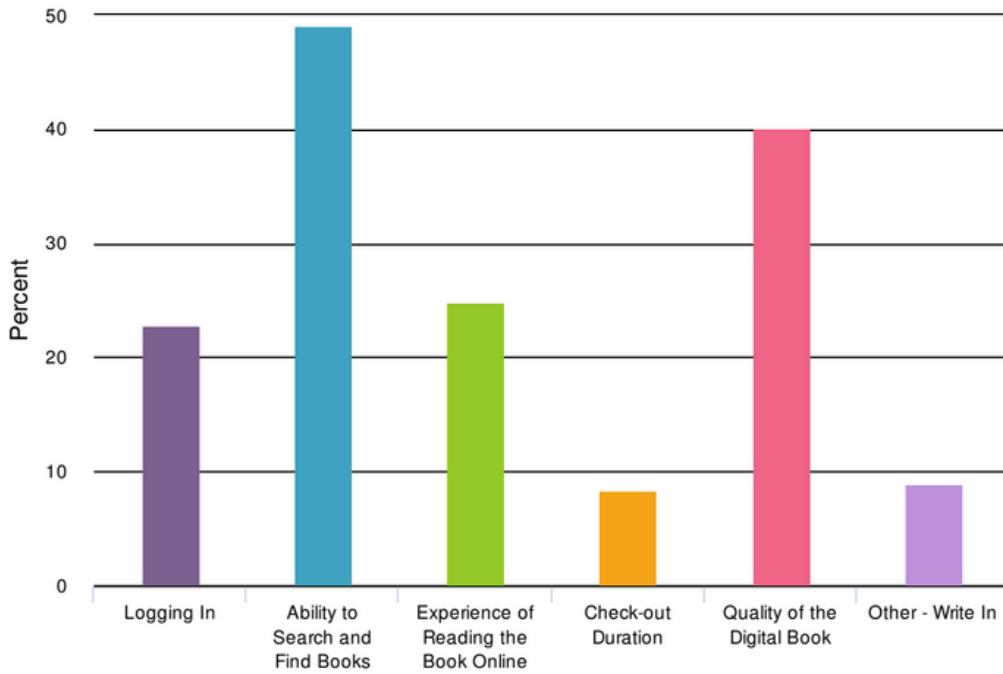
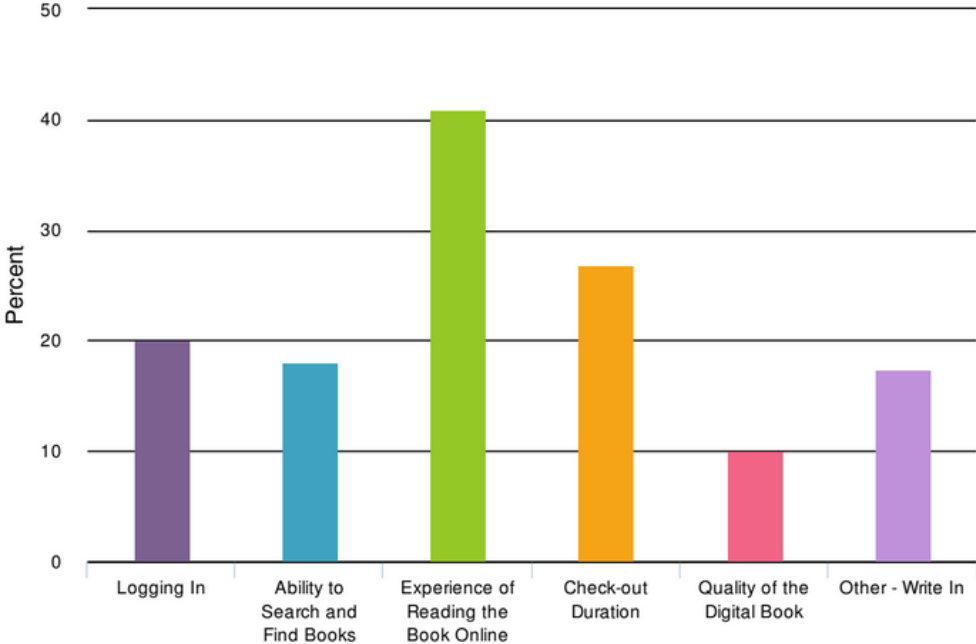


Figure 8e: Features that Users Found Most Unsatisfying



Appendix D - Satisfaction Survey Instrument

Please help us learn more about your experience and satisfaction level using Hathitrust's [temporary access books](#).

1. What is your role on campus? (Check all that apply.)
 - a. Faculty
 - b. Researcher
 - c. Undergraduate Student
 - d. Graduate Student
 - e. Instructor
 - f. Library Staff
 - g. Administrative Staff
 - h. Other
2. What is your campus affiliation?
3. What is your disciplinary area?
4. Is this your first time using HathiTrust?
 - a. Yes/No/ Not Sure
5. What was your main purpose for using HathiTrust? (Check all that apply.)
 - a. Dissertation or Paper Research
 - b. Fact Checking
 - c. Checking a Citation
 - d. Assisting a Patron
 - e. Required Course Reading
 - f. Use Resource as Part of Class Assignment
 - g. Other
6. Did the HathiTrust item meet your information needs?
 - a. Yes/No/Other
7. Of the following options, which was the most satisfactory in your HathiTrust experience today?
 - a. Logging in
 - b. Ability to search and find books
 - c. Experience of reading the book online
 - d. Check-out duration
 - e. Quality of the digital book
8. Of the following options, which was the most **un**satisfactory in your HathiTrust experience today?
 - a. Logging in
 - b. Utility of search function and results
 - c. Check-out duration
 - d. Quality of the digital book

9. If you are interested in entering in the drawing for a \$50 Amazon gift card, please provide your contact information.
 - a. Name
 - b. Email
10. Please let us know if you would be interested in a follow up one-on-one 30 minute user interview? You would receive a \$20 Amazon gift card in appreciation for your time.
 - a. Yes/No

Appendix E - User Interview Questions

1. You shared with us some information about yourself in the survey. Could you please recap and confirm for us your role, year of study (if applicable), discipline area, and campus affiliation.
2. You mentioned in the survey that this was/ was not your first time using HathiTrust. Could you share with us how you were introduced to HathiTrust? How would you describe HathiTrust to another library user? (What do you think it is?) How have you used HathiTrust before the Emergency Access?
3. (If not covered in #2) You mentioned in the survey that your primary purpose for coming to HathiTrust was XXX reason. Could you please describe for us what path you took to arrive at HathiTrust? (If this was a repeat visit, how did you arrive back to HathiTrust? Bookmark? Did you use the same book or title on your repeat visit? Or did you do a new search or other discovery method to come back?) (Please describe your research or information finding process.) (If not already described) Were you there for a specific book or piece of material or were you browsing or generally searching for related material? After your use of HathiTrust, did you successfully satisfy your original goal? How was the goal not fulfilled?
4. Further probe: (If not covered previously) How was the entry/log in process for you? Any troubles logging in remotely?
5. Further probe: (If not covered previously) How was the online reading experience for you? What were you trying to locate? Did the format work for your goal? (Would you have preferred the print version? Why? Does length of work have anything to do with it?)
6. Were there features or ways of interacting with the material that you desired that were not available or were not satisfactory?
7. Further probe: (If their survey response to most satisfied differed from what they've described as satisfying) You mentioned XXX was the most satisfactory part of using HathiTrust. What made it satisfactory?
8. Further probe (if answers indicate): if user indicates that their most satisfactory was quality of material and most unsatisfactory was reading experience online. Could you say more about why you thought the quality of material was most satisfactory and the reading experience online was most unsatisfactory? How does the HT online reading experience compare with other online reading experiences? (Does the reading experience have to do with reading online in general and navigation and saving and note taking and does quality of material have to do with the high quality of the scan?)

9. Now having used HathiTrust would you come back again? For what purpose? Do you feel that HathiTrust is different from other online resources that you've used? How? (Does HathiTrust have enough of the kinds of titles or materials that you need, for your discipline? Did they browse or peruse enough of HT to know?)

10. If you did not find what you needed, what other steps did you take to fulfill your informational or research goal? At what point did you decide that this was not what you needed and had to find an alternative? What was that alternative?

Appendix F - [ETAS Assessment Interim Report](#)