TEXAS
The University of Texas at Austin

TASK FORCE ON THE FUTURE OF UT LIBRARIES
FINAL REPORT

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TABLE OF CONTENTS

A SHARED VISION

As a highly ranked R1 public research and global university, UT collaborates with the best scholars and organizations to fuel cutting-edge research across all disciplines, prepares students for success in a 21st century networked work environment and enhances teaching and learning styles to respond to the needs of an increasingly interconnected and diverse UT community.

In alignment with the University's strategic position, the UT Libraries has begun to re-conceive its goals in a networked environment, transitioning from a traditional collection-centric focus to one that is engagement-based. A hallmark of today's research libraries is their strong focus on the quality of their services not just in support of research, teaching and learning but also as full partners in the university's mission. UT Libraries provides both the physical and the digital infrastructures that allow scholars to share and document the outcome of their work, e.g., the UT's institutional repository, Texas ScholarWorks, and the Texas Data Repository (in partnership with the Texas Digital Library) and provides expert training in managing their research workflows, sharing, and utilizing the research outputs produced by others.

A strong need for coordinated research support presents a strategic opportunity for the University to position UT Libraries as the central research support and partnership hub enabling librarians to be active partners in the research enterprise across the disciplines. This strategic step would provide a strong foundation for UT Libraries to advance into its future state as a global leader in open scholarship, open education and open science.

Curating and preserving new research outputs and artifacts will require that UT Libraries, a trusted partner and leader in curating and preserving analog records, be central in designing infrastructures and implementation processes for digital preservation with secure storage, data records identifiers, and migration of records to new technical formats. Expanding and enhancing the library as platform envisions a future where anyone can access, build upon, translate, and improve knowledge. Students should have access to their learning materials—and teachers should be able to update, improve, and customize resources with ease. Researchers should be able to find/read any article and its supporting data, and without having to negotiate, they should be able to use text and data mining tools that have the potential to optimize their results.

A future state for UT Libraries must build upon the library's traditional role as a repository for books to embrace additional new opportunities as an active and engaged partner in the academy focusing on serving the evolving needs of our users in an ever-changing networked ecosystem.

EXECUTIVE SUMMARY

As a university of the first class that builds on the rich fabric of global engagement on campus and beyond, the University of Texas at Austin (UT) must articulate a visionary role for its Libraries commensurate with twenty-first century expectations that require new modes of thinking about collections, services, space and innovative operating models.

In fall 2018, Provost McInnis established a campus wide Task Force led by co-chairs Dean Michelle Addington, School of Architecture, and Vice Provost and Director of UT Libraries, Lorraine Haricombe, to engage the campus community about "The Future of UT Libraries."

THE CHARGE

- Develop a shared vision for how UT Libraries will support UT's mission in research, teaching and learning.

- Identify resources required to best advance the creation, discovery, dissemination and preservation of knowledge to support UT's mission while recognizing resource limitations.

- Articulate realistic strategies for UT Libraries to advance the higher education research ecosystem.

The two co-chairs directed three subcommittees each focusing on a specific area identified as key priorities by the Provost including: Collections, Digital Scholarship and Spaces. At the end of the 2018-2019 academic year the subcommittees began to weave together the threads of several important town halls, open meetings, discussions and website comments to provide a glimpse into the UT community's needs and priorities and to help re-imagine a shared vision for UT Libraries. From these data points and subsequent subcommittee reports four overarching themes emerged:

- UT Libraries is core to the mission of research, teaching and learning at UT;

- Library space is at the intersection of highly diverse modes of needs;

- Deep human connection with librarians is a hallmark of UT Libraries; and

- UT Libraries' reputation as a tier one research library is highly valued.

The three subcommittee reports represent and present a deeper dive into their respective areas, thereby forming the foundation for the Task Force's assessment and conclusions. They are included for your consideration in their full and un-edited submissions. (See Appendices A, B, and C.)

Clear to all who participated in the subcommittees and in the many discussions over the last year is the recognition that we have just begun to unpack several key issues, and there are many more unknowns regarding the future state of academic libraries writ large. This Task Force report should not be viewed as having completed this conversation, but rather as having put forward the first steps on a more comprehensive road map to ensure a robust and continuing discourse about the roles, opportunities and needs of the UT Libraries over the next century. Libraries reside at the nexus between disciplines and topics, between scholars and students and between methods and content. There is no other place in the university that is better suited to lead the conversation about the future of knowledge in an increasingly diffusive and diverse world. As such, we challenge the university to equate the building of this road map with the Grand Challenges currently being pursued by the Bridging Barriers initiatives. A long term and concerted initiative with broad engagement across the university can stabilize fundamental components, question normative processes and reveal heretofore unknown opportunities and roadblocks.

Furthermore, the proliferation of published sources— whether physical or digital—has expanded at an unprecedented rate, far exceeding the commensurate rate of research activity. The leitmotif of "publish or perish" has led to faculty disseminating their work through means far beyond the traditional peer-review networks. Monographs, self-published or produced works, op-eds, trade reports and even blog posts have joined the journal article and/or deeply researched book as components of a scholar's oeuvre. Regardless of the value of these alternative publishing venues, and indeed some have been of enormous value in bringing agency to research, the resulting contents of today's library no longer resemble the dense stacks of primary sources that were the hallmark of libraries for centuries. Although aspects of this scholarly diffusion were touched on by the different subcommittees, the Task Force fully recognizes that there needs to be a clearer position from the university and the disciplines about how they value different research products in terms of accessibility and preservation.

To get us started, this report builds on and integrates the work of the three subcommittees to determine implementable next steps. These steps have been organized into recommendations reflecting the four themes that will help shape a shared vision for UT Libraries to:

- Evolve and sustain its core as a first class and global library.

- Expand and enhance the library as platform to catalyze innovative scholarship in a digital ecosystem.

- Democratize library spaces for access by our diverse community of users.

- Leverage partnerships to anchor and align UT Libraries' mission with the university's priorities.

The recommendations below are offered as the highest priorities to re-envision and elevate UT Libraries beyond a service/client relationship toward more entrepreneurial roles and partnerships focused on designing and stewarding scholarship and research data as an important institutional asset. UT Libraries' environment must be responsive to research collaboration across the disciplines. One of its essential roles, especially in digital scholarship, will be as an essential partner enabling knowledge creation, curation, and preservation. Library spaces should be designed as central hubs for discovery and creation across all disciplines. In this way, librarians and functional experts can reshape scholars' vision of the library and have their experiences further reshape that vision.

Recommendation 1: Infuse the UT Libraries' Information Resources Budget with funding equal to the annual inflationary cost for FY20 and FY21. After years of reallocating funds from other parts of the Libraries' budget to augment the recurring Information Resources Budget, that strategy cannot be continued without significant impacts on other areas of UT Libraries' operations in FY20.

Recommendation 2: In FY20, establish a campus-wide taskforce to engage the UT community in developing strategies to support sustainable and open scholarship at UT and in Texas. This topic has gained substantial global momentum and, with the announcement of the University of California System's bold move to suspend its contract with Elsevier, there is growing interest among our national peers. UT and the UT System need to be at the table to help find alternative solutions to disseminate its scholarship.

Recommendation 3: Address significant library staff shortages. UT Libraries has lost 20% of its staff since 2010-2011 at a time when it is expanding services to respond to new and emerging needs as expressed to the Task Force for library services across various disciplines.

Recommendation 4: Position UT Libraries as a critical and complementary stakeholder in the University's research and teaching mission with leadership of

administrative standing and operational authority comparable to deans of colleges and schools, charged and empowered to abet and pursue large-scale research and funding opportunities in digital scholarship.

Recommendation 5: Establish a cross-disciplinary campus working group led by the Office of the Vice President for Research, the School of Information and the UT Libraries to identify evolving campus priorities for digital scholarship and recommend strategies to UT Libraries for supporting digital scholarship.

Recommendation 6: Invest in a central UT Digital Scholarship Center to support the creative and collaborative efforts at the intersection of engaged learning and digital scholarship (e.g. digital humanities, digitization, and machine learning/artificial intelligence).

Recommendation 7: Anchor and align library space transformation within the university's master plan for the Forty Acres.

Recommendation 8: Develop an effective change management strategy that mirrors all efforts to move forward with repurposing library spaces.

Recommendation 9: Develop a long-term digital preservation business strategy for UT's digital scholarly output involving other major stakeholders such as the I-school, UTRC, TACC, TDL and key campus collections.

Recommendation 10: Position and integrate UT Libraries as a much higher priority in the current "What Starts Here" campaign. The UT Libraries supports the mission of teaching, learning and research of every School, College and Research Center at UT.

INTRODUCTION AND METHOD

The success of our vision for the "Future of UT Libraries" will be contingent upon our ability to think creatively about the new ways our user communities interact with library resources and the spaces and tools they need to explore solutions to address global problems. The three focus areas: content/collections, digital scholarship and library spaces are critical pillars to advance a vision that will retain UT Libraries as the centerpiece for a university of the first class for the future.

To do so, UT Libraries must be resourced and equipped to help fuel the highest level of research activity, advance innovative teaching, and energize new modes of learning to prepare students as critical thinkers and digital citizens. Whether you work in the classroom or the lab, in the archive or in the field, the road to discovery in

higher education runs through the library. The universe of information that libraries make available creates the foundation from which new knowledge and discoveries emerge on the Forty Acres and beyond. What starts here can truly change the world—one student, one faculty member, one researcher, one mind at a time. UT Libraries should be a comprehensive partner in research, teaching and learning—on the ground, online, all the time.

Method

The task force was composed of nineteen faculty members, three graduate students, three undergraduate students and one research staff member. In addition, three librarians were assigned as liaisons to the task force to serve as advisors and contacts for obtaining information from UT Libraries. Anne Kenney, Librarian Emeritus of Cornell University, was retained as a consultant to the task force. The full task force membership and organizational structure is presented on pages 2-3.

Michelle Addington, Dean of the School of Architecture, and Lorraine J. Haricombe, Vice Provost and Director of UT Libraries, were appointed by the Provost to serve as co-chairs and lead the task force. Serving as coordinator and liaison between the Task Force, the UT Libraries and the subcommittees as well as principal editor of this report, was Doug Barnett, Deputy to the Vice Provost. Together with the provost, they selected three faculty members Jen Ebbeler (Classics), Unmil Karadkar (School of Information) and Claus Wilke (Integrative Biology) to serve as chairs of three subcommittees intended to address overlapping priority issues—collections, digital scholarship, and library spaces. This group formed the steering committee of the Task Force. Rebecca Liendo, Hannah Roberts, and Thao Votang from the Vice Provost's Office provided logistical support for the task force.

The steering committee, in conjunction with the Provost, then selected individuals to serve on each committee, working from lists developed in conversation with deans and other academic leaders, library staff and each other. The steering committee worked with consultant Anne Kenney to draft a charge for the overall task force as well as separate charges for each of the three task subcommittees.

On November 5, 2018, Provost McInnis convened the task force to explain her rationale for creating the task force, review the task force and subcommittee charges and discuss the overall plan of work. It was agreed that, following the initial task force meeting, the subcommittees would pursue their respective charges through independent meetings and activities, keeping each other informed about evolving work plans and emerging information through a collaborative online workspace (UT Box). May 2019 was set

as a deadline for completing the work of the subcommittees and submitting recommendations to the task force co-chairs.

A core objective of the task force, and its subcommittees, was to engage campus—faculty, students, and staff—in a sustained dialogue about the varied library needs on campus and the respective priorities. As part of that engagement process, a task force web site was created in the Provost's Office to provide information about the task force and its activities and to solicit feedback from the campus community.

Open campus meetings were also selected as a key component of the campus engagement strategy. On November 13, an open campus town hall was held to publicly launch the task force conversation. In addition to presentations by the provost and the co-chairs about the purpose and objectives of the task force, the town hall featured presentations on the challenges and opportunities facing modern research libraries by James Hilton, University Librarian and Dean of Libraries at the University of Michigan, and Anne Kenney, University Librarian Emeritus at Cornell University. During the spring 2019 semester, an open meeting was held by each subcommittee to present information about the subcommittee's charge and work and to take input from the community—Collections (February 27), Digital Scholarship (March 26) and Library Spaces (April 15). At the concluding town hall (April 29), the steering committee summarized the work done to date, presented initial observations on behalf of each subcommittee and took feedback from the audience. Each public meeting was recorded for future viewing. All of the recordings are available through the task force web site.

With the work of the subcommittees completed and the open meetings finished, subcommittee reports were prepared to summarize the work of the respective groups and offer specific recommendations arising from that work (those reports are included here as Appendices A, B, and C). The task force co-chairs then prepared this final report to the Provost assessing the work of the subcommittees and a range of inputs gathered during the process including comments submitted to the task force web site and related research reports generated on the UT campus, as well as relevant reports from other peer libraries and institutions. The report includes a range of recommended actions for the Provost's consideration and is posted on the task force web site.

The remainder of this report is organized around the four themes described earlier on page five.

THEME 1: EVOLVE AND SUSTAIN THE LIBRARY AS A CORE RESOURCE

The rich depth of our collections and other content are central to UT Libraries' role to support the UT community in teaching, research and learning. Through more than a century of sustained effort UT librarians and faculty have built a strong collection of more than 10 million volumes and, in recent decades, have augmented that with additional millions of electronic resources and other formats of information including maps, audio visual materials, digitized collections and datasets, to name a few. UT Libraries is the world's #1 lender of library material, a testament to the rich breadth of our content and collections. (OCLC Resource Sharing Facts and Statistics, 2019.)

Although the collection continues to serve a diverse community of scholars, UT Libraries' resources do not insulate it from the environmental factors that shape and constrain all research libraries: information abundance, the scholarly communication marketplace, the impact of digital technology on every facet of higher education and budget realities. These realities have introduced different collection development strategies that are increasingly shifting from disciplinary or project-based models to incorporate and integrate a more continuous, ongoing, flexible and sustainable review of collections. This approach offers a more holistic and agile way to manage budgetary constraints while ensuring that collections are responsive and committed to institutional research and curricular requirements and needs.

Collections and content remain a core priority for the Task Force. More than twenty five percent (25%) of the comments on the Provost's Task Force website reflected strong sentiments around the importance of both physical and digital collections. One commented:

> Much of my own teaching depends on access to physical materials, including books, journals and manuscripts. Please place these collections at the center of any plans to remodel or reimagine the libraries.

The subcommittee on Collections highlighted the necessity of deeper investment in UT Libraries' collection budget to sustain the diversity of research across disciplines. Failure to do so is to risk compromising the status and reputation of UT as a first class university, a sentiment shared in this comment: "… [an] outstanding research library… seems to me fundamental to the making of an outstanding research university." (See Appendix A for the Collections Subcommittee report.)

Other thoughts on investing in the Libraries are reflected in this quote:

I am mostly concerned with protecting the integrity of library collections so that they remain up to date and accessible. To me, that means that we continue to obtain new books, journals, digital tools/resources while also maintaining current collections and an expert staff who can assist/advise the larger U community. This means funding the libraries.

Status of UT Libraries Information Resources Budget

Like most other public universities, UT and its libraries suffered the effects of the 2008 recession followed by significant cuts in FY 2010-11 that were not redressed. These cuts, coupled with high annual inflation rates in the cost of scholarly materials, primarily serials (journals) subscriptions, both print and digital, have resulted in a drastic loss of buying power of almost 40% in the last decade. To put it into perspective: the top tier U.S. research universities (around 115) report library material expenditures annually to the Association of Research Libraries. In 2018 UT Austin's materials expenditures, including the combined budgets for UT Libraries, the Harry Ransom Center, and the Law Library ranked 9th, behind Texas A & M (8th). Without the HRC and the Law Library budgets, the UT Libraries' materials expenditures ranks lower than the 41st ranked University of Oklahoma. (ARL Statistics 2017-2018)

On average UT Libraries spends approximately 87% % of its collections budget on electronic resources that includes online journals, e-books and electronic databases. Consortial agreements with vendors for multi-year contracts is a critical strategy to manage our limited budget. This strategy has limits, though, as the gap continues to grow between the rate of inflation and UT Libraries budget for collections (see Figure 1).

About two decades ago, the Big Deal came into its own as a journal-purchasing model and the UT System embraced it enthusiastically. The Big Deal approach allows UT System Libraries (fourteen) to subscribe to publishers' journal lists which yields a tremendous value in terms of cost per article; however, the Big Deal is not sustainable in the long term for the reasons mentioned above. A growing number of libraries are electing to critically appraise these big deals by assessing their collections, the value for money they are receiving from these packages, and how they might more strategically spend their finite collections resources. (SPARC, Big Deal Cancellation Tracking. 2019.)

As long as the information resources budget remains flat and the academic publishing business model continues as is, UT Libraries will fall further behind in keeping up with the demands of the academic information marketplace. Moreover, the marketplace is changing as scientific researchers increasingly use non-textual scientific materials such as audio-visual media and research data, a growing area of collection development for research libraries.

Strategies to respond to the budget crisis in Libraries

To offset the loss in buying power, UT librarians routinely assess usage of our resources to help make informed data-driven decisions. Our current operating model is akin to a "lose one gain one" model that enables us to expand the depth and breadth of our information resources. This model has allowed us to manage our serial subscriptions but not without the pain of some tough decisions along the way, including cancellation of journal titles and reduced spending on monographs. To help offset this imbalance, UT Libraries uses demand driven acquisitions (DDA), a collection development and acquisition model that helps
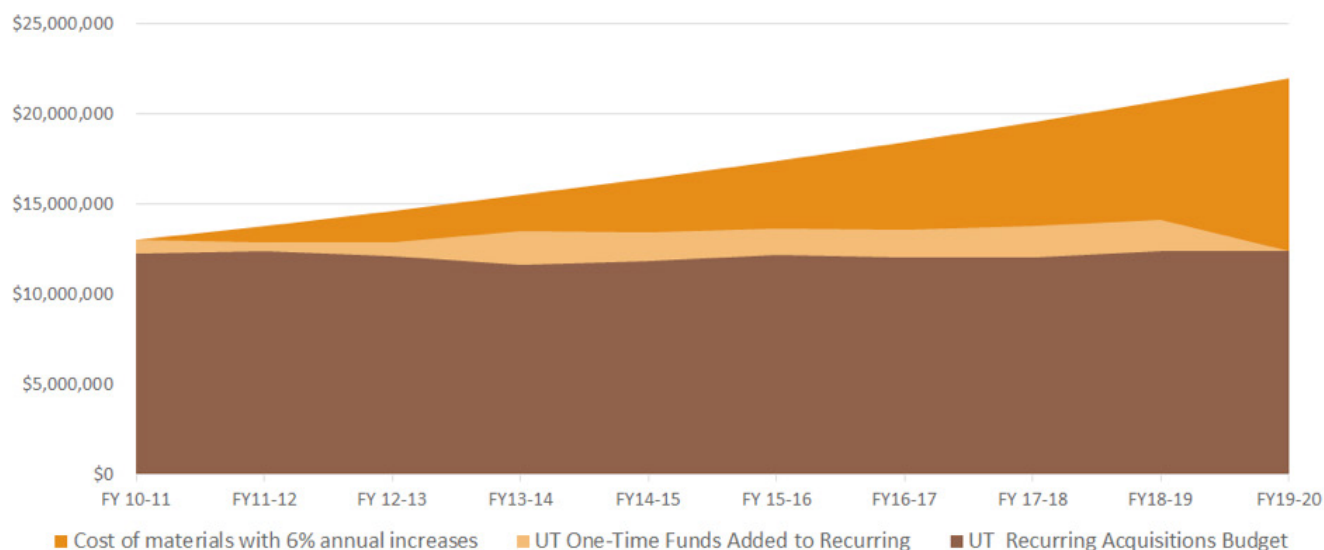

Figure 1. UTL Collections Spending Compared to 6% Annual Cost Increases

libraries preserve the information resources budget while maintaining control over the collection development process. In this model, UT Libraries exposes the bibliographic records on the DDA list to users (in the online catalog) without buying the titles on the list. A title purchase is triggered when a user accesses the title, ensuring that only those titles with usage are purchased, a major shift away from "just-in-case" purchases to "just-in-time" purchases.

Academic libraries have seen firsthand the impact of the high cost of the subscription system on their collections budget. UT Libraries is no exception. To respond to this unsustainable situation academic libraries have been at the forefront of a movement to change the academic publishing business model in order to advance sustainable scholarship that would make research output more accessible on their campuses.

The University of California System, a leader in this movement towards open scholarship in the United States, announced their intention to walk away from their negotiations with Elsevier after their contract expired on December 31, 2018.[1]   The call for universal open access publishing of UC scholarly output, so that the 10-campus UC system's research could be freely available to anyone, anywhere, was a key pillar in the negotiations. This announcement on February 28, 2019 has generated much interest in North America, including at UT. The movement is growing and offers an opportunity for UT to engage faculty and researchers about the value and importance of sustainable scholarship as a strategy for the future.

A few months later, on June 10, 2019, the provosts of the fourteen Big Ten Academic Alliance (BTAA) issued a statement on sustaining values and scholarship and expressed their advocacy for a sustainable and open ecosystem of publication. (Sustaining Academic Values. 2019.)

While the success of the open access advocacy movement can be measured in changing behaviors among some publishers, giant corporate publishers with monopolistic business practices and profit margins are rapidly moving into controlling the entire research workflow—from ideation to evaluation. We are at a critical juncture where there is a pressing need for the UT community—individually and collectively—to make thoughtful and deliberate decisions about where and how to publish—and under what terms and conditions. These decisions will determine who ultimately controls the research and education process; and whether we meaningfully address inequities created by legacy players or simply recreate them in new ways.

UT Libraries has provided services to researchers for many years. In a naïve view, perhaps, what many researchers mostly want from the library are journals, journals and more journals—free and online. Many see little need to visit the library or communicate with librarians. They prefer the ease of access to the latest online resources. This view is not necessarily held by all researchers, especially those who view the library as their laboratory with the physical entities in place. The importance of the physical collection is captured in comments like this:

> UT Austin holds world-class archival materials, a large portion of which are not available in digital form.

Concerns around not having onsite access to materials were captured here:

> I cannot emphasize how much the depletion of the library's collection of books has the potential to affect my ability to function as an award-winning scholar. It already has affected me, as I've discovered in the past ten years or so that more and more of the books I expect to find in the library's collection are now materials I have to order through interlibrary loan.

Others had a different a view:

> For engineering faculty and students, electronic delivery of materials is the preferred format. This is true for books, articles, and data.

The challenge is clear: libraries are hard pressed to support research across the spectrum of disciplines in an ecosystem where the web enables phenomenal growth of scholarly communication and where technological evolution have far outpaced the rate of change in libraries.

Despite a two decades' long movement towards open sustainable scholarship (vs. publishing behind paywalls), only a small fraction (7%) of the comments addressed this issue. Feedback ranged from "putting publishing back in the hands of the university" to "shift the focus back to academics away from outside for-profit companies" to "creating an open access database managed by a consortium of universities or a non-profit organization." Following the UC system announcement, at least one comment urged that UT Libraries break its contract with Elsevier and follow in the University of California's footsteps. The Collections Subcommittee has included recommendations to help advance the conversation for sustaining values and open scholarship at UT.

New publishing models provide opportunities for libraries to be more involved in the research enterprise across the disciplines. As one commenter expressed:

> Authors need assistance with navigating publication. The range of options available for authors to publish their research is expanding. Choosing a publication for article

[1]The University of California has taken a firm stand on both open access to publicly funded research and fiscal responsibility by deciding not to renew its journal subscriptions with Elsevier, the world's largest scientific publisher. https://osc.universityofcalifornia.edu/open-access-at-uc/publisher-negotiations/uc-and-elsevier/

submission, making sense of copyright and working out the details of the publication process can be challenging for both faculty and student researchers. Providing more support in this area would be very useful to our researchers.

Discovery and access of content and collections

UT Libraries aims to bridge barriers between fundamental knowledge and real-world problems by connecting disciplines through rich content, innovative tools, flexible spaces and expert services. Despite this, data from a 2018 Ithaka survey show that "[W]hile specific scholarly databases remain the most frequent starting point for research, faculty are increasingly beginning their exploration of scholarly literature with Google Scholar and other general-purpose search engines." (Blankstein & Wolff-Eisenberg, 2019). UT faculty participated in the Ithaka survey, and this key finding speaks to the ease (or lack) of convenient and simple access point to library resources. At least twelve comments on the Provost Task Force website highlighted the visibility of the UT Libraries' catalogue and the library search interface as an area for review.

The UT Libraries remains committed to the core value of equitable access to collections onsite and online. They also embrace the shift from in-person stacks browsing to an online discovery generation, a shift that requires UT Libraries to build capacity, expertise and infrastructure to enable new forms of access, teaching, research and learning to align with new needs and expectations. The goal is to identify the core services and strategies that can help save time for UT's faculty, students and staff while increasing the reach of their research.

Recommendations

Recommendations from the Collections subcommittee:

- Written guarantee of the addition of recurrent funds to, at a minimum, meet the annual rate of inflation for serials for the next three years, beginning in AY 2019-2020. This is the most crucial recommendation if UTL is going to return to a state of good health; see its national ARL ranking rise from #12; and, most crucially, be a leader in the rapidly changing ecosystem of academic publishing.

- Formation of a task force, starting in AY 2019-2020, to analyze the challenges and opportunities of Open Access at UT Austin and within the UT System.

- Addition of significant recurrent funds to address serious staff shortages. Since 2010, UTL has reduced its FTE count by approximately 20%, from 266 FTEs in 2010-2011 to 216 FTEs in 2017-2018. Some of

these FTE reductions were in response to overall university budget cuts and others were in response to the collections budget shortfall. A key facet of UTL's strategy for managing collections costs increases over the last decades has been to augment the recurring collections budget with salary savings from FTE reductions that accrue from one fiscal year to the next. This drastic reduction in staffing has happened at a time when all university libraries are expanding the services they offer to users; and when we should be prioritizing the expansion of our library staff in both traditional and new specializations.

- Addition of Dr. Haricombe to the Dean's Council.

- Creation of a working group composed of UTL leadership and select members of the Faculty Council C7 Committee (e.g. the Chair and Chair-Elect, the Faculty Council rep, and one at large member of C7 in addition to Dr. Haricombe, her directors, and 1-2 library liaisons. A student representative might also be included). This group would aim to meet monthly to discuss current UTL issues, with the expectation that the faculty membership would be more deeply versed in the current challenges facing research libraries and in a stronger position to keep their fellow faculty members, especially on the C7 committee, "in the loop"

- Overt signaling from the Office of the President and the Provost that UTL is considered a/the core unit of our R1 University. For instance, when listing what makes UT Austin great, high on that list should be our extraordinary libraries. Without a strong and agile libraries system, we cannot thrive as a top research university.

(For more information on the subcommittee recommendations, see Appendix A for the full text of the subcommittee report.)

The Task Force co-chairs offer the following suggestions to expand on these recommendations:

Short-term (1-2 years):

- Augment UT Libraries' annual budget for FY20 and FY21 with enough funds to offset the annual cost increase of library content.

- Invest in the best available discovery and access systems to provide user-friendly access to library content anytime, anyplace.

- Address UT Libraries' staffing shortage to build capacity for new and emerging needs across the disciplines as expressed to the Task Force.

- Engage the campus user communities in developing a strategic plan that would identify the core print collections to retain in open stacks on the main campus (this is also a short-term recommendation the Library Spaces Subcommittee).

- Establish a campus-wide taskforce to engage the UT community in 2019-2020 to develop strategies to support sustainable scholarship at UT Austin.

Medium term (2-5 years):

- Take leadership within the University of Texas System (UTS) for a coordinated effort to provide collective support for developing and sustaining a layer of open infrastructure that operates in a manner that is aligned with the values of the scholarly community it serves.

Ongoing:

- Work closely with the Faculty Council standing committee on the UT Libraries (C-7) to engage and discuss with faculty the challenges UT Libraries faces.

- Engage UT Libraries as a core campus leader (and beyond) to develop and facilitate strategies for sustainable open scholarship, open educational resources and open data.

THEME 2: EXPAND AND ENHANCE THE LIBRARY AS A PLATFORM FOR INNOVATIVE SCHOLARSHIP

Library as platform means that digital content should be accessible on as many digital devices as possible and should be printable. It also means that our digital collections should be made available in ways that facilitate new and emerging methods of direct digital inquiry, such as text and data mining that facilitate knowledge extraction, document clustering, topic bursting and machine learning at scales impossible with traditional linear, human consumption. Similarly, our non-textual resources, such as maps, photographs, audio and visual materials, data and metadata, must be electronically accessible and support a broader range of digital use.

Historically, libraries have acquired print resources, organized them, described and processed them for discovery and access and preserved them. Those core operations have informed the concept of "library as service" and they continue today albeit with different formats from AV materials, to e-books, maps, electronic databases, digitized images and datasets, to name a few. These new formats, coupled with library users' expectations to seamlessly discover and access them for digital scholarship,

require an expansion and enhancement of our thinking to include the library as platform. The Digital Scholarship subcommittee described digital scholarship as:

> *Digital scholarship relates to research and teaching that incorporates digital technologies in the pursuit of scholarly knowledge and learning within and across disciplines of study. It involves all aspects of how we interact with electronic data, including how materials for study are converted into electronic formats (if not born digital), collected, selected, managed and preserved, tools that enable data manipulation, analysis and visualization and the dissemination of data.*

Despite significant advances in technology that enable new forms of scholarship, teaching and learning, it remains a challenge to clearly identify "what" digital scholarship entails. (See Appendix B for the Digital Scholarship subcommittee's report.)

The focus of comments on this topic broadly ranged from the library's role in teaching data literacy, to supporting data management, to the need for UT Libraries "as publisher." A handful of comments highlighted a critical role for UT Libraries as the cross-roads to provide a hub for the professional and intellectual community of research staff across campus, e.g., research software engineers, data managers, collection managers, lab managers, even physical facilities managers. Each of these groups are crucial to research, just as librarians are, but they are fractured around campus. (See, for example: UK Research Software Engineer Association.) Another expressed concern about the lack of support in qualitative research: "Our research group has found zero support for our qualitative research. We have questions about which software serves our research needs the best."

As we work to develop a shared vision for how UT Libraries can best support UT's mission in research, teaching and learning it will be necessary to embrace and expand our familiar concepts of "library as collection" and "library as place" to include "library as platform." The information services landscape is shifting rapidly from a focus on managing and accessing bibliographic resources to stewarding and disseminating research data and publication output, rapidly driven by funding agencies' policies to publish grant funded research and accompanying datasets in open access databases, publications and repositories. For example, the National Institutes of Health (NIH) public access policy requires scientists to submit final peer-reviewed journal manuscripts that arise from NIH funds to PubMed Central immediately upon acceptance for publication. Failure to do so may have an impact on future grants. The Bill & Melinda Gates Foundation requires all its grant recipients to

make their published, peer-reviewed work immediately available to the public to make research more accessible.

These policies are growing rapidly around the globe. A group of national research funding organizations, with the support of the European Commission and the European Research Council (ERC), announced the launch of cOAlition S, an initiative to make full and immediate Open Access to research publications a reality by 2021. The intense pressure on faculty members to get federal grants positions libraries and librarians as critical partners in the research life cycle from the grant application to the dissemination of their results.

Academic and research libraries have expanded their traditional service roles of facilitating discovery and delivery of authoritative information to embrace innovative partnerships with researchers to organize and disseminate scholarship along with its underlying evidence. Data is the currency of science, even if publications are still the currency of tenure. To be able to exchange data, communicate it, mine it, reuse it and review it is essential to scientific productivity, collaboration and to discovery itself. The need for support was highlighted in comments such as this:

> *The relationship between the library and the academic departments and research institutions should be very close. One of the most important aspects where the library can help faculty, students and research staff is with data. I would like a library where I can get information fast about data availability in house, and other data sources for my projects. Most importantly, faculty, staff, and students should know that kind of service is available.*

UT's Bridging Barriers program is focused on tackling grand challenges, requiring that it be conducted on a large scale, across disciplines and figuring out the best way to solve them in less than a decade. It serves as an incubator for new forms of inquiry predicated on amassing, interpreting and repurposing massive amounts of data to produce practical solutions to social, environmental and humanitarian crises. Those involved need support in assembling, managing, preserving and utilizing such data. UT data librarians are closely involved with the Planet 2050 challenge but current UTL capacity will not scale to meet near-future needs.

The social sciences are now heavily reliant on raw data and the tools to ask and answer new questions. In addition, while humanists are still dependent on close reading of texts, they are increasingly turning to digital assets that allow them to "read" across huge numbers of texts to identify trends and patterns that would have otherwise taken a lifetime to assess. Globally, libraries are rising to

the challenge of providing critical services not available anywhere else. UT Austin needs the same from its libraries.

The need and importance of data management skills is captured in this comment:

> *Expanding instruction in data management would benefit the [UT] community immensely. There is a strong need for our researchers to use better data management practices than many of them currently are.*

In an internal report sponsored by UT Libraries (Rabinowitz & Turnator, 2017), faculty identified several key areas where active support from the UT Libraries will have an exponential effect on the establishment of a sustainable digital humanities (DH) ecosystem on campus. (See Appendix D for an executive summary of the report.) These areas include what they have dubbed "DH awareness": basic training in and technical support for digital tools for scholarship (and in Library/Information Science areas like metadata or archival practice); the maintenance of a server infrastructure for library-related faculty projects (that is, projects that have deeper long-term content preservation needs than the presentation-focused projects undertaken by the Liberal Arts Instructional Services / LAITS); and the expansion of existing digital repository architecture to accommodate both more complex data types and more ambitious data-sharing agendas (e.g. triple stores and Linked Data endpoints). There is also a clearly-expressed need for a social infrastructure that can connect faculty and both graduate and undergraduate students with each other and with digital projects

The Association of Research Libraries (ARL) surveyed research libraries and identified several new services to support digital scholarship (Mulligan, 2016). These activities range from digitization and metadata creation, digital mapping, data management and software development, representing a considerable expansion in library interaction with researchers due to digital scholarship, with library as partner, not simply service provider.

These services align with UT Libraries' vision to transform from a knowledge service provider to a pre-eminent and active partner within a rich and diverse learning and research ecosystem. Progress towards that goal is reflected in a series of initiatives to support the UT community.

UT Libraries' Research Support and Digital Initiatives (RSDI) department is staffed with professional librarians, functional experts and staff who are tasked with managing outreach to and collaborations with faculty and graduate students, including a Digital Scholarship Librarian, a Data Management Coordinator and a GIS specialist. In addition to the Texas ScholarWorks—the current iteration of the UT institutional repository for documents and

publications—we launched the Texas Data Repository, a Dataverse instance supported by the Texas Digital Library and suitable for the long-term preservation of digital datasets in 2018. And since 2015, the list of symposia, workshops, and lecture series sponsored by or connected to the Libraries has expanded dramatically, from the annual Digital Preservation Symposium first held in the spring of 2015, to the Digital Scholars in Practice lecture series, to the recently added LLILAS Benson Digital Scholarship workshops and the Libraries' Data and Donuts workshops. Informal DH happy hours continue on a monthly basis, drawing Libraries staff, faculty, graduate students and members of the broader Austin community interested in Digital Humanities. The foundations for both promoting "DH awareness" and providing basic training and consultation for DH tools are therefore in place.

These activities provide a glimpse of the changing landscape in scholarship and the new roles UT Libraries has assumed to support the UT community in digital scholarship. One participant noted, "The work shops (sic) that the Librarians organize are amazing. Even at this point in my career, the UT librarians have helped me develop new analytical skill sets."

Despite these new roles, findings from a 2019 survey of 300 researchers and interviews with nine senior members of research offices in the United States, the United Kingdom and Australia show that they are not fully leveraging library expertise. Many researchers conduct tasks themselves in areas where libraries (and research offices) can provide valuable expertise and administrative support. The findings indicate that there is room for greater involvement of libraries and research offices in areas such as managing article processing charges (47% of researchers stated that they do it themselves), finding funding opportunities (52% do it themselves), preparing data management plans (54%), ensuring open-access compliance (55%) and monitoring research impact (61%). Almost 60% of scholars have to publish research datasets alongside their publications, yet for many this is not easily achieved. The use of these library services can reduce the administrative burden on researchers and improve the impact of their research. (New Report Reveals Opportunities for Academic Libraries and Research Offices to Strengthen Support for Researchers, 2019).

Access and Preservation

The last decade or so has seen a staggering output of new kinds of digital scholarly resources. These resources include a variety of digital data and digital records often with dynamic features. While these works represent innovative scholarship, the problem of preserving them is daunting given their formats, use of dynamic features

and composite nature. In many fields, software versions become obsolete, and many are dependent on platforms that no longer exist. What is "preservation" in the digital realm? Where can researchers turn for help? Without best practices for refreshing and migrating both data and relevant retrieval software, digital information of all kinds are threatened with loss. Moreover, there are concerns about ethics of information, privacy, copyright, what data to capture or archive, as well as providing descriptive information to access and retrieve data in the long term.

In the digital environment it is possible to create access to a greatly expanded scholarly record—one that is less dependent on papers and articles, and that is increasingly expressed in terms of networks of links and associations among diverse research artifacts. Linking data in rich and robust ways to support data reuse and integration will require understanding and documentation of the data's provenance, the development of ontologies, expert annotation and analysis. Further downstream, services enabled by these activities will include visualization, simulation, data mining and modeling, and other forms of knowledge representation and extraction. These services are geared towards supporting researchers with the dissemination of research results while decreasing the barriers they face during the dissemination process.

Libraries, with deep expertise in managing and preserving information across a range of formats, are well positioned to make defining contributions that will shape the ecosystem that supports the information needs of researchers. Libraries will be crucial in drawing on and adapting the mediating practices of the library profession to the world of data.

To strengthen and advance the Libraries' position as an essential partner in digital scholarship we make the following recommendations to support the UT community.

Recommendations from the Digital Scholarship Subcommittee

1. Position UT Libraries as a critical and complementary stakeholder in the University's research and teaching mission with leadership of administrative standing and operational authority comparable to deans of colleges and schools, charged and empowered to abet and pursue large-scale research and funding opportunities in digital scholarship.

2. Develop a long-term digital preservation business strategy for UT's digital scholarly output involving other major stakeholders such as UTRC, TACC and TDL and key campus collections.

3. Explore academic promotion of library staff such that they can be active in the research endeavor required to bring UT Libraries to the forefront of digital scholarship advances.

4. Develop a comprehensive strategy for positioning UT Libraries as a research hub providing core services to support researchers. A central suite of library-centric services ranging from data organization, data management planning, data dictionaries, ontology development and dataset acquisition to visualization and database architecture can help scholars stay at the cutting edge of their research fields.

The Task Force co-chairs offer the following suggestions to expand on these recommendations:

Short term

- Establish a cross-disciplinary campus working group led by the Office of the Vice President for Research, the School of Information and the UT Libraries to identify evolving campus priorities for digital scholarship and recommend strategies to UT Libraries for supporting digital scholarship.

- Invest in digital asset management systems to enable discovery and access of digital collections (also referenced under Collections).

- Invest in construction of a new UT Digital Scholars Lab at PCL to support the creative and collaborative efforts at the intersection of engaged learning and digital scholarship (e.g. geographic information systems, data management, computational analysis of text and data, digitization and 3D printing).

- Identify and develop pilot research projects to demonstrate the potential of multi-modal archiving and tagging to merge physical and digital resources (for example, the documentation of an historic site that links primary texts to relevant contextual influences, financial and jurisdictional datasets, LIDAR scans and drone mapping, advanced simulation models, material samples and tests, etc.).

Ongoing

- Develop and/or enhance innovative technologies and services that transform and generate new modes of inquiry, access, scholarship, learning and collaboration

- Leverage existing resources/partners on campus and identify areas that need more development and support to facilitate interdisciplinary research and collaboration.

THEME 3: DEMOCRATIZE ACCESS TO LIBRARY SPACES FOR A DIVERSE COMMUNITY

In the traditional sense, research libraries served as repositories for physical materials, most often books, and provided space for social discourse, information sharing and expanded thought. They were places people went to retrieve information and find answers to questions beyond their means or field of expertise.

Today, university libraries still store books and other materials, but they serve increasingly diverse communities each requiring distinct materials and services from their libraries. Libraries face significant challenges to remain responsive to evolving users' needs; UT Libraries is no exception. Over the last decade, UT Libraries' focus has been on improving and repurposing spaces to respond to these changing needs. In doing so, it also expanded its mission beyond places solely for quiet, solo research and study to respond to a new generation of users in a digitally networked environment. While not all libraries at UT have been renovated, the focus in most of our revamped spaces has shifted towards more user-centered library spaces that serve as hubs of action and intense creativity, boosted by its unique position as a campus-wide destination that is accessible and used by everyone. The Perry-Castañeda Library (PCL), in particular, has seen a significant transformation in the last ten years to align with new modes of learning and teaching and has become a central and popular destination especially for students, with more than 1.2m visits per year. It holds a prominent position that anchors the library at the intersection of multiple critical communities that create the broader university family. It is a uniquely neutral space that does not belong to anyone, while simultaneously belonging to everyone. It is a point where many disciplines overlap to collectively solve the problems of the individual and the world. As UT Libraries continues this work to democratize access to spaces, services and collections, they will need to be mindful of inclusivity concerns such as one user noted:

I've been surprised by the lack of attention/discussion on ADA issues… I feel that these types of issues make it more difficult for a segment of the campus community to use our library spaces and collections, conduct research, and come away with a positive experience.

Several people commented about specific branch libraries and collections. "The classics library is invaluable to me. I use it almost weekly for special texts, commentaries, journals, and other research aids not on line." Another expressed a desire to "increase the number of satellite libraries" while another shared a concern about the cost of maintaining large collections of books stating that:

we need to seriously rethink having numerous large physical collections being maintained on campus. This not only requires resources for staff to keep libraries open but it forces precious space on campus to be maintained essentially for storage. I would strongly urge consolidation of collections even it would require faculty to walk a bit further to access them.

Historically, UT Libraries' space transformations have been anchored and aligned with university priorities and/or user needs. For example, the transformation of space at the Fine Arts Library (FAL) is anchored and aligned with the vision for the College of Fine Arts. The Fine Arts Library, which includes the Foundry, now has 3D printers and other cutting-edge tools that make them not just places of learning, but also places that democratize access to creation for the entire UT community. Users already see these libraries as places both to learn about the past and the present as well as places to create the future. This type of physical/virtual merging enables students to explore a question or topic from multiple viewpoints and with multiple methods, which is one of the linchpins of experiential learning. ([UT Students 3D Print a Six-String Electric Violin](), 2018).

Academic libraries of the twenty first century exemplify key hallmarks that include hyper-connectivity and social gathering spaces and they reflect society's increasing reliance on technology that enables creativity. But, they also provide reflective spaces to meet the need for quiet study.

Repurposing existing library spaces has led to tension on campus when collections must be relocated to storage in order to respond to the needs of a new generation of users. These tensions were reflected in twenty three percent (23%) of the comments we received on the Provost's website. Balancing the needs of stakeholders with competing demands for the same space is the focus of the report by the Task Force Subcommittee on Spaces that acknowledged the tension and recommended a defined review process and a process for implementing changes in library spaces (see Appendix C for the full subcommittee report). Such a process will offer stakeholders an opportunity to learn more about the work of libraries to support the changing needs of our users.

While UT Libraries is constantly curating its print collection and moving items to appropriate storage locations, it should be noted that there is no intention to get rid of print or presume that electronic is the better format. UT librarians are very thoughtful in this process—print is not dead, and the materials are being preserved in high quality Harvard-style facilities in Austin and in College Station. This practice has been in place among large research libraries for more than thirty years and continues to grow around the country.

User visit counts within UT Libraries consistently increase following renovation of a library space. In the four academic years (September to May) since the PCL Learning Commons was opened in Fall 2015, an average of about 115,000 more visitors have come to PCL (a 7.4% increase compared to the 2012-2015 academic year average). Data from user surveys confirmed that the spaces in the Perry-Castañeda Library (PCL) address the target communities' concerns and needs (Ostrow and Wyatt-Baxter. 2015.) At the Fine Arts Library, newly renovated spaces are now generating more mixed traffic to serve different needs including instructional space, the makerspace, and quiet study space on the fifth floor. Traffic to the Fine Arts Library has increased almost 8% in the three years since renovations began in 2016, compared to the three year average prior to the opening of the Foundry. The Foundry and the Fine Arts Library overall serve a diverse constituency who use the library in many different ways (Welch, A. 2019).

Technological advances have and will continue to soar. As the intellectual crossroads of the University of Texas, UT Libraries has a compelling role to position and equip the UT community for a digital and networked ecosystem. UT Libraries has a long history of being a trusted partner in connecting users to information resources and providing expertise in using new technologies and tools across the Forty Acres. We offer the following recommendations to strengthen and anchor the decisions about space transformation at UT Libraries on the Forty Acres.

Recommendations from the Library Spaces subcommittee:

1. We recommend that all library spaces are systematically reviewed on a consistent schedule. One comprehensive review every five years seems appropriate, and this would require approximately two space reviews each year.

2. To review a specific library space, the university should appoint a diverse consultative committee of students, faculty, and staff comprised of people with varied interests in this space. This committee should include individuals from research and teaching backgrounds that use libraries in different ways. The members of this committee will be tasked with providing a comprehensive report about how a specific library space is used and how the university could maximize on using this space to meet the diverse interests on campus.

3. The university should draw from the most recent and innovative literature on the use of learning spaces in higher education. We recommend that the university assemble a committee of scholars at UT from fields such as architecture, information science, higher education,

library science, human geography, and the learning sciences. This committee will be tasked with developing a well thought-out report on the use of space for social and learning development. In addition, this committee should explore questions about the impact of learning through books as opposed to learning online. This committee would offer ongoing feedback and insights about innovative practices about library learning spaces.

4. The university leadership needs to develop a conceptual understanding of library space within the context of a diverse student population. Attention should be given to the creation of library space that encourages interdisciplinary and multidisciplinary approaches to learning and social interaction. The allocation and usage of library space should also adhere to the university's wider Diversity Plan. This would entail the creation of a diverse task force comprised of UT faculty, students, library staff and members of the Austin community.

5. Before implementing any specific changes to a library space, the university should request input from relevant stakeholders and the broader UT Austin community

6. Changes to library space use should make sense in the context of the library, i.e., if library space is reallocated the new use should be a bona-fide library related use. Otherwise, the change is an effective reduction in library space.

(For more information, see Appendix C for the full text of the Library Spaces Subcommittee report.)

The Task Force co-chairs offer the following suggestions to expand on these recommendations:

Short term

- Identify the core print collections to retain in open stacks on the Forty Acres.

- Invest in space for these core collections on the Forty Acres.

Midterm

- Review the Space Subcommittee recommendations to develop an effective change management strategy that mirrors all efforts to move forward with repurposing library space (the process, tools, and techniques to manage the people-side of change to achieve a required business outcome).

Ongoing

- Task the Vice Provost and Director of UT Libraries with vetting and approving all decisions about library space usage.

- Assess stakeholders' needs in a changing ecosystem.

- Develop a framework/principles for transformation of library spaces.

- Use pilot studies (when possible) to assess the needs and use patterns of new library spaces before permanent changes are implemented.

- Engage the Faculty Council standing committee on the UT Libraries (C7) about future decisions regarding library space renovations for large scale or campus-wide projects..

- Use data and user input to identify which materials to relocate.

- Convene a symposium and/or workshop to bring together the thought leaders, librarians and architects who are at the forefront of building next generation library and educational spaces.

THEME 4: LEVERAGE CAMPUS PARTNERS: ANCHOR AND ALIGN UT LIBRARIES' ROLE WITH UT'S MISSION

The theme of UT Libraries as partner permeates this report. Here, we focus on several opportunities for collaboration to help usher in new roles for libraries in higher education. UT Libraries embraces these new opportunities to address researchers' needs in a digital networked research environment including how best to support scholarship driven by big data.

The Task Force received many comments that reflect pride in UT Libraries and its importance for supporting UT's mission. The Libraries' reputation is complemented by the rich depth and breadth of world class cultural heritage collections at the Blanton Museum of Art, the Briscoe Center for American History, the Ransom Center, and the Tarleton Law Library, as well as many non-library collections, e.g. the vertebrate and non-vertebrate paleontology collections of the Jackson School and those of the Texas Archeological Research Lab in the College of Liberal Arts, and the natural history collections of the Biodiversity Center the College of natural Sciences, to name just a few. These research collections offer different types of materials and their professional practices may vary, but they share an overlapping set of functions: collect, manage, share and preserve. Fulfilling these functions in collaboration rather than isolation creates a win-win for researchers. Shared data, services, technological infrastructure, staff and expertise can unlock greater productivity as well as create online research environments more aligned with users' expectations.

The Bridging Barriers program, an incubator for some of the boldest interdisciplinary projects at UT offers researchers opportunities to engage and embed librarians as partners in the full research life cycle from grant application to data management and data curation. Studies show that many researchers conduct tasks in areas where libraries can provide valuable expertise and administrative support. As information and data have taken on new forms, researchers and libraries alike have adapted their skills and services to reflect the changes in how information and research are created and conducted, disseminated and preserved. The need for collaboration to support research in this new ecosystem is reflected in these comments:

> *The library can play an important role in providing a professional and intellectual community for soft-money funded research staff across campus. I'm particularly thinking of "research software engineers", employed by departments, labs, and grants. But this is true of data managers, collections managers, lab managers, even physical facilities managers…*

Several commenters highlighted the dire need for a central research services hub to provide the core services to support researchers. UT Libraries is currently the nexus for a suite of library-centric services including copyright, open access publishing, data visualization, data management, GIS and a wide range of digital humanities support, among others. These services will need to expand to respond to growing needs in this area such as data dictionaries, ontology development and dataset acquisition to visualization and database architecture that can help scholars stay at the cutting edge of their research fields. Collaboration among key stakeholders such as the I-school, UTRC, TACC and TDL and key campus collections to develop a long-term digital business strategy for UT's digital scholarly output will be essential.

For example, one commenter noted "… instruction in data management would benefit the community immensely. There is a strong need for our researchers to use better data management practices than many of them currently are."

The challenges around publishing research were also highlighted as an area for support:

> *Choosing a publication for article submission, making sense of copyright, and working out the details of the publication process can be challenging for both faculty and student researchers.*

A few comments hinted at an opportunity to "… put academic publishing back into the hands of universities [as] a marvelous opportunity to shift the focus back to academics and away from outside for-profit companies" while another opined about the cost and labor of in-house publishing vs for-profit publishers. "The cost of publishing digital academic journals in house should be significantly less than it was in the days of printing presses. Reviewers, editors, and authors are largely already pulled from university system faculty and researchers."

Several academic libraries and university presses have explored how they might leverage the strengths of their distinctive enterprises to move toward a unified system of publication, dissemination, access and preservation that better serves both the host institution and the wider world of scholarship. The University of Texas Press regularly collaborates with several cultural heritage institutions on the Forty Acres; effective collaboration between UT Libraries and the UT Press could offer an opportunity to explore new models of sustainable scholarship for the UT community.

Finally, UT should include the Libraries as a key stakeholder in new initiatives, e.g. experiential learning, new courses and programs. Academic librarianship is changing in response to new pedagogies and educational approaches emerging in higher education. As teaching shifts to more engaged and authentic student experiences, with a focus on preparing undergraduates with the necessary attributes to succeed in the future workplace, librarians have the opportunity to employ their skills in information management, digital literacy, scholarly communication, and technology to partner with academic staff in effecting this change. (Schulte, J, et. al., 2018)

The opportunities to elevate the critical and core role of UT Libraries through collaboration is clear and we offer the following recommendations.

Recommendations

- Include UT Libraries as a core partner in decision-making practices that affect the academic mission of UT.

- Support and propel the capacity to build a sustainable culture of collaboration among libraries, archives and museums and other non-library collections at UT. This will enable these collections to align activities more closely to ensure that technology investments effectively support the research and teaching at UT and the use of their collections more broadly in increasingly collaborative and cost-effective ways.

- In collaboration with the Office of the Vice President for Research, promote UT Libraries as a core partner in the full research cycle to support the creation, discovery, dissemination and preservation of new knowledge.

- Explore the opportunity for new models of digital publishing with the UT Press.

LOOKING FORWARD

As universities increasingly look beyond traditional disciplinary boundaries to develop new knowledge and open up unprecedented territory, libraries and librarians will be key partners in advancing new modes and methods of research. Globally, librarians are increasingly engaged in the research cycle: from proposal generation to data management plans and data visualization, publication preparation to deposit of manuscripts and data and more. An embedded librarian provides support that enables the researcher to focus on doing the research. Academic libraries play a key role in digital humanities collaborations, where librarians have already developed the skill sets necessary to sustain and preserve a digital archive. The experiences gained in creating digital repositories, working with faculty to manage federally funded research and creating metadata and organizational schemas for unique collections and resources make academic libraries crucial partners. In addition, digital and digitized collections offer new and exciting teaching strategies and learning opportunities. Librarians and archivists are always delighted to introduce students to rare books, manuscripts and other media—such as photographs, maps, film and digital media — that relate to their coursework and research projects. These images, unlike transcripts, convey a rich sense of the documents in their original forms, allowing teachers and students to experience the course and content in novel ways.

The future state of UT Libraries will require a workforce that continues to expand its traditional service roles of facilitating discovery and delivery of authoritative information to embrace innovative partnerships with researchers across disciplines to organize and disseminate scholarship along with its underlying evidence. Currently UT Libraries is limited in meeting the expansive and growing demands for research support services expressed in this report. As the information services landscape shifts from a focus on managing and accessing bibliographic resources, to stewarding and disseminating research data and publication output, it will require more librarians to become embedded partners that enable researchers to do their work in an environment where research data, lab notes and other research process are freely available under terms that enable reuse, redistribution and reproduction of the research and its underlying data and methods. This transition will eventually seem commonplace as more librarians move from the traditional approach of identifying customer needs to understanding the disciplinary nature of a researcher's work. It will require embracing new skills and learning new tools, as well as advocating and raising awareness of changing requirements and workflows for research data management.

The University should re-envision UT Libraries' environment in a manner responsive to research collaboration across disciplines. Their essential role in digital scholarship will be as team members enabling knowledge creation, curation and preservation. Library spaces will be designed as central hubs for discovery and creation across all disciplines. In this way, librarians and functional experts can reshape scholars' vision of the library and have their experiences further reshape that vision. Rather than thinking of the library as a service in a support role to the disciplines, it must be understood as the foundation that underpins our disciplines, and as the armature that enables the flow of ideas.

No other place on campus has as much potential to serve as a bastion of equity. Expanding and enhancing the library platform envisions a future where anyone can access, build upon, translate, and improve knowledge.

The urgency of acting on a shared vision in best captured by the Collections subcommittee who stated it succinctly "…we cannot stand still and wait for things to sort themselves out before taking action. We must do our best to position ourselves to be agile and adaptive; and to have the necessary resources and infrastructure to both respond rapidly to changes in this ecosystem and likewise to have a voice in shaping those changes." (Appendix A, p.5)

We agree: "What starts here changes the world; what changes the world starts at the library."

APPENDICES

A.   Report of the Collections Subcommittee

B.   Report of the Digital Scholarship Subcommittee

C.   Report of the Library Spaces Subcommittee

D.   Executive Summary: Assessment of Current DH Environment

E.   Task Force Public Meetings

F.   Glossary

G.   References and Resources

Collections Sub-Committee Task Force Report on the Future of the UT Libraries

Committee Members: Jennifer Ebbeler (Associate Professor and Subcommittee Chair; Classics); Susan Broniarczyk (Professor and Associate Dean, Marketing); Elizabeth Buchanan (Graduate Student, I-School); Colby Holloman (Undergraduate Student; CoLA); Stephennie Mulder (Associate Professor of Art and Art History; Associate Professor of Middle Eastern Studies); Yolanda Padilla (Professor; Steve Hicks School of Social Work); Na'ama Pat-el (Associate Professor and Chair; Middle Eastern Studies); Mariah Wade (Associate Professor; Anthropology); Alexia Thompson-Young (Asst. Director of Scholarly Resources; UT Libraries)

Committee Charge:

- Assess current practices at UT Libraries for content acquisition, curation, discovery, delivery, and access

- Identify challenges and opportunities for UT Libraries in these areas

- Consider collaborative models to extend access to critical scholarly resources beyond the content collected and managed locally

- Develop recommendations for sustainable content strategies that address the collection needs of faculty/staff/graduate/undergraduate students.

Executive Summary:

In early Fall 2018, Provost Maurie McInnis assembled a task force to consider the future of the UT Libraries. The task force was chaired by Dr. Lorraine Haricombe, Vice Provost and Director of UT Libraries; and Dr. Michelle Addington, Professor and Dean of the School of Architecture. The faculty member participants were divided into three subcommittees: collections, spaces, and digital studies. Each subcommittee included a member of the UT Libraries leadership team. The following is a brief summary of the Collections Subcommittee's work process and our highest priority recommendations. In the body of the report, we address the rationale for the immediate implementation of the recommendations we have identified as highest priority. We also offer several additional recommendations that we have identified as essential for the current and future health of the UT Libraries system.

Following the formation of the task force, the Steering Committee (Haricombe, Addington, and the three subcommittee chairs) met to discuss the rationale for creating a task force on the Future of the Library—an important conversation given the existence of a faculty committee that reports to the Faculty Council and is responsible for advising the UTL leadership on various matters. We also had a detailed conversation about the specific charges for the three faculty-led subcommittees. The entire task force met once during the academic year to discuss the same issues. The Collections Subcommittee met regularly throughout the fall and spring semesters to identify the issues that we felt were most pressing as UTL looks to the future and positions itself to be an important voice in the conversation about the changing ecosystem of academic publishing. As part of our work, we hosted a Town Hall presentation and discussion for the UT Campus Community in February 2019. Our presentation highlighted and analyzed the major topics we had chosen to address in our report for Chairs Haricombe and Addington. The presentation was followed by a very fruitful Q&A; and we received a substantial amount of additional feedback via email, conversations, and the Provost's website. At the final Town Hall for the task force in May 2019 we presented several of the items that we considered most pressing for the future of UTL. Many of the committee members met individually with UTL staff members to discuss a range of issues relevant to collections. Dr. Mulder and Dr. Ebbeler did a short presentation for the Art and Art History Advisory Committee as well. Following our first campus-wide presentation, the Collections Subcommittee also attempted to educate the campus community with posters (with gratitude to Logan Larsen for creating the posters), a FB site where members posted relevant articles, and on Twitter. Social media has proven useful especially for our group because Open Access is dominating the conversation among university librarians—and is even receiving coverage by major media outlets, yet remains a very complicated topic for non-library staff to grasp.

During our first meeting as a task force, it was made clear to us that a. we should be thinking about where UTL needs to be in a decade and how best it can get there; and b. that we should not expect any increase in funding from the University Operating Funds to address our recommendations. We immediately got to work on the bullet points enumerated in our committee charge from the Provost and, over the course of approximately six months, were able to assess current practices; identify obstacles as well as potential opportunities; think about what a move towards a more consortium-based model of collection would look like (including the pros and cons of such a move, both financially and logistically); and develop a set of sustainable and key recommendations for moving UTL forward into the 21st century. Dr. Wade collected and organized all of the

feedback we received via the Provost's website for the Task Force (See Item #1). She also provided an in-depth report on the current state of ILS for UTL, noting in particular that we were a lender as much as a borrower (Item #2). If we continue to downsize our collections, including opting for e-books that cannot be lent to other institutions, we will be leaving a hole in the current ecosystem.

The following recommendations require immediate action, in our view. They are listed in ranked order of importance.

1. Written guarantee of the addition of recurrent funds to, at a minimum, meet the annual rate of inflation for serials for the next three years, beginning in AY 2019-2020. This is the most crucial recommendation if UTL is going to return to a state of good health; see its national ARL ranking rise from #12; and, most crucially, be a leader in the rapidly changing ecosystem of academic publishing.

2. Formation of a task force, starting in AY 2019-2020, to analyze the challenges and opportunities of Open Access at UT Austin and within the UT System.

3. Addition of significant recurrent funds to address the serious staff shortages. Since 2010, UTL has reduced its FTE count by approximately 20%, from 266 FTEs in 2010-2011 to 216 FTEs in 2017-2018. Some of these FTE reductions were in response to overall university budget cuts and others were in response to the collections budget shortfall. A key facet of UTL's strategy for managing collections costs increases over the last decades has been to augment the recurring collections budget with salary savings from FTE reductions that accrue from one fiscal year to the next. This drastic reduction in staffing has happened at a time when all university libraries are expanding the services they offer to users; and when we should be prioritizing the expansion of our library staff in both traditional and new specializations. This drastic reduction in staffing has happened at a time when all university libraries are expanding the services they offer to users; and when we should be prioritizing the expansion of our library staff in both traditional and new specializations.

4. Addition of Dr. Haricombe to the Dean's Council.

5. Creation of a working group composed of UTL leadership and select members of the Faculty Council C7 Committee (e.g. the Chair and Chair-Elect, the Faculty Council rep, and one at large member of C7 in addition to Dr. Haricombe, her directors, and 1-2

library liaisons. A student representative might also be included). This group would aim to meet monthly to discuss current UTL issues, with the expectation that the faculty membership would be more deeply versed in the current challenges facing research libraries and in a stronger position to keep their fellow faculty members, especially on the C7 committee, "in the loop"

6. Overt signaling from the Office of the President and the Provost that UTL is considered a/the core unit of our R1 University. For instance, when listing what makes UT Austin great, high on that list should be our extraordinary libraries. Without a strong and agile libraries system, we cannot thrive as a top research university.

What Starts Here Changes the World; What Changes the World Starts in the Libraries

The charge of the Collections Subcommittee, put succinctly, was to analyze the current ecosystem of academic publishing; gain insights into how UT Austin is currently navigating this ecosystem; and identify challenges and opportunities to assert ourselves as a leader in the important and rapidly evolving conversation about the functions and operational processes of university research libraries. For many years, UT Austin was a top 10 research library. In recent years, that overall ranking has slipped to #12. Dr. Haricombe should be commended for her efforts to ensure that, during her tenure, the ranking has not fallen further; but, to some extent, the stability of our ranking is misleading. On the one hand, the gap between the top 5 and then top 10 university research libraries is growing during this extended period of austerity; on the other hand, enough other libraries have been hit hard by budget cuts that UTL still remains, just barely, ahead of other libraries.

We are nevertheless living off the fact that, for such an extended period of time, the libraries were invested in heavily by UT Austin leadership. Without some immediate action, it is clear that we will soon slip out of the top 15 in the ARL rankings. Significant cuts in FY 2010-11 were never redressed and, in fact, the budget allocations have essentially flatlined through FY 2018-2019. This downward trajectory is apparent in the Investment Index that ARL publishes annually. There is little question that it will continue without thoughtful and creative interventions as well as appropriate levels of funding. It would be helpful for Dr. Haricombe's team to calculate the year to year drops in the factors that are used to calculate

the final ranking, to demonstrate just how sharp this downward trajectory is (and to include the most recent ARL Investment Index in the final report to Provost McInnis).

The most significant pressure point on all university research libraries currently is the model imposed on universities by "The Big 5" (and other) for profit publishers of serials. The costs of maintaining subscriptions to these packages have skyrocketed, to the point that publishers are seeing higher profit margins than Amazon; and an increasing number of well-known and ambitious research libraries are opting out of their deals, either because they can no longer afford the costs or because they are attempting to move towards building a new model for academic publishing. Thus, there is currently an ongoing conversation about Open Access in the US but also in Europe and around the world (in Europe, notably, the conversation revolves around Plan S; the situation is far more complicated in the US because our universities are not universally funded by the federal government). Still, as a quick read of "A Subversive Proposal," authored by James O'Donnell (Director of ASU Libraries) and Ann Okerson (former librarian at Yale) in 1995 makes clear, this conversation has a long history (Item #3). Even as librarians know where we need to end up, it has been exceedingly challenging to get there—or even in the ballpark.

Our committee (as did the C7 Committee) strongly supports UT Austin's interest in carefully exploring models of publication that allow authors to retain the rights to the intellectual property; and that allow authors and universities to make research available to a public readership. We also recognize that this is a vexing topic with no easy answers for an individual campus or System. Any decisions must weigh the relative costs of continuing the subscription model versus adopting a model that is Open Access but retains Author Processing Charges (and, most likely, increases them to make up for revenue lost on the subscription side). Likewise, as time passes, decisions will need to take account of whatever pivots we see from the Publishers as they attempt to maintain their profit margins.

As tempting as it is, we cannot currently walk away from the serials deals now in place without painful consequences. Most importantly, to move towards a more ethical and sustainable model of academic publishing, we must have infrastructure and a clear plan in place. We must have buy-in from faculty scholars and administrators (particularly because these publications are used as the basis for promotion and tenure as well as salary increases). It will also be necessary to have clearly articulated and enforceable institutional policies regarding the freedom

of individual faculty to publish in non-OA journals, inter alia. Finally, it will be essential to expand our current consortia to ensure accessibility to content for UT System researchers. There is no question that Open Access will be a defining issue for university research libraries over the next decade. It is equally clear that it will take significant time and energy before UT Austin/UT System is in a position to break deals. Until we are in such a position, it is advisable for us to continue to "pay to play."

Over the last six months, the conversation about Open Access has advanced rapidly, accelerated in large part by UC's decision to end their deal with Elsevier. Yet we must remember that there are multiple stakeholders involved (faculty, libraries, university administrators who determine budgets, publishers, university presses, the public, etc.). As well, every institution and System has its own quirks and personality. We can and should look to our peers as models but must also recognize that UT System has unique features that set it apart from, say, the UC System. As pressure mounts and university libraries gain leverage, we can be sure that the publishers will alter their revenue models. Some of these alterations are predictable and can be anticipated. Others will likely catch us off guard. It is a challenge to predict how things will look in three years; and nearly impossible to predict with any certainty what the landscape of academic publishing (and collecting) will look like in a decade or two decades. Yet we cannot stand still and wait for things to sort themselves out before taking action. We must do our best to position ourselves to be agile and adaptive; and to have the necessary resources and infrastructure to both respond rapidly to changes in this ecosystem and likewise to have a voice in shaping those changes.

Very quickly, it became clear to our subcommittee that the most significant problem facing UTL in the areas related to Collections was, quite simply, insufficient funding of UTL. It was pointless to have in depth discussions about the wisdom of focusing on, say, privileging distinctive collections or making arguments for some of the problems with an over-reliance on e-books in place of analog books until we addressed the elephant in the room—a flat budget since FY 2010-11 (which, in effect, translates into a substantial budget cut when considered in terms of real dollars and current buying power). UTL has not received even a standard increase of recurrent funds to cover the annual rate of inflation for serials (most of which benefit the social sciences and STEM fields). This lack of additional recurrent funds since FY 2010-11 has several serious implications for the current and future health of our libraries. As a result, an increasingly disproportionate part of the annual UTL budget

is devoted to paying for serials deals that benefit particularly STEM faculty while decreasing our ability to keep pace with user needs and demands in monograph disciplines (as most humanities disciplines are and will continue to be over the next decade). The UTL's flat budget has also slowed efforts to innovate in several other areas, most particularly in digital studies. As a result, UT lags behind many other institutions especially in the area of digital humanities (where we continue to do fairly basic projects—useful but not breaking new methodological or theoretical ground).

The funds to cover the cost of inflation are, by necessity, being taken from funding other core functions, including the hiring of new staff; improving existing staff salaries; purchasing monographs; and investing in experimental projects. While some of these funding gaps can be temporarily filled with grants of one-time funding, that is not a sustainable model nor does it allow for the kind of long-term planning that is critical for library directors at this point in time. Based on what we were able to discover about the current UTL budget, the annual rate of inflation, and other factors, we estimate that current projection models likely show that, without at least a reasonable infusion of recurrent and one-time funds, serious cutbacks to key library operations will happen already in FY 2019-2020; and UT Austin will be forced to break contracts with the "Big 5" publishers within 2-3 years. In addition, UTL will be forced to reduce other necessary ongoing purchases and will lack the resources to engage in new collaborations and/or experiments.

Since 2010-11 and certainly since Dr. Haricombe's arrival, UTL has done significant belt-tightening and made a good faith effort to do more with less. These efforts have done a remarkable job of disguising the serious troubles facing UTL in the near future if the budget is not increased. Indeed, my committee was rather stunned to realize just how close to the brink we are at this point. Doing more with less is a favorite motto around campus and it has some value; yet such an approach to running a core campus unit cannot be sustained indefinitely. We have all seen the negative effects of this approach on our departments and colleges as we struggle to staff courses, do important service work, and have time to supervise graduate students in addition to publishing our research. The rather sorry state of the current UTL budget was made clear when UTL was forced to hold a GoFundMe to raise the money for several subject librarians to travel abroad to purchase content that is not otherwise available. This is an essential job function—one of many, we suspect—that UTL can no longer afford to fund. While we applaud the ingenuity of the fundraising campaign, we were appalled that it

was necessary. It is, in our view, the responsibility of UT Austin to ensure that important, core work is supported by University Funds and not GoFundMe fundraisers.

We want to be clear that we are not advocating a return to the notion that a university research library should buy all available content. This would be an absurd model given the huge increases in publications, especially from Asia. We understand well that the future of the research library lies in continuing to build the sorts of effective consortia relationships that we already have within Texas; and shifting from a model that privileges ownership to one that focuses on accessibility. Most library users have already accepted such an approach in their consumption of music and TV/movies. Still, books and the ownership of books seems to operate somewhat differently for students and faculty users. We need to ensure that models of accessibility are put in place that ensure permanent accessibility (i.e. content does not disappear if a platform suddenly shuts down); and that ensure easier access to electronic items (i.e. no page limits or reader limits). It is important to acknowledge that a certain amount of open and honest communication will be necessary as we implement this shift. In addition, we must ensure that content truly is accessible in a timely manner, through ILS or off campus storage.

It is likewise important to keep in mind that the relationship between ownership and accessibility is not all or nothing. That is, there will always be certain things that we should own and have available on site in our libraries (notably, reference works). As well, UT Austin/UT System must determine how to continue to build and sustain partnerships with institutions in Texas and around the US. In brief, we must decide what "node" we will occupy and what that will look like for researchers. Will UT Austin take the responsibility and expense of being the primary provider of content for UT System (my committee would argue that the answer to this question is yes)? For other regional colleges and universities? Or will we be dependent on the collections of our partners? Will we look to develop a model in which expenses are evenly shared among peer institutions? How will publishers respond to the emergence of more consortia? What are the consequences for university and other presses who publish the monographs required for many faculty to earn tenure/promotion/merit raises if the numbers of libraries who purchase those monographs continues to plummet? What are the consequences for faculty who are told that they must publish a monograph in order to be promoted?

These are complicated issues and will likely require years as well as many thoughtful decisions and adjustments to

iron out the details. The consortium solution is one that is popular in higher education, notably in the world of online education; yet, as the case of Unizin demonstrates, partnerships between universities can be very challenging to form and bring to fruition. Frequently, the ideals that started an initiative must be scaled back. It would be a mistake to believe that, in some unproblematic way, all university libraries (and, more to the point, university communities) will embrace a full consortium model. We do believe that this will be the direction that university research libraries move, but want to emphasize that it is likely to be slow going, with incremental progress over the next decade. Rather than a straight line of progress from our current model to a consortium model, we will most likely see a lot of zigging and zagging, with an increased number of consortia but also a recognition that, in certain areas, we need to collect in more traditional ways.

Much of the feedback we received from the campus community noted the decline in the state of the collections in their area of research from a decade ago. While it is true that most units can withstand a few years of a flat budget, such a situation cannot continue for nearly a decade without it becoming very clear that a once great collection has fallen on hard times. Nobody would argue that we should buy everything; but we do need to be able to buy the most important things in the areas where we have research-productive faculty and research staff. While ILS is an excellent resource and the community found it useful in general, there was serious concern that scholars, especially in the humanities, were relying increasingly more on ILS and less on UT Austin's own collection. UT Scholars are frequently traveling abroad or to institutions with better libraries during the summers in order to more easily produce their publications.

To an extent, this is a PR problem: ILS is not perfect but most users found it quite good when they had uncomplicated requests. There were more problems when the request or requested item was more complicated. At the very least, UTL needs to be more direct about the intentionality of the decision to shift towards accessibility and away from ownership; and should proactively explicate why this is beneficial rather than a sign of decline per se. If UT Austin scholars must rely on loans, scans, and personal purchases to do their research while faculty at Michigan do not, however, this shift has the potential to impact the university's ability to recruit and retain top faculty and graduate students. We hope that, with more attention to collaborating with faculty, students, and other users, UTL will be able to purchase resources that are identified as most important to have on site

while also maintaining a robust ILS office that gradually alleviates unnecessary anxieties about access. One key to this is ensuring that library liaisons have sufficient time to work with faculty when they purchase books.

From our perspective, after a careful and detailed study of the current situation and financial data we were able to consult, it seems apparent that 2010-11 was a very bad year for UTL, from which it has yet to recover. At present, the situation is serious enough that our ARL ranking is #12 and heading lower. Many of our recommendations are aimed at preventing the sort of catastrophic decline that will rouse faculty from their slumber. Most faculty, who have no expertise in Library Science and do not pay attention to ARL rankings and such, have little sense that the health of UTL is in jeopardy, nor is there any way that they could know given the total separation of UTL from other units on campus.

It is our goal to avert a crisis and anticipate the sort of outrage that manifested when the Fine Arts Library was altered without substantial input from the relevant faculty and student stakeholders. It is commonplace in the rhetoric of higher education for "thought leaders" to make radical predictions (as James Hilton did when he said there would only be 15 research libraries in a decade) that fail to materialize. Clayton Christiansen, an early supporter of online education and MOOCs, famously predicted about 10 years ago that online education would leave only 10 mega-universities standing in a decade. While some colleges and universities have closed, most were for-profits or heavily tuition dependent in unfavorable parts of the country. On the whole, business continues as usual and online courses have not had nearly the immediate impact that the "Disrupters" predicted. University research libraries will continue to evolve over the next decade but, we predict, not into the sorts of massive consortia that Hilton (a co-founder of Unizin) imagines.

In attempting to plan for the future, we must always remember that it will never be the future we imagined. Futurists always get it wrong, as cognitive scientists frequently point out. For this reason, we must be sure that we proceed carefully and continue to invest in the here and now even as we energetically push forward. Things will take longer than we think and, because there are so many different actors (faculty, librarians, administrators, publishers), it is all but certain that, in 2030, we will look back at 2019 and laugh ruefully at many of the things we failed to anticipate. Still, if we continue to do nothing, we will continue our slide backwards and, at some point in the proximate future, be forced to concede that we are no longer a research library of the first class.

The UTL currently sees an effective reduction to its operating budget each year, somewhere on the order of at least 3%, the result of the beyond CPI inflation of journal prices and the growth in the number of journals published. We are guaranteed that, each year that the present model persists, we will be less able to meet our users' needs than in the previous year. The damage is cumulative, and FY 2010-11 marks a clear start to the current decline. If we look at the budgets from FY 2010-11 to 2018-19, it can be argued that our constant dollars reduction in purchasing power is somewhere in the neighborhood of 40%. This is a massive reduction.

With all of this in mind, we offer the following sets of actionable recommendations.

For Immediate Action

1. Addition of Recurrent Funds to meet the annual rate of inflation for serials, guaranteed in writing for the next three years, beginning in AY 2019-2020. This is by far the most important of our recommendations. It is the sine qua non, in fact. Without it, the libraries will continue to decline and, within 2-3 years, will no longer be positioned to stake a claim as a serious, first class R1 library. Although we were never able to confirm the accuracy of specific numbers regarding the UTL budget as well as UT Austin's Annual Operating Budget, based on the range of numbers we found, we estimate that the annual inflationary rate is something like 6%. It is standard practice for libraries to receive, at least, the annual inflationary rate increase. It is deeply concerning that UTL has not received such an increase for nearly a decade, much less since Dr. Haricombe's arrival in February 2015. Unlike the UC System, which spent a decade planning their parting from Elsevier, UT cannot walk away from our negotiated deals without serious consequences. We should be focused on finding paths that allows us to walk away but, until then, need to continue to pay the exorbitant costs. It is no longer a viable option to rob from Peter to pay Paul, that is, to reallocate funds from other parts of the budget to subsidize the annual rate of inflation.

2. Formation of a Task Force to address the complicated, challenging, extremely nuanced issues around Open Access. In just four months, as chair of this committee, Dr. Ebbeler has read hundreds of pages of blogs, essays, interviews, and articles that examine the Open Access Movement. It is THE topic of conversation among directors of university research libraries. Despite Dr. Haricombe's best efforts, UT has not had adequate funds or support to do the work required to move towards a publication model that understands and values Open Access. This task force would begin the serious work of investigating what will be required in terms of infrastructure as well as buy-in for Open Access to succeed at UT Austin and within the UT System (most especially at the Health Sciences campuses). In addition to a task force that is focused on the UT Austin Campus, there will need to be a similar committee that operates at the System level. Open Access has been the future of academic publishing, at least to some extent, for decades. Yet progress has been slow. The conversation has gained substantial momentum over this last year, but it will also require careful and thoughtful planning and investment. We recommend that UT model its Open Access task force, mutatis mutandis, on one created by MIT (https://open-access.mit.edu/), in consultation with Dr. Haricombe. This task force should also include a representative from UT Press.

3. Addition of significant recurrent funding to allow for the hiring of new staff at competitive salaries and to make the salaries of current staff more competitive (and humane, given the skyrocketing cost of living in Austin and nearby suburbs). While it is important that some of these new hires allow UTL to expand its traditional services, especially in areas related to digital studies, it is equally important that UTL continues to hire and value the expertise of "traditional" subject librarians. At present, subject liaisons are vastly overtasked, to the point that it is nearly impossible for them to do more than the absolute basics of their job. Especially among the younger library liaisons, there is great interest in continuing to expand their skill sets; yet, because of their workload, they simply lack the time (and professional development funds, which have been reduced in recent years) to do so. My committee was uniformly impressed with the talent, thoughtfulness, and creativity of the library liaisons we met with. But we also noted that, after several re-orgs in recent years on top of ongoing budget cuts to important areas, morale was low. Our library liaisons love their work and approach it with the same diligence that a faculty member approaches her scholarship. Yet (as with too many faculty and staff members as well) they are seriously overburdened and often feel undervalued. On a rough calculation, UTL has lost 20% of its staff in the last decade. This is not sustainable, particularly when this same period saw a 418% increase in the dollars allocated to "Instructional Administration." Given that libraries are expanding the range of services they provide to users, we need

to be growing our staff in both traditional and new areas while offering current staff opportunities for promotion and healthy salary increases.

4. Addition of Dr. Haricombe to the Dean's Council. Although the Libraries operate differently from an academic college, it would serve all parties for there to be more contact between the Deans and Dr. Haricombe, particularly over this next several years as we anticipate significant changes to the core functions of the UTL. Currently, UTL stands apart as a separate unit from the very people it serves.

5. Creation of a working committee to allow the Faculty Council C7 committee leadership to work more closely with the leadership of UTL. We suggest that the membership could include the Chair and Chair-Elect of C7 as well as the Faculty Council Rep and 1-2 at large members; and then Dr. Haricombe and her directors. Such a working group, which might meet on a monthly basis to discuss current issues, would create a tighter connection between these two groups and also ensure that faculty are more aware of the complex issues that libraries currently face. As well, it could help to create more transparency between the UTL leadership and the campus community.

Additional Recommendations

1. The provision from the Office of the Provost and President of significant one-time start-up funding to new hires in the humanities (or any book-centered discipline). This money, which should be c. $25K, can be spent over an extended period of 5-7 years. Especially as we move to hire in interdisciplinary fields and fields where we have not previously had research faculty, it will be essential for new faculty to be able to build collections of the most important scholarship for their research and especially teaching. This funding MUST come from the Provost's office and not the individual Colleges.

2. Allot one-time funds in an amount to be determined by Dr. Haricombe and her directors to explore and experiment with innovative models for UT-sponsored OA platforms. For instance, UTL could build the infrastructure and provide the funds to support the launch of a new journal in some sub-field of American studies, to be edited by UT Austin faculty. All publications would be OA, with no

APCs; and all articles would be peer reviewed by appropriate faculty at UT or another institution.

3. On an annual basis, the Provost will provide a select number of grants (5-7) in the amount of $10K. Tenured faculty and senior lecturers with an established research profile can apply competitively for these grants. If an application is successful, the faculty member will work with her/his department and subject liaison to fill in gaps in our current collections as well as to expand the collection beyond what the existing budget allows. This grant can be spent over a 3 year period.

4. Have an annual APC fund of, for instance, $35-50K, that allows early career faculty (and advanced graduate students) to apply for funds to cover Author Processing Charges. A small committee of STEM faculty could be created to select successful applications. While it is the case that a large, established lab can likely pay the APC, this is less often the case for scholars in the social sciences; or early career scholars who do not have sizeable grants. It is especially unclear how APCs are going to play out in the new ecosystem of academic publishing. At present, however, the approach seems to be to accept them as a given but to demand more for the money paid.

5. Enhance the funding for Just in Time purchases and, ideally, rework the website so that someone can order a book with one click (as one does with Amazon).

6. "Embed" a limited number of faculty in UTL by creating a month-long workshop program (each successful applicant would receive one month of their 9 month salary rate), to be run during the summer, for a small group of faculty from a range of disciplines to work with UTL staff, including the upper level directors, to better understand how UTL works, what the current state of affairs is, and to feel more connected to and invested in the workings of UTL. As has been frequently noted, too many students and faculty are able to do a substantial amount of research without ever setting foot in a brick and mortar library. This program would get faculty into the library and, ideally, allow them to serve as ambassadors to their departments about library matters.

7. Currently, efforts to raise substantial funds from donors are underway but it is a struggle to identify willing donors. We recommend that fundraising efforts create specific projects, including something as simple as "Buy a Book for UTL"; but also engage in broader community outreach, including public events. The City of Austin has a lot of money and an educated citizenry, but few

people understand the tremendous costs of maintaining a first class research library; or they assume that the money must be coming from the Operating Budget. In 2010, the allocation for UTL was 1.4% of the annual budget. By Fall 2018, this allocation had been reduced to 0.8%. During this same time, UT Austin's Annual Operating Budget increased by (approximately) $940M, including $131.7M to Instructional Administration. Even Faculty Salaries increased by $40M (though the distribution of this increase was concentrated on fewer than half of the faculty). UT Austin will always need to budget carefully and in keeping with its priorities. At the moment, however, the allocation of the Annual Operating Budget makes it clear that UTL is not a priority. If we wish to continue to be a leading research library, this must change and immediately.

8. Efforts to enhance the communication between UTL leadership and the Campus Community (especially faculty and students). One possibility is a monthly podcast by Dr. Haricombe, on a topic of relevance or interest, and posted on the UTL homepage. We encourage Dr. Haricombe and her directors to explore other ideas for enhancing the relationship between UTL and the campus community, including continuing their work with UT's PR office to ensure a steady flow of stories about the many innovative things happening in UT's libraries. We applaud the many workshops that are offered by UTL and encourage them to continue to do this; and to brainstorm about other ways to get users back into the library and paying attention.

9. Create a plan to systematically review and cull the current collections in PCL and other campus libraries. This plan should include faculty, students, and library liaisons.

10. Work with UGS to either a. significantly rework the current information literacy component of their freshmen seminars; or, better, b. create an information literacy flag component. In our work, my committee was struck by how many advanced undergraduates were afraid of the library, felt anxiety about going into the library and looking for a book or even casually browsing. As we talked with them, it became apparent that middle schools and high schools have stopped teaching analog information literacy. We aren't making up that gap when the students arrive as freshmen. The circulation data clearly shows that both students and faculty check out approximately 50% fewer books than a decade ago. Faculty frequently complain that their students do not know how to do research in a library (vs Google searches). While we have made great strides in addressing the issue of digital literacy, we have forgotten that our students still need to know how to use analog resources. Dr. Mulder and Dr. Ebbeler have contacted Associate Dean Holleran-Steiker to begin this conversation in Fall 2019.

To conclude, my committee and I are grateful to Provost McInnis, Vice Provost Haricombe, and Dean Addington for convening this task force and allowing us the opportunity to educate ourselves about the many challenges that face university research libraries now and in the future. We greatly appreciate all the library staff who worked closely with us, discussed/explained library matters to us, and helped us to grasp the complexities of a new field of study. We all learned a tremendous amount and also, very often, felt that we were trying to analyze issues that were far from our comfort zones. We also want to thank Dr. Alberto Martinez for doing some important calculations for us, based on the data available to us. We expended a significant amount of labor and thought in identifying what we felt were the most essential pressure points. We appreciate the opportunity to voice our evidence-based conclusions. We hope that our recommendations will be seriously considered and implemented.

Perhaps the greatest opportunity here is that of giving UTL the resources necessary to ensure that, in a decade, our campus and its leadership can point to a thriving library that is a model for the 21st century university research library. Dr. Haricombe and her team should be commended for their efforts to withstand an extended period of what was, in effect, substantial budget cuts and loss of buying power. At this point, however, UTL cannot continue to perform even essential services and functions without significant infusions of funds in the form of recurrent and one-time money. In basic terms, since 2006-7, Michigan has gained six spots in the ARL rankings of collections based on size. University of Illinois, Urbana has gained two spots. UCLA has gained three spots. UT has gone from #7 to #9, a decrease of 29% over a decade. It is fair to assume that collection size is a reasonable proxy for the broader health of a library. At the current rate, we will continue to decline in all areas that factor into ARL rankings and will soon lose one of our greatest selling points when recruiting faculty and students—the strength of our libraries.

Report of the Future of UT Libraries Task Force Subcommittee on Digital Scholarship (DS)

Subcommittee members: Unmil Karadkar (Assistant Professor and subcommittee chair, School of Information), Daina Berry (Professor, History, and Associate Dean for Graduate Education Transformation), Maria Esteva (Research Associate, Texas Advanced Computing Center), Hannah Hopkins (graduate student, School of Information and English), Keith Keitz (Assistant Professor, Chemical Engineering), Richard Ketcham (Professor, Geological Sciences), John Reppeto (undergraduate student, College of Liberal Arts), Chad Seales, Associate Professor, Religious Studies), Jenifer Flaxbart (administrative liaison without vote and Assistant Director of Research Support and Digital Initiatives, UT Libraries)

Committee Charge

- Assess current and future needs for supporting digital scholarship at UT Austin, with particular attention to disciplinary variability.

- Identify and evaluate emerging best practices, opportunities, and challenges for research library support for digital scholarship.

- Develop recommendations for sustainable strategies for UT Libraries engagement with and support for digital scholarship at UT Austin.

Executive Summary

Digital scholarship is a highly interdisciplinary term that encompasses any activity that makes extensive use of digital tools and methods for purposes of teaching or research. For purposes of discussion, the subcommittee offered this working definition as a framework but cautioned against being prescriptive about the nature of digital scholarship:

Digital scholarship relates to research and teaching that incorporates digital technologies in the pursuit of scholarly knowledge and learning within and across disciplines of study. It involves all aspects of how we interact with electronic data, including how materials for study are converted into electronic formats (if not born digital), collected, selected, managed and preserved; tools that enable data manipulation, analysis and visualization; and the dissemination of data.

The subcommittee hosted a campus-wide open meeting on 26 March 2019 and invited the UT community to share their perspectives, concerns and needs for support in digital scholarship. In addition, the subcommittee chair made presentations to the Faculty Council Committee on

UT Libraries (C7). Finally, the UT community provided feedback on the Provost's Task Force website where critical themes surfaced including support for data management, data preservation and scholarly communication. These comments, together with committee discussions, form the basis for the following deliverables: a statement of shared vision, a statement on resources needed to realize that vision, and recommendations for next steps.

Shared Vision

The role of digital technologies in modern scholarship is inexorably growing and rapidly evolving. UT Libraries is uniquely positioned to anticipate and help define the future, and should aspire to innovate and lead rather than react to circumstances beyond our control under the constraints of a shrinking budget. UT Libraries has spearheaded several important efforts, but these are isolated offerings rather than a programmatic suite of services. Similarly, the UT community hosts many efforts to develop and/or utilize digital scholarship across virtually all departments and disciplines, but they are also frequently siloed and fragmented. We believe that the whole of these efforts can be greater than the sum of their parts, with UT Libraries being the natural locus. UT Libraries can bring synergetic expertise in curation, documentation, dissemination, credible permanence, and marketing of UT scholarly output that will enhance and leverage all such efforts at UT.

Resources Required

Digital resources, and the human resources to develop and curate them, are only becoming more expensive. UT Libraries are underfunded, especially with respect to the Austin economy and job market, and this hobbles all efforts to meet the challenges of digital scholarship and build the necessary long-term, technically capable human capital. UT Libraries needs to position itself to better look for opportunities outside, to funding agencies and foundations, as well as philanthropy. This would involve empowering UT Libraries and its personnel to participate and even lead in developing research funding proposals, and realigning development efforts as a collaborative endeavor with other staff, faculty and students. There is also untapped potential for distribution and promotion of UT scholarly output. Our presence in Austin should be an asset, not a competitive disadvantage; Austin's position as a center of technology development and entrepreneurship can dovetail with the University's reputation for research and scholarship to create a Texas powerhouse.

Recommendations

1. Position UT Libraries as a critical and complementary stakeholder in the University's research and teaching mission with leadership of administrative standing and operational authority comparable to deans of colleges and schools, charged and empowered to abet and pursue large-scale research and funding opportunities in digital scholarship.

2. Develop a long-term digital preservation business strategy for UT's digital scholarly output involving other major stakeholders such as UTRC, TACC and TDL and key campus collections.

3. Explore academic promotion of library staff such that they can be active in the research endeavor required to bring UT Libraries to the forefront of digital scholarship advances.

4. Develop a comprehensive strategy for positioning UT Libraries as a research hub providing core services to support researchers. A central suite of library-centric services ranging from data organization, data management planning, data dictionaries, ontology development and dataset acquisition to visualization and database architecture can help scholars stay at the cutting edge of their research fields.

Methodology

The DS subcommittee included nine members from several disciplines with representation from the School of Information, College of Engineering, College of Liberal Arts, Jackson School of Geosciences, and the Texas Advanced Computing Center (TACC), as well as undergraduate and graduate student participants and a liaison to the subcommittee from UT Libraries. The group launched at the first meeting of the Provost's Task Force in November 2018 and hosted a campus-wide open meeting in March 2019 to gather feedback from the UT community about digital scholarship. It had briefings with the Faculty Council University of Texas Libraries Committee (C7) and took input from various committee members.

Key Observations

Despite the working definition of digital scholarship offered above, comments and discussions reflected substantial variation in the perception of scholarship practices. In some disciplines, digital scholarship is still considered novel by many, while in others it is becoming widely established. In STEM fields, it is a given. In practice, of course, scholars and scholarship across these areas are not exclusively analog or digital. For example, researchers in interdisciplinary fields focus on interactions with electronic data but not to the exclusion of physical documents. As such, support for digital scholarship requires varied and diverse expertise and infrastructure across multiple disciplines. Digital scholarship is not tied to digital collections alone – it involves both analog and digital collections. Moreover, digital scholarship requires both analog and digital spaces for optimal work. Several examples exist of digital scholarship projects at UT that support teaching and research. These projects bridge traditional practice and digital possibilities in strategic ways and provide new opportunities without asking scholars to abandon the type of writing and thinking that has served them well (e.g. The Prague Spring).

This variation in practice is mirrored in the state of support for digital scholarship at UT. Researchers are not always aware of existing services offered by UT Libraries. Others feel overwhelmed by the prospect of learning new skillsets or incorporating new tools into their teaching and research. Far more could also be done to expose UT research to the world through SEO strategies, data marketing, and other initiatives. While individual researchers may recognize the need for training or support services, competing demands on their time make it difficult to identify solutions in the current decentralized support environment.

A particular challenge for Digital Scholarship, however it is defined, is a tension embedded in the term itself. The "digital" world is new, growing exponentially and constantly evolving. Mastering and keeping abreast of this world requires continually updating and refining one's skills, learning the latest technologies and anticipating the next ones, and occasionally leaving behind one paradigm or platform for the next, coping with and even embracing creative destruction. "Scholarship" is a set of principles evolved over millennia for considering data, reasoning with it, drawing conclusions from it, and rigorously documenting the process. Certain rules do not change, among them the paradigm that scholarship can only be as good as the data underlying it. True scholarship is only possible when it goes hand in hand with custodianship and curation of source material, the traditional and vital role of the library, and the collection more generally.

The digital world offers, and often realizes, exceptional new opportunities for scholarship, principle among them being the removal of barriers to sharing and disseminating data. One no longer necessarily has to visit a library or collection to access original material, and scholars have

the ability to make far more of their data easily available to other scholars and the public, allowing their work to be more easily reconsidered, amalgamated, and built upon.

At the same time, there are dangers, also often realized. Digital assets can become corrupted, obsolete and unreadable, unavailable through paywalls, difficult to find or navigate, or can even disappear entirely; the tension between the enduring and the ephemeral likely underlies much of the inertia inhibiting recognition of digital scholarship. Additionally, the accuracy and fidelity of digital information is far easier to compromise; fabricated data and baseless commentary, whether malicious or misguided, are a clear and growing threat to both scholarship and society. Yet, unreliable information is an ancient problem, which the practices of scholarship and curation evolved to confront and overcome. Today is no different, and the evolution continues. We are convinced that the University, through its libraries and collections, has a crucial role to play in navigating these waters.

Importantly, a good skill set in the digital world commands a high price in today's economy, particularly in Austin. Investing in digital resources without investing in human resources cannot work. If UT aspires to lead in this area, it must draw in, enable, and retain the necessary talent. In addition, because knowledge of how to navigate the digital landscape can atrophy or obsolesce rapidly for the scholar, a competent and dedicated human interface is crucial.

Confronting the challenges and realizing the potential of digital scholarship will require a sustained commitment underlain by clear, long-term vision.

Open meeting discussion

The open meeting on 26 March 2019 was hosted on campus and streamed for online viewing to provide the broadest level of engagement on this topic. Several panelists were invited to provide their perspectives including the Dean of the I-School, librarians who coordinated digital scholarship services at UT Libraries and faculty actively engaged in data-intensive interdisciplinary research. A brief period of Q and A followed the presentations.

The chair clarified that the role of the digital subcommittee was not to change the mission of the libraries, but rather to find ways to support the mission of UT Libraries in a digitally networked eco-system. The purpose of gathering data in this subcommittee was to help shape a shared vision for UT Libraries to help navigate the changes in higher education that are impacted by constraints in

funding, new policies by research funding agencies, the proliferation of digital resources, tools and technology and elevated user expectations. These scenarios raised questions about the role of UT Libraries, e.g.:

- How will UT Libraries manage these expectations across various disciplines?

- Where will resources be invested to retain its premier status as a tier one research library?

- How will the Libraries balance their users' needs within the limited resources available?

- What roles exist for UT Libraries to position itself in a growing environment of disintermediation of knowledge where users have access to information anytime, anywhere?

The subcommittee received feedback from diverse disciplines with very different perspectives about their research needs. Not surprisingly, there were similarities between this subcommittee's feedback and those gathered in the collections subcommittee cautioning against UT Libraries "going digital" without acknowledging and supporting humanities researchers' need for analog materials. Those comments reflected the need to accommodate different modes of scholarship and not to privilege one mode over the other.

The leading edge of digital scholarship is obscure and varies across disciplines. It is not binary; many researchers use digital and analog materials interchangeably across mission critical activities. Nor is digital scholarship confined to research; instructors often require support using tools that create a richer pedagogical experience for students. For many, the use of analog and digital resources simultaneously creates challenges in describing "what" digital scholarship is. It is amorphous at best and may even result in researchers understating the level of research support services they may need.

The subcommittee acknowledged current selected services that UT Libraries are providing and highlighted a few major digital scholarship projects at UT including, to name a few, the:

- online PCL Map Collection at https://legacy.lib.utexas.edu/maps/

- the Alexander Architectural Archives materials at https://www.lib.utexas.edu/about/locations/alexander-architectural-archives

- Prague Spring Archive portal at http://scalar.usc.edu/works/prague-spring-archive/home

- digital language archive of recordings and other multimedia materials about the indigenous language of Latin America (AILA) at https://ailla.utexas.org/

- Latin American Network Information Center (LANIC) at http://lanic.utexas.edu/

- post custodial archiving initiative to digitally preserve underrepresented histories and human rights documentation (see https://tdl-ir.tdl.org/handle/2249.1/87476)

The need to support project-based work like this will continue to grow as UT focuses on interdisciplinary research as a high priority, necessitating a re-imagining of core services to curate and preserve new knowledge products.

Despite the committee's working definition of digital scholarship, the chair noted the challenge of being too prescriptive about what constitutes digital scholarship. Dean Eric Meyer (I-School) offered highlights of his research in the digital ecosystem while Jenifer Flaxbart (UT Libraries) informed the audience of the variety of support services available at UT Libraries. Theresa Polk (LILLAS Benson) offered case studies of successful and pioneering grant funded digital scholarship projects. Two faculty members (Chandra Bhat, Architectural and Environmental Engineering, and Masa Prodanovic, Petroleum Engineering) shared aspects of their research and the need for support in their work. A recording of the open meeting in March is available on the task force web site.

A key concern raised during the open meeting addressed campus-level responsibility for data management, data preservation, and big data (processing, management, preservation). Researchers in the sciences have needs and concerns that vary from those in the humanities, but they all need guidance and support with long-term data curation, management and preservation. Feedback from various sources focused on the critical need for improved support to handle data, in the near- and long-term, failing which, will have an impact on the research undertaken here and on UT's reputation. An inventory of the range of current services at UT Libraries was helpful (see below) but neither scalable nor sustainable and will need to be addressed to keep the University of Texas at the forefront of cutting-edge research.

Feedback from the Task Force Web Site

The feedback from the UT community provided via the task force web site gives a glimpse of the concerns and needs across disciplines, in a format that allowed contributors time to formulate and flesh out their

thoughts. A selection of comments pertaining to digital scholarship is presented here, with selected text in bold face to highlight key concepts.

There was general recognition for the role of UT Libraries as a source of support while distinguishing between areas for library support versus support from their departments, schools or colleges. A STEM Education student and graduate assistant commented:

Our research group has found zero support for our qualitative research. We have questions about which software serves our research needs the best. We note that we have multiple options on campus for quantitative research support…

There was also appreciation for the work that librarians are already doing, in particular, in the area of data services including data management and visualization, as captured in this faculty member statement:

The work shops (sic) that the Librarians organize are amazing. Even at this point in my career, the UT librarians have helped me develop new analytical skill sets

The need for support in navigating digital publication, and for data literacy, are expressed here by a staff member:

Choosing a publication for article submission, making sense of copyright, and working out the details of the publication process can be challenging for both faculty and student researchers. Providing more support in this area would be very useful to our researchers. Data literacy is a serious need. There is an assumption that technical proficiency = data literacy, and that has not been my experience.

A comment from another staff member brings up the similar issue of supporting students in creating digital dissertations, another possible approaching paradigm shift:

Any recommendations on the future of digital scholarship would certainly benefit from the experiences of those of us staff members who work directly with students in the preparation of digital works… There is a national conversation happening about the future of digital dissertations, and as UT is the largest producer of research doctorates in the country, in time, there will be students interested in exploring those options.

The commonality in the roles and requirements of libraries and non-library collections is highlighted in this faculty member comment:

… UT has many "collections" held by other diverse divisions of UT. Those are comparable in many ways to the libraries' collections, but they are often much more obscure and receive only minimal internal support. The examples I'm

most familiar with are the natural history collections of the Biodiversity Center in College of Natural Sciences, the Vertebrate and Non-vertebrate Paleontology collections of the Jackson School, and those of the Texas Archaeological Research Lab in Liberal Arts. I'm writing to suggest that the Task Force on the Future of the UT Libraries consider expanded collaborations with those (and likely other) non-library collections to better institutionalize them and make their valuable resources more easily discoverable and utilized by both the UT community and global researchers.

While the principal purview of this committee concerned digital resources, there are also parallel, inextricably linked human resource issues, as brought up by two anonymous comments from staff:

As long as the iSchool remains a strong program, I suspect UTL will have no trouble attracting qualified early career professionals. However, I also suspect that unless the Libraries receive additional funding for staff raises and re-classes, it will be very difficult to retain early and even mid-career staff for long. I have seen the effects of high turnover here and at one previous institution, and I don't think UTL can successfully position itself as a first rate institution without addressing the simple fact that career advancement is more difficult here than elsewhere.

Professional Staff needs to be paid more. The city of Austin has a high cost of living which keeps rising. UT does not adjust pay to account for inflation or the rising cost of living. Each year we continue to work for UT libraries, we suffer a pay cut. As more staff retire or find employment elsewhere, UT needs to think about the future of the libraries and who will steward the collection. UT must be able to attract the best and brightest in order to not only innovate, but to simply navigate the changing needs of patrons while also assessing the restraints, constrictions and complications of an aging building and systems infrastructure.

Both comments reflect a point also brought up in Digital Scholarship subcommittee meetings. Digital expertise costs money, especially in Austin, and responsible and competent long-term stewardship absolutely requires long-term people. This latter point is reinforced by another point from staff input:

Relationships matter a great deal. Faculty members value colleagues who have demonstrated expertise and have gained their trust as knowledgeable, skilled, and useful collaborators. It is not a merely enough to have credentials or a position. You must build a rapport and that means personal relationships established over time.

Another human component of digital scholarship, and its role in supporting University operations, is implicit in this faculty comment:

The library can play an important role in providing a professional and intellectual community for soft-money funded research staff across campus. I'm particularly thinking of "research software engineers", employed by departments, labs, and grants. But this is true of data managers, collections managers, lab managers, even physical facilities managers (and likely many more I'm not thinking of). Each of these groups are crucial to research, just as librarians are, but they are fractured around campus and often in contingent positions. The library should be their crossing point, perhaps even their tenure home.

An important corollary question to this idea is whether it can be made "worth the trip" for these practitioners to be part of a campus-wide structure, as they are already serving existing clientele (local PI's; departments, colleges, and research units; funding agencies; national and international bodies creating standards, etc.).

Perhaps the most bold and far-reach statement and suggestion came from yet another faculty member:

… The libraries of modern universities are largely led by people who are not that well-versed in the scholarly domain now, because they are not real scholars themselves but managers. Trying to reinvent libraries by offering 'space' and coffee is a poor fix and one that has no long-term alignment with the university's mission. The research library of today must be an access point, a tech-hub, and a repository, aligned with the data curation needs of ongoing scholarly practices. Those funding the university library also have no real understanding of scholarly data practices, so they just try to cut budgets and ask the librarian to do more with less. Between these leadership types we get lots of posturing and no real vision of how it could be better. Put an academic who understands scholarly research and human information behavior into the leadership position and stop asking 'what do we do with the library'? Try asking 'how to we enable discovery and learning?' then act. Or don't. Just stop pretending to care by having yet another review.

Although this statement is more general than falls under the Digital Scholarship rubric, it cites data curation and human information behavior as central to the mission of UT Libraries, and posits the need for an empowered, research-focused leader and advocate.

Existing UT Libraries Services

The subcommittee articulated a wide array of existing UT Libraries services relevant to the broad area of digital scholarship, including:

- Consulting (research support, best practices)

  - in-person research consultation appointments (research strategies, methodologies, data management, scholarly communication/open access, etc.)

  - research support via email, by phone, and some via the Ask a Librarian chat service

  - in-person classroom and course-embedded instruction sessions

  - subject-specific LibGuides

  - customized research- or assignment-based support documents

  - collections support (purchases, access requests, etc.)

- Training on approaches and tools (Data & Donuts and Digital Humanities Workshop @PCL)

- Digitization services (Get a Scan)

- Infrastructure (Texas ScholarWorks Institutional Repository and Texas Data Repository, and coming Texas Geoportal)

  - DSpace Institutional Repository, Texas ScholarWorks (TSW), which is ten years old and now includes 60,000+ items, with content spanning theses and dissertations, conference proceedings, journals, newsletters, faculty publications, and videos

  - Dataverse Texas Data Repository (TDR) for publishing and archiving datasets and other data products

  - Both the Institutional Repository and the Data Repository are supported through our partnership with the Texas Digital Library (TDL)

  - GIS (Geospatial Information Systems) infrastructure, an Agile project, and a GeoBlacklight discovery and access system called the Texas GeoData Portal

  - Omeka.net, A digital exhibition platform, featuring small-scale exhibits to highlight unique collection materials

Some questions worth pursuing to frame the digital scholarship roadmap at UT are outreach and engagement of scholars, training to embed best practices, the value of digital scholarship and the short and long-term benefits, the growing demand to support the volume and the variety/diverging skill sets across disciplines.

These questions create opportunities and challenges for libraries to be embedded in the research life cycle. For example, What are supporting activities in digital scholarship that can be "offloaded" to bring more value? How can libraries make it easier for faculty/researchers to deposit publications, pre-prints, and data to advance open, sustainable scholarship? What infrastructure, spaces and expertise do libraries need to engage, collect and preserve new forms of scholarship? One comment noted that "inventory of datasets that's available would be useful." Another stated that "authors need assistance with navigating publication. The range of options available for authors to publish their research is expanding."

Other questions identified but tabled due to lack of time included:

- How can libraries be supported and elevated as agents of change to help catalyze the research at UT?

- How can libraries' core values around issues like intellectual property, ethics of information, privacy and copyright be leveraged to support digital scholarship?

- How can digital humanities and related research move from proposal to product with credit in the promotion and tenure process?

- Where's the central locus for digital research support on campus to create and sustain digital infrastructure along with consultation support for data management plans and other life-cycle facets.

Conclusion

The research needs at UT are vast and diverse, and recognition of digital scholarship remains daunting within many disciplines. Scholarly research is pivoting toward research that takes advantage of unprecedented new data sources. There is substantial need for support services to enable this research, and academic libraries have an important opportunity to define their role in this evolving research landscape. New services – ranging from data management planning and dataset acquisition to visualization and database architecture – aim to help scholars stay on the cutting edge of their research fields. The task of preserving accessible

and reproducible research code and datasets also demands sustained and coordinated attention. Digital scholarship is ubiquitous but for many it is difficult to identify clearly how their research can be supported.

Report of the Libraries Task Force Space Subcommittee

Subcommittee members: Ginny Barnes, Charles Ramírez Berg, Anthony Brown, Elizabeth Catlos, Joan Neuberger, Patricia Roberts-Miller, Claus Wilke

Executive Summary

Libraries serve a multitude of different purposes and different stakeholders, and there is ongoing tension between the primary space uses: book storage versus study and collaboration spaces. As we increase the amount of space dedicated for one function we necessarily have to decrease the amount of space dedicated for another. The major challenge for UT Austin libraries is to find the appropriate balance between these uses. Since on-campus, easily accessible space is limited, moving physical collections to off-site storage or severely reducing them in favor of digital collections may seem an obvious choice. However, this choice reduces the opportunity for library patrons to browse the stacks and discover useful materials. Moreover, despite the availability of online ordering and rapid delivery of physical books to library patrons, not having books immediately available in a stack may reduce the patrons' motivation to seek out the library in the first place.

In practice, it is necessary to find the appropriate mix of different uses for each space. And this mix depends on the expected target audience for each library. A library targeted primarily at undergraduates will have to provide different services and spaces than a library targeted primarily at academic scholars in art history or in architecture. Consequently, we have to identify for each library space who the target audience is and we then have to engage with the relevant stakeholders to develop an appropriate mix of space use. The committee recommends that UT Austin put in place a defined space review process and a defined process for implementing changes in library spaces. These processes will ensure that any future changes to library spaces are made only after careful deliberation with all affected stakeholders.

Committee Reasoning and Recommendations

Each academic department of UT Austin has varying needs and desires regarding library space usage depending on the subject discipline's evolving relationship with digital and print resources, as well as with public learning spaces and equipment. These needs are currently served by eleven main campus libraries (Appendix 1), which range widely in size, from the Classics Library's 2,167 square feet to PCL's 405,177 square feet. In these locations, the libraries allocate public spaces for labs, teaching, study, student support services, UTL staff offices, UT staff and faculty offices, mechanical/utilities/etc., and collections (Appendix 2). Space allocation is in part shaped by seating, amenities, noise level policies, and each building's structural assets, limitations, and degree of historical significance to UT Austin.

The stakeholders of the various libraries include but are not necessarily limited to undergraduate and graduate students, faculty members, postdoctoral and other researchers, visiting scholars and international researchers, library leadership and staff, campus partners (e.g., University Writing Center), university staff, UT Austin alums, and the general public (Appendix 3). These stakeholders frequently have competing demands and differing expectations on the same spaces. For example, students put a premium on study and collaboration spaces, whereas faculty members and researchers frequently are more concerned with on-site availability of expansive collections (Appendix 3).

The history of the development of the eleven libraries can be characterized as idiosyncratic, unpredictable, and opportunistic (Appendix 1). The overarching goal for the UT Austin libraries has likely always been to build a world-class collection to support the growth of the university. However, the path has been continually changing and evolving. Over the last ten years, the focus in libraries facilities has been to update outdated spaces while also seeking cost efficiencies through centralized operations. We have identified four common themes that appear to have driven the changes in library spaces in the past. These are (1) sources of funding, (2) evolving technology, (3) changing ways that researchers conduct their work (practice), and (4) elements of serendipity and luck.

Because various stakeholders the committee talked to expressed concern about the processes by which various decisions regarding UT Austin library spaces have recently been made, the task force decided to ask other major university libraries what processes they use. Two recurrent criticisms of UT Austin decisions concerned the persistent failure to include relevant stakeholders until after decisions had been made, and a failure to communicate important information, so we focused on those concerns.

While at least one other university reported a process similar to UT Austin (decisions regarding library space are made by University Administration leadership on an ad hoc basis), other universities described processes grounded in shared goals of transparency, inclusion, and multiple venues for stakeholder commenting (Appendix 4). These processes include:

- making any existing master plan for the libraries publicly available;

- creating an ad hoc working group for any major projects;

- asking that this working group craft a statement of project context and goals, which is made publicly available, and on which stakeholders are invited to comment;

- offering multiple venues for stakeholder inclusion long before decisions are made;

- engaging faculty and students in proactive discussions of library space needs and projects.

The committee makes the following specific recommendations regarding future reallocation and restructuring of library space at The University of Texas at Austin:

1. We recommend that all library spaces are systematically reviewed on a consistent schedule. One comprehensive review every five years seems appropriate, and this would require approximately two space reviews each year. A detailed review process is suggested in Appendix 5.

2. To review a specific library space, the university should appoint a diverse consultative committee of students, faculty, and staff comprised of people with varied interests in this space. This committee should include individuals from research and teaching backgrounds that use libraries in different ways. The members of this committee will be tasked with providing a comprehensive report about how a specific library space is used and how the university could maximize on using this space to meet the diverse interests on campus.

3. The university should draw from the most recent and innovative literature on the use of learning spaces in higher education. We recommend that the university assemble a committee of scholars at UT from fields such as architecture, information science, higher education, library science, human geography, and the learning sciences. This committee will be tasked with developing a well thought-out report on the use of space for social and learning development. In addition, this committee should explore questions about the impact of learning through books as opposed to learning online. This committee would offer ongoing feedback and insights about innovative practices about library learning spaces.

4. The university leadership needs to develop a conceptual understanding of library space within the context of a diverse student population. Attention should be given to the creation of library space that encourages interdisciplinary and multidisciplinary approaches to learning and social interaction. The allocation and usage of library space should also adhere to the university's wider Diversity Plan. This would entail the creation of a diverse task-force comprised of UT faculty, students, library staff and members of the Austin community.

5. Before implement any specific changes to a library space, the university should request input from relevant stakeholders and the broader UT Austin community. A detailed commenting process is suggested in Appendix 6.

6. Changes to library space use should make sense in the context of the library, i.e., if library space is reallocated the new use should be a bona-fide library related use. Otherwise, the change is an effective reduction in library space.

Appendices

Appendix 1: History of changes to library spaces at UT

The University of Texas at Austin has eleven main campus libraries, organized in terms of square footage:

1. Perry-Castañeda Library (405,177 ft2)

2. Benson Latin American Collection (https://www.lib.utexas.edu/about/locations/alexander-architectural-archives, 60,543 ft2)

3. Collections Deposit Library (54,877 ft2)

4. Fine Arts Library (34,505 ft2)

5. Life Science Library (27,705 ft2)

6. Architecture and Planning Library and Alexander Architectural Archives (23,248 ft2)

7. Walter Geology Library (https://legacy.lib.utexas.edu/geology/about/history, 13,172 ft2)

8. Mallet Chemistry Library (https://legacy.lib.utexas.edu/chem/history/mallethist.html)

9. John M. Kuehne Physics, Math, and Astronomy Library (11,009 ft2)

10. McKinney Engineering Library (https://guides.lib.utexas.edu/mckinney, 3,921 ft2)

11. Classics Library (2,167 ft2)

Websites describing the history of these libraries are detailed in the links adjacent to each of their names and are a source of information regarding how library spaces have changed over the years. Note that not all libraries have their history available or accessible, and, in some cases, information provided contradicts. We also rely on Moloney (1970) A history of the University library at the University of Texas 1883-1934. Ph.D. Thesis, Columbia University.

The first university library was a small collection of books in a single, inaccessible room housed in the Old Main Building (https://tarlton.law.utexas.edu/ut-law-buildings/old-main) and opened over Christmas Break in 1883. Note that this was a few months after the formal opening of the University of Texas itself (September 15, 1883). The Architecture and Planning Library and Alexander Architectural Archives, located in historical Battle Hall, served as the university's first dedicated library building from 1911-1936. According to Moloney (1970), over the years 1883 to 1934, the library grew in concert with the university. The UT Austin Tower building served as the first closed-stack library and was completed in 1937 (https://tower.utexas.edu/history/). Here, users used a card catalog to identify their selections and waiting time for a book extended to more than half an hour. Open-stack libraries began to appear on campus with the construction of the Undergraduate Library and Academic Center in 1963, and the Perry- Castañeda Library in 1977.

The transition from the tower to an open-stack-type model was primarily driven by a recognition of user needs and evolving technology and the desire for a new model of library spaces. In some ways, UT Austin faces the same challenges today in the desire to be on the cutting edge of best serving the needs of diverse users. Moloney (1970) indicates that that university community in the earliest years of library development were more concerned about building resources and collections rather than focus on the development of facilities, personnel, and services. In addition, library administration geared their service to scholars, faculty, and graduate students rather than undergraduates. The collection was decentralized mainly due to the lack of adequate building facilities.

Financial support for the libraries in the past has varied from initiatives that are governmental-related to those driven by a cohort of wealthy alumni who recognized the importance of a library to the mission of UT Austin and their respective fields. For example, the UT System Board of Regents authorized planning and funding for the Perry-Castañeda Library in 1972, whereas the Geology Library has had support from several endowed funds. These funds are focused on different initiatives, including paleontology (Whitney Fund), German language or translated German geology materials (Wendlandt Fund), and the Map Collection fund (Tobin International Map collection). Grants also were pursued to keep the library on the cutting-edge of technology. For example, in 1985 the Perry-Castañeda Library gained eleven IBM personal computers, and this was hailed as an opportunity to evaluate the effectiveness of microcomputer software and hardware in a library setting for the enhancement of teaching and research activities. In 2002, the card catalog study area in the Perry-Castañeda Library was transformed to add more modern computer stations for accessing library collections. The issues of evolving technology will likely reappear as significant changes are taking place in terms of the software commonly used by students in their courses. In terms serendipity or luck, the Benson Latin America Collection began as an opportunity discovered by three UT Austin professors who went to the 1920 Mexican Presidential inauguration.

As of today, UT Austin has eleven libraries, but several others, which were distinct entities, have disappeared. Since the Perry-Castañeda Library (PCL) opened, the Business, East Asian, Middle Eastern, and Public Affairs collections, as well as the Undergraduate Library, have been folded into the PCL. Some libraries may be affected by the external forces that influenced the closure of these previous ones. The Collections Deposit Library is a storage and surge space that has existed since the late 1960s, may be affected by the development of the Medical School. The Chemistry Library is currently closed for Welch Hall renovation, and final decisions have not been made about its re-opening.

Appendix 2: Examples of library space use

The following are examples of space usage currently in place at UT Libraries as well as those that are not.

Media and equipment to check out

Audio Recording & Production

Books

Cables & Accessories (phone charger, media connectors)

Calculators (scientific, financial, graphing)

Cameras & Camcorders

Fabrication & Prototyping (laser cutters, 3D printers, etc.)

Fiber Arts Technology (embroidery and sewing machines)

Gaming consoles and controllers

Headphones

Projectors & Media Players

Wearable Technology

Learning Environments

Accessible Workstations

Classroom, Event, and Workshop Space

Closed Studies & Carrels

Labs (Computer, Media, Data)

Study Rooms

The Foundry Makerspace

Services and Resources

Interview Practice Rooms

Interlibrary Loan

Kitchen (microwave, sink, etc.)

Lactation Room

Phone Booth/call areas

Printers, Copiers, Scanners

Public Speaking Center

Reflection/Meditation Space

Research and reference help

STEM Tutoring

Vending Machines

Writing Center

Space Qualities

Collaborative study areas

Public or UT affiliate access

Quiet study areas

Silent study areas

Amenities

Flat panel screens (Airmedia)

Moveable furniture

Natural light

Outlet access

Outdoor seating

Whiteboards

Special Collections and Engagement

Displays space

Exhibition space

UT Poetry Center

Appendix 3: Stakeholders

All stakeholders want regular, up-to-date information about challenges and decisions affecting their libraries and access to resources and information. Stakeholders should be consulted about changes to the basic library structures on campus. The committee compiled a list of potential stakeholders with their likely needs and expectations, and the committee also reviewed assessment reports provided by UT Libraries. These assessment reports covered only faculty and students (graduate and undergraduate), and the committee is of the opinion that other important stakeholders should consulted as well.

Committee stakeholder list

Faculty.

Faculty want access to high-quality resources, which include the most recent publications and as well as deep collections of historical materials. These may be both paper and digital resources. In the case of printed materials, faculty

want efficient retrieval and Inter-Library loan services. Finally, faculty want teaching spaces in the library.

Library Leadership.

Their expertise consists in knowledge of space usage, current budgets, resource management, and current trends and best practices in library science. They want clear, transparent, information about administration budgeting and decision-making.

Library staff.

Their expertise lies in specialized library usage and space and resource management. They

want clear, transparent information about administration budgeting, decision-making, and the library leadership's decision-making.

Students. Graduate

Like the faculty, their expertise lies in specialized sources (paper and digital) in their fields for teaching and research, as well as in current digital technologies. In addition to what faculty want, graduate students also want training in finding aids and research methods.

Students. Undergraduate

Want space for studying and collective working. They also want guidance in using library resources.

University of Texas Staff

Want access to library materials and information. Want spaces for teaching (e.g. for workshops, meetings, training sessions), study, and collective working as well as guidance in using library resources.

Alumni

Want access to library materials and information. Alumni who live outside of the Austin area will need on-line or phone assistance in accessing information and library materials.

Community. The Citizens of the State of Texas.

Want access to library materials, information, and possibly training in using library resources.

Summary of UT Libraries Assessment Reports

UT Libraries provided the committee with recent assessment reports from PCL's Learning Commons as well as survey results of library stakeholders' evaluation of spaces and resources across three dimensions: effect of service, information control, and library as place. We include here an overview of faculty and student stakeholders' current demands and usage of space from these reports.

Faculty.

Value access to print and online academic journals.

Value Interlibrary Loan Services.

Students. Graduate

Value quiet and silent study areas.

Value access to online academic journals.

Students. Undergraduate

Value collaborative study and quiet study areas.

Value spaces that inspire study and learning.

Value equipment and accommodating resources (ex. computer labs, software, outlet access).

Appendix 4: Case studies from other universities

We contacted library leadership at three different institutions (University of California at Berkeley, University of Washington, and Illinois State University), asking about processes of decision-making. These institutions had practices that conformed with the basic principles outlined in the materials the task force was given.

University of California at Berkeley, like UT, has a variety of libraries, including subject specialist ones located in various buildings around campus. Cal has similarly chosen to move some collections off campus, in order to provide more space for student use, combine collections, merged

services. The initiative for the different changes came from various sources, and Cal developed a process:

- The relevant deans, department chairs, subject librarians, and librarian leadership work together to create a relatively short statement of the outline and vision for the change (called a "Call for Comment").

- The Academic Senate Committee on the Library is included in the discussion.

- This document is posted publicly, and open for a month or more for comment.

- Library leadership meets in-person with anyone who expresses concern.

- Concerns are summarized and included in feedback to the Committee on the Library and other Library leadership.

Illinois State University also developed an inclusive and coherent process, described in the publicly available two-hundred page "Milner Library Master Plan." That documents summarizes the planning process:

The Planning Team held a series of nine workshops and two public engagements for the Executive Committee with the aim of fully realizing the needs and aspirations for the study. The Core Working Group attended five of these workshops, while the Executive Committee attended all nine. The meetings ran concurrently with the facility condition assessment and assessment of collection shelving needs processes. Between workshops, the Planning Team worked to develop the master plan study by refining, embellishing, and modifying the conceptual approach as directed by the Executive Committee. (8)

The University of Washington process involved–before beginning the planning–meetings with the Provost, the Faculty Council Committee on University Libraries. Major planning was conducted by the University Architect, an external consultant, library staff. There was regular communication between the Faculty Council Committee and the Dean, as well as themed focus groups with faculty and library staff from various disciplines, and individual meetings with deans.

Appendix 5: Recommended process for ongoing library reviews

- All UT Austin libraries should be reviewed for space use on a regular basis; ideally once every five years.

- For thematically related libraries, e.g. subject-matter libraries in the natural sciences, it may be appropriate to carry out a joint review of multiple libraries at the same time.

- Each review should begin with a review of the appropriate stakeholders; these stakeholders should be given the opportunity to provide input into the review.

- The review should be performed by a committee composed of representatives of the key stakeholder groups.

- The review should look at both current space use and current and projected needs of the stakeholders.

- The review process may include, but should not solely consist of, external consultants who are experts in space use and/or in academic libraries.

- As part of the review, the committee should assess whether the space meets accessibility requirements for library patrons with disabilities. In particular older library spaces can have severe shortcomings in this regard.

- The outcome of these reviews should be reported to the provost office, the library administration, the faculty council (specifically the libraries committee), and the departments and academic units that are the primary users of the affected libraries.

Appendix 6: Recommended process for implementing modifications to library spaces

- Any proposal to make substantial* changes to a library space should be based on a recent space review (Appendix 5). If changes are prompted by factors unrelated to a recent space review (examples may include opportunities due to new construction or budgetary changes), a space review as outlined in Appendix 5 should be carried out before proceeding.

- The relevant deans, department chairs, subject librarians, and library leadership draft a document ("Call for Comment") describing the proposed changes.

- The Call for Comment is shared with relevant stakeholders, the faculty council libraries committee, and the broader UT Austin community, who are all given the opportunity to provide comment and input.

- At the conclusion of the public comment period, the unit initiating the proposed changes drafts a response document outlining any revisions to the initial proposal and/or justification if no revisions were made. This document will be made public as well.

- The unit may then proceed with implementing the changes or engage in another round of public commenting and revision, as seems appropriate based on the magnitude of the changes proposed and the type and extent of stakeholder feedback.

*The committee does not attempt to precisely define what "substantial" means, e.g. in terms of a square-footage of affected space or dollar amount of the costs involved. The key criterion should be whether the experience of library patrons and the services offered by the library would significantly differ after the space change. Thus, for example, replacing worn-out furniture would not be considered a substantial change, but completely remodeling a satellite library would.

Executive Summary:
Assessment of Current DH Environment

In the summer of 2016, UT Libraries commissioned a report on the state of Digital Humanities in the College of Liberal Arts at The University of Texas at Austin. With the arrival of a new Vice Provost for the Libraries and increasing energy surrounding Digital Humanities work on campus, it seemed like a particularly important moment to capture both the strengths of the DH community in Liberal Arts and the opportunities for improvement on campus. The report, completed in 2017, was produced by Rabinowitz, a DH practitioner in the Department of Classics, and Turnator, a Mellon CLIR Fellow at the Libraries. It presents the results of surveys, focus groups, and one-on-one conversations with more than 30 individuals representing 14 departments and units. Most of those units were in COLA, but the Blanton Museum of Art, the Harry Ransom Center, the Dolph Briscoe Center for American History, and LLILAS-Benson Latin American Studies and Collections were also included.

This canvassing of the UT Liberal Arts community identified several core DH strengths in COLA, as well as a strong general interest in expanded digital training opportunities for both faculty and graduate students. It also revealed that UT is somewhat behind its peer institutions in DH capacity and infrastructure. While several DH projects on campus have a national or international profile, much of the work in this area is happening on a smaller scale and without significant support. The report further showed that there are a wide range of opinions about what sort of work constitutes "digital humanities", with some respondents focusing on the generation of new knowledge through research and/or critical perspectives, and others describing as DH work focused on pedagogy or public humanities rather than research stricto sensu. The majority of DH activities, broadly defined, in COLA currently fall under the latter headings, with an emphasis on online exhibits, blogs, and other websites curated by faculty and students to inform the public. Relatively few faculty members are using digital tools to advance humanities research according to methods that are traditionally associated with DH, such as distant reading, corpus analysis, social network analysis, and quantitatively-oriented spatial humanities. Critical approaches to the intersection between digital technologies and the humanities are also underrepresented.

This situation presents both opportunities and risks. On the opportunity side, widespread interest in these methods suggests that modest investments in training, support, and infrastructure would lead quickly to the emergence of a robust community of practice among faculty and graduate students. On the risk side, a conceptualization of digital humanities in restricted and exclusive terms is likely to quench interest among the broader faculty and

leave both research and teaching in this area entirely in the hands of a small number of individuals. This will leave us with a fragile DH ecosystem that is vulnerable to the departure of one or two people, as it is now.

Despite its overreliance on a small number of faculty members, the current ecosystem has significant existing or emerging strengths in several areas. The most well-developed of these is computational linguistics and corpus analysis: several faculty members in English, French and Italian, Spanish and Portuguese, and Classics work in this area, and there is an active research group in this field composed of faculty members from Linguistics and Computer Science. The management and processing of audio data is another strength; not only has UT held a major NEH grant for the development of a digital platform for audio analysis (HiPSTAS), but several faculty in language departments and Anthropology are involved in research in this area or manage large audio datasets. We also have strengths in data management, a field that brings together COLA departments with the Libraries, the School of Information, and TACC; this includes both database design and broader research on archiving, ontologies, knowledge organization, and the Semantic Web. Finally, the foundations of a robust GIS/spatial humanities infrastructure are emerging as both the Libraries and TACC invest in this area, and as scholars with spatial interests distributed across COLA begin to work together more systematically.

These strengths are complemented by a set of UT resources and initiatives that are perfectly positioned for collaborative work in DH. The most notable resources are the campus "gems", collections like the HRC, the Briscoe Center, or the Benson that are already the subject of digital projects but that offer vast opportunities for new digital research and teaching; UT Libraries, which offers collections, expertise and training in digital scholarship, and large-scale repository infrastructure; and TACC, which is consistently interested in humanities applications for high-performance computing. Beyond these structural features of the UT landscape, there are a series of current initiatives across campus that also have synergistic potential: in the report, we focus on digital scholarship and OER initiatives in the Libraries, but it is also worth mentioning the natural connection between DH and Experiential Learning, the Engaged Scholars Initiative, the proposals in progress for a graduate portfolio and undergraduate certificate in Digital Studies, and the major digital/humanities components of several of the VPR's Bridging Barriers initiatives (Good Systems explicitly, Planet Texas 2050 implicitly).

The gaps in our capacity fall into three main categories: lack of time (for faculty and students to learn new skills, for staff at the Libraries and the "gems" to train students or focus on digital projects, for IT staff to work on the maintenance of complex and idiosyncratic platforms); lack of infrastructure (both hardware and personnel) to ensure the long-term sustainability and accessibility of digital projects; and lack of a robust community of practice to connect individuals with shared DH interests and complementary skillsets (faculty and students, humanists and computer scientists, researchers in COLA and the School of Information, PIs and web developers, etc.).

The report offers a series of recommendations to maximize our strengths and address our deficiencies. The most important are as follows:

- Build a deliberate, inclusive, and robust community of practice by defining Digital Humanities broadly to include public humanities and student-centered pedagogical efforts; by providing resources for faculty and student training (especially training to facilitate work with campus collections) and the time to take advantage of that training; and by facilitating connections between faculty, students, and staff in different units across campus. This effort should include the development of both spaces and incentives to promote collaboration.

- Coordinate the DH resources spread across the Libraries, IT, LAITS, the FIC, and various campus centers more effectively. This includes both the integration of storage architecture, platform maintenance, and information flow between different units, and, where possible, the coordination of the administration of DH-related grants (while OSP handles federal grants in general, COLA, the Libraries, the School of Information etc. all have different internal grant-management structures with different rules and expectations, which creates barriers to collaboration across units).

- Develop policies and management strategies for the long-term maintenance of DH projects and the preservation of their results or data. Currently this is managed on a fairly ad-hoc basis, but the Libraries have begun to take a leadership role in the creation of data management plans and digital preservation infrastructure. If DH activity increases, however, this will strain the capacity of the Libraries. It is therefore important to put processes in place to decide in advance how digital projects will be supported, by whom, for how long, and in what form.

- In connection with the previous recommendation, invest in the digital infrastructure and personnel necessary for the long-term sustainability of DH projects and the data they produce. Despite the IT resources available between the Libraries, IT/LAITS, and TACC, we still have significant gaps in our ability to catalog, manage, and preserve large, complex, heterogeneous datasets, let alone maintain dynamic, interactive, online platforms involving multiple technical dependencies. UT has the necessary building-blocks to be a leader in this area, but putting them in place will require significant support for both human resources and computing infrastructure.

- The report takes as a basic desideratum the development of DH curricular initiatives at both the undergraduate and graduate levels. Such initiatives are indispensable in the development of the robust community of practice that is our first recommendation, and they will build the skills among students that will enable both students and faculty to carry out more DH work at a higher level. But we specifically recommend that in order to encourage buy-in at the faculty level, these curricular initiatives be characterized by shared governance, inclusivity and diversity (in terms of both faculty members and disciplines), and strong incentives for participation both within and beyond the few departments that are already active in this field. Units like the Libraries and the FIC should also be involved, and the potential for synergies with other campus-wide initiatives like Bridging Barriers or Experiential Learning should be taken into account.

Appendix E.

Task Force Public Meetings* at UT Austin

November 13, 2018. Task Force Town Hall.

February 27, 2019. Collections
Subcommittee Open Meeting.

March 26, 2019. Digital Scholarship
Subcommittee Open Meeting.

April 15. Library Spaces Subcommittee Open Meeting.

April 29, 2019. Task Force Town Hall.

*Video recordings of all public meetings are available
on the task force web site at: https://provost.utexas.
edu/future-university-texas-libraries-task-force.

Appendix F.
Glossary

Appendix F. Glossary

BTAA: Big Ten Academic Alliance

CNS: College of Natural Science

DH: Digital Humanities

FAL: Fine Arts Library

GIS: Geographic Information Services

IRB: Information Resources Budget

LAITS: Liberal Arts Instructional Technology Services I

OCLC: Online Computer Library Center

OER: Open Educational Resources

PCL: Perry-Casteñada Library

PMA Library: Physics, Mathematics and Astronomy Library

Appendix G.
References and Resources

Appendix G. References and Resources

Sources Referred to In the Report

Big Ten Academic Alliance. Sustaining Values and Scholarship: A Statement by the Provosts of the Big Ten Academic Alliance. (June 10, 2019). http://www.btaa.org/docs/default-source/default-document-library/sustaining-values-and-scholarship.pdf?sfvrsn=5cc449f3_6.

Blankstein, M. & Wolff-Eisenberg, C. (2019). Ithaka S+R US Faculty Survey 2018. https://doi.org/10.18665/sr.311199.

Ex Libris. New Report Reveals Opportunities for Academic Libraries and Research Offices to Strengthen Support for Researchers. News Release. (June 13, 2019). https://www.proquest.com/about/news/2019/New-Report-Reveals-Opportunities-for-Academic-Libraries.html.

Mulligan, R. Supporting Digital Scholarship. SPEC Kit 350. Washington, DC: Association of Research Libraries. (2016). https://publications.arl.org/Supporting-Digital-Scholarship-SPEC-Kit-350/

OCLC Resource Sharing Facts and Statistics: Top 10 Lending Libraries. Retrieved from https://www.oclc.org/en/worldshare-ill/statistics.html. September 28, 2019.

Ostrow, M. & Wyatt-Baxter, K. (2015). Learning Commons Report: Fall 2015. Internal working report prepared for UT Libraries.

Rabinowitz, A. & Turnator, E. (2017). Assessment of Current DH Environment in the College of Liberal Arts at UT Austin. Internal working report prepared for UT Libraries.

Schulte, J., Tiffen, B., Edwards, J., Abbott, S., & Luca, E. (2018). Shaping the Future of Academic Libraries: Authentic Learning for the Next Generation. College and Research Libraries, vol. 79 (5). https://crl.acrl.org/index.php/crl/article/view/16826/18774

SPARC. Big Deal Cancellation Tracking. Retrieved from https://sparcopen.org/our-work/big-deal-cancellation-tracking/.

University of Texas Libraries. (October 2, 2019). Making Music in the Library: Students Print a Six-String Electric Violin. Retrieved from https://youtu.be/zr-14wasql0.

Welch, A. (2019). 2018-19 Assessment Report on The Foundry. Internal working report prepared for UT Libraries.

Additional Resources

- American Libraries Association. The State of America's Libraries Report 2019. American Library Association. See: http://www.ala.org/news/state-americas-libraries-report-2019/academic-libraries

- Feret, B. (2011). Library as a hub. Changing roles and functions of academic library. Proceedings of the IATUL Conferences. Paper 35. http://docs.lib.purdue.edu/iatul/2011/papers/35

- Foster. Libraries: Roles and opportunities in open science. https://www.fosteropenscience.eu/content/libraries-roles-and-opportunities-open-science

- Leon, R. (2011). Retooling library staff to take on the future, where a state of flux is the new normal. Library Connect. https://libraryconnect.elsevier.com/articles/retooling-library-staff-take-future-where-state-flux-new-normal

- Malpas, C., Schonfeld, R., Stein, R., Dempsey, L., & Marcum, D. University Futures, Library Futures: Aligning Library Strategies with Institutional Directions. Dublin, OH: OCLC Research. https://doi.org/10.25333/WS5K-DD86

- Nitecki, D. & Davis, M. 2017. Expanding Librarians' roles in the research life cycle. IFLA World Congress, WrocLaw, Poland. http://library.ifla.org/1798/1/S06-2017-nitecki-en.pdf

- OCLC and Ithaka publish report on aligning library strategies with university directions (October 2018) See: https://www.oclc.org/en/news/releases/2018/20181018-ithaka-report-aligning-library-strategies.html

Additional Resources on University of California System and Open Access

McKenzie, L. Elsevier Ends Journal Access for UC System. (2019). Inside Higher Education. https://www.insidehighered.com/quicktakes/2019/07/11/elsevier-ends-journal-access-uc-system

University of California. Office of Scholarly Communication. UC and Elsevier Overview. https://osc.universityofcalifornia.edu/open-access-at-uc/publisher-negotiations/uc-and-elsevier/

University of California Libraries. Pathways to Open Access: Executive Summary. 2018. (Report). https://libraries.universityofcalifornia.edu/groups/

files/about/docs/UC-Libraries-Pathways%20 to%20OA-Executive%20Summary.pdf

University of California Libraries. Pathways to Open Access. 2018. (Report). https://libraries. universityofcalifornia.edu/groups/files/about/docs/ UC-Libraries-Pathways%20to%20OA-Report.pdf

University of California Libraries. Pathways to Open Access. 2018. (Chart). https://libraries. universityofcalifornia.edu/groups/files/about/docs/ UC-Libraries-Pathways%20to%20OA-Chart.pdf