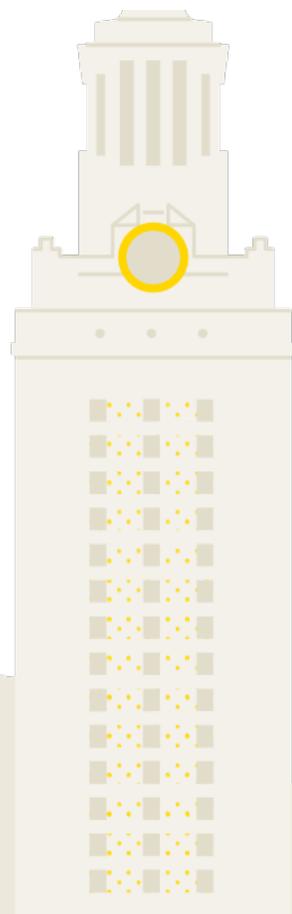


SUSTAINABLE OPEN SCHOLARSHIP

AT
THE UNIVERSITY OF TEXAS AT AUSTIN



Report of the Sustainable Open Scholarship Working Group

December 2021

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GLOSSARY

Article processing charges (APCs - also sometimes known as article processing fees or APFs): A fee sometimes used for funding the publication of scholarly articles in an open access journal.

Author rights: The rights retained by the author when entering a contractual agreement with the publisher. Open access encourages authors to negotiate with publishers to retain the rights to control the re-use and distribution of the work.

Creative Commons: A licensing mechanism that allows authors to retain their copyright while providing some permissions for reuse.

Data Repository: An online tool/system that facilitates the sharing and preservation of research data. Repositories generally fall into one of three categories:

- **Disciplinary Repositories** are intended for data associated with specific academic disciplines and are often operated by a professional organization, a consortium of researchers, or a similar group (e.g., [Digital Rocks Portal](#),¹ [Open Context](#)²).
- **Institutional Repositories** are associated with a researcher's host institution and are generally not discipline-specific. UT Austin offers the [Texas Data Repository](#).³
- **General Purpose Repositories** allow researchers to share data regardless of discipline or institutional affiliation (e.g., [The Harvard Dataverse](#),⁴ [Figshare](#)⁵).

DOI (Digital Object Identifier): A globally unique code assigned by a central registration authority (International DOI foundation) to permanently and stably identify a digital object. This provides a standardized mechanism for both humans and

¹ Texas Advanced Computing Center at the University of Texas at Austin Digital Rocks Portal: <https://www.digitalrockportal.org/>

² Alexandria Archive Institute Open Context: <https://opencontext.org/>

³ Texas Data Repository: <https://dataverse.tdl.org/>

⁴ Harvard Dataverse: <https://dataverse.harvard.edu/>

⁵ Figshare: <https://figshare.com/>

computers to find and persistently access the item itself as well as metadata about it. DOIs are one of the most common persistent identification solutions and are used by [Texas ScholarWorks](https://repositories.lib.utexas.edu/)⁶ and the [Texas Data Repository](https://dataverse.tdl.org/).⁷ Similar alternative persistent ID options include Handles and ARKs.

DMP (Data Management Plan): A written document that outlines the expected data to be created or acquired; the methods for describing, analyzing, storing, and sharing those data during the course of a given research project; and the mechanisms and required resources for sharing and preserving those data after the project is complete. These are increasingly required by funding agencies as part of the proposal process. UT Libraries offers [guidance](#)⁸ and consultations/review of DMPs and provides access to the [DMPTool](https://cdlib.org/services/uc3/dmptool/)⁹ as a resource for researchers.

Embargo: A publication embargo is the duration between the work's publication and the time it is freely available.

FAIR (Findable, Accessible, Interoperable, Reusable): The 'FAIR Guiding Principles for scientific data management and stewardship' were first published in 2016 (Wilkinson, et al. 2016) to provide guidelines for improving the potential Findability, Accessibility, Interoperability, and Reusability of digital data. Because research increasingly makes use of computational resources to manage data that are ever-increasing in volume and complexity, these principles emphasize *machine-actionability* in order to support reuse by humans.

Gold Open Access / Gold OA: Research published in a journal that is immediately and openly available when published.

Green Open Access / Green OA: Posting a version of a published work on an institutional or disciplinary repository, often with a link to the published work. The repository version provides the open access to the work.

⁶ Texas ScholarWorks: <https://repositories.lib.utexas.edu/>

⁷ Texas Data Repository: <https://dataverse.tdl.org/>

⁸ UT Libraries LibGuide on Data Management Plans: <https://guides.lib.utexas.edu/DMP>

⁹ California Digital Library DMPTool: <https://cdlib.org/services/uc3/dmptool/>

Hybrid Open Access (Hybrid OA): Publishers make an individual article freely available after payment of an article processing charge, while still selling access to other articles through subscriptions.

Open Access (OA): the principle that knowledge should be disseminated without restrictions or barriers.

Open science: Open science is the practice of scholarship in such a way that others can collaborate and contribute, where research data, lab notes, and other research processes are freely available under terms that enable reuse, redistribution, and reproduction of the research and its underlying data and methods. Open science is discipline agnostic and not limited to the physical or natural sciences.

Post-print: The accepted article after incorporating revisions and edits resulting from the peer review process. The article does not include the pagination and type-setting of the publisher's print. Also known as final accepted manuscript or author accepted manuscript (AAM).

Pre-print: The first draft of an article before peer review and the accompanying edits. Also known as the submitted version.

Repository - institutional/disciplinary: Commonly associated with green open access. Institutional repositories such as Texas ScholarWorks are managed by a university or organization to curate the scholarly output of the institution's researchers. Disciplinary repositories, such as arXiv, SSRN, and PubMed Central, collect scholarship on specific subjects regardless of the researcher's institutional affiliation.

Sherpa/Romeo: A searchable database of publisher copyright policies and policies on self-archiving.

Version of record: The final published article in a publisher generated PDF file.

INTRODUCTION

We are at an important moment for the University of Texas at Austin. On September 24, 2021, President Jay Hartzell was inaugurated as the 30th president of the University of Texas at Austin. In his inaugural address,¹⁰ President Hartzell laid out a strategic direction for the University¹¹ that argues that “this is our moment. In a rapidly changing world, we have a once-in-a-generation chance to position ourselves for the future” (University of Texas at Austin, 2021b, p. 1). In his speech, President Hartzell said “The flag we’re planting is that UT should become the world’s highest-impact public research university” (Hartzell, 2021b).

The strategic planning process that President Hartzell laid out included the announcement of the strategic aspirations and pillars¹² that support the strategic direction of the university to become the world’s highest-impact public research university. These aspirations cover the range of impacts UT Austin will have on people, place, and the pursuit of transformative experiences, education, and research. The “people” pillar includes an expectation that UT Austin will “foster **free and open discourse** to enhance knowledge and understanding” (University of Texas at Austin, 2021a, emphasis original). Further, our pursuit is to “embody our public mission to **serve** Texas, the United States and the world” and to “advance **ambitious research, scholarship and creative arts**” by “operat(ing) best-in-class **research infrastructure and resources**” (University of Texas at Austin, 2021a, emphasis original).

How do we achieve such laudably lofty goals? The University will need to take a multi-faceted approach to achieve these and the rest of the aims in our strategic direction, but we would argue that one of the fundamental blocks in the foundation for this plan is **embracing open scholarship** in ways that can be sustained and encouraged to flourish at UT Austin.

¹⁰ <https://president.utexas.edu/messages-speeches-2021/2021-presidential-inauguration-and-state-university-address>

¹¹ <https://utexas.app.box.com/v/UTStrategicDirection>

¹² Strategic Aspirations and Pillars: <https://utexas.app.box.com/v/StrategicAspirationandPillars>, found at <https://president.utexas.edu/strategic-plan>.

Academia has been long criticized as an “ivory tower” cut off from the world, talking primarily to an elite audience of other academics. Our traditional models of publication, in which the findings from our research and scholarship are published in expensive journals and books that in the digital era are locked behind paywalls open only to those whose institutional libraries are able to subscribe on their behalf, reinforce this narrative of exclusivity. Both the general public and academics at less well-resourced institutions too often find it difficult to read our scholarship, and to benefit from the amazing range of knowledge being generated at the University of Texas at Austin.

We have an opportunity to replace the ivory tower with the orange tower of UT Austin. The orange tower should be seen as a source of knowledge, innovation, insight, engagement, and expertise. By prioritizing open access to our research, openly shared data, open educational resources, and innovative approaches to working with our publishing partners to achieve the greatest impact of any public research university in the world, we will be “unleashing knowledge, opportunity and innovation from the heart of Texas” (University of Texas at Austin, 2021a).

Texas is big enough to share.

State of the Art

The trend toward open scholarship is globally widespread and accelerating. Thirty years after Paul Ginsparg, a physicist, launched the first repository of electronic e-prints in 1991, the movement to level the global research playing field continues (SPARC, 2021a). Over the last two decades, moves toward open science, open access, open data, and open research infrastructures have been supported by scholars, professional societies, funding agencies, and policymakers (Meyer & Schroeder, 2015). Successful faculty-led initiatives in the early years of the movement included the petition signed by 34,000 scientists in 2000 that led to the Public Library of Science (PLOS) that was founded in 2001 as an alternative to traditional publishing (PLOS, 2014). Since 2001, different

models of open access publishing have emerged with the singular goal of creating sustainable systems of scholarly communication.¹³

In Europe, organizations like cOAlition-S¹⁴ have been advocating for the uptake of *Plan S*¹⁵ “whereby research funders will mandate that access to research publications that are generated through research grants that they allocate, must be fully and immediately open and cannot be monetised in any way” (Schiltz, 2018, p. 1). In the U.S., organizations including NASEM¹⁶ and SPARC¹⁷ have been primary voices advocating for practices and policies that favor or mandate open sharing of scholarly research. The University of California has taken a particularly strong stance in favor of open access publishing in the form of its well-publicized agreement with large academic publisher Elsevier (Kell, 2021).

With the advent of the COVID-19 pandemic in 2020, openness in the scientific process achieved criticality. A joint appeal for Open Science was launched by UNESCO, WHO, CERN and the Office of the United Nations High Commissioner for Human Rights. At its 41st session in Paris in November 2021, the UNESCO recommendation on Open Science was unanimously adopted in its entirety by the General Conference of the United Nations Educational, Scientific and Cultural Organization (UNESCO).¹⁸ Research and funding institutions, libraries and publishers switched content to open access, in some cases overnight, to ensure researchers and citizens could easily obtain scientific information, solidifying a tacit understanding of Open Science principles. Sharing of scientific data during the global COVID-19 crisis has indeed been unprecedented.

Academic research, publishing, data sharing, and the creation of educational materials is a vast and complex landscape, with many stakeholders contributing in myriad ways. It is relatively uncontroversial to argue generally in favor of openness in scholarship, which has been a central tenet of the scientific approach to knowledge production since the

¹³ See Green, Gold, Diamond: Different Models for Open Access Books: <https://oabooks-toolkit.org/faqs/article/13868103-green-gold-diamond-different-models-for-open-access-books>

¹⁴ Coalition-S: <https://www.coalition-s.org/>

¹⁵ Plan S: <https://www.coalition-s.org/why-plan-s/> and <https://www.coalition-s.org/about/>

¹⁶ National Academies of Sciences, Engineering, Medicine (NASEM): <https://www.nationalacademies.org/>

¹⁷ Scholarly Publishing and Academic Resources Coalition (SPARC): <https://sparcopen.org/>

¹⁸ UNESCO: <https://council.science/current/news/unesco-science-commission-adopts-open-science-recommendation/>

early seventeenth century (David, 2004). However, as we start to dig into the details, competing views on how best to create, communicate, and share become more complicated and complex. Many of these issues are reflected in the sub-committee reports detailed in this report's appendices.

The overall trend in academia over the past two decades has, however, been in the direction of favoring increased openness. This global trend is one of the reasons why the University of Texas has undertaken this exercise in mapping the open scholarship landscape at UT Austin and making recommendations for next steps that we can take as a university that will align these trends toward openness with UT Austin's ambition to be the highest impact public research university in the world.

In a rapidly changing world the University of Texas has a once-in-a-generation chance to position itself for the future. It is at the cusp of launching an ambitious course to become the world's highest-impact public university. This report on sustainable open scholarship (SOS) is timely and offers bold recommendations to elevate the impact of UT's work by unleashing knowledge of our groundbreaking research and of our creative endeavors to innovate how we educate our students. To realize the impact we desire we must be open to sharing our work. In doing so, UT will be able to make an impact on the way the world thinks and lives.

In his state of the university address on February 4, 2021, President Hartzell stated he wants "UT to be on the front lines of the future" (Hartzell, 2021a, closing, 2nd para.).

The future is here; this is our moment.

University of Texas at Austin Position

In the fall of 2020, Interim Provost Dan Jaffe launched UT's first campus-wide faculty-led working group to engage faculty, staff and students and provide recommendations for Sustainable Open Scholarship (SOS).

The SOS Working Group was formed in response to relevant recommendations from the [Task Force on the Future of UT Libraries](#)¹⁹ commissioned by the Provost's Office in 2018. The goals and objectives of the SOS were to:

- Develop an open access statement that reflects the university's commitment to advance open sustainable scholarship practices for review and approval by the Faculty Council;
- Engage researchers to develop campus-wide strategies to support access, use, and curation of primary research data based on FAIR data principles (Findable, Accessible, Interoperable and Reusable);
- Articulate strategies that accelerate efforts to promote open resources, technology and teaching practices in education; and
- Explore existing frameworks/models/MoUs of negotiations with publishers to support *or* develop a set of guiding principles for negotiating UT's contracts that support open-access practices with scholarly publishers.

The SOS Working Group was co-chaired by Dr. Eric T. Meyer, dean of the UT Austin School of Information ('the iSchool'), and Dr. Lorraine Haricombe, Vice Provost and Director, UT Libraries. The working group consisted of four subcommittees aligned with the four objectives including Open Access (OA), Open Data (OD), Open Educational Resources (OER), and Licensing and Negotiations (L&N). Each subcommittee was led by two faculty co-chairs and each included a librarian and a student. Catherine Hamer, Director of Academic Engagement at UT Libraries, coordinated the campus-wide project. The charge of each subcommittee and its members can be found [here](#)²⁰ and in the appendices of this report.

The four subcommittees employed different methodologies of engagement to gather feedback that included virtual public townhalls (OA and OD), surveys (OA, OD, and OER) interviews (OA and OD) and a presentation to UT's Deans' Council (OA). The Licensing and Negotiations subcommittee worked in tandem with the Open Access subcommittee to assess faculty attitudes and priorities. Each subcommittee submitted a report with

¹⁹ <https://provost.utexas.edu/initiatives/task-force-on-the-future-of-the-ut-libraries/>

²⁰ <https://provost.utexas.edu/initiatives/sustainable-open-scholarship-working-group/>

specific recommendations that can be found in the four appendices of this overall report.

Key Findings

OPEN ACCESS (OA): KEY FINDINGS

There is support for the philosophical concept of OA at the University that aligns with UT's mission that resulted in this formal value statement:

“The University of Texas at Austin strongly supports the principle of open access – that knowledge should be disseminated without restrictions.”

Notwithstanding the support, the OA subcommittee's report reflects UT faculty's concerns about open access with a focus on the challenges of pursuing open access publishing. Key barriers include the cost of author processing charges (APCs) and the reluctance to use grant funding for that purpose, disciplinary differences in publishing, and the rewards system of promotion and tenure that largely favor traditional assessment of publications in high impact factor journals. The recommendations from this subcommittee can be found in *Appendix 1: Open Access (OA) Publishing* on page 25.

OPEN DATA (OD): KEY FINDINGS

The Open Data subcommittee noted the fortuitous timing of their work during a time of shutdowns of research laboratories. Many researchers were experiencing first-hand the impact on their research and the impossibility of doing their field work due to the challenge of accessing and sharing data sets from their colleagues in their fields of research. The urgency of sharing data to advance research was elevated during the pandemic and is further amplified in the Open Data subcommittee's work that resulted in three recommendations that can be found in *Appendix 2: Open Data* on page 37.

They found the UT community had great interest in learning more about open data and the current resources at UT especially since funders and publishers are increasingly requiring researchers to share the data generated through their research. They note the need for specific interventions from campus leadership to develop a university culture

that values, promotes, and even rewards the Open Data practices while recognizing the complexities and challenges of such a project.

They acknowledge that creating a culture of data sharing requires complex collaboration across a university campus and demands the active involvement of committed stakeholders: university leadership, the office of research and sponsored projects, compliance/privacy officers, librarians, faculty, support staff, and students. Researchers also expressed a strong desire to be engaged in any decision-making processes in implementing any of the subcommittee's recommendations.

OPEN EDUCATIONAL RESOURCES (OER): KEY FINDINGS

Based on engagement with about 297 faculty from 60 disciplines with deep teaching experience the OER subcommittee found a mixed level of awareness and understanding of OER. Of these respondents, more faculty expressed a willingness to consider OER material (52%) while a smaller group (9%) expressed a willingness to adopt or evaluate OER. They acknowledged the challenges of searching for and identifying OER appropriate for their courses.

This subcommittee provided helpful resources to inform the UT community about OER material including a [video](#)²¹ and highlighted a number of current campus resources and practices that support OER at UT.

Their findings showed that despite UT's infrastructure, UT Libraries' expertise and strong advocacy for OER, an engaged student government that has recently initiated several OER projects, a Faculty Innovation Center well-versed in open pedagogy, a federally-funded Title VI center (COERLL) that has created OER in twenty foreign languages, and a top tier iSchool that is



Figure 1. OER Video

²¹ Figure 1, <https://www.youtube.com/watch?v=Fw5mpPma2Nk>

conducting important research on the affordances of open design for the creation and dissemination of scholarship, UT is not where it should be in the promotion of OER and open pedagogy.

If the university were to continue to support current initiatives and implement the recommendations in this report (see *Appendix 3: Open Educational Resources (OER)*, page 58), we firmly believe that UT-Austin could become a national leader in OER and Open Education.

LICENSING AND NEGOTIATIONS (L&N): KEY FINDINGS

This subcommittee researched various universities' frameworks as well as UT faculty input and feedback to develop guiding principles (see *Appendix 4: Licensing and Negotiation*, page 76) customized for UT's licensing and negotiating processes that would advance and achieve open sustainable scholarship.

They noted the unsustainability of the current scholarly publishing model where the university's scholarly output is published behind paywalls. In this model a single university essentially pays (with the support of research grants from both public and private sources) several times for the creation of knowledge: the university pays faculty who use university resources to do research and publish their results, funders pay for the specific research project costs, authors pay fees to publish their work, and the Libraries pay high subscription costs for journals to ensure access to the published research results. Additionally, the public and private funding agencies whose support underpins the creation of new knowledge are increasingly mandating that the research results enabled with their support be made openly available.

RECOMMENDATIONS

The Sustainable Open Scholarship Working Group strongly endorses President Hartzell’s strategic priorities, and is confident that the campus-wide exercise over the last year to gather the UT community’s feedback on open scholarship puts UT Austin in an excellent position to seize a number of immediate, medium-term, and long-term opportunities to leverage open scholarship in the interests of making UT the world’s highest-impact public research university.

As we emerge from the COVID-19 pandemic, now is the time to position UT as a global leader in marrying digital resources with the power of a large in-person research university.

We have identified sixteen action items that emerge from the efforts of the working group. We encourage Provost Wood and President Hartzell to endorse these action items so that work can begin immediately.

What starts here changes the world.

Open Access Priorities

- 1) We endorse the OA subcommittee’s value statement and note that the next step is to get Faculty Council approval. We recommend that this item be placed on a Faculty Council agenda in the spring. Once approved, display the statement publicly (e.g. “What starts here changes the world”).

Action Item 1

Submit the value statement ***The University of Texas at Austin strongly supports the principle of open access – that knowledge should be disseminated without restrictions*** to the Faculty Council for approval.

Action Item 2

If approved by Faculty Council, prominently publicize the value statement ***The University of Texas at Austin strongly supports the principle of open access – that knowledge should be disseminated without restrictions.***

- 2) We recommend that UT prioritize administrative level participation in the [National Academy of Sciences, Engineering, and Medicine's Round Table](#)²² (NASEM, 2021). The roundtable convenes critical stakeholders to discuss the effectiveness of current incentives for adopting open science practices, current barriers of all types, and ways to move forward in order to align reward structures and institutional values.

Action Item 3

Appoint and empower an administrative level representative to lead Open Access efforts at UT Austin, and to represent UT Austin at relevant state, national, and international venues including the NASEM roundtable.

- 3) UT Libraries has been active in OA for more than a decade and is very focused on customer service. We consider library staff and faculty, staff, and students at UT to be our patrons. Our goal is to promote the benefits of open practices, provide tools and support to make sharing research easier including [Texas ScholarWorks](#),²³ [Texas Data Repository](#),²⁴ and the [Texas GeoData Portal](#).²⁵ We offer training to a broad swath of the UT community through [workshop series](#),²⁶ [learning communities](#),²⁷ classroom instruction, individual consultations, and customized training options. Elevating and expanding this work across UT Austin should be a key priority.

²² <https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:9b599dbe-e1c9-4946-83ca-a79ce1aeca71>

²³ Texas Scholarworks: <https://repositories.lib.utexas.edu/>

²⁴ Texas Data Repository: <https://www.tdl.org/texas-data-repository/>

²⁵ Texas GeoData portal: <https://geodata.lib.utexas.edu/>

²⁶ Data & Donuts: <https://guides.lib.utexas.edu/data-and-donuts>

²⁷ Fall 2021 Instructor Learning Community: <https://guides.lib.utexas.edu/c.php?g=659232&p=8551788>

Action Item 4

Appoint an Open Scholarship Advisory Council that includes broad participation from different disciplines and the UT Libraries, and embed their work in the delivery of UT's strategic plan.

Open Data Priorities

- 1) We endorse the Open Data subcommittee's recommendations and specifically amplify the need for executive leadership to develop a statement that is visible and consistently shared to articulate the value of making research data open to the public. Data is the currency of research; practices and policies around Open Data are evolving rapidly, and UT Austin will enhance its global impact as a leading public R1 university by taking a leadership role in Open Data.

Action Item 5

Appoint and empower an individual to serve as the campus lead for Open Data practices (an "Open Data Czar").

Action Item 6

Request that Faculty Council create a Committee for Open Data to advise the Open Data Czar and to collaborate on expanding Open Data at UT Austin. The committee should draw its members from the campus community, including representatives from the Office of Sponsored Projects (OSP), the Office of the Vice President for Research (VPR), UT Libraries, the Texas Advanced Computing Center (TACC), and UT Information and Technology Services (ITS).

Open Educational Resources Priorities

- 1) We endorse the OER subcommittee's recommendations. We agree that UT is well positioned to promote OER as a tool in its latest initiative of reducing the costs of course materials for students. OER goals align with those of the [Longhorn Textbook](#)

[Access](#)²⁸ program and offer faculty academic freedom to choose the materials that they believe are best for their students' learning objectives. They decide if they want to retain, revise, reuse, remix, and redistribute low cost/no cost online material to provide their students with the best learning experience on day one.

Action Item 7

Widely promote OER as one of UT's options to lower cost for course material. Start with the deliverables from this working group to promote OER awareness in faculty orientations, faculty training opportunities, and across campus.

- 2) Prioritize expanding current infrastructure to implement OER adaption or adoption. The current OER program at UT Libraries is privately funded. Ashley Morrison was appointed from August 2020-2025 as the Tocker Foundation OER Librarian to engage and support faculty with an interest in adopting or adapting OER. In 2020 UT students initiated the Affordable Education Champions program and received more than 20 nominations. They selected five faculty who received recognition for their use of affordable resources, including OER. In fall 2021 UT Libraries launched a faculty grant program with three adoption level grants (\$6,000 total) and one creation level grant (\$5,000 total).²⁹

Action Item 8

Expand funding and support for the UT Libraries OER program.

Action Item 9

The Provost and CSUs are encouraged to fund and support faculty grants for OER adoption, creation, expansion, and innovation.

- 3) HB 1027³⁰ "requires that Texas public colleges and universities explicitly disclose within the institution's course schedule the fee amount, student data terms of use,

²⁸ <https://www.universitycoop.com/longhorn-textbook-access>

²⁹ For more information see: <https://guides.lib.utexas.edu/OER/home>

³⁰ HB 1027, "Relating to the disclosure of certain information regarding course materials by public institutions of higher education", <https://legiscan.com/TX/text/HB1027/2021>

and opt-out procedure for course materials that will be automatically billed, along with other associated charges. HB 1027 also requires institutions to itemize any course material fees charged to student accounts and ensures that relevant vendor agreements are public records” (SPARC, 2021b). The use of Open Educational Resources simplifies this disclosure.

Action Item 10

Encourage the use of zero cost OER resources as a way to help comply with HB 1027.

- 4) The evaluation, tenure, promotion, and rewards systems for tenure-track and non-tenure track faculty at UT Austin do not currently systematically consider OER adoption and innovation as a factor. While individual faculty members might choose to highlight their work in this area, stronger encouragement to do so can normalize and promote discussions of OER in the system of recognition and rewards. While it would be overreach to require OER, considering it as an asset in reviews can encourage increased activity and will also raise awareness among the committees across UT evaluating teaching.

Action Item 11

Place a positive value on the use and innovation of Open Educational Resources as part of regular faculty reviews.

Licensing and Negotiations Priorities

- 1) We endorse the *Statement of Principles for Achieving Open and Sustainable Scholarship* (Appendix 4: Licensing and Negotiation, page 76) and request that these principles be implemented with immediate effect across the university. The principles work in tandem with OA practices/initiatives and anchor *how* OA practices could be implemented.

Action Item 12

Request that Faculty Council endorse the *Statement of Principles for Achieving Open and Sustainable Scholarship* for UT Austin.

Action Item 13

Develop a campaign led by the UT Libraries to educate faculty about the costs of library materials, especially journal subscriptions.

Action Item 14

Participate in the Texas Libraries Coalition for United Action (TLCUA) to develop a transformative agreement with Elsevier and other publishers.

Action Item 15

Prioritize OA publishing/memberships without author processing fees.

Action Item 16

Develop a 5-year budget to systematically increase a portion of UT Libraries collection funding to support sustainable scholarly communication system and open access initiatives (<https://guides.lib.utexas.edu/oamemberships>).

CONCLUSIONS

UT Austin's ambition to be the world's highest-impact public research university is only achievable if the world is able to learn from the knowledge generated here.

This report summarizes the findings and recommendations synthesized from the four subcommittees of the Sustainable Open Scholarship Work Group at the University of Texas. It offers a succinct statement of support for the dissemination of knowledge without restrictions and asserts that knowledge and expertise are available at UT to advance open access in publishing, open educational resources, open data and licensing and negotiations. Each subcommittee offers a detailed examination of the challenges and opportunities to help readers deepen their understanding of Sustainable Open Scholarship. Each subcommittee provides concise recommendations for UT's leaders while amplifying the importance of administrative support through designated leadership to embed these recommendations in the university's strategic plan that is currently underway.

Favoring open approaches as university policy gives clear direction to our research and teaching community when they are making their choices as professionals and academics about how to pursue knowledge, where and how to share their data and scholarship, and how to share knowledge as part of their pedagogy.

The co-chairs of this Working Committee (Haricombe and Meyer) respectfully submit this report to Executive Vice President and Provost Sharon Wood, and recommend that UT Austin adopt the recommendations in this report, and prioritize the 16 action items identified here. These are not the end point of what sustainable open scholarship will look like at UT Austin in the coming decades, but are the building blocks we need not only to catch up to our peer institutions but to surpass them. The report offers a momentous opportunity for UT to take its place as a leader in the global movement to make scientific research and data accessible to all. In doing so, UT's orange tower will stand as a beacon signifying that UT Austin lives up to its aspiration to be the highest-impact public research university.

APPENDICES: SUB-COMMITTEE REPORTS

Appendix 1: Open Access (OA) Publishing

MEMBERS

Co-Chair, Francesco Maggi, Professor, Department of Mathematics

Co-Chair, Somshuvra Mukhopadhyay, Associate Professor, College of Pharmacy

Miroslava Benes, Associate Professor, School of Architecture

Dawn Durante, Editor-in-Chief, University of Texas Press

Marvin Hackert, Associate Dean, Office of the Vice Provost and Dean of Graduate Studies and Professor, Department of Molecular Biosciences

John Hatfield, Professor, Department of Finance

Jim Kuhn, Associate Director for Library Division, Harry Ransom Center

Colleen Lyon, Head of Scholarly Communications, UT Libraries

Margaret Schlankey, Head of Reference Services, Dolph Center for American History

Tracy Villareal, Professor, Department of Marine Science

Abraham Wickelgren, Professor, School of Law

SUMMARY OF CHARGES AND OUTCOMES

Charge: Engage campus constituencies to facilitate a deeper understanding of the unsustainability of the current systems of scholarly publishing and the benefit of immediate access to scholarship to advance UT's research and discoveries that will change the world.

Outcome: The primary deliverable was the development of an OA value statement for the University that reflects UT's commitment to advance sustainable open scholarship practices.

Related deliverables were to develop recommendations for how the University may achieve the goal of OA over the coming years.

EXECUTIVE SUMMARY

The Open Access (OA) subcommittee is part of the [Sustainable Open Scholarship Working Group](#)³¹ established by the Provost to develop strategies to support sustainable and open scholarship at UT and in Texas. The OA subcommittee was **charged** with engaging campus constituencies to facilitate a deeper understanding of the unsustainability of the current systems and the benefit of immediate access to scholarship to advance UT's research and discoveries. **Primary deliverables** were to develop an OA value statement and provide recommendations for how the University may achieve the goal of implementing OA initiatives over the coming years. Between Fall 2020-Summer 2021, the subcommittee **assessed the campus OA landscape** by (1) organizing a virtual town hall (March 11, 2021); (2) conducting a survey (sent to all faculty) (3) presenting to the Dean's and Chairs' council; (4) and having conversations with faculty colleagues. The **subcommittee defined OA** as the concept that *knowledge should be disseminated without restrictions or barriers either by access provided by publishers or through the deposition of articles and monographs on freely-accessible repositories* (e.g., [PubMed Central](#),³² [arXiv](#),³³ [SSRN](#),³⁴ and [Texas ScholarWorks](#)³⁵). **Primary findings** were that there is broad faculty support for the philosophical concept of OA. Simultaneously, faculty are acutely aware of the complexities of the current publishing landscape that present challenges for OA [e.g., academic freedom; author-paid article processing charges; field-specific issues with OA well-established in some fields (e.g., STEM), but not others (e.g., humanities and liberal arts)]. The OA value statement and recommendations provided below emerge from these findings.

³¹ <https://provost.utexas.edu/initiatives/sustainable-open-scholarship-working-group/>

³² PubMed Central: <https://www.ncbi.nlm.nih.gov/pmc/>

³³ arXiv Preprint Archive: <https://arxiv.org/>

³⁴ Social Science Research Network (SSRN): <https://www.ssrn.com>

³⁵ Texas Scholarworks: <https://repositories.lib.utexas.edu/>

OA Value Statement

The University of Texas at Austin strongly supports the principle of open access – that knowledge should be disseminated without restrictions.

Open access aligns with the University's Mission³⁶ to advance society through research, creative activity, scholarly inquiry and the development and dissemination of new knowledge, with the goals of broadening equitable access to foster greater inclusion and of developing a sustainable financial model for the University Library.

The University values open access initiatives guided by academic freedom and an understanding of the complexities of the scholarly publishing landscape.

OA Recommendations

- 1) Establish a committee to determine how best the University can coordinate its efforts in OA with other involved national and international stakeholders – federal government and funding agencies; other Universities that share similar values, including European universities that have progressed further in achieving OA; publishers, etc. The UT President or Provost should designate and empower a senior administrator to lead these and other Open Scholarship efforts at UT in alignment with [guidelines from the National Academy of Sciences, Engineering, and Medicine's Round Table](#)³⁷ (NASEM, 2021).
- 2) Establish field-specific working groups that survey the state of OA, investigate challenges in establishing OA, and determine best practices to achieve OA.
- 3) Provide budgetary provisions to UT Libraries to enable seamless submission of faculty scholarship on Texas ScholarWorks as a way to improve OA to UT Austin affiliated research.
- 4) Develop an advertisement and educational campaign to present the benefits and possibilities of OA initiatives to faculty in a field-specific manner.

³⁶ <https://www.utexas.edu/about/mission-and-values>

³⁷ <https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:9b599dbe-e1c9-4946-83ca-a79ce1aeca71#pageNum=2>

- 5) Use the OA value statement as a guiding principle in licensing negotiations with publishers.
- 6) Create an OA Subvention Fund program to provide financial support to campus authors who would like to pursue OA publishing options for their work; such funds would be used to bridge the transition to OA publishing models and be used to overcome financial barriers like article processing charges (APCs) for journal publications or book subventions required for open access monographs.

REPORT

Definition of Open Access

The subcommittee defines OA as the principle that knowledge should be disseminated without restrictions or barriers. This definition implies that OA is not limited to access provided by journal or monograph publishers, but includes deposition of articles or monographs on freely-accessible repositories (e.g., Pubmed Central, arXiv, SSRN, Texas ScholarWorks).

Background

The University of Texas at Austin, the flagship university of the UT system and a widely acclaimed R1 research institution, broadly impacts humanity through faculty scholarship, discoveries, inventions, and creative art. To have the widest possible influence on society, the University has a strong interest in ensuring new knowledge generated here is available to all without restrictions and financial barriers. Additionally, access to the widest possible array of publications and monographs is essential to support the research and educational missions of the University. Common current modalities of publications depend on libraries paying substantial subscription charges to access publications, and additionally, individual authors paying significant manuscript processing fees to allow open access publication. This model raises significant questions, such as (1) the financial viability of library systems; (2) ethics of restricting tax-payer funded scholarship behind subscription paywalls that the general public cannot freely access; (3) diversion of research funds towards payment of article processing charges; and (4) how best should publishers monetize the value they add to scholarship. These

issues led to a concerted push for incorporation of open scholarship principles in Europe as well as some institutions in the United States (e.g., University of California system).

The University began to address the above challenges through the [Task Force on the Future of UT Libraries](#),³⁸ launched by the Provost in Fall 2018, to engage the campus community in new modes of thinking about library collections, services, space, and innovative operating models within the context of a rapidly changing higher education ecosystem. Recommendation 2 of the task force’s ten recommendations reads: “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.” In Fall 2020, the Provost commissioned the [Sustainable Open Scholarship Working Group](#)³⁹ with four subcommittees, Open Access, Open Data, Open Educational Resources, and Licensing & Negotiation, to fulfill the Task Force recommendation. This report lays out the work carried out by the Open Access (OA) Subcommittee and their recommendations based on faculty input and feedback.

Methodology

The subcommittee met 9 times between Sept 2020 – June 2021 and engaged the campus community through (1) A virtual town hall organized on March 11, 2021; (2) A survey sent out to all faculty after the town hall; (3) Presenting the work of the task force to the Dean’s Council, and Chairs’ council; (4) Individual conversations of committee members with their colleagues.

The [Town Hall](#)⁴⁰ shared an [overview of the scholarly publishing landscape](#),⁴¹ a broad description of the problem that the subcommittee is trying to address and provided time for Q&A with the audience.

³⁸ <https://provost.utexas.edu/initiatives/task-force-on-the-future-of-the-ut-libraries/>

³⁹ <https://provost.utexas.edu/initiatives/sustainable-open-scholarship-working-group/>

⁴⁰ Video recording of Town Hall presentation archived at <https://utexas.app.box.com/s/ra1cvh9rv0k7le7yd0pg55rs4x78ebxa>

⁴¹ <https://utexas.app.box.com/s/wij7n6kwceoyeb1hq4zur7wwjcvjmjnv>

The Town Hall was followed by an [open access survey](#)⁴² that was sent to all faculty on April 12th and remained open until April 28. The subcommittee received [183 responses to the survey](#).⁴³ This report is informed by subcommittee members, town hall questions and comments, and the responses to the survey.

Key Findings

Support for OA

Faculty responding to the survey supported the philosophical concept of OA at the University. Nearly 88% of respondents indicated they somewhat agreed or strongly agreed with the statement, “Scholarly work should be openly available to readers everywhere, regardless of institutional affiliation or individual ability to pay for access”. We only had 183 respondents to our survey, so we are hesitant to generalize this response to all faculty.

However, similar sentiments were shared in the other venues like the town hall and one-on-one discussions. One commenter from the survey said, “Wow, I’ve never clicked so many ‘strongly agree’ boxes on any survey in my life. This is important!”

Challenges in the pursuit of OA

The faculty are also acutely aware of several challenges in the pursuit of OA, enumerated below.

(1) *Academic freedom.* OA initiatives must preserve academic freedom – understood here to imply that faculty retain the ability to decide how their scholarship is published without a mandate.

Comments from the survey:

“Open access should be a value, an ideal, rather than a requirement.”

“While authors should have the right to share early versions of their work, I don’t think they should be required to do so.”

⁴² <https://utexas.box.com/s/kx8a8balw94zsed4bhpyj3adye8476rs>

⁴³ <https://utexas.box.com/s/f6pduntubsf6g6u03iy1ryro3tp7aa9c>

(2) *Article processing charges (APCs)*. There is a strong sentiment against use of APCs (also known as APFs, or article processing fees) to achieve OA, with two main objections. First, there is concern that faculty with access to external funding (e.g., in STEM fields) will be required/invited to pay for APCs out of their research grants, thus diverting resources from research training and research creation to publishing. Second, there is the related concern that faculty in fields without access to large grants (e.g., liberal arts, humanities and historically under-represented areas of research) would find it incredibly challenging to meet this financial burden, worsening sustainability and inclusion issues. Finally, there is concern for the lack of a thorough discussion on the predictable conflicts between the integrity of the peer-review process and the use of APCs by for-profit publishers (e.g., a more focused pressure on accepting papers to directly increase profits).

Comments from the survey:

"APC charges are outrageous and a significant impediment to open access."

"If something could be done to negotiate smaller APCs, or have the university offset (even partially) the APCs, that would be amazing."

[Note: concern about the APC model and having the university help pay APCs were themes in the comments]

(3) *Repositories*. OA through deposition of pre-prints or accepted articles on freely-accessible repositories is an established practice in several STEM fields and also required by federal mandates (e.g., PubMed Central for NIH-funded research, arXiv, SSRN, etc.). There is support for extending these efforts to those areas where the use of OA repositories would be appropriate but has not yet been successfully developed without duplicating them for fields with established OA archives.

Comments from the survey:

"PubMed Central and other open access spaces should be acceptable open access domains."

"As long as there are open access repositories and authors have the right to publish working paper versions there. There is no need to pay even more money to publishers."

"ArXiv publishing has exploded; people post nearly everything to arXiv to enhance visibility beyond what the peer-reviewed venue can provide."

(4) *Field-specific issues.* The current OA landscape is highly field-specific with OA well established in some fields (e.g., STEM), but not yet possible in others (e.g., art history). A move to OA will require detailed field-specific consultations and a "one-size-fits-all" approach is unlikely to work in a University of such diversity.

Comments from the survey:

"Journals that are important for promotion, tenure and visibility need to be open access or else scholars will not send publications to open access journals often."

"Some of these models might work in STEM disciplines but not in disciplines with little to no grant support."

"This is simply not done in my field, because we depend on illustrations that have to be licensed. OA is never going to happen in art and design history for that reason."

"In mathematics, arxiv is basically just as good as journals. I myself only read from the arxiv and I never care about what journal the papers appear in. I agree that this can be different in other fields, but perhaps negotiation at the university level should be done field-by-field."

DELIVERABLES

Statement of Value

The University of Texas at Austin strongly supports the principle of open access – that knowledge should be disseminated without restrictions.

Open access aligns with the University's Mission⁴⁴ to advance society through research, creative activity, scholarly inquiry and the development and dissemination of new knowledge, with the goals of broadening equitable access to foster greater inclusion and of developing a sustainable financial model for the University Library.

The University values open access initiatives guided by academic freedom and an understanding of the complexities of the scholarly publishing landscape.

Recommendations

As indicated in the Statement of Value, the recommendation is made that the University should strongly engage in developing OA policies. Indeed: (a) there is faculty support for OA initiatives, with a strong interest in being an active part in the design of such initiatives; (b) under the push of funding agencies, we are at a time when various stakeholders are beginning to integrate OA into the publishing landscape, e.g.,: by designing deals which will provide the starting point for licensing negotiations for decades to come -- therefore it should be a strategic priority for the University to take an active part in this process. The following recommendations are made:

- 1) *Combined efforts.* The efforts of our University to substantially change the open access landscape are likely to have a far greater impact with the involvement of all other stakeholders – federal funding agencies who can provide OA mandates; cross national collaborations with organizations and institutions in other countries that have progressed further in incorporating OA into their research/publishing process; collaborations with other universities here in the US who share similar values and are negotiating licensing contracts with large publishers etc. The subcommittee recommends that the University establish a working group to identify means to coordinate its activities with other on-going national and international efforts to achieve open scholarship and appoint a high level campus administrator to lead these efforts as recommended by the [National Academy of Sciences, Engineering, and Medicine's Round Table](#)⁴⁵ (NASEM, 2021).

⁴⁴ <https://www.utexas.edu/about/mission-and-values>

⁴⁵ <https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:9b599dbe-e1c9-4946-83ca-a79ce1aeca71#pageNum=2>

Because coordinating with other universities raises potential antitrust issues, the task force should consult with antitrust counsel before communicating with other consumers of academic publishing.

- 2) *Field-specific working groups.* The scholarly publishing landscape is extremely field sensitive, and there is no universal publishing standard across the areas of research represented at the University. As a consequence, this subcommittee recommends the establishment of field-specific working groups to:
 - a. qualitatively and quantitatively survey the state of OA in their field;
 - b. investigate possible field-specific challenges to the establishing of OA practices;
 - c. determine how best OA may be achieved within field-specific constraints; and
 - d. identify the status and possibility of sustainable OA business models like repository overlay publications. These working groups should be as broad as possible without compromising field integrity (e.g., biomedical sciences; physics; history) and have representation from more than one College if faculty working in these fields are affiliated with multiple Colleges.
- 3) *Budgetary provisions for the library/Texas ScholarWorks.* A straight-forward way to increase the OA footprint of the University will be through greater use and advertisement of the in-house repository, Texas ScholarWorks. The subcommittee strongly recommends the University provide necessary budgetary support to increase staff necessary for seamless submission of faculty scholarship on Texas ScholarWorks without creating an additional burden on faculty.
- 4) *Advertisement and education.* Success of OA initiatives on campus depend on faculty participation and engagement. The subcommittee recommends the University develop an advertisement and educational campaign to present the benefits and possibilities of OA initiatives to faculty in a field-specific manner.
- 5) *Guiding principles for licensing/negotiation options.* The subcommittee recommends that the OA value statement be used as a guiding principle in future licensing/negotiations with publishers. Specifically, the subcommittee endorses new licensing negotiations that allow the Library to pay one fee for accessing

journals and simultaneously removes article processing charges for university affiliated authors. The subcommittee also recommends that the University prioritize partnerships with non-profit, academic and professional societies-related publishers to maximize the positive impact on sustainability.

- 6) *OA Subvention Fund*. Financial support remains a hurdle for authors to pursue open access publication options for their work, particularly in the humanities. Establishing an OA subvention fund for authors to apply for funding would allow UT authors to pursue OA options with journals and book publishers.

FURTHER READING

The Blue Diamond - October 2020. (2020) Association for Computing Machinery. The Blue Diamond Newsletter. New York, NY: ACM.

<https://www.acm.org/articles/pubs-newsletter/2020/blue-diamond-october2020>

Drafting a policy. (October 2020) Good practices for university open-access policies. Harvard Open Access Project.

https://cyber.harvard.edu/hoap/?title=Drafting_a_policy&oldid=8747.

Huang, et al. (2020) Evaluating the impact of open access policies on research institutions. eLife. <https://doi.org/10.7554/eLife.57067>

Lyon, Colleen. (2021) Academic publishing and open access.

<https://utexas.box.com/s/wij7n6kwceoyeb1hq4zur7wwjcvjmjnv>

Morrison, Chris, et. al (2020). Open Access: An Analysis of Publisher Copyright and Licensing Policies in Europe, 2020. (September 2020.) SPARC Europe.

<https://doi.org/10.5281/zenodo.4046624>

Real Impact Newsletter. (October 2020.) Issue 3. Emerald Publishing.

<https://www.emeraldgrouppublishing.com/real-impact-newsletter-issue-3>

Revised Resolution on the Support of Principles for Advancing Openness Through Journal Negotiations from the University of Texas Libraries Committee. (April 2020.) Documents of the General Faculty. University of Texas at Austin.

<https://utexas.app.box.com/s/r0wqxmz6i493wksuoy2ljjwct9odd2q2>

University of Texas Libraries Committee Resolution on Diversity, Equity, and Inclusion. (March 2021.) Documents of the General Faculty. University of Texas at Austin.

<https://utexas.app.box.com/s/pz7gnzi58h1ev2flqin3jb2kzt2a6l1y>

Appendix 2: Open Data

MEMBERS

Co-Chair, Jen Ebbeler, Associate Professor, Department of Classics

Co-Chair, Leticia Moczygemba, Associate Professor, College of Pharmacy

Aaron Choate, Director of Research & Strategy, UT Libraries

Jessica Church-Lang, Associate Professor, Departments of Psychology and
Psychiatry

Niall Gaffney, Director for Data Intensive Computing, Texas Advanced Computing
Center

Lars Hinrichs, Associate Professor, Department of English

Ji Ma, Assistant Professor, LBJ School of Public Affairs

Angela Newell, Coordinator/Lecturer, CIO/ITS COO Office

Ellen Rathje, Professor, Department of Civil, Architectural, and Environmental
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Mikael Rubin, Graduate Student, Psychology

Lorenzo Sadun, Professor, Department of Mathematics

Michal Shensky, GIS and Geospatial Data Coordinator, UT Libraries and Research
Affiliate/Fellow, Department of Geography and the Environment

Jessica Trelogan, Research Data Services Coordinator, UT Libraries

SUMMARY OF CHARGES AND OUTCOMES

Charge: Engage researchers to identify disciplinary needs for data management, access, use and re-use, preservation and curation of primary research data based on FAIR data principles (Findable, Accessible, Interoperable and Reusable).

Outcome: This work will help shape best practices and campus-wide strategies for managing research data at scale.

EXECUTIVE SUMMARY

In response to a recommendation from the 2018-2019 Task Force on the Future of UT Libraries,⁴⁶ Interim Provost Dan Jaffe, working in collaboration with Dr. Lorraine Haricombe, Vice Provost and Director of the UT Libraries, and Dr. Eric T. Meyer, Dean of the School of Information, created the Sustainable Open Scholarship Working Group. This report gathers the findings and recommendations of the Open Data Subcommittee, whose membership is listed above. The Open Data Subcommittee met as a whole and in sub-groups throughout the 2020 – 2021 academic year. The work of the Subcommittee focused on reaching out to key stakeholders in the UT Austin community to identify disciplinary needs for data management, access, use and re-use, preservation, and curation of primary research data based on FAIR data principles (Findable, Accessible, Interoperable and Reusable).

The creation of a subcommittee focused on Open Data during the Covid-19 Pandemic was particularly fortuitous as many of the issues that required attention were already on the minds of the UT community. The consequences of the shutdowns of research labs and the impossibility of field work made it ever more important for researchers to be able to share and access data sets from colleagues in their fields of research. The primary goal of the Subcommittee was to offer a set of actionable recommendations to the UT Austin Provost that would facilitate the creation and sustainability of a more prominent culture of data sharing among UT Austin scholars. While funders and publishers are increasingly requiring researchers to share the data generated through their research, this is by no means universal and compliance with those requirements is not widely tracked or enforced. At UT Austin, the support of a culture that values, promotes, and even rewards the Open Data practices will require specific interventions from the campus leadership and a clear recognition of the many complexities that such a project involves. The Open Data Subcommittee has attempted to describe current practices on campus, using surveys, interviews, and a public Town Hall. In the process,

⁴⁶ <https://provost.utexas.edu/initiatives/task-force-on-the-future-of-the-ut-libraries/>

the Subcommittee has identified many of the factors that are currently obstructing a more widespread practice of Open Data.

Ultimately, the working group developed three major recommendations. Each recommendation is followed by a bullet-point list of related action items that will assist in fulfilling the terms of the recommendation. First, the group urges President Hartzell, Provost Woods, and Vice-President of Research Jaffe to produce a public-facing statement that expresses UT Austin's commitment to making all campus research open and easily accessible to other scholars (at UT and beyond) as well as the general public. Second, the Subcommittee urges UT leadership to commit resources (especially in staffing) to the project of increasing campus awareness of the principles of Open Data and the internal and external tools that are available to support researchers in ensuring that their own data is stewarded throughout the research data lifecycle to maximize its potential for sharing and reuse.

Third, and of critical importance, the group asks UT Austin's leadership to secure ongoing attention to matters related to Open Data by identifying an individual to serve as the campus lead for Open Data practices. The campus lead would be responsible for creating a Committee for Open Data that is affiliated with the UT Faculty Council. This committee would draw its membership from campus community members, including representatives from the OSP, VPR, UTL, TACC, and ITS. The campus lead and the committee would be charged with monitoring data sharing practices on the UT Austin campus and developing and implementing a sustainable plan to support and promote them. The responsibilities of this committee would include: identifying campus needs related to Open Data practices; creating, implementing, regularly updating, and communicating to campus stakeholders an inventory of existing resources, including tools, experts, and training materials; and seeking the input of the UT Austin community on matters related to the definition of Open Data and development of specific policies that govern data sharing. Finally, this committee – or a designated subsection – might assist in coordinating scholarly collaborations across the UT Austin campus.

Practices and policies around Open Data are evolving rapidly. Our Subcommittee hopes that, by starting with these three recommendations, UT Austin will be able to have a

strong voice in the conversation. We also suggest that the needs and views of campus researchers be given strong weight in any decision-making process. Various forms of feedback from the UT community demonstrates a great interest in learning more about Open Data and the resources that already exist on campus. There is a significant opportunity for UT Austin to support the efforts--especially of UT Libraries--to educate researchers across the campus, including scholars in fields that value and reward single-authored monographs and articles over large, cross-disciplinary collaborations. At the same time, the creation of formal policies should be done as transparently and collaboratively as possible, given expressed concerns about protecting Intellectual Property and receiving "credit" for the work of creating open and shareable data that align with FAIR principles.

Open Data Recommendations

1) UT President, Provost, and Vice-President for Research create a statement that is visible and consistently shared to articulate the value of making research data open to the public

- Establish and clearly articulate a long-term plan and sustained commitment to support open research at UT
- Emphasize that openly sharing research data fosters discovery and innovation, increases public trust, and aligns with [UT's Mission](#)⁴⁷ to advance society by sharing knowledge
- Promote FAIR data principles as a guide for researchers in the creation, management, and preservation of research data, with a goal of transparency and reuse
- Work toward recognizing efforts related to making research data more FAIR in promotion and tenure

2) Increase campus awareness and use of existing internal and external resources and available tools to support data management throughout the data lifecycle

⁴⁷ <https://www.utexas.edu/about/mission-and-values>

- Promote existing education and training opportunities to multiple stakeholder groups, including faculty, graduate students, postdoctoral fellows, undergraduate students, and grant administrators.
 - Address the need for training in foundational skills as well as disciplinary ones
 - Establish topical trainings in coordination with data and metadata experts on campus
 - Investigate credit for training (e.g., microcredentials, integrate with UT Learn)
 - Identify experts across campus to participate in education initiatives
 - Explore options to integrate training with graduate curricula, onboarding for postdoctoral fellows, and new faculty orientation
- Leverage existing resources and knowledge bases for data sharing (e.g., UTL's [Research Data Services](#)⁴⁸ and the [Texas Data Repository](#),⁴⁹ TACC's [Data Management and Collections](#)⁵⁰ group, the Open Science Framework (Foster & Deardorff, 2017), and purpose-built disciplinary repositories like [DigitalRocks](#)⁵¹ and [DesignSafe-CI](#)⁵²).
- As data sharing evolves, create a library of best practices that is flexible to account for disciplinary nuances, changes in technologies, and stakeholder needs

3) UT President, Provost, and Vice-President for Research identify a campus lead for open science practices who is responsible for assembling a committee (including representatives from OSP, VPR, UTL, TACC, ITS, and faculty experts) to develop, manage, and monitor data sharing practices. This committee will be charged to:

- Help coordinate cross-campus collaboration

⁴⁸ UT Libraries Research Data Services: <https://www.lib.utexas.edu/research-help-support/research-data-services>

⁴⁹ Texas Data Repository: <https://dataverse.tdl.org/dataverse/utexas>

⁵⁰ Texas Advanced Computing Center Data Management & Collections: <https://www.tacc.utexas.edu/research-development/tacc-projects/dmc>

⁵¹ Texas Advanced Computing Center at the University of Texas at Austin Digital Rocks Portal: <https://www.digitalrocksportal.org/>

⁵² DesignSafe: <https://www.designsafe-ci.org/>

- Create a roadmap for existing resources, including tools, experts, and training materials
- Obtain campus-wide input and feedback for the adoption of a definition of Open Data and a policy for data sharing
- Identify gaps in resources (e.g., staffing) and develop an infrastructure plan to address these gaps
- Monitor tools, practices, and requirements from funders and publishers as open science evolves

REPORT

Definition of Research Data

The Subcommittee defined research data as the recorded factual material that is collected, generated, or produced in the course of research which is necessary for reuse, reproducibility, or the validation of results. This could include spreadsheets, databases, imagery, documentation, software, code, algorithms, digital tools, geospatial coordinates, etc. This definition purposefully omits associated records like drafts of papers, communications with colleagues, teaching materials, information that must remain confidential until published, and information whose release would result in a breach of personal privacy.

Background

The Provost launched the [Task Force on the future of UT Libraries](https://provost.utexas.edu/initiatives/task-force-on-the-future-of-the-ut-libraries/)⁵³ in Fall 2018 to engage the campus community in new modes of thinking about library collections, services, spaces, and innovative operating models within the context of a rapidly changing higher education ecosystem. Recommendation 2 of the Task Force Report's ten recommendations reads: "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." In Fall 2020, in response to one of the 2018-2019 Task Force Report's recommendations, Interim Provost Jaffe commissioned the [Sustainable Open](#)

⁵³ <https://provost.utexas.edu/initiatives/task-force-on-the-future-of-the-ut-libraries/>

[Scholarship Working Group](#).⁵⁴ The Working Group was divided into four subcommittees: Open Access, Open Data, Open Educational Resources, and Licensing & Negotiation. This report documents the work carried out by the Open Data Subcommittee; and the Subcommittee's findings and recommendations based on feedback from faculty, staff, and graduate students as well as research on the current state of the question.

In addition to the feedback received from UT faculty in the course of examining local data sharing practices, the unique circumstances of the past year have further bolstered the case for supporting Open Data practices. For example, the pandemic has been highlighting that open science is integral to the discovery of effective treatments, development of vaccines, and modeling of disease transmission. Open Data—including the sharing of datasets as well as written work—also helped to facilitate the continuity of research during the lockdown, at a time when researchers could not access their labs, carry out field work, or access existing research stored in University Libraries.

Another important factor that is driving the push towards open data is the growing concerns of the reproducibility crisis in both social and natural sciences, wherein it has been found that only a small percentage of empirical findings can be replicated (Baker, 2016; Hardwicke et al., 2020). Open science, which includes Open Data and is tightly integrated with the research life cycle, promotes the transparency and openness of scientific discovery. It fosters best practices in that it can promote self-correction, increase credibility in the results of a research project, and facilitate the work of others who attempt to replicate the same study. These benefits amplify the return on investment of using existing data, especially when the creation of new datasets is a costly (or, as during the Pandemic, impossible) undertaking.

Creating a culture of data sharing requires complex collaboration across a university campus and demands the active involvement of committed stakeholders: university leadership, the office of research and sponsored projects, compliance/privacy officers, librarians, faculty, support staff, and students. Key challenges that have been reported in relevant scholarship were also reflected locally in the feedback elicited from researchers

⁵⁴ <https://provost.utexas.edu/initiatives/sustainable-open-scholarship-working-group/>

by the Open Data Subcommittee. These include: limited or no organizational support; inadequate training; and lack of sufficient numbers of support staff (AAU-APLU, 2021; Ashiq et al., 2020). Researchers have also reported concerns about copyright issues and data loss (Ashiq et al., 2020). Other factors impacting research data management include disciplinary norms, federal agency policies, and publisher requirements (AAU-APLU, 2021). The Open Data Subcommittee worked to engage researchers on the UT campus to learn about existing strategies as well as the specific obstacles to supporting access, use and re-use, preservation, and curation of research data based on FAIR data principles (Wilkinson et al., 2016).

Methodology

The full Subcommittee met five times between Sept 2020 and June 2021 and engaged the campus community through (1) A joint Open Data/OER survey sent out to all faculty; (2) One-on-one interviews with select stakeholders; (3) A virtual town hall organized on May 3, 2021; (4) A graduate student survey; (5) Presenting the work of the task force to the Dean's Council, and Chairs' council; (6) Individual conversations of committee members with their colleagues. Smaller subgroups met to develop the survey materials, interview questions, and informational materials, including a PowerPoint presentation. The Town Hall shared preliminary findings of the faculty survey and individual stakeholder interviews and provided time for Q&A with the audience. This report is informed by subcommittee members, town hall questions and comments, one-on-one interviews, and the responses to the surveys.

Key Findings

Faculty Survey

A [survey](#)⁵⁵ of UT Austin faculty members was conducted in March 2021. The purpose of the survey was to assess current activities related to the lifecycle management of data and to identify future needs for managing data. The survey was comprised of nine questions that solicited information about the following:

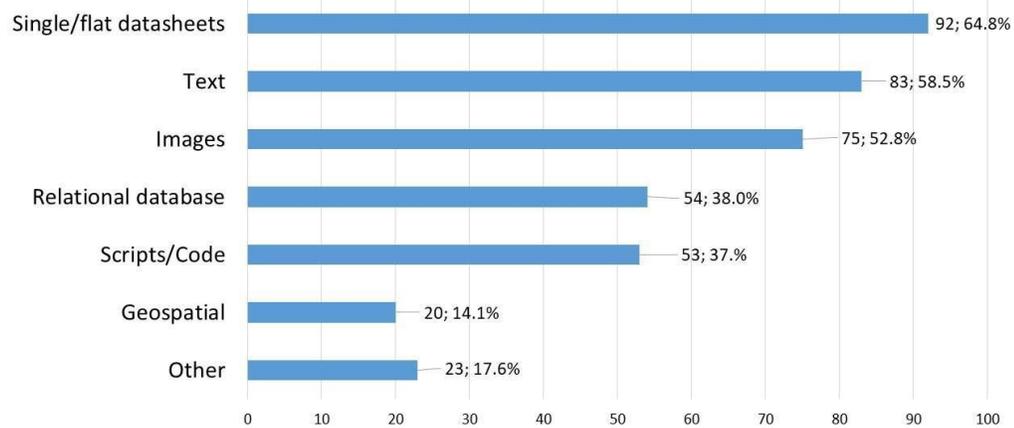
⁵⁵ Open Data Survey Results: <https://utexas.app.box.com/s/5zvtnm8rq45soitierpkidx4rqmfqf0x>

- whether or not faculty created data that aligned with the research data definition (see above)
- type of data collected, generated, or produced
- type of data storage utilized
- whether or not faculty made data available for others to reuse
- strategies for making data available to others
- methods for promoting reuse of data
- motivators for making data available for reuse
- reasons for not making data available to others
- strategies that would help faculty share data.

Survey Results

There were a total of 222 respondents that represented 60 departments. Sixty-four percent (n=142) of respondents indicated that they create data that aligns with the research data definition. Of those, the three most common types of data created were single/flat datasheets (64.8%), text (58.5%), and images (52.8%). Survey results also revealed that storage most commonly occurs on desktop or laptop computers (77.5%) and desktop cloud storage such as Dropbox, Google Drive, and UT Box (76.1%). See Figures 1 and 2 for more detail regarding data types and storage, respectively.

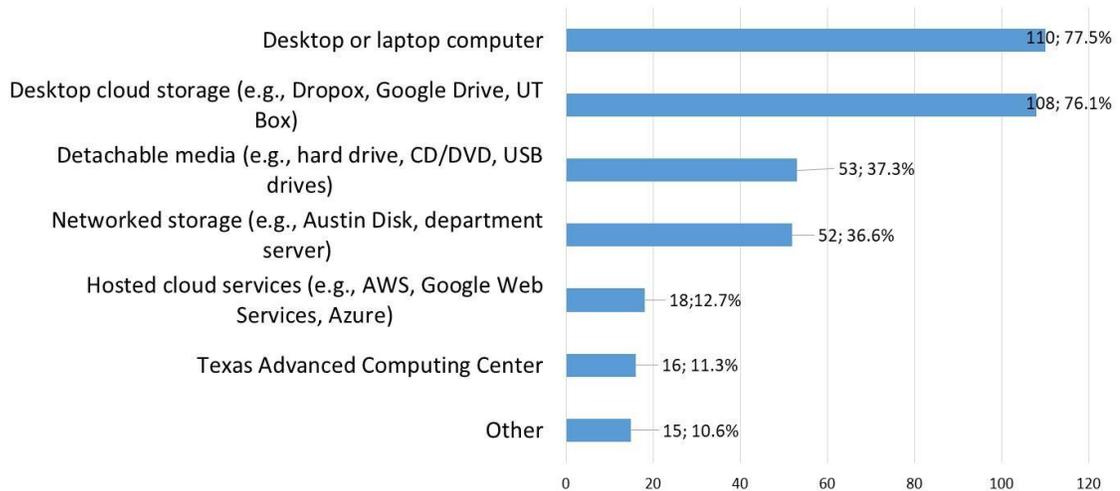
Figure 1.
Which of the following describe the data you collect, generate, or produce? (n = 142)*



■ Number of Respondents

*Categories are not mutually exclusive, respondents could select all that apply. Other responses included: Audio recording (n = 4), videos (n = 4), imaging/neuroimaging data (n = 2), specialized file format for particle physics data (n = 1), omics data (n = 1)

Figure 2.
Where do you store your research data? (n = 142)*



■ Number of Respondents

*Categories are not mutually exclusive, respondents could select all that apply. Other responses included: Texas Database Repository (n = 1), OSIRIX (n = 1), REDCap (n = 1), Worldwide LHC Computing Grid (n = 1), Cloud Version Control (n = 1), journal repositories (n = 1), DNA sequence database (n = 1), BRCF pods (n = 1), GitHub (n = 1), paper (n = 1)

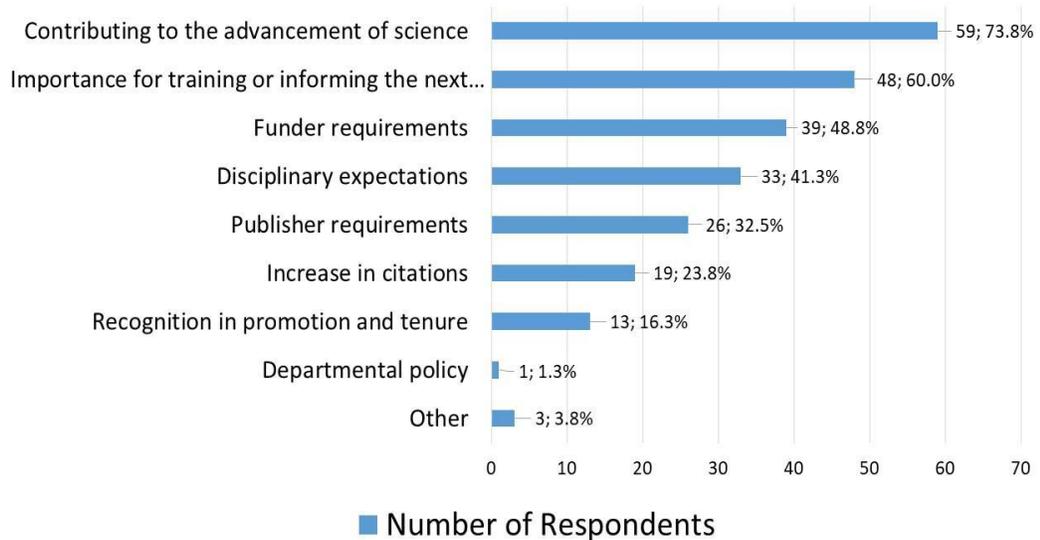
Of the respondents that do create data, 59.3% (n=80) currently make data available for others to reuse, and the majority (70.0%) are making data available to others via peer-to-peer sharing or upon request using mechanisms such as email, UT Box, or USB drives.

Personal, departmental, or project websites and general/disciplinary agnostic repositories (e.g., Texas Data Repository, Dryad, GitHub) were also used by 43.8% and 41.3% of respondents, respectively. Fewer (18.8%) were using a disciplinary repository such as the DigitalRocks Portal, DesignSAFE-ci, or Qualitative Data Repository. Nearly half (48.8%) promote reuse of their data by using digital object identifiers (DOIs) from publications for related/supplemental data, 26.3% do not do anything to promote data reuse, 23.8% use a not-for-profit platform (e.g., ORCID iD), and 18.8% use a private platform (e.g., Academia.edu, ResearchGate). Other strategies included links on a website, Creative Commons licensing, and promotion during presentations and publications. The top three motivators for investing the time to make data available for reuse included *contributing to the advancement of science* (73.8%), *importance for training the next generation of scholars* (60.0%), and *funder requirements* (48.8%). Figure 3 provides more detail regarding motivators.

For the 55 respondents who do not make data available for reuse, the top three reasons were *intention to publish further work using the data* (41.8%), *not a disciplinary expectation* (41.8%), and *do not have time to maintain it* (38.2%). Figure 4 provides a comprehensive summary of the reasons for not making data available for reuse.

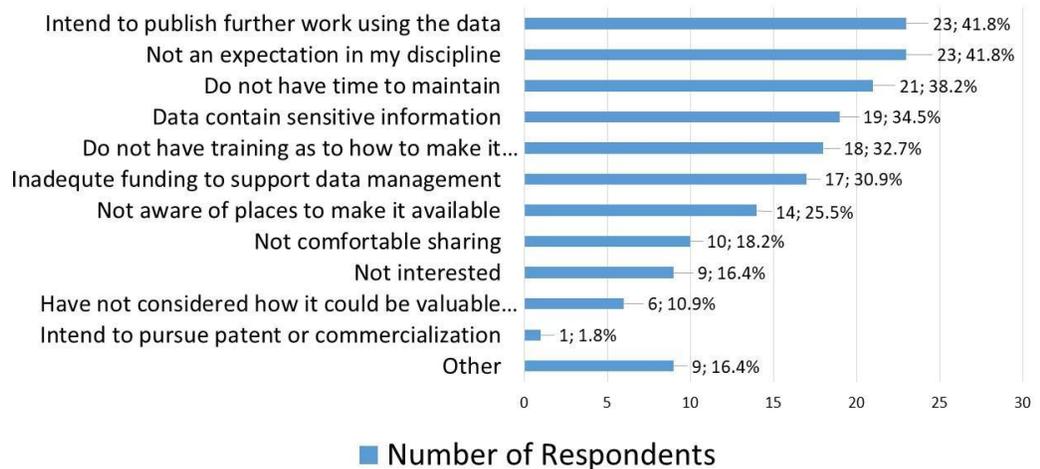
All respondents who create data (n=135) were asked about what would help them to share data. The top three most often selected responses were *funding to support time, storage costs, etc.* (63.0%), *access to tools that assist with sharing* (57.0%), and *data citation valued as highly as publication citation in promotion and tenure* (50.4%). Respondents also less frequently selected *training in how to make data shareable* (43.7%) and *guidance or policy from my department or college* (37.0%).

Figure 3.
What motivates you to invest time in making data available to others? (n = 80)*



*Categories are not mutually exclusive, respondents could select all that apply. Other responses included: being a good colleague (n = 1), research reproducibility (n = 1), program code is part of mathematical proofs (n = 1)

Figure 4.
Which of the following are reasons that you do not make your data available to others? (n = 55)*



*Categories are not mutually exclusive, respondents could select all that apply. Other responses included: I intend to but have not done yet (n = 2), data collection/cleaning is in progress (n = 2), anonymity requirements per human subjects research (n = 1), data supplier must grant permission (n = 1), willing to share upon request (n = 1), so specialized that those interested would email me (n = 1), figuring out best options to share (n = 1)

Summary of Key Survey Findings

- Few faculty who produce data prioritize making data available to others (of survey respondents, less than 60%).
- Of faculty who do share data, few of them do so publicly or in a manner that adheres to FAIR principles (70% use peer-to-peer, on request sharing via email, or cloud services like Box).
- For those who do not share data, one of the most common reasons was concern about impacts on their plans to publish further work using the data. This corroborates similar findings from a systematic review (Ashiq et al., 2020).
- There is a need to increase awareness of and access to the many tools that are currently available to support data sharing.
- With regards to resources, faculty want fewer demands/requirements and need more time and staff support (expertise) for data sharing.
- Faculty generally agree that this work is not rewarded as part of the promotion and tenure process (credit for the work/effort/citations). This is highly variable per discipline.
- There is a need for more training on how to make data shareable. Training efforts would be best focused in disciplinary contexts, where possible, but foundational skills and a general awareness of the resources available are a good way to reach a broad audience of new faculty, graduate students, and support staff (bottom-up and middle-out approaches are as vital as top-down policy or value declarations).
- All training should include and emphasize ethical considerations (privacy, data use agreements, ownership/copyright) as well as a sensitivity to the cultural variation and existing demands on faculty, students, and support staff.
- Guidance or policy (from department or college) would contribute to an increase in data sharing, but there is concern that mandates would make for extra pressure/burden on faculty and may not be worth the return on investment in some disciplines. Ethical and practical conflicts would need to be carefully considered.

One-on-one Interviews

In March and April 2021, 25 interviews were conducted with faculty who were either identified by a subcommittee member as a key stakeholder on campus or who volunteered to be contacted within the survey. Subcommittee members developed a [general script/set of prompts](#)⁵⁶ and conducted the interviews. Those who were interviewed were asked open-ended questions that were designed to elicit information about experiences and current practice in managing research data throughout its lifecycle (from planning, to creation, analysis, publication, preservation, and re-use). Questions were focused on discovering motivations for and barriers to actively managing research data according to FAIR principles and with an eye toward public sharing, as well as identifying resources and incentives that could improve general awareness and uptake.

Of the 25 interviews, 23 were transcribed and coded according to recurring themes that were either mentioned in the interview prompts or that came up in conversation. The responses largely reinforced those of the survey and also corresponded well with research into the landscape among similar research institutions (AAU-APLU, 2021; Ashiq et al., 2020).

Key Interview Findings

- Faculty generally agreed (ca. 50%) that data sharing is important and valuable but that there are significant barriers to doing so. Lack of knowledge/skills, lack of time/personnel, lack of consistency (in data over time, and across disciplines), and difficulty finding support at UT were some of the challenges mentioned. Respondents agreed that this is difficult work and several pointed out that more resources (such as funding and personnel), incentives related to promotion and tenure, and communication across campus would improve their ability to engage in more open modes of scholarship.

“Managing and sharing data – motivation is a belief that this is [the] right way science should work. If I have faith in the results, I want to make the data available

⁵⁶ <https://utexas.app.box.com/s/3lbmm5zeoss7ru78sbysuo60hiyhrwvc>

to others to verify or try out a new idea on expensive data. Wring usefulness out of it. "

"Volume is small now, but not if [trends toward] Open Data leads to larger amount of requests from researchers for access to restricted data, a full-time staff member may be needed to handle those requests"

"Keeping up with how [to] keep the site up to date is hard. [...] Spread thin...need more unified and dedicated support for these things."

- Awareness is growing but still low. Some respondents (ca 30%) are already aware of or are already utilizing existing resources (including TACC, TDR, and general/open repositories), but these results suggest that, in general, awareness on campus is currently limited. Of those who are familiar with existing resources, a lack of time, skills, and support prevent more consistent and sustainable use.

"Moving to Reproducible Research. Pushing data to TDR as soon as they can with DOI. With metadata and citable and downloadable. Four or five in past two years. Big datasets of N=23 Million shrubs. ... No guidance from the university. Honors reusability and reproducibility."

"Using UT Box to store everything. How to include Open Data practices in workflow? Does data have to be organized in a certain way? Do we have to add extra steps to our workflow?"

"DMP because of funders. Finally, anonymize the dataset, and use a platform to post the data, but not familiar with the platform yet. Really need guidance on anonymizing the dataset because in our field there are no established protocols. Unsure if UT maintains or is part of an Open Data repository and how to participate."

- Although there is consistent mention of variation by discipline, most respondents agree they are more motivated by a sense of common good (for science and society), and a return on their investment (for themselves and their students/collaborators/teams) than by requirements. In general, respondents agree

that “carrots” (including credit in P&T review) are a better incentive for sharing than “sticks” (such as funder and journal requirements).

“I think it is good for science. Secondly it is good for the lab as well. Better accounting of the data.”

“Data from the past still has value. Being able to go back over a decade and ask new questions of the same data in a way that keeps you from having to redo all the tricks and things you forgot from then is a motivation. Being able to quickly reproduce or import data into modern tools would be of great value. ... doing that by keeping the data active make the data have life.”

“Some tool builders who share tools in collaborations. How much credit should you get for that? Still stuck on the old prestige, but others who want to get away from it.”

“In regards to born digital archives, focus is on storing data in a sustainable authentic format so that future research can be conducted. On the other hand, when working with digitized data or data that comes from original research (like research on social networks, etc.) the main incentive is to ensure that the data is reusable for research and teaching. ”

“Definitely makes things easier down the road if your data’s available and you can just point them to the repository and say here’s what you need. It makes your science more trustworthy, it makes your future life easier. ”

“Maybe there could be a space for it on the FAR annual reports. Maybe credit for trainings in this regard.”

“Demonstrate what is possible to inspire researchers and show them that some things that can have a larger impact are not necessarily as difficult as they used to be or are assumed to be. Showing researchers how specific techniques can help them achieve their personal research goals. Focusing on popular tools and skills that are in high demand, then breaking these things down into simple pieces to help them understand and feel comfortable using them in their research.”

"More credit for sharing data broadly with university providing incentive (there is none now). How at the provost level do we promote more sharing with carrots?"

- The biggest "pain points" for respondents in preparing data for sharing were lack of time, lack of expertise (staff with awareness, knowledge, skills), and a lack of infrastructure (tools and systems; guidance for good practice). Coupled with a lack of incentives (in terms of credit or community norms), pain points turn into major barriers.

"The biggest issue, I think, is the extra time that it takes to document everything well. it's literally almost like writing another publication thing. It's basically the time spent curating your data takes away time from other things, right?"

"Documentation and consistency are always an issue over time and between people."

- Few departments engage in formal training. Several faculty are working on or would like to develop curricula for discipline-specific data management training for students, and many respondents mentioned gaps in their own skill sets as a barrier to better practice.

"Not too much [training offered in department]. Covered, but not as a methodology course. Need guidance on developing a systematic syllabus. A course on using existing Open Data."

"Nothing is taught about managing primary research data in the Germanic Studies department. "

"Training is haphazard. Some people good, some not."

"I never expected the department to instruct me on how to do any of this. I would like that, but I've learned it from a conference [...] set of workshops. If the department offered anything on this I'd take advantage of it."

- Some respondents pointed out a lack of confidence in centralized UT support, suggesting there is work to do to repair trust.

"And so my long term concern about this stuff not just at UT but broadly in the sciences, is that all these digital data that we're generating right now aren't going to be there."

"I've been universally disappointed in the way UT handles this."

- Certain responses indicated concern over a lack of support and technical infrastructure for important resources. Comments suggested interest in sustainable, scalable resources that can accommodate diverse needs across disciplines and evolve over time as needs change.

"The project's infrastructure is in need of a technical overhaul. "

"Lack of standardization in data. Changes in data structures over time, throwing off established workflows. Determining which fields in datasets are relevant for answering specific research questions and use cases – current approach is to just document which decisions were made."

"Lack of support/standardization among even subfields here at UT. Data conversion, pipelines, etc. all customized. Support for help making it sharable and organized for sharing so it isn't on the PI only."

- Some respondents raised concerns about sensitive data (privacy for participants, risk to study areas, data use agreements/restrictions/and copyright)

"a. Managing access and data requests. b. Human subjects, sensitive information. c. IRB needs to be informed why they include warning that data could be shared to outside parties in consent agreements. d. University guidance on recognizing and managing "identifiable" data, knowing what we can and can't share and under what conditions."

"One pain point is copyright since many of the materials I use in teaching are under copyright..."

"Confidentiality issue during collaboration: what tools, what protocols research assistants should follow?"

- Several respondents mentioned that **demonstrated examples** (use cases) and “campus champions” to help promote them would be a useful motivator and provide guidance for data sharing by example. Two respondents recommended creating a library of good practice and examples, and developing an effective strategy for raising awareness of this resource.

Town Hall

An Open Data town hall session was held on May 3, 2021. A total of 45 participants attended the session. The town hall session began with an overview of the subcommittee charge and brief background about Open Data, including a description of the definition of research data (see above) to frame the discussion. Next, survey findings and preliminary interview findings were presented to attendees. Participants were then asked to give input about what would motivate them to share data and/or what would help them to be able to share data. A general question and answer session followed.

Key Town Hall Findings

The questions and discussion at the Town Hall reinforced several of the findings from our surveys, interviews, colleague conversations, and research. For instance, the need for a “library of best practices for how to handle data” emerged - best practices that are discoverable and flexible to accommodate disciplinary differences. Another participant indicated that having data management plans that have been successfully implemented could serve as templates for others and would be a useful tool to help others share their data. In regard to the related issues of receiving credit for creating data and giving credit when using data produced by others, there was a question about how data citation can be encouraged and a comment that there needs to be a culture shift toward data citation. Finally, it was recognized that there are many complexities around data licensing and use agreements that need to be captured as we create systems and move these discussions forward.

Graduate Student Survey

A [graduate student survey](#)⁵⁷ was developed by modifying the faculty survey to reflect graduate experiences and context. The survey was sent to a representative sample of 500 graduate students and was available from May 21 – May 28. We received only 20 responses to the survey, so we are hesitant to generalize these responses to all graduates. However, we saw some similarities in the graduate responses that align with what we heard from faculty and what we observed in literature relating to research data practices, challenges, and resources that would encourage greater sharing of data.

Key Graduate Student Survey Findings

Similar to faculty experiences, few graduates reportedly share data, primarily because they do not have training as to how to make it shareable, they are not aware of places to make it available, and/or it is not an expectation of their discipline. When asked about what would help graduates share their data, the top responses included access to the tools that assist with sharing, guidance or policy from their department or college, and training as a part of their graduate programs about how to make data shareable.

Conclusion

The timing of the Open Data Subcommittee's work was fortuitous, in that concerns about accessing data in its many forms were front and center for researchers when the Covid-19 Pandemic led to restrictions on lab access, the closure of libraries and the inability to conduct usual fieldwork. It was also a timely discussion in light of the skyrocketing costs of acquiring published data, in the form of journal articles and various types of books, and because of the increasingly common requirement from funders and publishers that recipients make their data shareable and accessible to the public. Many of the subcommittee members had substantial expertise in the practices and problems of Open Data. The committee also drew on a selection of current research as well as substantial feedback from the campus community. In addition to surveys, we used targeted interviews to obtain a clear picture of current campus practices in a variety of disciplines. By using a range of tools, we were able to solicit feedback from a representative sample of the UT community, ranging from novice to

⁵⁷ <https://utexas.app.box.com/s/zxi9qf4b1gz045nojl6p2wq69ex2dezo>

expert practitioners. We are confident that our report offers an accurate sketch of current views and practices at UT while also identifying the most significant obstacles that will need to be addressed by UT leadership as UT Austin moves towards a commitment to supporting Open Data practices among UT Austin researchers.

We are hopeful that our primary recommendations will lead to important improvements in the current practices around Open Data among campus researchers and to an allocation of resources that will allow UT to promote and sustainably support those practices. Among our most important findings was the need for a campus lead and committee of experts, including representatives that support grant and research activities, to coordinate and monitor activities that will help move our campus toward a sustainable model of Open Scholarship at UT. We found that many faculty who do not currently make their data publicly accessible were interested in learning more about how to do this and about the tools and resources available to support Open Data efforts. At the same time, many researchers were especially concerned about requirements being imposed on them by UT leadership without adequate protections and policies in place for sensitive data and without sufficient resources, especially skilled staff, available to help them comply with new directives.

From the surveys and the Town Hall feedback there emerged a clear need for greater campus awareness of the basic principles of Open Data. Improved campus awareness and training, additional staff support for campus researchers, and incentives for devoting time and energy to the production and curation of research data throughout its lifecycle will all contribute to a more widespread engagement with the best practices of Open Scholarship. In making the data generated by UT Austin researchers publicly accessible while also protecting authors and at-risk participants and places, UT's many contributions to the advancement of research across scholarly disciplines will be more visible and, we imagine, will encourage an awareness and use of UT generated data by non-UT Austin researchers.

As a group, we are delighted to see resources being devoted to issues around Open Data and are grateful for the opportunity we each had to contribute to the conversation through our work as members of this Subcommittee.

FURTHER READING

- AAU-APLU. (2017). *AAU-APLU Public Access Working Group Report and Recommendations*. Association of American Universities & Association of Public & Land-Grant Universities. <https://www.aau.edu/key-issues/aau-aplu-public-access-working-group-report-and-recommendations>
- AAU-APLU. (2021). *Guide to Accelerate Public Access to Research Data*. Association of American Universities & Association of Public & Land-Grant Universities. <https://www.aplu.org/library/guide-to-accelerate-access-to-public-data>
- Academic Culture: Is it time for change?. (2020, October). *Real Impact*, (Issue 3). Emerald Publishing. <https://utexas.box.com/s/zb879weultjkd15f80harpbtqh398pbt>
- Ashiq, M., Usmani, M. H., & Naeem, M. (2020). A systematic literature review on research data management practices and services. *Global Knowledge, Memory and Communication*(ahead-of-print). <https://doi.org/10.1108/GKMC-07-2020-0103>
- Baker, M. (2016). 1,500 scientists lift the lid on reproducibility. *Nature*, 533(7604), 452-454. <https://doi.org/10.1038/533452a>
- Choate A., Gaffney N. *Formalizing Support for the Research Data Ecosystem at the University of Texas*. (2020). Research Data Working Group. <https://utexas.box.com/s/enrzf2ikqroqswmxopu9yhb0nu0d42o>
- Chodacki J., Hudson-Vitale C., Meyers N., Muilenburg J., Praetzellis M., Redd K., Ruttenberg J., Steen K., Cutcher-Gershenfeld J., and Gould M. *Implementing Effective Data Practices: Stakeholder Recommendations for Collaborative Research Support*. (2020). Washington, DC: Association of Research Libraries. <https://doi.org/10.29242/report.effectivedatapactices2020>
- Foster, E. D., & Deardorff, A. (2017). Open Science Framework (OSF). *Journal of the Medical Library Association: JMLA*, 105(2), 203-206. <https://doi.org/10.5195/jmla.2017.88>
- Freese, J., & Peterson, D. *Replication in Social Science*. (2017). Annual Review of Sociology, 43(1), 147-165. <https://doi.org/10.1146/annurev-soc-060116-053450>
- Hardwicke, T. E., Wallach, J. D., Kidwell, M. C., Bendixen, T., Crüwell, S., & Ioannidis, J. P. A. (2020). An empirical assessment of transparency and reproducibility-related research practices in the social sciences (2014-2017). *Royal Society Open Science*, 7. <https://doi.org/10.1098/rsos.190806>
- Redd, K. J., Steen, K., Nusser, S, Smith, T., Walters, T, Chasen, J., Luther, J., and Reecy, J. *Accelerating Public Access to Research Data Workshop*. Washington, District of Columbia. (2019). Joint publication by the Association of Public and Land-grant

Universities and Association of American Universities.

<https://www.aplu.org/projects-and-initiatives/research-science-and-technology/public-access/workshop-on-public-access-report-aplu-aau-2019.pdf>.

Shensky M., Trelogan J. *UT Libraries: Research Data Services*, (2021). University of Texas Libraries. <https://utexas.box.com/s/q80jmtv5z5v5ouhev9zkaa7db8446fog>

Wilkinson, M., Dumontier, M., Aalbersberg, I. et al. *The FAIR Guiding Principles for scientific data management and stewardship*, (2016). Scientific Data 3, 160018. <https://doi.org/10.1038/sdata.2016.18>

Appendix 3: Open Educational Resources (OER)

MEMBERS

Co-Chair, Sara Sweitzer, Associate Professor, Department of Nutritional Sciences,
College of Natural Sciences

Co-Chair, Carl Blyth, Associate Professor, Department of French and Italian,
College of Liberal Arts

Amanda Hager, Associate Professor of Instruction, Department of Mathematics,
College of Natural Sciences

Danny Law, Associate Professor, Department of Linguistics, College of Liberal Arts

Tim Fackler, Director of Instructional Technology, Liberal Arts Instructional
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Aless Nonot, undergraduate student, College of Natural Sciences (Human
Development & Family Sciences)

Ashley Morrison, Tocker Open Education Librarian, UT Libraries

Kristen Procko, Associate Professor of Instruction, Biology Instruction Office,
College of Natural Sciences

Matthew Russell, Faculty Development Specialist, Faculty Innovation Center

SUMMARY OF CHARGES AND OUTCOMES

Charge: Raise understanding, awareness, and value of adopting, adapting, and/or developing open educational resources within the UT community, including faculty, graduates, and undergraduates.

Outcome: The subcommittee articulated strategies that promote OER and make faculty more knowledgeable and comfortable with these pedagogical innovations.

EXECUTIVE SUMMARY

The Open Educational Resources (OER) subcommittee is part of the Sustainable Open Scholarship Working Group established by the Provost to develop strategies to support sustainable and open scholarship at UT-Austin. The OER subcommittee was charged

with articulating strategies that promote OER and open pedagogy. The subcommittee defined OER as *“teaching and learning materials made freely available to students, educators, and the general public via open copyright licenses that allow others to adopt or reuse the original content for their own purposes.”* Primary deliverables were the development and administration of two faculty surveys, one white paper published as a web page, one promotional video published online, and several student-led initiatives, including the Affordable Education Champions program (AEC). The faculty surveys revealed a mixed level of faculty awareness and understanding of OER as well as a high degree of willingness to consider or evaluate OER, a finding in keeping with similar surveys conducted by peer institutions. The report issued six concrete recommendations, including the creation of grants and course release programs to incentivize faculty to evaluate, adopt, and/or develop OER and the inclusion of OER engagement as a criterion for promotion and tenure.

OER Recommendations

Based on the data in this report, we suggest that UT Austin support OER awareness and usage in the following ways:

- 1) Create grants and course release programs to encourage faculty to evaluate, adopt, and/or develop OER, implemented with the best practices developed by our peers inside the UT System ([UTSA](#),⁵⁸ [UTA](#),⁵⁹ [UTRGV](#)⁶⁰) and beyond ([Texas A&M](#),⁶¹ [UNC Chapel Hill](#),⁶² [UC Berkeley](#),⁶³ and more).

⁵⁸ UT San Antonio Libraries, Apply for an OER Grant: <https://lib.utsa.edu/services/faculty/oer/apply-for-a-faculty-grant>

⁵⁹ UT Arlington Libraries, UTA Cares Grant Program: <https://libguides.uta.edu/OERgrants>

⁶⁰ UT Rio Grande Valley OER Grant Opportunities: <https://utrgv.libguides.com/oer/grants>

⁶¹ Open Resource Textbooks At Texas A&M Will Save Students Millions, Provost’s Office Says, *Texas A&M Today*, <https://today.tamu.edu/2020/03/05/open-resource-textbooks-at-texas-am-will-save-students-millions-provosts-office-says/>

⁶² Carolina Open Educational Resources, <https://coer.web.unc.edu/funding/>

⁶³ Berkeley Library Open & Affordable Course Materials, <https://www.lib.berkeley.edu/scholarly-communication/open-access-publishing/open-affordable-course-materials>

- 2) Publish and promote a statement of support for OER evaluation by UT Austin leadership, reinforced with the inclusion of [OER engagement in tenure and promotion guidelines](#).⁶⁴
- 3) Continue to support [efforts by UT Libraries](#)⁶⁵ to offer faculty assistance with their searches for OER and other free and affordable course materials as well as OER development.
- 4) Publish and disseminate case studies that highlight OER usage and outcomes at UT Austin to create interest among faculty and to serve as models. An excellent video example of a [case study](#)⁶⁶ has been produced by Ashley Morrison (UT Libraries) and Dr. Joshua Barbour, Associate Professor, Dept. of Communication Studies. In addition, we recommend the publication of a promotional video featuring UT students discussing their experiences with OER.
- 5) Make user-friendly OER publishing tools, such as [Pressbooks](#)⁶⁷ or [Manifold](#),⁶⁸ available to UT Austin faculty to facilitate the development and sharing of faculty-authored OER. Such tools have already been adopted within the UT System and amongst our peer institutions.
- 6) Develop and administer a follow-up OER survey aimed at UT Austin students to assess the impact of the cost of required course materials on their academic and personal lives.

REPORT

Definition of OER

We adopt the following definition of OER for this report: The term 'Open Educational Resources' (OER) refers to teaching and learning materials made freely available to

⁶⁴ OER in Tenure and Promotion, *Doers3.org*, <https://www.doers3.org/tenure-and-promotion.html>

⁶⁵ UT Libraries LibGuide on Open Educational Resources, <https://guides.lib.utexas.edu/c.php?g=659232&p=7826774>

⁶⁶ MoodyCATE YouTube, <https://www.youtube.com/watch?app=desktop&v=8g2qYXUZ94c&t=39s>

⁶⁷ <https://pressbooks.com/>

⁶⁸ <https://manifoldapp.org/>

students, educators, and the general public via open copyright licenses that allow others to adopt or reuse the original content for their own purposes.

In practice this means that OER developers may share the following copyright permissions with their users:

- Retain - the right to make, own, and control copies of the content (e.g., download, duplicate, store, and manage)
- Reuse - the right to use the content in settings like classes, study groups, on websites, in videos, etc.
- Revise - the right to adapt, adjust, modify, or alter the content itself (e.g., translate the content into another language)
- Remix - the right to combine the original or revised content with other material to create something new (e.g., incorporate the content into a mashup)
- Redistribute - the right to share copies of the original content, your revisions, or your remixes with others (e.g., give a copy of the content to a friend)

(See [OpenContent.org](https://opencontent.org/),⁶⁹ [UNESCO](https://en.unesco.org/themes/building-knowledge-societies/oer),⁷⁰ and [OER Commons](https://www.oercommons.org/learn-about-the-movement)⁷¹ for more complete versions of the above definitions).

Background

During the past 20 years, open education has evolved into a global movement affecting all levels of education. Early efforts focused on the creation and sharing of OER, defined as pedagogical materials ‘that are openly available for use by educators and students, without an accompanying need to pay royalties or license fees’ (Butcher et al., 2011, 2015, p. 5). Examples of OER include videos, images, podcasts, lesson plans, class activities, PowerPoint slides, full-length open textbooks, among many other resources. OER are often shared via a Creative Commons⁷² license that allows fellow educators to revise, remix, retain, reuse and redistribute the content by avoiding the usual restrictions of copyright (Wiley, 2014). More recent efforts have shifted the focus from OER to Open

⁶⁹ <https://www.opencontent.org/definition/>

⁷⁰ <https://en.unesco.org/themes/building-knowledge-societies/oer>

⁷¹ <https://www.oercommons.org/learn-about-the-movement>

⁷² <https://creativecommons.org/>

Educational Practices (OEP) such as open pedagogy, defined as an ‘access-oriented commitment to learner-driven education AND as a process of designing architectures and using tools for learning that enable students to shape the public knowledge commons of which they are a part’ (Jhangiani & DeRosa, 2017, p. 14, emphasis in original). Furthermore, OER and OEP typically draw upon ‘open technologies that facilitate collaborative, flexible learning and the open sharing of teaching practices’ (“Cape Town Open Educational Declaration,” 2008, p. 1). In sum, the democratization of knowledge – both the creation and distribution of it – lies at the heart of the open education movement. When knowledge is severely limited or denied due to restrictive copyright or exorbitant access fees for students, teachers, researchers or the general public, it negatively affects those involved and restrains intellectual progress.

Benefits of OER (adapted from Washington State University Libraries⁷³)

Free or low-cost: Textbook prices have increased over 1,000% since 1977 or three times the rate of inflation (Popken, 2015). The average student at UT Austin pays \$724 annually for pedagogical materials. OER programs report saving students millions (Senack, 2015).

Student-driven, multimodal learning: OER are one way of engaging students more deeply in the educational process, moving beyond lecture and text. The [Center for Open Educational Resources and Language Learning](#)⁷⁴ at UT Austin, a federally-funded Title VI Center, has been producing high-quality, multimodal materials for language learning since 2010. These materials mix texts, images and videos to create an immersive language learning environment.

Customization: OER allow faculty members to customize their class materials for their students. David Wiley, adjunct faculty at BYU, argues in "[iterating toward openness](#)"⁷⁵ that OER can facilitate more meaningful, more inclusive pedagogical practices (Wiley, 2017).

⁷³ Washington State Libraries, LibGuide on OER, <https://libguides.libraries.wsu.edu/affordablelearning/oerprocon>

⁷⁴ <https://www.coerll.utexas.edu/coerll/>

⁷⁵ <http://opencontent.org/blog/archives/2975>

Increasing support for "plug and play" resources: For instructors who have little time to adapt resources, OER projects like [OpenStax](https://openstax.org/)⁷⁶ (Rice University) and the [Open Learning Initiative](https://oli.cmu.edu/)⁷⁷ (Carnegie Mellon) are increasingly making "packaged" resources available.

Lifelong learning: Because OER are open, they allow students to return to course content again and again--before and after courses.

Challenges of OER (adapted from Washington State University Libraries⁷⁸)

Quality control issues: OER constitutes a heterogeneous category of unregulated content. Some OER are characterized by up-to-date, authoritative content and high production values. In contrast, other OER may contain dubious content and be produced with little support for copyediting and design.

Permanence: OER can disappear if not properly archived and backed up in a trusted repository such as [Texas ScholarWorks](https://repositories.lib.utexas.edu/)⁷⁹ or [OERTX](https://oertx.highered.texas.gov/).⁸⁰

Complex copyright issues: [Open licensing](https://creativecommons.org/licenses/)⁸¹ can be a challenge to navigate, especially for faculty new to OER. In addition, faculty and students are often poorly versed in the legal issues surrounding copyright.

Missing ancillaries: Although some OER projects like [OpenStax](https://openstax.org/)⁸² include ancillary resources to accompany their textbooks, many OER may lack such things as instructor copies, quizzes/tests, and supplementary materials that come with commercially-published materials.

Time: Creating and/or locating OER can be extremely time-consuming. For this reason, libraries, administrators, and instructional designers are increasingly called to provide support for faculty members who wish to use OER in their

⁷⁶ <https://openstax.org/>

⁷⁷ <https://oli.cmu.edu/>

⁷⁸ Washington State Libraries, LibGuide on OER, <https://libguides.libraries.wsu.edu/affordablelearning/oerprocon>

⁷⁹ <https://repositories.lib.utexas.edu/>

⁸⁰ <https://oertx.highered.texas.gov/>

⁸¹ <https://creativecommons.org/licenses/>

⁸² <https://openstax.org/>

courses. [UT Austin Libraries have OER specialists](#)⁸³ who support faculty members looking for free educational resources.

Methodology

The subcommittee met 8 times on Zoom between September 2020 – June 2021 and engaged the campus community through (1) the administration of 2 brief surveys; (2) the creation of a White Paper concept that evolved into a website; (3) the production of an “OER at UT” video that featured faculty; (4) engaging with students who were already working on an OER faculty recognition program; (5) presenting the work of the working group to the Dean’s Council, and Chairs’ Council; and (6) individual conversations of committee members with their colleagues and students.

This report is informed by subcommittee member experiences, video content, and survey responses.

Key Findings

Results from First Survey

There were 204 respondents to the first survey from 60 disciplines. Although this represents a small percent of the total faculty, 92% had teaching responsibility and included 67% with 11 or more years of teaching experience ranging across lower division, upper division and graduate courses. The responses demonstrated a fairly well stratified awareness of OER. Only 19% of respondents acknowledged they were unaware of OER. Novice awareness ranged from 25% only acknowledging they had heard of OER to 15% feeling they were somewhat aware of OER but unfamiliar with implementation. More advanced awareness ranged from 25% of respondents indicating they are aware of OER and some of their use cases to 13% as very aware of OER and how they can be used in the classroom. OER awareness rates among UT Austin faculty correspond closely to similar surveys administered nationally, indicating that we likely will not need to deploy a local survey frequently (Seaman & Seaman, 2021).

⁸³ <https://guides.lib.utexas.edu/OER/home>

This translated to positive responses to the second survey question about plans to adopt or evaluate OER. We saw a quarter of respondents indicate they already use them. And although only 9% had plans to adopt or evaluate OER, 22% indicated they will consider adoption or evaluation and 30% indicated they might consider adopting or evaluating OER.

The third survey question sought to measure faculty perception of the frequency that cost prevents students from having required course materials. A small percentage of respondents indicated that cost always or most of the time plays a role, 3.5% and 7.8%, respectively. A much larger percentage indicated about half the time or sometimes, 12% and 55% respectively. But 21% indicated that cost never prevents students from having required course materials. The subcommittee suggests a future research opportunity in asking the same question of UT Austin students to compare faculty and student perceptions that cost prevents students from accessing required course materials.

The responses to this first survey demonstrate needs for building awareness of OER and guidance for implementation. Responses to the second question demonstrate a general openness to OER. These responses informed the creation of the second survey and the OER web page in order to provide guidance to support faculty's consideration of OER implementation.

Results from Second Survey

The second survey had only 66 respondents, of which 98% had teaching responsibilities and represented 35 disciplines. The most important factors in the consideration of use or adaption of OER in courses were cost for students (91%), ease of fit within current teaching materials (81%), recency of material coverage or updates (68%), reputation of the author (61%) along with the ability to customize (59%) and integrate into Canvas (56%). Respondents indicated that the primary deterrents to the adoption of OER are that it is too difficult to find OER (58%), that there is not enough time to search for OER (51%), there are not enough resources in the subject area (46%), not the right level for respondents' students (33%), and that OER are unprofessional in appearance or not up-to-date (each 30%). Despite these concerns, close to half of respondents indicated they

would consider engaging with OER as an adopter (24%) or an adapter (25%). Further, 17% said they would consider authoring OER, and 16% would peer review OER materials. A smaller percentage, 10%, expressed a willingness to advocate for OER at UT Austin, and only 6% indicated they had no interest in engaging with OER.

In summary, the two faculty surveys indicated a mixed level of awareness and understanding of OER as well as a high degree of willingness to consider or evaluate OER while acknowledging that faculty encounter barriers to searching for and identifying OER appropriate for their courses.

DELIVERABLES

Surveys

The subcommittee deployed two surveys to active faculty in the interest of tracking awareness, usage, and experiences related to OER. We determined that sending two shorter surveys might yield higher participation rates than a single, longer survey, and we intended to use responses to the first survey to inform potential questions asked in the second survey. Both surveys used this question to narrow all active faculty to teaching faculty, our actual target: "Is teaching either undergraduate or postgraduate courses among your professional responsibilities?" Respondents who selected "no" were directed to the end of the survey and not served additional questions related to OER.

Survey I

The first survey was shared on Tuesday, March 3, 2021, in combination with a set of survey questions from the Open Data subcommittee. The goal of the first survey was to simultaneously drive and assess awareness and usage of OER among faculty. The key questions it asked were:

- 1) How aware are you of OER?
- 2) Do you have plans to adopt or evaluate OER for use in your course(s)?
- 3) How often does cost prevent your students from having required course materials?

Survey II

The second survey was shared with faculty on Wednesday, May 12, 2021. The survey was coupled with two of the subcommittee's major deliverables, the [Faculty Guide to Use of OER](#)⁸⁴ web page and the [promotional video](#)⁸⁵ featuring interviews with faculty OER adopters and authors (each described in more detail in the Deliverables section). This survey asked faculty more specific questions about their motivations and barriers to OER adoption, including:

- 1) When considering using or adapting OER for use in your courses, how important are the factors below [factors listed]?
- 2) To what extent do you agree or disagree that the following are deterrents to the adoption of OER in your courses [factors listed]?
- 3) What roles would you consider for personally engaging with OER at UT?

Promotional Video

The subcommittee decided that a series of short videos would be useful for educating the UT community about the affordances of OER. After reviewing videos from other universities, we interviewed several faculty members with significant experience using OER in their classes. Based on these interviews, we created a 3-minute [promotional video](#).⁸⁶ The video includes Ashley Morrison, Tocker Open Education Librarian at UT Austin, who addresses frequently asked questions (FAQs) aimed at OER novices. For instance, Ashley discusses how faculty can contact her directly for support or contact their Subject Liaison Librarian to find out more about OER. Ashley also mentions how she can help faculty to navigate OER repositories to locate appropriate materials.

In addition to completing an introductory video that features the stories of UT faculty who have used OER in their classes, the subcommittee interviewed several UT faculty about the relationship of OER to their research and scholarship. The interviews will be used for the production of a second video that explores the linkages between research and OER development. For instance, many OER are the direct result of ongoing research projects by faculty members. The subcommittee decided not to produce a promotional

⁸⁴ <https://provost.utexas.edu/initiatives/faculty-guide-open-educational-resources/>

⁸⁵ <https://www.youtube.com/watch?v=Fw5mpPma2Nk>

⁸⁶ <https://www.youtube.com/watch?v=Fw5mpPma2Nk>

video aimed at students since these kinds of videos produced by other institutions are readily available on YouTube. However, the production of a video in which UT students discuss their experiences learning with OER is still highly recommended.

Web Page/White Paper

The subcommittee authored a white paper that was ultimately rendered as a web page titled [Faculty Guide to Use of Open Educational Resources \(OER\)](#)⁸⁷ (in addition to a downloadable [PDF](#)⁸⁸) to provide faculty and other members of the UT community with a general introduction to OER as well as explaining its benefits, promoting available support, and addressing frequently asked questions on related topics. The promotional video described above is also featured prominently at the top of the page.

The specific content the subcommittee chose to include was informed by the results of the first OER survey to faculty, which demonstrated an opportunity to educate faculty on the basics of OER and make clear the support services available to them through UT Libraries. The subcommittee noted that faculty engagement with OER — whether adopting, adapting, creating, or peer reviewing — is often overlooked in existing institutional reward structures. As a consequence, a section of the white paper addresses how adopting, adapting, or creating OER can be properly reflected in P&T and annual review processes. A link to the web page and downloadable PDF was distributed to active faculty by email and accompanied with a link to the second faculty survey on Wednesday, May 12, 2021.

Student Initiatives

The Senate of College Councils, the student voice in academics at UT, have passed three resolutions in support of OER access: S.R 1808 “In Support of UT Libraries’ Advocacy for Open Education Resources”⁸⁹ (2019), S.R 1911 “In Support of the Creation of a

⁸⁷ <https://provost.utexas.edu/initiatives/faculty-guide-open-educational-resources/>

⁸⁸ <https://utexas.app.box.com/file/884232927284?s=fbs9zg4e0ojyun6vjiiid3mm33deu6xhx>

⁸⁹

<https://static1.squarespace.com/static/57c75a1cf5e2317342584ca0/t/5edd40414b689d06b8111da7/1591558210782/sr+1808+ut+libraries+advocavy+for+open+ed+resources.pdf>

University-Wide OER Faculty Award Program”⁹⁰ (2020), and S.R 2103 “In Support of Low Cost Course Designations”⁹¹ (2021). In partnership with UT Libraries, Senate assisted in assembling a student committee to implement recommendations S.R 1911 in the form of a student-driven faculty recognition program. Senate utilized the college councils to promote the AEC program and encourage students to nominate instructors who assigned free or low-cost resources. This initiative was created to promote the use of OERs and show appreciation to instructors who have shown commitment to equity in their classroom. The nomination period for the Affordable Education Champions (AEC) program began on February 23, 2021 and ended on March 3, 2021. Natural Sciences Council (representing the College of Natural Sciences) created marketing materials that are shown below:

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<https://static1.squarespace.com/static/57c75a1cf5e2317342584ca0/t/5e66e9cef1442d1a13b0dece/1583802832376/S.R.+1911+-+A+Resolution+in+Support+of+the+Creation+of+a+University-Wide+OER+Faculty+Award+Program.pdf>

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<https://docs.google.com/document/d/12gYYiBiJnDHYnK1YvNTAOeHcEHpyF0w9pHEdGGxmf78/edit?usp=sharing>

NOMINATE PROFESSORS!

Affordable Education Champions

In partnership with UT Libraries

Have you had an instructor who increased access and equity by selecting free or low-cost course materials for class?

Nominate them as an Affordable Education Champion to let them know how much their choices meant to you!

Nominate your professors here:
tiny.cc/aechampions

The University of Texas at Austin
University of Texas Libraries

Who is an affordable education champion?

Affordable Education Champions are instructors who assign **free** or **low-cost** resources -- like textbooks, websites, films, and more -- for their courses. (Because the "low cost" definition can vary by discipline, we invite you to determine what that means for you.)

Sometimes they author their own materials, and sometimes they're able to reuse free or low-cost work created by others.

We share gratitude and appreciation for their commitment to fostering access to **high-quality education** at the lowest possible cost barrier for their students.

*UT Libraries and the Senate of College Councils will recognize some instructors in promotional materials on our websites and social media. All instructors will be made aware of their nominations.

The University of Texas at Austin
University of Texas Libraries

The Senate of College Councils also advocated for OER access through the President’s Student Advisory Committee (PSAC), which is composed of student representatives who advise the university President on student issues. One of Senate’s end of year recommendations to the President was in support of a \$10,000 financial commitment from the Provost’s Office to fund an [Open and Affordable Faculty Incentive Pilot Program](#).⁹² This program aims to financially incentivize instructors to create and use OER. Students were able to get a commitment from the President’s Office and Dean of Students towards the creation of this program.

Conclusion

Based on our research of peer institutions conducted as part of this report, we believe that UT-Austin is not where it should be in the promotion of OER and open pedagogy. And yet, despite a continued lack of faculty awareness about OER as demonstrated by our surveys, UT-Austin possesses institutional strengths that promise a bright future for

⁹² <https://drive.google.com/file/d/1MX7kpiJiof9MLzStFXUBMOsya8BK0qeJ/view>

OER development and usage on our campus: strong OER advocacy from the UT Libraries, an engaged student government that has recently initiated several OER projects, a Faculty Innovation Center well versed in open pedagogy, a federally-funded Title VI center (COERLL) that has created OER in twenty foreign languages, and a top tier iSchool that is conducting important research on the affordances of open design for the creation and dissemination of scholarship. If the university were to continue to support current initiatives and implement the recommendations in this report, we firmly believe that UT-Austin could become a national leader in OER and Open Education.

FURTHER READING

Blyth, C. and Thoms, J. (2021). *Open Education and Second Language Learning and Teaching: The Rise of a New Knowledge Ecology*. Bristol: Multilingual Matters. Download PDF at <https://www.multilingual-matters.com/page/detail/Open-Education-and-Second-Language-Learning-and-Teaching/?k=9781800410985>

Community College Consortium for OER: <https://www.cccoer.org/>

Jhangiani, R. and Biswas-Diener, R. (2019). *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. London: Ubiquity Press. <https://www.ubiquitypress.com/site/books/e/10.5334/bbc/>

MIT OpenCourseware: <https://ocw.mit.edu/index.htm>

Open Education Consortium: <https://www.oeconsortium.org/>

Open Education Network: <https://open.umn.edu/otn/>

Open Learning Journal: <https://www.tandfonline.com/toc/copl20/current>

Appendix 4: Licensing and Negotiation

MEMBERS

Co-chair, Barbara Bintliff, Professor, School of Law and School of Information

Co-chair, Hirofumi Tanaka, Professor, Kinesiology and Health Education

Andrea Gore, Professor, College of Pharmacy and Department of Psychology

Jennifer Maedgen, Senior Associate Vice President, Division of Diversity and
Community Engagement

Vagheesh Narasimhan, Assistant Professor, Department of Integrative Biology
and Department of Statistics and Data Sciences

Ebony Robles, Associate Business Contracts Administrator, Business Contracts

Steven Rosen, Associate Vice President for Legal affairs, Office of the Vice
President for Legal Affairs

Lexie Thompson-Young, Assistant Director of Scholarly Resources, UT Libraries

Imelda Vetter, Health Sciences Librarian, Dell Medical School

SUMMARY OF CHARGES AND OUTCOMES

Charge: Explore existing frameworks/models/MoUs of library negotiations with publishers.

Outcome: Develop a set of guiding principles for negotiating UT's contracts that support sustainable open scholarship practices with scholarly publishers.

EXECUTIVE SUMMARY

The Provost launched the [Task Force on the Future of UT Libraries](https://provost.utexas.edu/initiatives/task-force-on-the-future-of-the-ut-libraries/)⁹³ in Fall 2018 to engage the campus community in new modes of thinking about library collections, services, space, and innovative operating models within the context of a rapidly changing higher education ecosystem. Recommendation 2 of the task force's ten recommendations reads: "In FY20, establish a campus-wide taskforce to engage the UT

⁹³ <https://provost.utexas.edu/initiatives/task-force-on-the-future-of-the-ut-libraries/>

community in developing strategies to support sustainable and open scholarship at UT and in Texas.” In Fall 2020 the Provost commissioned the [Sustainable Open Scholarship Working Group](#)⁹⁴ with four subcommittees, Open Access, Open Data, Open Educational Resources, and Licensing & Negotiation, to fulfill the Task Force recommendation. This report lays out the work carried out by the Licensing & Negotiation Subcommittee and their recommendations based on an exploration of existing frameworks as well as UT faculty input and feedback.

Shared Vision and Approach

A key to reaching a successful sustainable open scholarship environment is addressing the manner in which the financial aspects of faculty journal submissions, publishing costs, and journal subscription fees are handled. The current model of faculty scholarship is no longer sustainable; in this model, faculty authors are employed by the university for their research and scholarship, use university resources in their research that leads to the publication of journal articles, and provide no- or low-paid editorial and peer review services. Despite this already significant investment, universities also pay for electronic journal subscriptions and faculty may pay publication costs, typically from grant funds. A single university community, in essence, pays several times for the creation and refinement of knowledge and then pays again to subscribe to the journals in which it is published.

The Licensing & Negotiation Subcommittee (“L&N Subcommittee”) was charged to explore existing approaches used by libraries and library systems seeking a more sustainable scholarship model in negotiating with publishers. The L&N Subcommittee partnered with the Open Access Subcommittee in assessing faculty attitudes and priorities. The L&N Subcommittee also evaluated and analyzed several existing statements of negotiating priorities to understand the existing approaches to the problem.

Building on these activities, the L&N Subcommittee developed a Statement of Principles for Achieving Open and Sustainable Scholarship (below) and makes the following series

⁹⁴ <https://provost.utexas.edu/initiatives/sustainable-open-scholarship-working-group/>

of recommendations that may allow for a more informed and coordinated negotiating stance.

Licensing and Negotiation Recommendations

The L&N Subcommittee recommends that:

- 1) UT negotiators use the Statement of Principles for Achieving Open and Sustainable Scholarship as guidance in negotiating licenses.
- 2) Individual faculty become familiar with the statement of principles and use them to assess their publishing opportunities. Familiarity may be gained through publicity and marketing by University Libraries and Provost, for example.
- 3) A centralized mechanism be developed for identifying efforts of all faculty and staff involved in peer review, so that faculty efforts can be capitalized on in negotiations.
- 4) A centralized mechanism be developed for identifying the efforts of all faculty and staff involved in editorial functions, so that faculty efforts can be capitalized on in negotiations.
- 5) A centralized mechanism be developed for all faculty and staff to receive guidance regarding journal submissions, including as to issues of copyright, and diversity, equity and inclusion.
- 6) A centralized mechanism be developed for all consumers of scholarship to receive guidance regarding their rights to privacy in the use of licensed electronic scholarship.

REPORT

Methodology

The L&N Subcommittee collaborated with the Open Access (“OA”) Subcommittee, assuming that there was no need to duplicate actions. (The work of the OA Subcommittee is described above in detail.) The work of the L&N Subcommittee built on the work of the OA Subcommittee; the L&N Subcommittee wishes to express its appreciation to the OA Subcommittee for its willingness to share and collaborate on this project.

The L&N subcommittee analyzed numerous OA principles and provided an important hierarchy of principles. The amount of overlap found in these documents provided a good working foundation for the L&N Subcommittee's work.

Specifically, the L&N Subcommittee compiled key elements of the negotiation and licensing guiding principles from other state and peer institutions. Findings included, for example, that Iowa State uses a very simple approach focusing on three principles (prioritize openness, transparency, and financial sustainability); MIT uses five principles, the University of California System has seven principles; and the University of Wisconsin libraries has nine. Each statement used different formats to explain its priorities and principles. The L&N Subcommittee also looked at versions of principles from Norway and Japan.

After analysis and comparison, the L&N Subcommittee concluded that a careful examination revealed substantial overlaps. At their core, the documents are very similar. The key common elements in the various guiding principles are:

- Prioritization of openness (open access) on scholarly work
- Fusion of licensing (subscription) and open access (article processing charge) – publishing open access should not increase total cost
- Free usage report, metrics, and citation data on open access
- Transparency (no non-disclosure or confidentiality clause on license agreements, costs, and business models)
- Sustainability (i.e., perpetual access to online content)
- Financial stability/sustainable pricing (publish and read model)
- Protection of privacy (personally identifiable information)
- Copyright retained by the authors (no copyright transfer)
- Promotion of scholarly sharing (without embargo) and facilitation of interlibrary loan
- No free labor (efforts expended on peer reviews and editorial contributions should be accounted for in agreements)

As the L&N Subcommittee was beginning its consideration of a statement of principles, serendipity brought a draft statement proposed for the UT system libraries to its attention. The statement, drafted by Dean Rebecca Bichel of UT Arlington, who chairs the UT System Advisory Committee on Library Affairs, provided an excellent organizational structure and framework for discussion. With Dean Bichel's enthusiastic permission, the L&N Subcommittee used her statement as a framework on which its work was built.

Key Findings

As noted above, the statements examined by the L&N Subcommittee were substantially similar. The Bichel statement also included the majority of the key principles already identified by the Subcommittee's work. The L&N Subcommittee spent considerable time rethinking and revising the Bichel statement to strengthen its provisions, incorporating priorities and considerations from other statements, and creating new provisions to reflect UT's situation. After discussion, the L&N Subcommittee decided to add a provision covering the importance of diversity, equity, and inclusion in achieving sustainable open scholarship. This priority is absent from all the examined statements, making the L&N Subcommittee's statement distinguishable from all the others and highlighting a key concern.

Conclusion

The L&N Subcommittee offers this above report in fulfillment of its charge. The Statement of Principles for Achieving Open and Sustainable Scholarship should be adopted by the University of Texas at Austin for use in negotiating licenses and providing authors and consumers of information with guidance on a coordinated approach to furthering the goal of open and sustainable scholarship.

DELIVERABLES

Statement of Principles for Achieving Open and Sustainable Scholarship

1) We believe in the value and importance of scholarship provided through open access.⁹⁵

- a. We expect agreements to include clear language guaranteeing archival rights and describing the systems for perpetual access⁹⁶ for content.
- b. We expect that UT affiliated authors will have the right to deposit their scholarship in open repositories, including in subject preprint repositories and institutional repositories.
- c. We expect that works by UT affiliated authors will be immediately available for harvest or automatic deposit into a designated repository or public archive.
- d. We expect that the publishing data of UT affiliated authors will be freely available, easy to understand and use, and machine-readable.

2) We believe open access to scholarship is intrinsically a diversity, equity, and inclusion issue that promotes equality of access and fosters diversity and inclusion in forming, creating, and disseminating knowledge.

- a. We expect that publishers will give equitable consideration to scholarship of authors affiliated with The University of Texas institutions ("UT") regardless of author's viewpoint or identity.
- b. We expect content to be accessible to users of all abilities consistent with current state and federal legislation and regulations.
- c. We expect all UT affiliated authors will be included if agreements are reached that incorporate open access publishing for all the publisher's journals.

3) We believe in author rights as a principle that encourages creativity, research, and scholarship.

⁹⁵ Open access is defined in this document as the free, immediate, online availability of research articles, coupled with the rights to use these articles fully in the digital environment (SPARC. (2017). Open Access to Scholarly and Scientific Research Articles (The SPARC Open Access Factsheet).

https://sparcopen.org/wp-content/uploads/2017/04/Open-Access-Factsheet_SPARC.11.10-3.pdf).

⁹⁶ Perpetual access is defined in this document as the right to permanently access licensed materials during the period of a license agreement and into perpetuity. This extends beyond preservation to ongoing access for users.

- a. We expect that UT affiliated authors will retain copyright in their scholarship and publishers will receive specific rights related to publication.
- b. We expect that UT affiliated authors will retain rights, including content reuse and data and text mining.
- c. We expect that publishers will not require authors to waive an open access policy from a funder or institution as a condition to publish their work.
- d. We expect that publishers will provide a simple process for UT affiliated authors to regain copyright for their works previously issued by that publisher.

4) We believe that readers of online works retain certain rights to encourage research and scholarship.

- a. We expect that publishers will be transparent in how they collect, store, manage, share, and sell readers' data. Readers should be able to opt-in or opt-out of sharing their data, have access to their publisher-collected reader data, and to be able to delete their own data.
- b. We expect readers to have access to the online content their institution licenses, whether a reader opts-in or opts-out of data collection.

5) We believe in the role of libraries and universities in supporting and encouraging creativity, research, and scholarship.

- a. We expect agreements to include interlibrary loan (ILL) rights to the extent allowed by current ILL guidelines and fair use.
- b. We expect publishers to make bibliographic records and usage statistics of licensed material freely available to subscribing institutions, easy to understand and use, machine-readable, and consistent with current industry data standards.
- c. We expect agreements to be free of non-disclosure and confidentiality clauses unless required by law.

6) We believe in fair and sustainable pricing, based on transparent and cost-based pricing models.

- a. We expect reasonable institutional subscription fees and author open access fees that reflect publisher value-added services and the contributions of UT affiliated authors.

- b. We expect publishers to provide ongoing access to data on peer review and editorial contributions by UT affiliated authors in support of journals and to consider these value-added services when calculating the cost of institutional subscriptions and open access fees for UT affiliated authors.

FURTHER READING

- Anderson I., Schneider R. *Negotiation based on principle: The University of California Approach* (2018). University of California. <https://oa2020.org/wp-content/uploads/pdfs/B14-06-Rich-Schneider-and-Ivy-Anderson.pdf>
- Bichel, R. *Transformative Agreements – Conversations and Ideas for UT System Libraries*. (2020). <https://utexas.box.com/s/lmtby9t4xb1mb89rvwcw0cpa6qv6uomc>
- MIT Framework for Publisher Contracts | Scholarly Publishing—MIT Libraries*. (2020). <https://libraries.mit.edu/scholarly/publishing/framework/>
- Negotiating Journal Agreements: At UC A Call To Action*. (2018). University of California. https://libraries.universityofcalifornia.edu/groups/files/slasiac/docs/NegotiatingJournalAgreementsAtUC_ACallToAction_final.pdf
- Norwegian research institutions have decided not to renew their agreement with Elsevier*. (2019). UNIT. <https://www.mynewsdesk.com/no/unit/pressreleases/norwegian-research-institutions-have-decided-not-to-renew-their-agreement-with-elsevier-2846284>
- Open Access: Five Principles for Negotiations with Publishers*. (2017). LIBER. <https://libereurope.eu/article/open-access-five-principles-for-negotiations-with-publishers/#:~:text=Open%20Access%3A%20Five%20Principles%20for%20Negotiations%20with%20Publishers.,author-pays%20model%20based%20on%20Article%20Processing%20Charges%20%28APC%29>
- Principles for Advancing Openness through Journal Negotiations*. (2019). Iowa State University. https://lib.dr.iastate.edu/cgi/viewcontent.cgi?article=1000&context=cas_reports
- Revised Resolution on the Support of Principles for Advancing Openness Through Journal Negotiations from the University of Texas Libraries Committee*. (2020). University of Texas. <https://utexas.app.box.com/file/734847839645>

Transformation from subscription model toward OA publishing model – JUSTICE OA2020 roadmap. (2020). Efficiency and Standards for Article Charges. https://esac-initiative.org/wp-content/uploads/2019/03/JUSTICE_OA2020roadmap-EN.pdf

REFERENCES CITED

- AAU-APLU. (2021). *Guide to Accelerate Public Access to Research Data*. Association of American Universities & Association of Public & Land-Grant Universities. <https://www.aplu.org/library/guide-to-accelerate-access-to-public-data>
- Ashiq, M., Usmani, M. H., & Naeem, M. (2020). A systematic literature review on research data management practices and services. *Global Knowledge, Memory and Communication*(ahead-of-print). <https://doi.org/10.1108/GKMC-07-2020-0103>
- Baker, M. (2016). 1,500 scientists lift the lid on reproducibility. *Nature*, 533(7604), 452-454. <https://doi.org/10.1038/533452a>
- Butcher, N., Kanwar, A., & Stamenka, U.-T. (2011, 2015). *A Basic guide to open educational resources (OER)*. UNESCO & Commonwealth of Learning. <https://unesdoc.unesco.org/ark:/48223/pf0000215804>
- Cape Town Open Educational Declaration. (2008). <https://www.capetowndeclaration.org/read/>
- David, P. A. (2004). Understanding the emergence of 'open science' institutions: functionalist economics in historical context. *Industrial and Corporate Change*, 13(4), 571-589. <https://doi.org/10.1093/icc/dth023>
- Foster, E. D., & Deardorff, A. (2017). Open Science Framework (OSF). *Journal of the Medical Library Association : JMLA*, 105(2), 203-206. <https://doi.org/10.5195/jmla.2017.88>
- Hardwicke, T. E., Wallach, J. D., Kidwell, M. C., Bendixen, T., Crüwell, S., & Ioannidis, J. P. A. (2020). An empirical assessment of transparency and reproducibility-related research practices in the social sciences (2014–2017). *Royal Society Open Science*, 7. <https://doi.org/10.1098/rsos.190806>
- Hartzell, J. (2021a). 2021 State of the University Address. <https://president.utexas.edu/messages-speeches-2021/state-of-the-university-address>
- Hartzell, J. (2021b). Presidential Inauguration and State of the University Address. <https://president.utexas.edu/messages-speeches-2021/2021-presidential-inauguration-and-state-university-address>
- Jhangiani, R., & DeRosa, R. (2017). Open Pedagogy. In E. Mays (Ed.), *A Guide to Making Open Textbooks with Students* (pp. 6-21). The Rebus Community for Open Textbook Creation. <https://press.rebus.community/makingopentextbookswithstudents/>
- Kell, G. (2021). *UC's deal with Elsevier: What it took, what it means, why it matters*. The University of California. <https://www.universityofcalifornia.edu/news/uc-s-deal-elsevier-what-it-took-what-it-means-why-it-matters>
- Meyer, E. T., & Schroeder, R. (2015). *Knowledge Machines: Digital Transformations of the Sciences and Humanities*. MIT Press.

- NASEM. (2021). *Guide to Supporting Open Scholarship for University Presidents and Provosts*. E. National Academy of Sciences, and Medicine Roundtable on Aligning Incentives for Open Science.
<https://documentcloud.adobe.com/link/track?uri=urn:aaid:scds:US:9b599dbe-e1c9-4946-83ca-a79ce1aeca71>
- PLOS. (2014). *History (archived)*.
<https://web.archive.org/web/20140811081426/http://www.plos.org/about/plos/history/>
- Popken, B. (2015). College Textbook Prices Have Risen 1,041 Percent Since 1977. *NBC News*. <https://www.nbcnews.com/feature/freshman-year/college-textbook-prices-have-risen-812-percent-1978-n399926>
- Schiltz, M. (2018). Science Without Publication Paywalls. A Preamble to: cOAlition S for the Realisation of Full and Immediate Open Access. https://www.coalition-s.org/wp-content/uploads/cOAlitionS_Preamble.pdf
- Seaman, J. E., & Seaman, J. (2021). *Digital Texts in the Time of COVID: Educational Resources in U.S. Higher Education, 2020*. Bay View Analytics.
<https://www.bayviewanalytics.com/reports/digitaltextsintimeofcovid.pdf>
- Senack, E. (2015). Open Textbooks: The Billion-Dollar Solution.
<https://studentpirgs.org/2015/02/24/open-textbooks-billion-dollar-solution/>
- SPARC. (2017). Open Access to Scholarly and Scientific Research Articles (The SPARC Open Access Factsheet). https://sparcopen.org/wp-content/uploads/2017/04/Open-Access-Factsheet_SPARC.11.10-3.pdf
- SPARC. (2021a). Celebrating 30 Years of arXiv and Its Lasting Legacy on Scientific Advancement. *SPARC News*. <https://sparcopen.org/news/2021/celebrating-30-years-of-arxiv-and-its-lasting-legacy-on-scientific-advancement/>
- SPARC. (2021b). *Texas Adopts Transparency Measure for Automatic Textbook Billing*. The Scholarly Publishing & Academic Resources Coalition (SPARC).
<https://sparcopen.org/news/2021/texas-adopts-transparency-measure-for-automatic-textbook-billing/>
- University of Texas at Austin. (2021a). Our Strategic Direction: Aspiration and Pillars.
<https://utexas.app.box.com/v/StrategicAspirationandPillars>
- University of Texas at Austin. (2021b). UT Strategic Direction (v1.0).
<https://utexas.app.box.com/v/UTStrategicDirection>
- Wiley, D. (2014). The Access Compromise and the 5th R.
<https://opencontent.org/blog/archives/3221>
- Wiley, D. (2017). Iterating Toward Openness: Lessons Learned on a Personal Journey. In R. Jhangiani & R. Biswas-Diener (Eds.), *Open: The Philosophy and Practices that are Revolutionizing Education and Science*. Ubiquity Press.
<https://doi.org/10.5334/bbc.o>

Wilkinson, M. D., Dumontier, M., Aalbersberg, I. J., Appleton, G., Axton, M., Baak, A., Blomberg, N., Boiten, J.-W., da Silva Santos, L. B., Bourne, P. E., Bouwman, J., Brookes, A. J., Clark, T., Crosas, M., Dillo, I., Dumon, O., Edmunds, S., Evelo, C. T., Finkers, R., . . . Mons, B. (2016). The FAIR Guiding Principles for scientific data management and stewardship. *Scientific Data*, 3(1), 160018.
<https://doi.org/10.1038/sdata.2016.18>