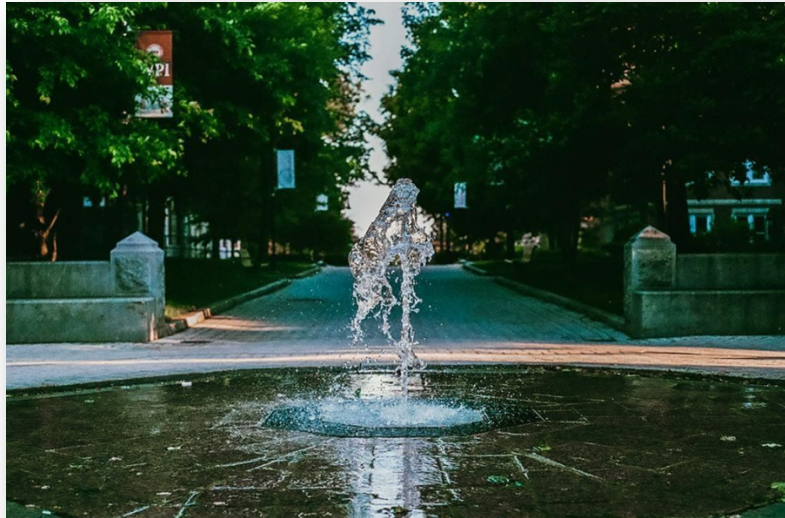


George C. Gordon Library
Strategic Initiatives, 2022-2026

January 2022



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Introduction

Throughout the past year, together with colleagues across the WPI community, we engaged in, contributed to, and learned deeply from the work that resulted in [WPI's new strategic plan *Lead With Purpose* \(2021-2026\)](#). The library is committed to supporting the bold goals it outlines.

From spring through the fall 2021, we also worked within the library to identify *five strategic initiatives* that will meet the emerging and evolving needs of our community. They reflect the consensus of the library staff and will give energy and direction to our work for the WPI community. The initiatives are ambitious but realistic. Each contributes to fulfilling WPI's promise of purpose-driven, accessible education and research in an inclusive community.

A summary and detailed draft plans for each initiative follow here, and we invite comments, questions, and suggestions from all members of our community.

We have begun taking actions in 2022 that lay the foundations for accomplishing these long-term initiatives over the coming years. We also set annual goals responding to emerging and best practices in academic information and library services, as well as regular surveys and communications with our faculty and students, continuous data analysis, benchmarking, and assessment activities. Our [annual reports](#) share what we've done each year to meet the library's annual goals. Beginning with our 2021-2022 annual report, we will report progress on our strategic initiatives, as well as our contributions to WPI's new strategic directions.

Our Vision

The Gordon Library brings people and information together.
We aspire to be an ally for information equity and diversity to meet global challenges.

Our Mission

In support of [WPI's mission](#), the Gordon Library selects, organizes, preserves, and provides equitable access to knowledge, and creates collaborative, diverse, and inclusive environments for learning and scholarship.

Our Values

As WPI's university library we serve every member of WPI's community as they engage in purpose-driven learning, research, and

service. *In our work together we are guided by the [WPI community's shared values](#) of respect, community, inclusion, innovation, and achievement.*

As library professionals, we also embrace the [core values of professional librarianship](#), including: access, confidentiality/privacy, democracy, diversity, education and lifelong learning, intellectual freedom, preservation, the public good, professionalism, service, social responsibility, and sustainability.

Diversity, Equity, and Inclusion

The Gordon Library is deeply committed to supporting WPI's diverse population of students, faculty, and staff. We create opportunities for equal access and success for our communities. We strive to integrate diverse voices in our programs and services, including our collections, teaching, archives, digital services, research services, and community events and exhibits.

Why it Matters

Affirming the values of equity, diversity, accessibility, and inclusion is essential to Gordon Library as we work to create a welcoming space for all members of the WPI community. It is necessary to honor intersectional identities and diverse social and historical experiences expressed across our campus community. As part of the Library's goal of responding to and anticipating WPI's information needs, we seek to amplify marginalized and historically silenced voices.

What We're Doing

- We seek to deepen our understanding of how structural racism and systems of oppression operate within the Library and hold ourselves accountable for dismantling barriers to our spaces and services.
- We practice cultural humility, which entails "a personal lifelong commitment to self-evaluation and self-critique, recognition of power dynamics and imbalances, a desire to fix those power imbalances and to develop partnerships with people and groups who advocate for others, institutional accountability."+
- We recognize that to create an inclusive library space and services, we must proactively partner and collaborate with others. We honor and seek out the expertise of campus and external partners in our commitment to

continuous learning, reflection, and advocacy.

- We strive to model and foster inclusive pedagogy in our teaching, technology offerings, and the learning objects we create and maintain.
- We seek out diverse voices in research materials provided to users of the Library's collections.
- We recognize the reciprocal relationship between learning and well-being, and commit to offering the campus community spaces, services, and programs that are welcoming, inclusive, supportive and comfortable.
- We are committed to ensuring equitable access to the library and our resources. We are mindful of accessibility standards and provide accommodations and services for persons with disabilities.
- We aim to develop inclusive communications and marketing materials that holistically engage our communities.
- We evolve our practices and policies as we learn new information. We pursue professional development opportunities to further our learning and share knowledge in our profession.

+Institute of Museum and Library Services. (2019). *Module 8: Cultural Competence & Cultural humility*. Project READY: Reimagining Equity & Access for Diverse Youth. <https://ready.web.unc.edu/section-1-foundations/module-8/>.

Please share your viewpoint, concerns, criticisms, ideas, and suggestions with us. Let us know what is on your mind and how we can help you. To get in touch, contact us at library@wpi.edu. We will respond as quickly as possible. Thank you for your feedback and engagement.

Adapted from [Columbia University](#), [Emory University](#), [San Diego State University](#), [UCLA](#), and [Vancouver Island University](#).

Land Acknowledgement

The Library recognizes and shares [WPI's land acknowledgement](#).

WPI acknowledges the painful history of genocide in the U.S. for native and indigenous peoples. As a public statement that honors the indigenous people as native inhabitants on this land, WPI honors and respects the many and diverse tribal nations who were forcefully removed from their sacred lands.

WPI would like to recognize the people of the Chaubunagungamaug and Hassanamisco Nipmuc Tribe as the traditional custodians of the land on which we work. We take this moment to honor their elders, past, present, and emerging. WPI strongly advocates for higher education professionals to honor the land, the original tribal occupants, and the history of where they are located.

Thank you to the [Diversity & Inclusive Excellence team](#) for their work in crafting this acknowledgement.

The Gordon Library staff works together with the WPI community to learn and share the histories and experiences of Indigenous Peoples in our region and beyond through resources, events, and scholarship.

The official site of the Tribal Government and Citizens of Nipmuc Nation: <https://www.nipmucnation.org/>

Library Strategic Initiatives, 2021-2026

1	<i>Providing Inclusive and Accessible Information:</i> We will invest in analysis, research, benchmarking, outreach, and allocation of resources to increase the inclusiveness, diversity, and accessibility of information by the WPI community.
2	<i>Growing and Redesigning Space for Well-Being and Learning:</i> We will increase individual and small group meeting study spaces by more than 200 seats, including at least seven new Tech Suites; and realize a contemporary vision for how readers interact with each other and with library resources. We will support WPI's unique curriculum by providing accessible and distinctive print book collections and expanded and enhanced individual group study spaces. Our vision will feature essential STEM books in an expanded upper floor reading room and expanded quiet study spaces integrated with a comprehensive and diverse global Humanities and Social Sciences browsing collection on the first floor.
3	<i>Documenting the Voices and Experiences of WPI's Diverse Community:</i> In collaboration with students, alumni, faculty, and staff, we will develop, share, build and sustain a rich documentary record of the history of diverse student and other community groups at WPI.
4	<i>Providing Open, Equitable & Inclusive Scholarly Communication Services:</i> We will build a robust program of advisory services, platforms, instruction, and other services that will expand WPI's contributions to a more equitable and high-impact globally accessible scholarly record.
5	<i>Empowering Data Literacy:</i> We will build a collaborative program to empower WPI students with a strong base of data literacies and skills, including data visualization and communication and critical and ethical use and sharing of data.

1

Providing Inclusive and Accessible Information: We will invest in analysis, research, benchmarking, outreach, and allocation of resources to increase the inclusiveness, diversity, and accessibility of information by the WPI community.

Purpose:

The purpose of this initiative is to better define the library's collection development policy and change practices so as to grow and enhance a sustainable collection of information resources that support Diversity, Equity, Inclusion and Accessibility (DEIA) for the WPI community within the library's general collection. This initiative aligns with WPI's strategic plan, *Lead with Purpose*, primarily under the focus area of "who we are and how we work."

Background:

In recent years, Gordon Library has made modest but noteworthy efforts to improve both its collections and services to better promote awareness and serve the diverse communities of WPI. These include creating a dedicated meditation/prayer space on the first floor of the library; curating monthly physical book displays in the library's popular reading space and virtual e-collections such as the [Multicultural Affairs](#) collection that highlight and celebrate diverse groups; and developing [diversity and inclusion libguides](#).

Vision of success:

The vision of this strategic initiative is that all community members will feel truly welcomed and included when they see themselves reflected in collections that speak to their cultures and life experiences; and all faculty will find ready access to diverse and accessible resources they can integrate into their teaching to support inclusive learning.

Resources needed for success:

Resources will be needed for prospective collection development, potentially from redirecting existing resources, increasing operating funds available to acquire materials, with the goal of establishing a significant annual investment in both one-time purchases and ongoing commitments (databases and journals).

Approaches and methods:

Our primary approach, following professional guidance and standards to improve equitable and inclusive access to information resources, will be to work closely with diverse communities and faculty at WPI to elicit, understand, and respond to their needs.

We propose doing a needs assessment of the WPI community, mainly through qualitative methods of surveys and focus groups, to identify priorities for DEIA collection development, and

secondarily through the collection centered approaches of recommended titles list checking and collection gap analysis with interlibrary loan transaction data.

In this work we will adapt successful strategies used at academic institutions, including Pennsylvania State University and Oregon State University, summarized below under “Peer and Best Practices.”

Tasks and timeline:

Tasks to accomplish this initiative will include outreach, collection analysis, policy development, and resource identification. While some of these tasks will be ongoing, several outreach and collection analysis tasks will be done in the early phases in order to inform policy development and resource identification.

Task 1 (outreach), AY21-22: Meet with staff in the Office of Multicultural Affairs to solicit their ideas on which segments of WPI are underserved/underrepresented and how to reach out to them and set up focus groups or chat sessions.

- Outcome: Several segments of the WPI community are identified for focus groups and surveys.
- Lead responsibility: Associate Director of Library Academic Strategies; Collection Assessment & Development Librarian

Task 2 (outreach), AY21-22 and ongoing: Include in annual faculty survey questions on how the faculty currently incorporate or intend to incorporate DEIA into their curriculum

- Outcomes: Survey will provide insight on how faculty teach DEIA topics and integrate DEIA information and content within their curriculum
- Lead responsibility: University Librarian; Associate Director of Library Academic Strategies

Task 3 (outreach), AY21-22 – AY22-23: With advice from the library’s student advisory group and the Archives team, invite students from WPI student groups to participate in focus groups. Conduct a series of focus groups with student groups to solicit their ideas on improving the library’s collections for their identity group, one focus group per term.

- Outcomes: Suggestions for resources made by focus groups are identified and/or acquired for the collection.
- Lead responsibility: Associate Director, Academic Strategies; Collection Development and Assessment Librarian

Task 4 (outreach), AY 21-22: Meet with representatives of the Global School to solicit their ideas on how to incorporate multicultural resources that would support WPI project centers and initiatives of the Global School.

- Outcomes: summary report of Global School suggestions.
- Lead responsibility: Associate Director of Library Academic Strategies; Collection Assessment & Development Librarian

Task 5 (collection analysis) AY 21-22 and ongoing: Identify selection tools, publishers, and vendors that have information resources on DEIA topics and map well to WPI curriculum; gather list of wanted resources.

- Outcomes: Resource selection will include reference to key recommender lists, publishers and vendors identified and lists of wanted DEIA resources.

- Lead responsibility: Collection Assessment and Development Librarian

Task 5 (collection analysis) AY21-22 and annual ongoing assessment: Review interlibrary loan requests to identify patron requests for resources by language, subject headings as an indicator of DEIA related gaps in the library’s collection

- Outcomes: Summary report of finding for ILL requests by language, subject areas and patron group, and title list of desired DEIA resources. Annual transaction request report, review and analysis
- Lead responsibility: Collection Assessment and Development Librarian; Resource Sharing Librarian

Task 6 (policy development) AY 22-23 and ongoing: Revise library collection policies and procedures based on outreach and collection analyses.

- Outcomes: Revised library collection policies and procedures to maintain and increase inclusion of information resources purchased and licensed by the Library.
- Lead responsibility: Associate Director of Library Academic Strategies; Collection Assessment & Development Librarian

Task 7 (resource development) D22 and annually: Develop data-driven request to budget and advancement decision-makers for operating and donor funding to support expanded access to DEIA information resources.

- Outcomes: Net increase in information resources budget sufficient to acquire and license priority DEIA information resources.
- Lead responsibility: University Librarian, Associate Director of Library Academic Strategies; Collection Assessment & Development Librarian

Resources consulted:

(a) Standards

In developing this initiative, we consulted and recommend continuing to refer to extensive definitions and polices on diversity in library collections provided by national library professional associations. Among these are the American Library Association’s [policy statement on library services](#) for all people; their statement on “Diversity in Collection Development” (Office for Intellectual Freedom of the American Library Association, 2006), and ALA’s definitions and statement on “[Equity, Diversity, and Inclusion: An Interpretation of the Library Bill of Rights](#)”, including the following:

“Books and other library resources should be provided for the interest, information, and enlightenment of all people of the community the library serves. Materials should not be excluded because of the origin, background, or views of those contributing to their creation. Library collections, in a variety of material formats, should include a full range of viewpoints and experiences, serving the needs of all members of the community. Historically, diverse authors and viewpoints have not been equitably represented in the output of many mainstream publishers and other producers. It may require extra effort to locate, review, and acquire those materials. Therefore, libraries should seek out alternative, small press, independent, and self-published content in a variety of formats. Libraries may benefit from cooperative arrangements and other partnerships to share in the work of locating and acquiring diverse materials. Interlibrary loan may complement but not substitute for the development of diverse local collections. All materials, including databases and other electronic content, should be made accessible for people who use adaptive or assistive technology. To provide equitable and inclusive access, libraries must work closely with diverse communities to understand their needs and aspirations, so that the library can respond appropriately with collections and services to meet those needs. All community members will feel truly welcomed and included when they see themselves reflected in collections that speak to their cultures and life experiences.”

The national professional association for academic libraries, the Association of College and Research Libraries (ACRL), has created relevant standards and guidance, including [*Diversity Standards: Cultural Competency for Academic Libraries* \(2012\)](#). Standard 4, on the development of library collections, states that:

“Librarians and library staff shall develop collections and provide programs and services that are inclusive of the needs of all persons in the community the library serves.... (W)idespread changes in the linguistic and cultural fabric of library populations, coupled with the increasing sophistication of information technology, both require and make possible new approaches to the development of library collections and the provision of inclusive community-wide services. Upholding a commitment to cultural competence requires ensuring equitable access to collections and library services that is mindful of these changes. Librarians and library staff need to learn how to detect and prevent exclusion of diverse constituents from service opportunities and seek to create opportunities for constituents, matching their needs with culturally competent services or adapting services to better meet the culturally unique needs of constituents. Furthermore, they need to foster policies and procedures that help ensure access to collections that reflect varying cultural beliefs.”

The ACRL Diversity Standard outlines specific steps for libraries to take to ensure diversity within its collections:

- Providing an equitable basis for purchasing materials and providing programs and services.
- Ensuring that consideration of the needs of historically oppressed, underrepresented, and underserved groups is integral to collection development and management and the provision of programs and services. Regularly assessing the adequacy of existing collections, programs, and services to ensure they are reflective of the diversity of the library’s constituent populations.
- Regularly reviewing the current and emergent demographic trends for the library’s constituent populations to inform collection development and management and the provision of programs and services.
- Providing increased accessibility through cataloging by allowing natural language words and advocating for changes in the LOC headings.
- Creating and advocating for the creation of programs and services that are reflective of the cultural heritage, cultural backgrounds, and social identities of the library’s constituent populations.
- Including constituents as major stakeholders in decision-making and advisory entities and the planning, development, and evaluation of collections, programs, and services.

(b) Peer practices and references

In developing this initiative, the committee identified the following references in the professional literature that provide evidence and best practices that were used in developing our approach. Continuing to consult these findings and stay current with emerging best practices will be important to the success of this initiative.

Anne Hays (2020) A Question of Space: Surveying Student Usage of LGBTQ Resources in the LGBTQ Student Center Library and the Campus Library, *New Review of Academic Librarianship*, 26:1, 110-132, DOI: 10.1080/13614533.2018.1564336

Summary conclusion: "The survey results indicate that both the LGBTQ Resource Center and the Library at the College of Staten Island can better connect LGBTQ-identified students with existing LGBTQ materials and programming. In terms of comfort and usage, the LGBTQ Resource Center sees a committed but small group of regular students who feel very safe in that environment, while the Library sees more moderate usage from most LGBTQ students, but can do a better job of creating a “safe space.” Collectively, it is clear that students tend to access the book, magazine, and film collection at the Resource Center for personal, identity-based reasons rather than academic reasons. Survey responses reinforce the notion that the Resource Center should continue to collect resources and materials that align with its mission of fostering identity expression and personal development. When compared with student use of the Resource Center’s collection, students are more likely to use the Library collection for academic reasons directly related to their classes, but students are more likely to use the LGBTQ Resource Center’s library in all other areas (for entertainment, for personal exploration, or for emotional support)."

Michelle M. Maloney. Cultivating community, promoting inclusivity: collections as fulcrum for targeted outreach. *New Library World* 113:5/6 (2012),281-289 DOI 10.1108/03074801211226364

Abstract: This paper aims to describe the implementation and analyze the outcomes of the Diversity Book Display initiative at the University of the Pacific's Library. Through this program, curated displays were used to promote multicultural learning and inclusivity, as well as to build intra-institutional relationships with curricular and co-curricular units engaged in diversity work on campus.

Summary conclusion: "The mindful leveraging of collections not only provides opportunities for student learning regarding diversity and inclusion, but also can be a platform to build collaborative campus relationships and elevate library visibility. The Diversity Book Display initiative has been a positive way to engage patrons with library collections as well as with social and cultural issues pertaining to multiculturalism and inclusivity."

Matthew P. Cizek and Courtney L. Young. Diversity collection assessment in large academic libraries. *Collection building*. 29/4 (2010), 154-161 DOI 10.1108/01604951011088899]

Abstract: This paper aims to examine the methods of diversity-related collection assessment useful for large academic libraries. Several examples of diversity-related collection assessment (circulation and use statistics, WorldCat Collection Analysis, comparison to standard bibliographies, focus groups, patron interviews and surveys, stewardship letters, and a diversity collection development statement) are explored.

Summary conclusions: Use of focus groups: "Focus groups are a useful tool in assessing the user needs of a small segment of the library's patron base and can allow a large academic library to be as responsive to user needs as smaller counterparts. The focus group model is an excellent means to solicit input into the collection development and materials selection process, and allows librarians to target a specific group of academic users whether they are diversity faculty, incoming foreign scholars, or undergraduates in the honors program"

Use of standard bibliographies: "The development of standard bibliographies for diversity materials is necessary for assessment. If these bibliographies exist, they are typically out-of-date and not updated as new material is published. Therefore, consideration should also be given to vendor created tools and book award lists. Even though these are often "incomplete" tools, they can provide a foundation for development of more complete assessment tools."

Laurel Kristick (2020) Diversity Literary Awards: A Tool for Assessing an Academic Library's Collection, *Collection Management*, 45:2, 151-161, DOI: 10.1080/01462679.2019.167520 and supplementary materials at <https://ir.library.oregonstate.edu/concern/articles/o8612v55d>

Abstract: Diversity literary awards and other sources were used to create a list of high-quality titles written by and about underrepresented groups. Authors compiled list of Diversity award organizations and bibliographic list of diversity literature award winners, covering 1936-2018. This list was used to assess the diversity and inclusiveness of the library collections of a land-grant university in the Pacific Northwest, Oregon State University, and compare it to peer institutions. Gaps in the collection and acquisition processes were identified and will be used to improve the processes to increase the number of diverse titles added to the library's collections.

Alice M. Cruz. Intentional integration of diversity ideals in academic libraries: a literature review. *The Journal of Academic Librarianship* 45 (2019), 220-227. DOI: <https://doi.org/10.1016/j.acalib.2019.02.011>

Abstract: Diversity is a cornerstone of the library profession, and the Association of College and Research Libraries (ACRL) has recently announced a renewed emphasis on diversity and inclusion. In response to this initiative, this paper will review the current academic literature relating to

diversity initiatives in academic libraries. Specifically, it will discuss diversity as it pertains to staffing, culture, collections, services and programming.

Excerpt related to general collections: "General tips for building and maintaining a diverse collection include creating a committee to evaluate and modify the collection for diversity, seeking out providers of relevant material, including smaller publishers, getting input from students and other patrons, having a professional evaluate the collection for diversity criteria, implementing a "diversity selection criterion" to ensure that what is collected represents ideas from non-dominant sources, creating a specific "diversity acquisition code" to track how much of the budget is utilized to purchase diverse items, and requesting additional funding if necessary (Osa, 2006). Additionally, incorporating a collection development policy that includes the purchase of multimedia materials will serve patrons with varying learning styles and abilities, as will committing to a robust interlibrary loan program that will provide access to materials the library cannot provide itself."

Regina Koury, Jenny Lynne Semenza and Sandra Shropshire. A survey of diversity and inclusiveness initiatives at Carnegie Doctoral Research Institution libraries. *Library Management* 40:1/2(2019), 23-33. DOI 10.1108/LM-10-2017-0117

Summary: Survey findings on diversity and inclusion initiatives at the Carnegie Doctoral Research Institutions of Higher Education libraries revealed that the most prevalent types of diversity and inclusion initiatives fall into one of three categories. These are the creation/enhancement of library collections, recruitment and collaboration with other campus units. Not surprisingly, lack of money and other resources are identified as challenges faced by those who engage in these initiatives.

2

Growing and Redesigning Space for Well-being and Learning: We will enhance the library as a space for social connection, meaning-making, and student well-being; we will increase individual and small group meeting study spaces by more than 200 seats, including at least seven new Tech Suites; and we realize a contemporary vision for how readers interact with each other and with library resources. We will support WPI's unique curriculum by providing accessible and distinctive print book collections and expanded and enhanced individual group study spaces. Our vision will feature essential STEM books in an expanded upper floor reading room, and expanded quiet study spaces integrated with a comprehensive and diverse global Humanities and Social Sciences browsing collection on the first floor.

Purpose:

The purpose of this initiative is three-fold: (1) to realize the full potential of the Gordon Library to add quality, meaning, community, and well-being to our students' experience at WPI; (2) to reshape WPI's print book collections in view of the predominance of and preference for digital information access in most STEM fields, while providing an enticing and relevant collection that supports WPI's unique curriculum; and (3) to increase library seating capacity and access to small group meeting spaces by 50% in five years, using seating and design suited to today's students' diverse learning styles, modes of study, and productive teamwork. In both elements of this initiative, we will integrate and enact best practices in inclusion and accessibility.

This initiative will:

- Reshape the library's print collections to reflect and support evolving reading practices across all the disciplines our students engage with in the WPI curriculum
- Create more accessible and inclusive user experiences of retained print collections
- Reallocate space currently occupied by print collections for use by students to study and work with their teams
- Replace aging and inadequate seating, tables, carrels with modern furnishings
- Manage sound pollution to support focused study
- Provide lighting to support well-being and productivity
- Reallocate or redesign staff spaces to accommodate evolving staff and student needs
- Follow sustainability guidelines and practices in recycling old and purchasing new materials.

Background:

This initiative responds to and supports all three major themes of WPI's new strategic plan, *Lead With Purpose*:

- (1) *Student access and well-being*: by increasing the quality and diversity of library spaces for study, reflection, and work together, for all students
- (2) *Purpose-driven education & research, and strengthening the academic core*: by ensuring students have access to relevant and diverse information in a high quality study environment that encourages focused study and productive teamwork
- (3) *Who we are & how we work*: by creating an environment that reinforces student agency, belonging, creativity, and well-being.

This initiative responds to long-term trends in WPI student needs and growth: WPI's student FTE has grown from just below 4000 in 2008 to over 6000 in 2020, a 50% increase in FTE in 12 years. The incoming class in fall 2021 is larger than 1400, and in recent years undergraduates have continued to ask WPI for more quality study and team meeting space. Students' need for reservable, all-hours, tech-enabled academic work-spaces can't be fully met by ad hoc solutions like after-hours access to classrooms and outdoor informal seating, as important as those are.

In more than five decades since the Gordon Library opened its doors, WPI has generously invested in maintaining and improving the library's usability as a working, meeting, and study space, most notably with a multi-million-dollar investment in new HVAC systems in 2016-2017. Incremental modernizing projects since then have continued to improve and modernize spaces and access to technologies.

But increasingly the dominant and preferred information access and delivery model is digital. This means that over the next five years the library will be able to relocate or deaccession tens of thousands of unneeded print volumes and open up space for highly desirable study spaces and seats to meet student demand and needs.

Vision of success:

Our vision is to create a carefully-selected cross-disciplinary collection of historical and recent STEM books in a new reading room environment on the third floor; complemented by an extensive Arts, Humanities, and Social Sciences collection of books reinforcing WPI's strong commitment to humanist and global perspectives and experiences, on the first (quiet) floor. In total, we anticipate withdrawing or relocating to collective or near-site storage approximately 33% of the current print book collection.

This vision for a contemporary print book collection will enable us to increase student seating by 50%, moving from a current ratio of 13 students per seat, to 9 students per seat. Seating will include a significant increase in small group meeting rooms (Tech Suites). Through refreshed furnishings and design, students will have the technology and spaces they need for all forms of study and collaboration.

In accomplishing these goals, we are committed to best practices and standards for spaces and collections that are inclusive, accessible, and sustainable, and that provide high-quality, refreshing, diverse, and beautiful spaces that contribute to students' sense of well-being, opportunity, curiosity, belonging, social meaning, and of being part of something greater than themselves.

High-level Outcomes by Year:

	<i>Baseline 2021-22</i>	<i>Project 1</i>	<i>Project 2</i>	<i>Project 3</i>	<i>Project 4</i>	<i>Project 5 & other</i>	<i>Total Change</i>	<i>% Change</i>
Total seats	450	480	530	590	650	680	-	-
Seats added	-	30	50	60	60	30	230	51%
Tech suites added	11	0	7	0	0	0	7	63%
FTE	6000	6050	6100	6150	6200	6200	200	3%
% FTE seated	7.5%	8.4%	9.2%	10.1%	11.0%	11.0%	-	3.5%
Students per seat	13.3	12.6	11.5	10.4	9.5	9.1	-4.2	- 31%
Volumes (total)	233,000	164,000	120,000	110,000	100,000	100,000	-133,000	- 57%
• Volumes (journals)	66,000	10,000	10,000	10,000	10,000	10,000	-56,000	- 85%
• Volumes (books)	167,000	154,000	110,000	100,000	90,000	90,000	-77,000	- 46%
• Volumes (STEM)	79,000	70,000	30,000	30,000	30,000	30,000	-49,000	- 62%
• Volumes (SS/H/A)	78,000	74,000	70,000	60,000	50,000	50,000	-28,000	- 36%
• Volumes (special/other): recreational, featured	10,000	10,000	10,000	10,000	10,000	10,000	0	0%
Circulations (books, general collection)	4,656	5,000	5000	5500	6000	6000	1,344	28.9%
Percent of book collection actively circulating	2.8%	3.2%	4.5%	5.5%	6.7%	6.7%	3.9%	3.9%
Estimated cost	\$55,000	358,000	\$600,000	\$815,000	\$350,000	\$593,000	\$2,716,000	

Resources needed for success:

University capital projects funds will be needed to accomplish this initiative, and we are working with University Advancement to identify major donors to enhance and expand study space, as part of the recently launched Capital Campaign. University Advancement sees library capital improvements as a key initiative within the capital campaign’s student well-being theme. Support for modernizing and expanding library spaces is a popular target for private gifts to libraries. In the planning detail provided below, we have estimated funding needs over the five phases of the initiative. We estimate a total investment of \$2.7 M would be needed to complete all proposed projects.³⁵⁰⁺

Approaches and methods:

Building on and revising our plan: The library’s five-year capital projects development plan was drafted in 2019 and shared with campus Facilities and University Advancement and with the NECHE visiting team in 2021. In this revision aligned with WPI’s new strategic plan, we build on but also revise the ideas outlined in the 2019 draft.

Student consultations: An MQP team is conducting interviews, surveys, and doing detailed space and financial analysis of campus study spaces including the library and will be providing their recommendations and findings at the end of C Term 2022. We will consult with this team at key points throughout A-C Terms. We will also seek additional student input through our annual survey planned for early in B Term 2022.

Learning from peers and addressing standards: Principal stakeholders will be invited to visit, interview, and learn from other library renovations and innovative transformations in how libraries support their mission. We will also intentionally address issues of accessibility and inclusion in renovating and renewing all library spaces, reflecting the standards identified in the resources section below.

Flexibility: Progress towards each of the goals outlined below will depend on many contingencies, most notably prioritizing the allocation of needed capital projects funds, as well as our success in attracting private donations that will help make these projects possible and accelerate progress on WPI-funded projects.

Projects sequence:

These projects represent a series of sequential phases. Every phase depends on previous analysis, decisions, preparation, outreach, and support to move forward, with each of the first four projects delivering major improvements in the WPI student study environment. The last project are grouped as Project 5 - these are relatively independent of other projects, and could therefore be undertaken at any point when funding permits.

Project 1: \$358,000: 3rd floor renovation, new seating for 30, includes current year costs

- Revise plan for third floor reading/study room
- Remove 50,000 journal volumes from Ground floor; retain 10,000 volumes in Founders or Ground floor
- Relocate 50K third floor book collection temporarily to ground floor shelving
- Remove 3rd floor shelving, recarpet, replace shelving, add seating and workspaces
- Select 20K core STEM print book collection and relocate from 1st to 3rd floor

Project 2: \$600,000, West side 1st floor renovation, 7 new Tech Suites, new seating for 50

- Plan and design first floor west side renovation
- Remove shelving along west wall vacated by Project 1, creating space for Tech Suites
- Recarpet from elevator/stairs to western wall
- Build Tech Suites along western wall on first floor
- Add furnishings to Tech Suites and update other seating on west side
- Move arts & literature collection on 1st floor into remaining west side shelving

Project 3: \$815,000, East side 1st floor renovation, new study seating for 60, new reflection space

- Plan and design east side renovation of 1st floor for social sciences/global/philosophy collections
- Remove old shelving from east side of floor after vacating shelves in Projects 1 and 2
- Recarpet, install new shelving, new seating, renovate reflection space

- Move global/social science collections from ground floor shelving to East Side 1st floor

Project 4: \$350,000 – *Ground floor renovation – Studio Two, new seating for 60*

- Plan/design ground floor renovation as informal study, event, and presentation area
- Remove legacy open journal shelving, lighting
- Create new Ground floor Studio Two work and event space with new seating up to 60

Project 5 and Other Projects: up to \$593,000 – *Archives expansion, service area redesign,*

- Main floor: Redesign café / computer seating on 2nd floor - \$35,000
- First floor: Anderson Lab renewal/redesign – ceiling/noise management, new furnishings - \$38,000
- Third floor: Redesign staff office and meeting areas – TBD, est. \$60,000
- Design potential expansion and redesign of Archives exhibition and instruction spaces
- Main floor: Redesign library and/or IT service points, 2nd floor – TBD, est. \$200,000
- Archives expansion / redesign - \$260,000

Total Resources, Projects 1-5: \$2,716,000

Projects, Sequence, and Possible Timeline, 2021 - 2026

Year 0 (September 2021 – August 2022)

Category	Outcomes	Tasks	Resources	Funding
Data Collection	Establish quality data about building current state and stakeholder priorities and collect learning from other libraries	(1) Collect and document baseline building and collections data; (2) Visits to other libraries (fall) (3) Survey students (winter/early spring)	- LAS and AS&O teams (collection data) - Time/travel support - Survey dev. & analysis	n/a
Accessibility and UDL	Establish baseline audit of accessibility and UDL issues Accessibility and UDL addressed new space planning	Identify accessibility and UDL goals based on standards and guidelines Baseline accessibility audit of physical spaces Review planned space and furniture updates to increase/optimize accessibility and UDL	Facilities, staff and designer consultation	n/a
Design/ Planning	Revised plans for third floor	Determine collection vision for monographs/books in all general collections	- Collection assessment / planning time - Faculty input - Architect & engineering design and planning - Facilities project manager time	Design planning
Facilities/ Construction			- Capital project estimation & planning	collection recycle costs TBD, est \$5K; may be minimal with acceptance of donation by Internet Archive
Communication/ Marketing /Advancement / WPI Budget process	WPI community and decision makers understand and support our five-year goals	- Develop fly-through video / video clips to share with students, donors, prospective donors; - Develop web pages to share five-year plans and progress towards goals		student labor via IDEaS lab/ARC team
Collections	Serial withdrawal is complete; goals for monograph withdrawal are established.	- Founders – withdraw journals to Five Colleges (fall-winter 2021) - Ground floor - Remove journals (spring-summer 2022) - Founders – withdraw/remove journals (spring/summer 2022) - Assess use of Founders space for general and archives collections	Capital project funds: student and moving assistance; recycling and/or shipping Minimize use of Founders for remaining collections storage pending environmental improvements	Student labor – operating \$ for special projects - \$5000
FUNDING TOTAL:				\$10,000

**Year 1 / Project 1 (September 2022 – August 2023):
3rd floor renovation**

Category	Outcomes	Tasks	Resources
Data Collection	Data to support changes in monograph collection vision	Update baseline building and collections data; Analyze student survey data	
Accessibility and UDL	Measurable improvement in meeting accessibility and UDL goals		
Design/ Planning	Plan for third floor monographs Draft plans for 1 st floor monographs & study	Finalize vision for general monograph collections and 3 rd floor carrel replacement	Designer/architect services & renderings
Facilities/ Construction	Open up ~30 new seats/workspaces on 3 rd floor Bring power/technology to study carrels	Order furniture including new carrels Remove / install shelving, 3 rd floor Recarpet	FY23: Capital project funds Facilities construction, carpet, furniture; ceiling and lighting
Communication / Marketing	WPI community and decision makers understand and support our five-year goals	Update web pages to share five-year plans and progress towards goals	
Collections	Third floor monographs moved to Ground floor storage (temporary) Refreshed/selected STEM collection moved from 1 st to 3 rd floor	Move third floor monographs to Ground floor Select 20K-volume STEM collection Recycle/donate monographs where possible Move STEM collection to third floor	FY23: Capital project funds (moving, recycling/donating, data management)
FUNDING TOTAL			\$358,000

**Year 2 / Project 2 (September 2023 – August 2024):
1st floor West Side / Tech Suites**

Category	Outcomes	Tasks	Resources
Data Collection	Data to support 1 st floor design options	Update baseline building and collections data;	
Accessibility and UDL	Measurable improvement in meeting accessibility and UDL goals		
Design/ Planning	Complete first of two 1 st floor phased renovations (from elevator to west wall)	Design including buildout of 7 tech suites, managing /improving sound, light	Designer, facilities project planning, \$25,000
Facilities/ Construction	Phase 1 of First Floor renovation complete (west side) including seven new Tech Suites	remove half of West side shelving Update lighting and sound management Manage rock wall issues Recarpet Build 7 tech suites Order and install furniture and technology for tech suites and other seating	Facilities construction Furniture Technology Carpeting Est. \$555,000
Communication / Marketing	WPI community and decision makers understand and support our five-year goals	Update web pages to share five-year plans and progress towards goals	
Collections	Lightly selected literature collection moved to final location on first floor		Capital project funds: \$20,000
FY24 FUNDING:			\$600,000

**Project 3 / Year 3 (September 2024 – August 2025):
1st Floor East Side / Social Sciences - Global Studies Quiet Floor**

Category	Outcomes	Tasks	Resources
Data Collection	Accurate information based on previous year's work	Update baseline building and collections data;	
Accessibility and UDL	Measurable improvement in meeting accessibility and UDL goals		
Design/ Planning	Complete design for second of two 1 st floor phases - East side		Designer, facilities project planning, \$25,000
Facilities/ Construction	1 st floor East side construction complete Renovated permanent reflection space	Remove legacy shelving Order furniture/shelving including new east window seating Address sound and light management Recarpet Install / reinstall shelving	Facilities construction Furniture Low-profile helving Technology Carpeting \$750,000
Communication / Marketing	WPI community and decision makers understand and support our five-year goals	Update web pages to share five-year plans and progress towards goals	
Collections	Global / social sciences reselected collection moved to final location, 1 st floor	Complete monograph selection, recycle/donate monographs where possible; relocate books to 1 st floor reading room	Recycling, moving, data management costs: \$40,000
FY25 FUNDING			\$815,000

**Project 4 / Year 4 (September 2025 – August 2026):
Studio 2 – Ground Floor**

Category	Outcomes	Tasks	Resources	Funding
Data Collection				n/a
Accessibility and UDL	Accessibility and UDL addressed new space planning		Facilities, staff and designer consultation.	n/a
Design/ Planning	Revised plans for Ground Floor	Develop/revise Ground floor plans	Architect and facilities project manager time	\$25,000 for Studio 2 design/engineering
Facilities/ Construction	Open up 60 new student seats/workspaces	Begin construction on G-level (remove shelving, add carpet, walls), Order and install furniture	Capital project funds; Facilities construction.	Based on FY2019 estimates, \$325,000 to remove, recycle, and refurnish Studio 2 space.
Communication / Marketing /Advancement / WPI Budget process				
Collections				
FY23 FUNDING TOTAL:				\$350,000

Year 5 / Project 5: Archives and Flexible Projects (2021-2026)

Category	Outcomes	Tasks	Resources
Project 1	Expanded and redesigned 2 nd floor café	Design and plan 2 nd floor café / computer seating	Est. \$35,000 for expanded café seating to replace dogbones;
Project 2	Renew and improve sound management for Anderson Lab	Drop ceiling; replace/update furniture	\$38,000 (\$28,000 for ceiling work)
Project 3	Redesigned library staff spaces, 3 rd floor	Redesign spaces to accommodate hybrid work schedules, privacy and meeting needs	Est. \$60,000 for redesign of common and private spaces
Project 4	Expanded and redesigned exhibit and public spaces for Archives	Design Construction	Est. \$260,000
Project 5	Improved sight lines for 2 nd floor library service points, improved consultation spaces for IT and library staff	Redesign spaces to accommodate hybrid work schedules, privacy and meeting needs, reduced need for printing services	Est. \$200,000
TOTAL FUNDING			\$593,000

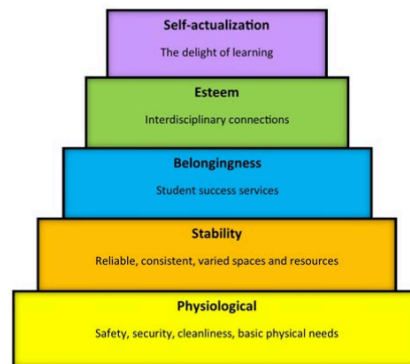
Resources consulted:

A. Libraries and student well-being

Deborah Lynn Christoffersen, "Creating Library Learning Spaces that Support Twenty-First Century Pedagogy and Student Learning" (2020). BYU Theses and Dissertations. 8527.

<https://scholarsarchive.byu.edu/etd/8527> Includes a model for the hierarchy of needs met by library spaces (right).

"Students still enjoy the books found in a library, and they often mentally associate books with scholarship and academia. However, they do not use books in quite the same way as previous generations. Circulation statistics support the idea that students are more likely to use digital resources than physical copies of the same material. However, students want to be surround by books as they study. This is a "Hogwarts" generation, and many library users associate university libraries with vast great rooms, high ceilings, intricate murals, large tables, and book lines walls. At the same time, they crave nooks and small spaces, accessible technology, and knowledgeable staff."



Brian Mathews and Leigh Ann Soistmann, "Encoding Space: Shaping learning environments that unlock human potential," September 1, 2020. American Libraries.

<https://americanlibrariesmagazine.org/2020/09/01/encoding-space-library-design/> Excerpt from Encoding Space: Shaping Learning Environments that Unlock Human Potential by Brian Mathews and Leigh Ann Soistmann (ACRL, 2016).

"As we reimagine libraries, we want to create opportunities for people to bond with and within our environments. Historically we have been able to point to the stacks and talk about libraries as sacred places because of their collections. But that seems to be changing. If all we are providing is a place to study or a computer lab, that doesn't particularly require a library. As we face a future with fewer print materials, what factors can transform the library from just another space into a place that is a significant part of someone's learning and research journey?"

"We become attached to places because of what they enable us to do. They can provide us with energy and support, and they supply us with inspiration and comfort. These places enhance our lives on a continuing basis. If we want students and others to feel this way about libraries, then they need the ability to participate in their surroundings accordingly."

"In our conversations with library users, we've repeatedly encountered stories from groups and individuals about being able to get things done. A psychological alchemy occurs once people walk through our doors. Visiting a library unlocks certain mental modes, different ways of thinking, seeing, and being. Students and faculty leave our buildings with a sense of accomplishment. A trip to the library is an investment in self-improvement."

"We vividly recall a conversation with a student team that expanded our thoughts on common areas. They felt that they could write code together better when working in the library. They admitted that using their laptops enabled them to work anywhere, but the library presented them with a unique combination of features. The mixture of physical, technological, social, and aesthetic components propelled their work. The group members also noted that they always run into old friends or encounter people they don't see regularly in their classes or residential areas. The value proposition for them is being able to share, move, create, test, and bond in ways they couldn't achieve elsewhere."

"This communal aspect is intriguing. People are not coming to libraries only to get work done; they also want an audience and to join the performance. They position themselves around other people who are working on their own assignments. We're all in this together. It's a shared effort. Being surrounded by other productive people is a powerful motivator."

Margaret K. Merga (2021) Libraries as Wellbeing Supportive Spaces in Contemporary Schools, *Journal of Library Administration*, 61:6, 659-675, DOI: [10.1080/01930826.2021.1947056](https://doi.org/10.1080/01930826.2021.1947056)

This article draws on qualitative interview data from students and library managers to explore how students make use of the school library, and how this relates to the library as a safe space. It finds that school libraries can be highly valued for their capacity to foster belonging and sanctuary and allow exposure to books and opportunities for reading. Students also appreciated how libraries provided a space for relaxing and recharging, supporting lively and social activities as well as quietude. There was recognition of the role of supportive library staff, who created inviting and supportive environments with careful selection of furnishings and decorations.

Marta Bladdek, Student well-being matters: Academic library support for the whole student, *The Journal of Academic Librarianship*, Volume 47, Issue 3, 2021, 102349,

<https://doi.org/10.1016/j.acalib.2021.102349>.

(<https://www.sciencedirect.com/science/article/pii/S0099133321000409>)

Abstract: In response to a marked increase in the prevalence and severity of mental health problems among college students over the last decade, colleges and universities have been expanding their well-being initiatives and programs. No longer limited to health services departments, the support of student well-being has been taken up by multiple campus units, including academic libraries. As well-being has been shown to impact academic outcomes, the well-being initiatives libraries develop fit in with their commitment to enhance learning and student educational experience overall. A comprehensive review of wellness interventions in academic libraries, this article presents findings on student well-being and provides a rationale for institutional responses to the crisis. It describes well-being initiatives across library collections, services, and spaces. It then critiques the trend and includes recommendations for implementing effective and assessable well-being initiatives. The article ends with a brief discussion of library well-being initiatives during COVID-19.

“As the varied examples above demonstrate, academic libraries turn to their collections to support student wellness in ways that are either quite traditional (author talks, reading groups, and thematic book events) or more innovative (adding a curated self-care collection). It is important to note that engagement with the collections may lend itself to therapeutic, intellectual, communal, and social effects, all of which have the potential to positively impact student well-being.”

- B. **Accessibility and other relevant standards:** These resources can be consulted and studied to help us understand how to meet our accessibility goals.
- [IFLA checklist](#) (physical space)
 - [UNESCO guidelines](#) (digital accessibility)
 - [Universal Design for Learning](#) (UDL)
- C. **Recently expanded and renewed libraries including academic peers and the local community:** We can learn from these institutions about what has worked well for their communities. Potential local visits:
- Northeastern – renovations and [seating expansion](#)
 - [MIT / Hayden Library](#)
 - [Smith / Neilson Library](#)
 - [Worcester Public Library](#)
 - [Grafton Public Library](#)
 - [Fitchburg State Library](#)

3

Documenting the Voices and Experiences of WPI's Diverse Community: In collaboration with students, alumni, faculty, and staff, we will develop, share, build and sustain a rich documentary record of the history of diverse student and other community groups at WPI.

Purpose:

Since its inception in 1865, WPI has welcomed students from a variety of backgrounds that have made major contributions to science, technology, and society while also improving the cultural and ethnic diversity of their professions. This project seeks to discover, document, and share these stories of success from both past and present to better inspire current and future members of the WPI Community.

Vision of success:

The WPI Archives & Special Collections team will work with campus and community stakeholders to formulate a mechanism that actively documents current and historic campus diversity while simultaneously preserving those resources and providing open access to those resources. Additionally, the department would like to create an internship or fellowship opportunity that could serve as a pathway to recruit librarians and archivists from underrepresented communities.

Resources needed for success:

Recognizing the increased competition for funding and other resources, this plan has been designed to chiefly leverage the professional expertise of the existing staff and resources for most of its elements, notably creating new workflows and discovery methods to showcase resources that document the struggles and celebrations of WPI sub-communities based on a shared self-identity. Some funding will eventually be needed to support expanded digital preservation solutions and to provide for a more realistic pathway for recruitment from underrepresented population groups.

Approaches and methods:

The primary approach used will be to develop a robust record archiving and management policy and practice, and then to apply these policies and practices through outreach to diverse WPI communities. Enhancing discovery of archived records is another major element of this initiative. Developing a sustained program for promoting and developing DEIA archiving professionals is an essential strategy for maintaining the commitment to archiving with diversity.

Tasks and timeline:

A. Collecting and preserving records of activities and diversity

Task 1: Create a records retention and management schedule for records produced by the WPI Community.

Measurable(s): Online publication of a Records Retention and Management schedule that better preserves the activities of campus offices and groups that share a self-identity or cultural heritage.

Timeline: Work on this initiative will begin in Fall 2021 as it is the foundational element for on-campus outreach efforts.

Task 2: Identify campus partners and stakeholders integral to creating and documenting campus diversity.

Measurable(s): TBD

Timeline: Work on this initiative will begin in Fall 2021 as it is the foundational element for on-campus outreach efforts.

Task 3: ID and targeted outreach to campus offices, student & alumni groups to determine resources that document campus diversity

Measurable(s): Document the number of offices contacted to determine what records they may produce and how can ASC support improvements in their records management and archives workflows for items related to diversity, equity, inclusion, and access.

Timeline: These efforts will begin in Fall 2021 and will continue as part of our ongoing efforts.

Task 4: Formulate a complete digital preservation plan that includes digitized and digital-born records formats.

Measurable(s): Adoption of digital preservation policy that includes documentation of workflows for ingest, preservation, access, and recovery.

Timeline: Work on this will continue throughout the process as new best-practices are adopted and new file formats emerge.

B. Showcasing resources and discovery tools

Task 1: Investigate resources to enhance digital, virtual, and interactive interfaces for WPI resources

Measurable(s): TBD

Timeline: Year 1

Task 2: Implement increased pathways to discovery and access of WPI's unique and rare resources

Measurable(s): TBD

Timeline: Years 1-5

C. Sustaining and fostering professional development in DEIA archiving

Task 1: Foster an archival/librarian internship and outreach program that provides opportunities for traditionally underrepresented groups in academic libraries

Measurable(s): TBD

Timeline: Years 3-4

Resources consulted:

Retention schedule examples (shared with staff)

Archives Advocacy and Outreach Toolkit: <https://www.archivesaotoolkit.com>

4

Providing Open, Equitable & Inclusive Scholarly Communication Services: We will build a robust program of advisory services, platforms, instruction, and other services that will expand WPI’s contributions to a more equitable and high-impact globally accessible scholarly record.

Purpose:

According to the Association of College and Research Libraries (2003), scholarly communication is “the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use”. The traditional system for disseminating scholarship is widely believed to be broken and emerging systems present opportunities for research to be shared more broadly, more inclusively, and more effectively.

The Gordon Library recognizes the critical importance of assisting our students and faculty throughout the cycle of scholarly communication and endorses the need “to support technological infrastructure that is scalable and sustainable, to create systems that permit more access to more people, and to build mission-aligned organizational and financial systems” (Maron & Kennison, 2019, p. 8).

The Gordon Library’s scholarly communication team will work with the WPI community to raise awareness, identify issues and find solutions to enact more effective and inclusive ways of sharing the research and scholarly outputs of the Institute globally.

The Gordon Library will work collaboratively with the scholarly community, at WPI and at large, to advocate for changes in the scholarly communication landscape, and in the development of actions to enact equitable, global transformations.

This initiative supports WPI’s Strategic Area of *Purpose-Driven Education and Research*, including the following components: *Strengthen the Academic Core; Increase Student Pathways through WPI; Strengthen and Grow Demand-Driven Graduate Programs; and Leverage Technology & Partnerships with Interdisciplinary Fields for Workplace Development.*

Background

The WPI community has limited awareness of scholarly communication issues, such as the high cost of subscriptions to information resources and the transformative and disruptive influence of open access publishing and open access educational resources.

The subscription model for e-journals and databases currently in place for WPI and most academic institutions, with annual inflation rate of 5% or more, is not sustainable over the long term.

A sustainable model for Open Access publishing at WPI requires funding for the transformation of subscription information resources to open access.

Rising textbook costs are making it increasingly difficult for students to access required reading materials for their courses. Open Education Resources can help improve the affordability of WPI education.

Stakeholders: Current Feedback and Strategies for Seeking Feedback & Support

A. WPI faculty & researchers

- Current feedback: Informal conversations/communications voicing support for the need for changes in the scholarly communication landscape; requests for assistance with copyright and author rights issues; requests for impact analysis and help with creation of scholarly profiles
- Strategies for seeking feedback: focus groups; surveys; one-on-one conversations; workshops/presentations with interactive discussions

B. WPI students

- Current feedback: In consultations and during class-embedded assistance students indicate limited understanding of both the scholarly communication landscape and of copyright issues – particularly as they relate to WPI project work; Students often express dismay with the high cost of textbooks and seek alternatives but have limited exposure to OER
- Strategies for seeking feedback: questions on annual survey; feedback during instruction/consultations; information gleaned from questions/answers solicited during student orientations

C. VP for Research

- Current feedback: The VP for Research is well-versed in these issues and has expressed and demonstrated support for efforts to broaden access to information/resources
- Strategies for seeking feedback: Informal conversation via email or Zoom

Vision of success:

- WPI is aware of issues in the field of scholarly communication, and actions the Gordon Library takes in response to these problems both locally and globally.
- WPI faculty, students, and staff make informed decisions about using licensed and rights-protected materials in their research, scholarship, and teaching, and are able to better manage their own intellectual property rights as authors.
- WPI faculty, staff and students have increased access to, and make greater use of, open scholarly, educational resources in their research, teaching, and learning.
- WPI faculty and researchers understand their scholarly publishing options and participate more in open access publishing.
- WPI's research output has increased visibility, impact, discoverability, and accessibility.
- The Gordon Library is an active participant in bringing about positive change in the scholarly communication landscape.

Resources needed for success

To establish a successful suite of services and resources at WPI that foster the movement to a more equitable and high-impact globally accessible scholarly record requires a substantial commitment in terms of both people and time. A new position – a Scholarly Communications Librarian – is a critical component of this commitment. Additional, essential resources necessary for success include:

- Internal training opportunities to develop relevant expertise in scholarly communications-related areas
- Additional bandwidth for librarians to address these issues and provide services
- Continued development & maintenance of a robust infrastructure to support open publishing initiatives
- Funding to support faculty efforts in creating and utilizing OERs, open licensing options, and open access publishing.

Approaches and methods

- ***Infrastructure Implementation & Maintenance***
 - Recruitment & hiring of a Scholarly Communications Librarian
 - Support for the creation, dissemination, and use of open access scholarship and open educational resources (OERs) with few or no use/reuse restrictions
 - Provision of infrastructure (e.g., Digital WPI), policies and processes to support participation in open access publishing of scholarly resources
- ***Outreach & Faculty Support***
 - Outreach to the WPI community and assistance with: copyright in research, publishing & teaching; authors' rights; scholarly publishing options; open access for scholarship and research data
 - Identification of needs and development of workshops, online resources and other learning opportunities to cultivate knowledge of issues and trends in scholarly communications within the WPI research community
 - Guidance and outreach for scholarly impact tracking, metrics/alt-metrics, and scholarly profiles
- ***Advocacy***
 - Advocacy efforts in support of a system of open scholarly communication
 - Active participation in discussions and projects related to scholarly communication across the university, and within the US and internationally
- ***Professional Development***
 - Professional development of the library community both at WPI and more broadly through collaborative programs and partnerships with external cohorts
 - Research into areas relating to scholarly communication, with publishing in social media, the academic literature and presentations at conferences and other venues
- ***Assessment & Program Growth***
 - Collection and analysis of data to identify trends, problem areas, and opportunities for growth related to scholarly communication
 - Investigation and pursuit of grants or other funding opportunities to achieve programmatic goals

Tasks and timeline

Task 1: Develop & implement a program for robust copyright, author rights, and licensing & scholarly publishing options (e.g. open access options) assistance and guidance – to include consultations, workshops, class-related presentations and other educational/awareness events, online reference resources & other educational materials

- **Timeline:** Underway, but additional services will be added 2022 – 2024
- **How will we know we did it:** Increase in awareness of issues in copyright, author rights and licensing options; Increase in WPI authors maintaining rights when publishing; Decrease in copyright violations in student works
- **Who will lead it? Who will do it?** Scholarly Communication Librarian (long-term); reference librarians and collection management librarian (short-term)
- **Who will they need to work with to succeed:** Office of General Counsel; Office of Sponsored Programs; Office of VP for Research
- **What resources will they need to succeed:** Scholarly Communications Librarian (long-term); Librarians well-versed in copyright, author rights and associated areas
- **How will the success of the effort be assessed:** Anecdotal evidence from informal conversations with faculty & students; Statistics gathered on publishing patterns of WPI researchers; Monitoring of deposited student works and faculty feedback on student projects
- **How will the effort be sustained:** This will be a component of the functional work of the Scholarly Communication Librarian, and eventually the scholarly communication unit

Task 2: Implement a program of support for WPI faculty and students in the creation, publishing, and discovery & use of open access scholarship and open educational resources (OERs)

- **Timeline:** 2021 - 2023
- **How will we know we did it:** Increased access to, and greater use of, open scholarly, educational resources in research, teaching, and learning; Increase in number of OER in Digital WPI; Increase in number of faculty creating or adapting OER
- **Who will lead it? Who will do it?** Scholarly Communication Librarian (long-term); reference/instruction librarians; Digital WPI team
- **Who will they need to work with to succeed:** Morgan Teaching and Learning Center; ATC & instructional technologists; WPI Forward team
- **What resources will they need to succeed:** Robust infrastructure in Digital WPI or other repository/archiving system; Expertise with scholarly publishing platforms; Facility with open licensing options (e.g. Creative Commons); funding to support faculty efforts in creating OER
- **How will the success of the effort be assessed:** Collection and analysis of statistics – both deposition numbers and usage – of relevant faculty/student works in Digital WPI
- **How will the effort be sustained:** This will be a component of the functional work of the Scholarly Communication Librarian, and eventually the scholarly communication unit; The Digital WPI team will continue to monitor/assess data for the repository; An ongoing OER fund will be institutionalized

Task 3: Develop and implement dynamic outreach, training and support for scholarly impact tracking, using myriad citation metrics/alt-metrics, and by establishing/enhancing scholarly profiles and identifiers (e.g. Open Researcher Community IDs (ORCID), Google Scholar Citations Profiles, Scopus IDs)

- **Timeline:** 2021-2023
- **How will we know we did it:** Increase in number of ORCID profiles (and other profiles) for WPI researchers; Increase in use of robust citation analyses in promotion/tenure packets; Increase in number of faculty trained in bibliometrics

- **Who will lead it? Who will do it?** Scholarly Communication Librarian (long-term); research/instruction librarians
- **Who will they need to work with to succeed:** Dept. heads (to help inform faculty); publishers/vendors (for data)
- **What resources will they need to succeed?** Bandwidth to provide support and training; Expertise in bibliometrics
- **How will the success of the effort be assessed:** Data collected on number of training sessions offered, number of faculty helped, and number of profiles created each year
- **How will the effort be sustained:** This will be a component of the functional work of the Scholarly Communication Librarian, and eventually the scholarly communication unit

Task 4: Continue to develop and provide a robust infrastructure (e.g. Digital WPI), policies, and processes to support WPI participation in open access publishing of scholarly resources

- **Timeline:** January 2022 – December 2022
- **How will we know we did it:** Increase in relevant collections (e.g. OER; research center-based collections, etc.) of WPI scholarship in Digital WPI; Increase in world-wide usage of WPI-created scholarship; Increase in number of WPI-created publications deposited
- **Who will lead it? Who will do it?** Digital WPI team; research/instruction librarians (to help raise awareness)
- **Who will they need to work with to succeed:** WPI faculty and students; Cross-cutting research groups; Office of VP of Research
- **What resources will they need to succeed:** Time/bandwidth; Expertise in repository development & maintenance
- **How will the success of the effort be assessed:** Collection & analysis of repository statistics, including number of relevant items deposited, number of relevant collections created, usage of relevant items
- **How will the effort be sustained:** This will be a component of the ongoing efforts of the Digital WPI team

Task 5: Actively participate in discussions and initiatives related to scholarly communication across the university and nationally/internationally, in order to advocate for a system of open scholarly communication

- **Timeline:** 2022 – 2025
- **How will we know we did it:** Increased awareness at WPI of issues/need for change; Increase in number of open access articles or other forms of scholarship by WPI faculty & researchers
- **Who will lead it? Who will do it?** WPI librarians, including Scholarly Communication Librarian
- **Who will they need to work with to succeed:** WPI faculty and researchers; Office of VP of Research; National/international organizations providing leadership (e.g. SPARC; ACRL/ALA) in scholarly communication
- **What resources will they need to succeed:** Increased expertise in Library; Professional development opportunities to include training and participation in relevant associations/groups at regional and national levels; Funding to attend/participate in relevant meetings/conferences/initiatives
- **How will the success of the effort be assessed:** Data gathered on numbers/types of open scholarly works created by WPI researchers; surveys assessing faculty perceptions
- **How will the effort be sustained:** This will be a component of the functional work of the Scholarly Communication Librarian, and eventually the scholarly communication unit

Task 6: Develop and implement a research agenda in areas relating to scholarly communication – including collection & analysis of data, and eventual dissemination of results including publishing in the academic literature and/or presentations at conferences and other venues

- **Timeline:** 2023-2025
- **How will we know we did it:** 3 or more presentations/publications in a 2 year period; Citations to published works
- **Who will lead it? Who will do it (people or groups):** WPI librarians, including Scholarly Communication Librarian
- **Who will they need to work with to succeed:** Library administration (support); professional colleagues with similar research interests
- **What resources will they need to succeed (people, space, expertise, collaboration, etc.):** Time/bandwidth - release time for participating librarians
- **How will the success of the effort (including what we've learned) be assessed:** Collection of data on salient presentations, articles, scholarly works including numbers and citation counts
- **How will the effort be sustained (if it's an ongoing initiative):** The Scholarly Communication Librarian will coordinate efforts to sustain interest and annual progress

Task 7: Investigate opportunities and pursue grants or other funding sources to achieve programmatic goals

- **Timeline:** 2023 –2025
- **How will we know we did it:** Obtainment of external funding to pursue the research agenda, the development of internal training program, or professional development opportunities
- **Who will lead it? Who will do it?** Scholarly Communication Librarian
- **Who will they need to work with to succeed:** Library Administration (support); potentially OSP or Office of VP for Research
- **What resources will they need to succeed:** Relevant funding opportunities; Grant/application writing skills
- **How will the success of the effort be assessed:** Tracking of opportunities pursued and funding dollars awarded to support the initiatives of the program
- **How will the effort be sustained:** This will be a component of the functional work of the Scholarly Communication Librarian, and eventually the scholarly communication unit

Resources consulted:

Ideas and guidelines from peers, research, and competitors:

- A multi-faceted, sustained approach is needed to raise awareness and enact change in the scholarly communication landscape.
- Significant qualitative and quantitative analyses have revealed that both faculty and librarians believe that academic librarians are both well situated and capable of contributing to scholarly communication practices.
- There are positive changes underway in scholarly communication and publishing, but there is continued pushback from publishers in the commercial sector.
- Formal training (e.g., in MLIS programs) for scholarly communication librarians has been limited; Community-driven initiatives are developing and can be an effective alternative.

Benchmarking:

Selected list of analogous programs at the university/college level: <https://tinyurl.com/benchmarkingScholComm>

References:

Association of College & Research Libraries. (2003). *Principles and strategies for the reform of scholarly communication*. <https://www.ala.org/acrl/publications/whitepapers/principlesstrategies>

Maron, N. V. K. & Kennison, R. (2019). *Open and equitable scholarly communications: Creating a more inclusive future*. Association of College and Research Libraries. <http://bit.ly/ACRLResecRA>

Selected Readings:

Anders, K. C., & Algenio, E. (2020). Copyright education for graduate students: A multi-stage approach. *Journal of Librarianship & Scholarly Communication*, 8, 1–17. <https://doi.org/10.7710/2162-3309.2359>

A large research library implemented a multi-staged program that allowed librarians to educate graduate students about a broad array of copyright topics throughout their graduate programs instead of addressing issues solely related to dissertations and theses at the end of their studies.

Bonn, M., Cross, W., & Bolick, J. (2020). Finding our way: A snapshot of scholarly communication practitioners' duties & training. *Journal of Librarianship and Scholarly Communication*, 8(1), 2328. <https://doi.org/10.7710/2162-3309.2328>

Researchers surveyed practitioners of scholarly communication, as defined by the Association of College and Research Libraries (ACRL), regarding their attitudes toward and experiences with education in scholarly communication, job responsibilities, location within their academic libraries, and thoughts about emerging trends in scholarly communication librarianship.

Brantley, S., Bruns, T. A., & Duffin, K. I. (2017). Librarians in transition: Scholarly communications support as a developing core competency. *Journal of Electronic Resources Librarianship*, 29(3), 137–150.

<https://doi.org/10.1080/1941126X.2017.1340718>

In this article, scholarly communication training developed for librarians at a mid-sized public university is described. Two surveys, describing faculty digital scholarship needs and librarian attitudes toward scholarly communication services, are presented.

Craft, A. R., & Harlow, S. (2021). Scholarly communications training: Professional development for the next generation of scholars. *Serials Review*, 46(3), 175–183. <https://doi.org/10.1080/00987913.2020.1806651>

This article discusses a professional development program that addresses scholarly communications needs for online and in-person graduate students and faculty at UNC Greensboro (UNCG), through a collaborative, interdepartmental effort that brings together librarians from the departments of Research, Outreach, and Instruction (ROI) and Technical Services.

Fernández-Molina, J.-C., Martínez-Ávila, D., & Silva, E. G. (2020). University copyright/scholarly communication offices: Analysis of their services and staff profile. *Journal of Academic Librarianship*, 46(2).

<https://doi.org/10.1016/j.acalib.2020.102133>

This study analyzes the services offered copyright offices and/or services provided by academic libraries and the professional and academic profile of the staff involved.

Helge, K., Tmava, A. M., & Zerangue, A. R. (2019). Sustaining and enhancing the scholarly communications department. ABC-CLIO.

This book explains how to develop, manage, market, and maintain a scholarly communications department. It defines specific tasks and tools for which many scholarly communications departments are responsible, including intellectual property, licensing issues, promoting open access, data management, and plagiarism issues, and discusses strategies for collaborating with key campus stakeholders.

Klain-Gabbay, L., & Shoham, S. (2016). Scholarly communication and academic librarians. *Library & Information Science Research*, 38(2), 170–179. <https://doi.org/10.1016/j.lisr.2016.04.004>

Following interviews with 20 faculty members and 15 academic librarians employed by a university or an academic college in Israel, questionnaires were constructed and delivered to 191 faculty members and 50 librarians. Qualitative and quantitative analyses revealed that both the faculty members and librarians believed that academic librarians are potentially capable of contributing to scholarly communication processes.

Krier, L., Premo, R., & Wegmann, M. (2019). The future is wide open: Sustainable scholarly communications and affordable learning in libraries. *Collection Management*, 44(2–4), 164–175. <https://doi.org/10.1080/01462679.2019.1582392>

The authors lay out why a shift toward open access models is necessary and what it might entail for libraries and library resources, including the library's increasing role in supporting and advocating for open access and open educational resources through participation in campus affordable learning initiatives, working with disciplinary faculty in new ways to draw attention to open access resources.

Maron, N. V. K. & Kennison, R. (2019). Open and equitable scholarly communications: Creating a more inclusive future. *Association of College and Research Libraries*. <http://bit.ly/ACRLResecRA>

Open and Equitable Scholarly Communications is an action-oriented research agenda designed to provide practical, actionable information for academic librarians, include the perspectives of historically underrepresented communities in order to expand the profession's understanding of research environments and scholarly communication systems, and point librarians and other scholars towards important research questions to investigate.

Munro, K. (2019). Renewing the system: Thinking broadly about equity, diversity, and inclusion in scholarly communication. *College & Research Libraries News*, 80(7), 374. <https://doi.org/10.5860/crln.80.7.374>

The ACRL Board of Directors passed a core commitment of their strategic plan, the Plan for Excellence. Along with the Association's core purpose, "[t]o lead academic and research librarians and libraries in advancing learning and Scholarship," and the core organizational values, which include visionary leadership, responsible stewardship of resources, and the values of higher education and intellectual freedom, they made an explicit commitment to equity, diversity, and inclusion (EDI), in scholarly communication and other areas.

Sandy, H. M., Million, A. J., & Hudson-Vitale, C. (2020). Innovating support for research: The coalescence of scholarly communication? *College & Research Libraries*, 193–214. <https://doi.org/10.5860/crl.81.2.193>

This article investigates the extent to which a formal scholarly communication role has grown in ARL libraries, the skills and competencies necessary for supporting work with data in this capacity, and how those skills and competencies relate to the research lifecycle.

Schleicher, C. A., Barnes, C. A., & Joslin, R. A. (2020). OER initiatives at liberal arts colleges: Building support at three small, private institutions. *Journal of Librarianship and Scholarly Communication*, 8(1), Article 1. <https://doi.org/10.7710/2162-3309.2301>

In this article, librarians describe their experience promoting and supporting OER usage at three small, private LAC, each at a different stage in developing formal programs to assist faculty interested in adopting and creating OER. The authors discuss strategies employed, obstacles encountered, and lessons learned, providing practical advice for achieving OER success in the LAC environment.

Schmidt, L., & Boczar, J. (2021). Designing a flexible outreach program for scholarly communication and copyright services: A modular roadshow for the University of South Florida. *College & Research Libraries News*, 233– 236. <https://doi.org/10.5860/crln.82.5.233>

The University of South Florida (USF) developed scholarly communication and copyright services in response to community demand and to fulfill perceived institutional needs. The services initially established connections through liaison librarians and referral, when faculty patrons intuitively approached the library with a query. The DSS Roadshow was developed, aimed at providing a menu of modularity configured presentations to faculty and graduate students at the university.

Whiting, P., & Wright, A. M. (2020). Upcycling a schol comm unit: Building bridges with creativity, reallocations, and limited resources. *The Serials Librarian*, 78(1–4), 239–243. <https://doi.org/10.1080/0361526X.2020.1701903>

This paper describes the creation and development of the scholarly communication unit at David L. Rice Library, its strengths and weaknesses, and some lessons learned.

5

Empowering Data Literacy: We will build a collaborative program to empower WPI students with a strong base of data literacies and skills, including data visualization and communication and critical and ethical use and sharing of data.

Purpose:

The landscape of data science is both immense and quickly evolving. At WPI, Cyber, Data & Security – which includes WPI faculty and student researchers in data science who focus on improving data mining tools and techniques and developing new methods for leveraging big data to make data-driven predictions and decisions - has been designated as one of the five cross-cutting research areas as part of university-wide strategic planning.

As these and other data science research areas develop, the library is well positioned to help provide training and guidance in these areas. This initiative would address this emerging opportunity for library engagement and could foster productive collaborations with myriad campus partners.

Given the range of needs from faculty researchers and students, the library could provide valuable services that can help advance the ability of WPI users’ – at all levels - to excel in data science and open science – complementing the other data science support efforts on campus.

As a central and trusted academic support unit, the library is well positioned to help provide training and guidance in several areas relevant to data science and data literacy. Librarians should play a central role in facilitating data science work, owing to their expertise in navigating an array of databases, repositories, tools, and domains of expertise.

Background:

Data science is a rapidly growing field with applications across all scientific domains. Data science has many definitions, but at the core it is about “generating insight from data to inform decision making.” Universities are developing new departments, majors, programs, and courses focused on data science, aiming to equip students with the skills necessary to meet the demand for jobs in a data-driven world. At WPI, faculty and student researchers in data science are working to spur technological and commercial advances and make an impact on society.

Closely related to data science is data literacy. Data literacy is “the ability to read, create, and communicate data as information.”

At WPI, our stakeholders include faculty, staff and students from the BS, MS and PhD degree programs in Data Science and related disciplines, such as Computer Science, Mathematical Sciences, and Business Studies; and student organizations, such as the Data Science Club, and The American Statistical Association WPI Student Chapter (ASA-WPI). Our faculty’s current focus,

mission or goals and direction on data services, data literacy, and open data includes this statement on the [Data Science Department website](#):

WPI Data Science researchers are exploring every aspect of this burgeoning field. Together, they innovate Data Science techniques and technologies, and their applications fuel breakthroughs that have direct, real-world impact. These state-of-the-art analytics tools allow users to explore data spurring advances in digital health, genetic analysis, educational software, financial trading, and more.

Vision of success:

The success of this initiative is founded upon the library funding a new position for a librarian and/or information professional with skills in areas such as data literacy, data curation, research data management, statistical analysis, business analytics, visualization, bibliometric analysis and learning analytics. At this time, the hiring of a data science librarian, and thus the successful implementation of this initiative, is hindered by the overall shortage of data savvy employees in the library workforce.

The following learning outcomes could be used to measure the success of our initiative.

Students will be able to:

1. Discuss what data is and the role of data in society.
2. Identify and select data appropriate to an inquiry.
3. Conduct analysis, evaluation and interpretation of data in a critical manner.
4. Communicate data-based insights.
5. Describe legal and ethical issues associated with data, and use data in an ethical manner

Resources needed for success:

The success of this initiative is founded upon the library funding a new position for a librarian and/or information professional with skills in areas such as data literacy, data curation, research data management, statistical analysis, business analytics, visualization, bibliometric analysis and learning analytics.

The recommended tasks for this initiative each have their own required resources. These resources typically fall within the categories of funding, staffing and work time dedicated to accomplishing the task. See the Tasks and Timeline section for details.

Approaches and methods:

Our research from our peer institutions, other engineering schools, and scholarly research shows that academic libraries offer analytical software tools, educational workshops and tutorials, collection development in various aspects of data science, training courses for librarians, faculty and students, and links to support networks and communities of practice in data science, data literacy and open data. These are all ideas and practices that we recommend adopting at WPI.

For further information on peer and industry best practices, see Resources consulted.

Tasks and timeline:

Task 1: Acquire tools, such as data analysis, data management, data visualization, and workflow documentation software programs to support the data science efforts of faculty and students.

- **Timeline:** 1-5 years depending on the level of funding provided each year for acquisitions.
- **Measures of accomplishment/success:** These data science tools will have been purchased and shared with the WPI academic community.
- **Who will lead this task?** The data science librarian in collaboration with WPI Data Science program faculty, and other community members involved in data science.
- **Who will they need to work with to succeed?** IT, and Data Science program faculty, staff and students.
- **What resources will they need to succeed?** Sufficient funding and people (librarians), and the collaboration from faculty involved in data science.
- **How will the success of the effort be assessed?** The purchase of these tools is one measure of success. Tracking their use would be another measure.
- **How will the effort be sustained?** n/a

Task 2: Create and share educational workshops and tutorials on a variety of data science topics, such as data analysis, data management, data visualization, and workflow documentation software programs, which support the data science efforts of faculty and students.

- **Timeline:** 1-5 years
- **Measures of accomplishment/success:** The library will have created and shared educational workshops and tutorials on a variety of data science topics.
- **Who will lead this effort?** The data science librarian and additional library staff will collaborate with faculty involved in data science to develop these workshops and tutorials. The data science librarian will find WPI data science experts to hold the workshops.
- **Who will they need to work with to succeed?** WPI Data Science program faculty and other faculty involved in data science topics.
- **What resources will they need to succeed?** Sufficient time and people (librarians); collaboration from faculty involved in data science; and space in which to hold workshops.
- **How will the success of the effort be assessed?** The creation of these workshops and tutorials is one measure of success. Tracking the use of these workshops and tutorials, and post-session participant surveys are other assessment methods.
- **How will the effort be sustained?** The library will continue to provide the funding, staff and time for presenting the workshops and for developing additional workshops and tutorials.

Task 3: Focus some library collection development funding and effort toward the acquisition of books and journals on data science, data literacy and open data. Focusing on subject areas such as machine learning, research data management, data visualization, text mining, and workflow documentation.

- **Timeline:** 1-5 years depending on the level of funding provided each year for acquisitions.
- **Measures of accomplishment/success:** The library will have created a new collection that supports data science and data literacy.
- **Who will lead this effort?** The collection development librarian, with input and support from the data science librarian.
- **Who will they need to work with to succeed?** They will need to collaborate with WPI Data Science program faculty and staff for recommended purchases.
- **What resources will they need to succeed?** New collection development funds dedicated to the purchase of these materials.
- **How will the success of the effort be assessed?** The library will have created a new collection that supports data science and data literacy.

- **How will the effort be sustained?** The library will continue to receive sufficient collection development funds.

Task 4: Establish links to support networks, such as Software Carpentry, and communities of practice in data science, data literacy and open data.

- **Timeline:** Within the first year of implementing this initiative. New support networks and communities of practice can be added on an ongoing basis.
- **Measures of accomplishment/success:** A list of support networks and communities of practice will have been compiled and shared with data science faculty and students.
- **Who will lead this effort?** The data science librarian in collaboration with WPI Data Science program faculty, and other community members involved in data science.
- **Who will they need to work with to succeed?** Data Science program faculty, staff, and students.
- **What resources will they need to succeed?** An understanding of how to identify appropriate support networks and communities of practice.
- **How will the success of the effort be assessed?** Through the use of these resources and surveys of user experience.
- **How will the effort be sustained?** The data science librarian will maintain an up-to-date list of these resources.

Task 5: Complete professional development training courses for all librarians who will be involved in providing these services, as well as for faculty and students. Courses such as those offered by the National Library of Medicine, The New England Collaborative Data Management Curriculum (NECDMC), or Coursera's Data Science Specialization courses

- **Timeline:** Ongoing as courses are offered over the 1-5 year timeframe. Ongoing based on the level of funding provided each year for this professional development.
- **Measures of accomplishment/success:** Identification and enrollment in relevant training courses.
- **Who will lead this effort?** The data science librarian with input from data science faculty as needed.
- **Who will they need to work with to succeed?** Data Science program faculty, staff, and students.
- **What resources will they need to succeed?** Sufficient funds and work time to enroll in courses.
- **How will the success of the effort be assessed?** By the number of librarians, data science faculty, and students who enroll in these courses; and through post-session surveys.
- **How will the effort be sustained?** Through continued funding and work time allocated to this professional development.

Task 6: Identify and apply for grant funding on data science and data literacy topics.

- **Timeline:** Ongoing, based on the availability of grants for our proposed data science projects
- **Measures of accomplishment/success:** The submission and subsequent awarding of grants.
- **Who will lead this effort?** The data science librarian, additional library staff, and grant writing professionals at WPI.
- **Who will they need to work with to succeed?** Data Science program faculty and grant writing professionals at WPI.
- **What resources will they need to succeed?** Time, funding and grant writing expertise.
- **How will the success of the effort be assessed?** Through the submission and subsequent awarding of grants.
- **How will the effort be sustained?** Through continued funding, allocation of time, and contribution from WPI grant writing experts.

Resources consulted:

Peer practices:

Our peer schools:

- [Case Western Reserve University](#): Does not have an infrastructure for the education of data literacy. Has a Data Governance Committee to develop this capability. A librarian is on this committee.
- [Northeastern University](#): Offers a semester long course called Data Literacy Fundamentals. It is through their Professional Studies division, not the library.
- [Rensselaer Polytechnic Institute](#): Has an undergraduate requirement that all students develop “data dexterity” - proficiency in using diverse datasets to define and solve complex real-world problems. There is no library support for data dexterity, data literacy or data science training.
- [Boston College](#): The library has a subgroup that offers research data services.
- **Rochester Institute of Technology**: Does not offer any data literacy or data science training outside of courses in a certificate program.
- **Stevens Institute of Technology**: Does not offer any data literacy or data science training outside of courses in degree programs.

Other Engineering Schools:

- **Bucknell**: Offers a minor in Data Science and Engineering. The Library & Information Technology department offers data analytic services, such as data management, reporting, visualization, analysis, and storage to support Bucknell’s data initiatives.
- **Clarkson University**: Offers a BS in data science, but no library support for data literacy or data science training.
- **Dartmouth**: Offers a MS degree in Health Data Science. Medical Library provides training workshops on data management, storage, and visualization.
- **NJIT**: Offers a BS and MS in Data Science. Offers several [research guides](#) on data science and data literacy services, resources and training.
- **Rutgers**: Offers an MS in Computer Science with a concentration in Data Science. [Data Literacy Resource Guide](#): A collection of information resources on data literacy from the Rutgers library. [Library Research Guides: Data](#) Multiple data science research guides.
- **WIT**: Offers an MS in Data Science, but no library support for data literacy or data science training.

Other Worcester Schools:

- **Clark University**: Offers a minor in Data Science, but no library support for data literacy or data science training.
- **Worcester State University**: Does not offer any majors or minors in data science or data literacy. No library support for data science or data literacy training.
- **Holy Cross**: Does not offer any majors or minors in data science or data literacy. No library support for data science or data literacy training.
- **Becker College**: Does not offer any majors or minors in data science or data literacy. No library support for data science or data literacy training.
- **QCC**: Does not offer any majors or minors in data science or data literacy. No library support for data science or data literacy training.

Other Academic & Industry Organizations:

- [Association of College & Research Libraries \(ACRL\)](#)
- [Data Science Certificate Programs - Discoverydatascience.org](#)
- [Medical Library Association](#)
- [RDAP \(Research Data Access & Preservation\) Association](#)

Additional Sources of Data Science, Data Literacy and Open Data Resources

Academic Journal Articles

- [Data literacy white paper](#)
- [Data Management for Graduate Students: A case study at Oregon State University. Practical Academic Librarianship](#)
- [Data Research for Researchers and Data Librarians](#)
- [Data science and its relationship to library and information science: a content analysis](#)
- [Data science in data librarianship: Core competencies of a data librarian](#)
- [Data Scientist Training for Librarians](#)
- [Defining data librarianship: a survey of competencies, skills, and training](#)
- [Designing Data Science Workshops for Data-Intensive Environmental Science Research](#)
- [Engaging Students in Data Literacy](#)
- [How Are We Measuring Up? Evaluating Research Data Services in Academic Libraries](#)
- [How stakeholders' data literacy contributes to student success in higher education: a goal-oriented analysis](#)
- [Teaching Librarians to be Data Scientists](#)
- [What Reference Librarians Should Know about Data Science](#)

Academic Libraries - Data Literacy & Data Science Services

- [Data Literacy Teaching Toolkit – U. of Southern Florida](#)
- [Data Science LibGuide - UC San Diego](#)
- [Data Science LibGuide - U. of Virginia](#)
- [Data Science Services – Duke University](#)
- [Data Science Services - U. of Miami](#)
- [Data Science Services - UC San Francisco](#)
- [Data Science Services \(incl. open access\) - U. of Rochester](#)
- [Data Services - Harvard Countway Library](#)
- [Digital Research Services -University of Edinburgh](#)
- [Digital Scholarship Group - Boston College's O'Neil Library](#)
- [Teaching Data Literacy – Eastern Michigan University](#)

Books

- [Databrarianship: The Academic Data Librarian in Theory and Practice](#)
- [Data Information Literacy](#)

Grant Funding

- [BioDataCatalyst Grant from NHLBS](#) - Application for 500 free credits to use their open data/ machine learning data
- [From NNLM: various Grants for Data Related Programs/ Activities](#) Sample: Data Science and Management Award - The award's primary aim is to focus on projects that stimulate innovations in biomedical knowledge or data science, information or research services
- NIH Office of Data Science and Strategy- [Research Opportunity Announcement \(ROA\) titled "AIM-AHEAD Coordinating Center: Artificial Intelligence/Machine Learning Consortium to Advance Health Equity and Researcher Diversity" \(OTA-21-017\)](#) Financial/Agreements Officer Dede Rutberg at rutbergd@mail.nih.gov.
- [The Data@Carolina initiative](#) promotes data literacy and data-related research and training across the entire UNC-Chapel Hill campus. Library played a big role in this initiative (funding closed: but might be useful as model)

Open Data Resources

- [Open Data Literacy Project – U. of Washington](#)
- [Open Data Resources- York University](#)
- [Recognizing and Overcoming Obstacles: What It Will Take to Realize the Potential of OER - EDUCAUSE](#)

Organizations

- [MLA – Medical Library Association Data Services Specialization](#)
- [NNLM – National Library of Medicine](#)
- [RDAP - Research Data Access and Preservation Association](#)

Other

- [Preparing Librarians for Data Literacy Leadership Project](#)
- [Data Information Literacy Resources - ACRL](#)
- [Data Literacy Services – National Library of Medicine](#)
- [The Data Science in Libraries Project](#)

Training

- [Data Carpentry Lessons](#)
- [Data Literacy Course - Coursera](#)
- [Dataversity](#)
- [EDINA Research Data Management Training \(MANTRA\)](#)
- [Library Carpentry](#)
- [MLA – Medical Library Association Data Services Specialization](#)
- [RDM Training Guide](#)

Video

- [17 Key Traits of Data Literacy](#)

Tools

- Data analytics:
 - HubSpot
 - Whatagraph
 - Sprinkle Data

Xplenty
TIDAMI
Zoho Analytics

- Data Management:
 - Dell Boom
 - Oracle Data Management Suite
 - IBM Infosphere
 - Master Data Mgmt. Server
 - SAP Data Management
 - Microsoft Master Data Services
- Data Visualization:
 - Datawrapper
 - Tableau
 - Google Charts
 - Zoho Analytics
 - Microsoft Excel
 - Microsoft Power BI
- Workflow Management:
 - ClickUp
 - Nifty
 - Freshservice
 - Process Bliss
 - Monday.com
 - Wrike

Our Process

Nearly a decade passed since Gordon Library last created a vision and strategic plan in 2012. In 2015 with the launch of WPI's most recent Strategic Plan, the library has sought to align our annual goals with university initiatives and priorities.

In the last several years we have experienced significant renewal in our staff and benefited from major investments in the library building; we have shared experiences of social and economic disruption and as a staff and institution have renewed and redoubled an authentic commitment to diversity and inclusion. To respond with focus and direction to rapidly growing and changing contexts, we began our work to identify long-term library strategic initiatives just as WPI began a university-wide process for creating a new strategic plan.

In our work with library staff, we loosely adopted the NABC model that was used by WPI to help identify and advocate for the value to our community of each initiative. We began with a list of nine potential initiatives based on staff input, voting, and presentations of each by staff champions. A number of these initiatives were merged, resulting in a selection of five initiatives.

Every member of the staff participated in one of five teams who were each asked to research, revise, and develop one of the initiatives using a template to describe the purpose of the initiative, context and stakeholders, outcomes, major tasks and phasing over five years, resources required for success, and peer exemplars, references or other resources used to help inform the initiative.

While drafting and revising these initiatives, we continuously engaged with and learned from the WPI strategic planning discussions, especially those centered on the education and research mission of the university. We also worked closely with WPI's DEI team and with Academic Affairs to make strategic commitments to diversity, access, and inclusion as part of WPI's SIE (Sustained Inclusive Excellence) Action Plans.

As WPI finalized the university's strategic plan, including new vision, mission, and values statements, the library team also took a fresh look at the library's vision, mission, and values. The library's management team developed a fresh vision and updated vision. Our staff embraced the new statement of WPI values which we acknowledge together with the core values of our profession.

Finally in fall 2021 a staff team undertook a key piece of our work: developing new diversity, equity and inclusion commitments, as well as land and labor acknowledgements. After researching, discussion, and feedback, they completed this work in January 2022.

While this process as a whole was a long one and was impacted by the changing circumstances of our wider environment, it was also thorough, deliberate, and inclusive. We are excited to begin the new year by sharing our work with the entire WPI community.

Acknowledgements

Every member of the library staff participated in the strategic initiative process. We acknowledge the great contributions of the lead staff for each of our initiative teams, as well as the DEIA team. We thank our colleagues across WPI who provided input and feedback; and we thank the WPI Strategic Plan team for their collaboration and example.

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Initiative 5: Phil Waterman (lead), Karen Coghlan, Zhimin Chen

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