DIGITAL LITERACIES AND EPORTFOLIOS

ePortfolios Program increased faculty interactions by 122 percent from 27 to 221 unique faculty members and student engagement from zero to 8,561 students. Saved Virginia Tech over $100,000 by building a solid relationship with Portfolium.

Tested portions of the Digital Literacy Framework to be used to build the program this coming year.

Created learning outcomes for English 1106 and COMM 1015 to reduce instructional redundancies and increase faculty engagement through multi-sessions, online content use, and flipped classes.

Through Curriculum Mapping, identified most productive areas for creating digital content and created content for digital literacy, added 22 learning objects to the learning object repository Odyssey.

RESEARCH IMPACT AND COLLABORATION

Research Collaboration and Engagement Department (RCE) created new department partnering with library liaisons and curators to provide research services for communicating research impact, engaging in inclusive and collaborative research, and conducting foundational research in emerging domains (called evidence synthesis, and includes systematic reviews).

Expanded educational offerings on systematic reviews from two per year to four and from 12 participants to 96.

Created educational content for the Master Health Literacy Project to assist students in Public Health, Neuroscience, and Biochemistry in leveraging their disciplinary knowledge in the creation of educational content.

Offered college, program, and course-specific support for enhancing research skills.

RESEARCH DATA

Held Health Analytics Summit which had 97 participants representing 40 unique units.

Launched two new studios, the Data Transformation Lab with specialized services in GIS, data forensics, and data manipulation, and the Data Visualization Studio where patrons discover how to present their data in visually meaningful ways.

Delivered a Data Essentials Workshop for graduate teaching assistants in the Data in the Social Context course in conjunction with CLAHS and the Data and Decisions Destination Area.

DIGITAL LIBRARIES

Engaged in digital library-driven data science partnerships with the Goodwin Hall Living Lab and a prototype computer music repository with Professor Ico Bukvic and partners in the School of Performing Arts and the Institute of Creativity, Arts, and Technology.

Launched phase one of the Southwest Virginia Archive with community partners Virginia Tech Squires Theatre, Barter Theatre, Montgomery Museum, City of Crewe, Va., and Reynolds Homestead. Produced more than 163,000 digital objects for the archive.

Received a $68,722 grant for the project ‘They’re Closing Down the Textile Mill’: Creating Access to the Fries Textile Plant Records at Virginia Tech,” from the National Historical Publications and Records Commission.

DIGITAL SCHOLARSHIP

Funded open publication of 104 scholarly articles written by 241 Virginia Tech authors, the new open access book A Colonial Affair: Commerce, Conversion, and Scandal in French India, and the textbook Electromagnetics.

Increased open access to institutional resources in VTechWorks. The repository received 7,311,148 item views and 16,777,235 downloads; average downloads per day (3,620) is one of the highest among Repository Analytics & Metrics Portal members, second only to University of Michigan’s Deep Blue.

Delivered workshops and public programs on open movements. In total, more than 350 attendees participated in more than 20 workshops.

COLLECTIONS ACCESS AND STEWARDSHIP

Enhanced access and discoverability of library collections through the migration to a single EBSCO Discovery Service. Increased efficiencies in discovery services by migrating physical 1.3 million catalog records from commercial product Sierra to the open source system Koha. Total annual savings resulting from combined migrations is $110,000.

ADVANCEMENT

Developed a former student worker alumni database and began executing a strategic communications plan to engage and build relationships with them.
Developed and executed a calendar of donor-centric events including a fall tailgate, cocktail history presentation, and donor appreciation evening.

The University Libraries web presence was fully redesigned to ensure Virginia Tech brand consistency and improve accessibility and useability across the University Libraries’ large and diverse collection of websites and digital library applications.

**LEARNING AND RESEARCH SPACE DEVELOPMENT**

Virtual Environments Studio (opened F17) provides a reservable space for students, faculty, and other library patrons to engage virtual reality (VR) and augmented reality (AR) technologies.

- Walk ins Feb. 18: 410
- Bookings Oct. 18: 98
- Reference questions: 81
- Consultations: 13
- Instruction: 3
- Journalist interviews: 6

Data Visualization Studio (opened F17) provides a space where students and faculty can learn how to present their data in beautiful and meaningful ways.

- Consultations: 60
- Workshops: 5

Media Design A and B (opened S18) is a student-focused media production studio comprised of two spaces. Studio A offers technology lending and iMac workstations with media production and editing software. Studio B is a bookable space where students can record videos, record audio/music, and edit projects on the studio’s workstations.

- Kiosk Laptops short-term: 4,545
- Laptops/Tablets long-term: 2,827
- Accessories: 23,798
- Cameras/Tripods: 1,819
- Projectors: 332
- Audio: 384
- Other: 74

Data Visualization Studio offers 3D scanning services.

- 3D scanned items: 21
- 3D printed items: 3,298

Fourth floor commons area was renovated.

Hired a manager for the Active Learning Curation Program. This position will curate the impact of innovative pedagogies on student learning in the new Classroom Building.

Art and Architecture Library transformed approximately 135 square feet of shelf space into student learning space and introduced 3D scanning technology.

The VetMed Library introduced new services including 3D Printing, a SmartBoard, enhanced equipment lending including laptops/projectors, and held Student Photo Contest with 36 participants and 215 entries. It also partnered with the hospital to create 3D models for complex surgical cases and learning tools.

Athenaeum (opened S18) is a suite of space in collaboration with CLAHS to cultivate the digital research skills in the liberal arts and human sciences through collaborative, hands-on experience pursuing digital research projects.

**NCR, ROANOKE DEVELOPMENT, AND HEALTH SCIENCES AND TECHNOLOGY CAMPUS**

University Libraries developed resource needs and service model scenarios for the forthcoming Biomedical Research Expansion Library.

Planning has begun for VTCSOM Library to join Virginia Tech Libraries.

The University Libraries transformed 1,200 square feet of space in Falls Church into a multipurpose study/event area in which we hosted 17 events with a total of 1,349 attendees.

**INCLUSION AND DIVERSITY**

University Libraries is a leader in promoting diversity. With three other institutions, we created the Libraries’ Diversity Alliance, which led to the hiring of the Community Collections Archivist.

The Libraries collaborated with groups across campus on projects to enhance diversity including the International Archives of Women in Architecture and Digging in the Crates leadership board.

University Libraries collaborated with the Office of Accessible Technology to ensure existing OER are accessible through a machine readable navigation structure.

The University Libraries convened an ADA Accessibility Action Task Force and performed ADA assessments of all branch libraries, via the Office for Equity and Accessibility, and launched the Accessibility Club to address cross-departmental digital accessibility issues.

Events and Exhibits Related to Diversity and InclusiveVT

- Events: 47
- Participants: 28,848

The Libraries supported InclusiveVT by growing digital collections in VTechWorks.

- Downloads: 132
- Items Added: 41,686
1. DIGITAL LITERACY & ePORTFOLIOS (aligns with all university initiatives)

• Implement digital literacy framework within curricular/faculty development initiatives
  Programs integrated: 71
  Faculty in digital literacy programs: 60
  Students in digital literacy programs: 8,561

• Integrate modular-based learning content into courses/programs
  Programs integrated: 71
  Unique page views in the learning object repository: 7,769
  Modules accessed in LibGuides: 29

• Launch university-wide student ePortfolio program for VT-shaped student experience
  Faculty ePortfolio adoptions: 221
  ePortfolio hashtags indicating student success: 51,854

2. RESEARCH IMPACT & COLLABORATION (aligns with all university initiatives)

• Development of research impact services
  Faculty profiles in Elements and CollabVT: 3,746
  Impact activities supported: 22

• Development of research service to support team science, translational research, and evidence synthesis and provide training series for workflow tools
  Research projects supported: 131
  Research collaborations: 22

• Develop Open Science Framework Outreach and Support Services
  Use sharing/collaboration: 67
  Research materials/publications housed in OSF: 46
  External Collaborations: 4
  Open repository integrations: 1

3. RESEARCH DATA (aligns with Data & Decision Sciences DA)

• Refine VTechData services to improve features and functionality
  VTechData dataset record views: 253
  VTechData dataset downloads: 63
  VTechData datasets cited: 12
  VTechData datasets curated by campus units: 16
  Consultations provided: 56

• Embed services and infrastructures to partner in current research environments
  Consultations provided: 300
Collaborations: 30
Grant application Co-PI--outcome: 6
Data management consultations--outcome: 20
Publication contributions--outcome: 17
Data extraction/collection/discovery projects: 57

• Establish Library Student Research/Consulting Cohort to support data analytics, curation, and visualization
  Students supported: 20
  Student supported digital projects: 100
  Student projects: 32
  Publications--student research output: 2
  National fellowship--student research output: 1
  Presentations, national/regional--student research output: 20

4. DIGITAL LIBRARIES (aligns with DAs, SGAs, & InclusiveVT)

• Build internationally known archival and manuscript research collections, both analog and digital, to support research and regional/state-level cultural heritage advancement
  Consultations: 123
  BeyondVT digitized items with metadata: 6,000
  BOV Digitization objects (minutes from 1898-1936, 2,367 pages): 5
  Digitization and special collection grants: 4
  Courses incorporating original digital materials: 43
  Instructional sessions for community: 6
  Dollars raised: 205,500

• Build internationally recognized digital library infrastructure that supports the management, access, use, and reuse of a variety of research, scholarly, and creative digital assets
  Repository downloads: 16,777,235
  Repository views: 7,311,148

5. DIGITAL SCHOLARSHIP (aligns with DAs, SGAs, & InclusiveVT)

• Increase research and scholarship capacity
  Students supported as book chapter authors: 73
  Faculty supported on their monographs, publication downloads/views: 30
  Open Education Resources (OER) published: 4
  OER cumulative downloads: 529,245
  OER page views last 6 months: 36,016

• Establish research publications related to each DA and InclusiveVT
  DA and InclusiveVT journals established: 4
  Publications reported: 4
  Students published: 64


• Deliver open educational opportunities (open licensing, pedagogy, publishing)
  - Embargoed articles released for OA publication: 329
  - Articles migrated to Ubiquity Press: 539
  - Consultations: 41
  - Page views: 1,000,000
  - Authors publishing: 4

6. LEARNING & RESEARCH SPACE DEVELOPMENT
(aligns with DAs, SGAs, & InclusiveVT)

• Develop learning environments and adaptive service models to include data visualization, augmented reality, digital media, immersive environment and simulations, 3-D design, learning content design, data transformation and recovery, experiential learning, group study, Blacksburg Districts
  - Patrons served: 1,417,069
  - New campus space collaborations: 4

• Develop robust research and learning spaces and integrate with academic ‘agnostic’ spaces such as new classroom building
  - Campus Exhibits: 26

7. NCR and HS&T/ROANOKE DEVELOPMENT
(aligns with all university initiatives)

• Expand NCR support for expected faculty/student FTE growth
  - NCR library employees: 1
  - NCR projects supported: 1

• Create innovative spaces for NCR, HS&T/Roanoke Development
  - Space users: 23,909
  - Activities: 17
  - Activity attendees: 1,349

• Support Digital Research Methods and Environments through broad collaboration
  - Team Science RCE workforce skills development: 1
  - Team Science collaboration activities: 8
  - Activities provided: 1

8. LIBRARY DATA ANALYTICS
(aligns with Data & Decision Sciences DA)

• Collect and analyze library data and create visualizations reflecting strategic objectives
  - Metrics collected: 8
  - Visualizations made available: 37

• Incorporate electronic resources usage data into a central database to provide return on investment data about library collections
  - Journal article downloads: 3,360,152
  - Database Searches: 6,001,098
  - Ebook Chapter downloads: 211,142
  - Cost per journal download: $1.76

- Database searches increased by 29%. Ebook chapter section downloads increased by 36%. Journal downloads increased by 14%
9. ADVANCEMENT (aligns with DAs, SGAs, & InclusiveVT)

- Finalize initial list of fundraising priorities and comprehensive campaign goals

The University Libraries continues to work with University Advancement and the Provost’s office to finalize and define priorities for a comprehensive campaign. Work on this will continue moving forward and will include the development of compelling stories to showcase the role of the University Libraries in the academic enterprise of the university. The list of key prospects and donors continues to develop and evolve. Opportunities to engage these individuals with the libraries continue to be identified, planned, and executed.

Raise funds to support unrestricted and restricted purposes; increase annual donor base
- Donor increase: 12%
- Dollars raised increase: 10%

Additional emphasis will be placed on identifying, cultivating, and soliciting larger gifts for programmatic and endowment purposes.

- Create opportunities that allow donors to engage with the University Libraries and its leadership

The University Libraries planned and executed 4 events in FY18 that began the process of engaging donors and identifying new potential donors. These events will be continued moving forward with an emphasis on increasing participation numbers at each.

A director of strategic communications was hired and a strategic communications plan was created. The plan consists of external and internal communications tools and tactics. The communication strategy is aimed at building relationships with key audiences in order to raise the profile of and support for the University Libraries.

10. INCLUSION AND DIVERSITY (aligning with Inclusive VT)

- Incorporate inclusive pedagogy and accessibility practices in library instruction
  - Instruction sessions incorporated: 4
  - Student participants: 34
  - ADA-compliant learning objects or integrated modules: 20

- Sustain partnerships through inclusion and diversity events
  - Events: 47
  - Partnerships: 4
  - Event participants: 28,848
COMMUNICATION STRATEGIES

The University Libraries Dean Tyler Walters communicates regularly with assistant and associate deans, department directors, and library faculty throughout the year. Through weekly meetings with assistant and associate deans, quarterly meetings with assistant/associate deans and department directors, and the monthly library-wide (all employee) forums, we discuss University Libraries initiatives, priorities, and accomplishments. The University Libraries maintains an intranet where many documents, notes, and presentations are available to all library employees.

In February, the University Libraries hired a director of strategic communications to create and implement a communications strategy to raise the profile of and support for the University Libraries at Virginia Tech. This strategy includes dissemination of library news through university-wide channels and media relations.

As a part of this strategy, we have published and mailed the first edition of a bi-annual newsletter to campus leaders, professional colleagues across the nation, previous and current donors, and former student workers (our alumni); disseminated email communications to former student workers to connect with them and build relationships; began a donor birthday card stewardship program; and produced a brochure that describes the impact of private funds on the important work of the University Libraries.

CREATION OR REVISION OF POLICIES AND PROCEDURES

Building an internationally recognized digital library program that supports the management, access, use, and reuse of a variety of research, scholarly, and creative digital content is one of the University Libraries’ top strategic goals. Equally important to digital libraries is a powerful focus on collaboration with the University Libraries’ Learning Division and satellite libraries in developing technology-rich digital and physical spaces to provide users access to emerging technologies and collaborative work environments. Therefore, in an effort to create a more agile environment, streamline workflows, and improve collaboration, the Libraries created a new Information Technology Division, which will include the current Information Technology Services and Digital Library Development areas.

Effective July 2, 2018, Bill Ingram, as the Assistant Dean and Director for Information Technology, leads the IT Division and reports to the Dean. This Division will be the University Libraries’ single point of contact for all digital library technology development, deployment, and operations. Also, effective on July 2nd, Zhiwu Xie became the University Libraries’ new Chief Strategy Officer (CSO), reporting to the Dean. The CSO promotes the strategic alignment of the Libraries’ existing and new projects with the university’s mission, and in particular, the DAs and SGAs. The CSO will explore reinvigorating the Center for Digital Research and Scholarship as a platform for advancing the University Libraries’ faculty- and staff-based research.

In 2017, librarians were asked by the Commission on Research to convene a working group to draft open access policy language for review by commission members. This year, librarians continued to update the informational website and to engage in conversations with the commission and with interested faculty to help address any questions and suggestions for revisions. As a result, the University Libraries joined the Coalition of Open Access Policy Institutions (COAPI).

Librarians were asked by the Commission on Graduate Studies and Policy to convene a working group to draft data management guidelines. The guidelines were shared with the commission and with departments of Geography
and Biological Systems Engineering.

A draft digital project process was developed to clarify levels of technology and digital library support required for different types of data, digital humanities, and digital scholarship projects. The draft process was introduced to IT Governance and is currently being considered for adoption. The draft process also incorporates a technology evaluation form developed to aid in collecting more granular information about stakeholder needs and functional requirements for any proposed digital library systems.

**ENGAGEMENT OF DIVISION MEMBERS IN DEVELOPMENT OF DECISIONS**

There are multiple levels of conversations, depending upon what is appropriate based on the topic of the decision or policy. The Library Council convenes meetings for the purpose of reviewing and discussing issues of importance to the Libraries, including its policies, services, programs, and work environments.

The dean, associate/assistant deans, and directors regularly meet to discuss decisions or policies. Conversations also happen in departmental staff meetings. Every month, Libraries employees gather to learn from each other during the Library Forums. This is an opportunity for individuals to provide updates on projects and procedures that are of interest or affect the University Libraries as a whole.

A statement of Core Values on Open Access and Collections was developed to inform decisions related to changes in policies and procedures for open access services, acquisitions of new open collections, and levels of engagement in open publishing communities and initiatives.

**STRATEGIES FOR DEVELOPMENT OF LEADERSHIP SKILLS**

A foundation for developing leadership is taking an active role in national and international professional organizations and projects. Highlights of the University Libraries Dean Tyler Walters leadership activities include:

- Served as a leader in the AAU-APLU Public Access Working Group to produce guidelines for providing greater access to research findings and data
- Presented at the Symposium for Strategic Leadership in Diversity, Equity, and Inclusion
- Presented at the Open Science Symposium of the Board of Research Data and Information for the National Academies of Science, Engineering and Medicine (BRDI)
- Serves on the Virtual Library of Virginia (VIVA) Steering Committee and successfully argued for funds to create a statewide Open and Sustainable Learning Materials program under VIVA
- Advocated for the successful passing of VA House Bill 454
- Became board president for DuraSpace, an independent 501(c)(3) not-for-profit organization that provides leadership and innovation for open technologies that promote durable, persistent access to digital data

In addition to exemplifying leadership, Tyler Walters encourages the development of leadership skills in his leadership team.

For example, Assistant Dean and Chief of Staff Michael Kucsak is providing and developing leadership around a new program that captures analytics of library services data. Associate Dean Brian Mathews is interested in learning about advancement and fundraising. He has been invited to monthly meetings with Walters and the Libraries advancement team. Associate Dean Julie Griffin is providing and developing her leadership around the strategic planning conducted by the Libraries’ R&I Division and her leadership in developing the Research Collaboration & Engagement unit and the University Libraries’ research impact activities. Through needed restructuring, Zhiwu Xie and Bill Ingram have the opportunity to expand their leadership roles to benefit the University Libraries in meaningful ways.

Dean Walters encourages his employees to expand their knowledge and think creatively. For example, Dean Walters and Xie attended the International Digital Curation conference in Barcelona to gather information and knowledge to assist them in reinvigorating the University Libraries’ Center for Digital Research and Scholarship.

Dean Walters, Ginny Pannabecker, and Zhiwu Xie attended the Association of Research Libraries’ Symposium for Strategic Leadership in Diversity, Equity, and Inclusion. Plans are underway to communicate outcomes during an open forum and to begin to engage in library-wide strategic planning.

Individuals interested in developing and demonstrating their leadership skills have opportunities to serve in rotating leadership positions within committees of the Library Faculty and Staff Associations, as well as various library committees, working groups, task forces, and councils.