



VirginiaTech
Invent the Future®

University Libraries

Annual Report 2016 - 2017
and Strategic Plan 2017 - 2022

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I. KEY ACCOMPLISHMENTS OF THE UNIVERSITY LIBRARIES DURING 2016–17

The University Libraries aligned their accomplishments with the ten strategic areas outlined in the Libraries' Five Year Strategic Plan, 2017-22. This is not a comprehensive achievement list but those which align best with Virginia Tech's mission and goals.

1. DIGITAL LITERACIES AND EPORTFOLIOS

Digital Literacy Task Force: Developed a definition of digital literacy which then transitioned into the development of a draft digital literacy framework, which is being tested with campus partners

Portfolium: Acquired Portfolium ePortfolio platform and enrolled 27 faculty members and administrators spanning 13 divisions, colleges or academic departments in the Fall 2017 pilot

Curriculum Mapping Initiative: Mapped library engagement to English curriculum and created a framework for future initiatives; identified opportunities for integrating digital literacy and ePortfolios

2. RESEARCH IMPACT AND COLLABORATION

Research Collaboration and Engagement (Impact): Created unit to support VT Provost initiatives related to Research Impact (metrics), Research Collaboration, including Team Science, Translational Research Support, and Research Services

VT's Open Science Framework (OSF) for Institutions: Initiated a partnership with Center for Open Science to integrate OSF and VTechData repository

Evidence Synthesis Services: Supported 10+ projects to VT community

3. RESEARCH DATA

Informatics Lab: Launched and assisted users with nearly 200 research projects, ranging from scripting assistance to help with computational methods to design work on visually communicating scientific principles in National Science Foundation (NSF) applications

2017 Big Data Science Workshop: In January 2017 we offered a day-long big data workshops to 100 attendees across 5 colleges

Data Management Workshop: Delivered an intensive workshop for 29 graduate students on data management principles using FAIR (Findable, Accessible, Interoperable, Reproducible) standards

Legacy Data Project: Consolidated efforts to create digital forensics and data recovery services

4. DIGITAL LIBRARIES

VTechData Repository: Helped users to efficiently curate, publish, and manage research data; grown considerably now housing 1,254 data items and 41 datasets

VTechWorks Repository: Successfully integrated with the university's Electronic Faculty Activity Reporting System (resulting in over 1200 faculty deposits); usage data: 6,452,521 downloads and 1,046,633 record views

Digital Imaging Service: Launched a digital imaging service resulting in partnerships with Squires Theater, Geosciences Museum, Entomology Collection, Barter Theater, Taubman Museum, Montgomery Museum, Lewis Miller Art Gallery, and the town of Crewe, VA. Digitized Board of Visitors records, BeyondVT collections to prepare for the sesquicentennial, and the Civil War diaries

Council on Library and Information Resources Grant Award: Received \$232,356 to digitize International Archive of Women in Architecture collections for Hidden Collections program

Institute of Museum and Library Services Grant Projects: Received \$308,175 to test and develop a big data sharing and reuse cyberinfrastructure strategy

5. DIGITAL SCHOLARSHIP

VT Publishing Services: Initiated move of VT Libraries' publishing program to [Ubiquity Press](#) platform; began offering free [Overleaf Pro](#) accounts; launched 2 new journals: [International Journal of Recirculating Aquaculture](#) and the graduate student-run [Community Change](#) (our 5th student journal); journal publishing metrics include publication of 35 new issues, 599 new articles, and assignment of 155 DOIs.

AAU, ARL, and AAUP Open Access Monograph Publishing Initiative: Contributed to the university's decision to participate in the [Open Access Monograph Publishing Initiative](#), which publishes free, open access,

digital editions of peer-reviewed and professionally edited monographs.

Open Education, Open Textbooks, & Open Educational Resources: Published Fundamentals of Business, an openly licensed textbook designed for use in Pamplin College of Business; Published an [Open Textbook handbook](#), which came from leading an Open Textbook Network (OTN) training and 'train the trainer' sessions
Open Access Subvention Fund (OASF): Provided funding to 171 VT faculty, students, and staff to publish in OA journals, contributing to the mission of VT and land grant institutions to make research freely available to all

6. LIBRARY DATA ANALYTICS

Library Assessment Workgroup: Began developing infrastructure, management, and policy, necessary for robust library-wide data analytics in order to establish data priorities to work with the Office of Academic Decision Support

Collection Analytics: Acquired Tableau and initiated pilot for e-resource data analytics; analysis of e-resources use yielded \$90,000 worth of subscription cancellations; reallocated funds to new resources in support of destination areas and new academic programs.

7. ADVANCEMENT

James T. Peeler Estate Gift: Gave an unrestricted gift of \$966,500. It will be used to establish an endowment that will provide annual support for priorities of the Dean, University Libraries.

Council on Library and Information Resources (CLIR): Awarded a grant of \$232,356 to the University Libraries to digitize and make publicly available a significant portion of the International Archive of Women in Architecture collection that is housed in the Special Collections Department.

8. LEARNING AND RESEARCH SPACE DEVELOPMENT

Creation Studios: Opened three studios, including Fusion, Learning Design, and the 3D Design studio, allowing for students, faculty, and staff knowledge creation and innovation; 3D Design Studio: Began integration into University courses, prototyped workshop curriculum, 77% of print jobs were for academic prints. 789 unique users, 1398 return users, and 3168 submitted prints.

Digital Humanities Education/Project Support Program (DHUB): Repositioned resources to create DHUB; partnership with CLAHS dedicating two post-docs and the Libraries the Digital Humanities Coordinator to implement education and technology programs, support projects.

Course and Library Exhibits: Collaboratively built and hosted 15 course and library exhibits including Mapping of the Fourth of July exhibit, Native Voices traveling exhibit, Beyond Boundaries exhibit, and the Women's History Month exhibit

Learning Object Repository: Launched Odyssey, a digital learning space, featuring a variety of 23 different learning objects including videos, handouts, infographics, lesson plans.

Canvas LTI Integration: Designed a landing page in Canvas that connects faculty, students and researchers with library resources, spaces and services. The page had 12,399 visits and was used in 2337 courses in Canvas over the past year. Chemistry and Biology were the heaviest users.

9. NCR, ROANOKE DEVELOPMENT, AND HEALTH, SCIENCES, AND TECHNOLOGY BLDG

National Capital Region: Upgraded spaces to accommodate faculty and student needs at the Falls Church branch and surrounding campuses

VT Carilion School of Medicine: Supporting transition via library services and resources

Health Sciences and Technology Research Building: Supporting design of library educational spaces and services

10. INCLUSION AND DIVERSITY

HokiePRIDE Collection Donation: Built community based collections, focusing on underrepresented groups; served as a leader in consortial projects and groups

Community Outreach: Led summer sessions with Blacksburg Middle School and Eastern Montgomery Elementary School to introduce students to library research and original sources

Diversity Alliance: Hosted Resident Librarians from University of Iowa, West Virginia University, and American University focused on professional development and mentoring to underrepresented groups in librarianship

II STRATEGIC PLANS FOR THE UNIVERSITY LIBRARIES

The University Libraries has defined ten distinctive areas in our strategic plan in which to focus over the next five years. The scope and breadth of each of these areas directly and indirectly affect student and faculty success through our supportive and collaborative roles. Each strategic initiative directly ties to one or more of the University's strategic initiatives. Since many of these initiatives are new, metrics for them are under development.

SECTION A & B

1. DIGITAL LITERACY & ePORTFOLIOS (aligns with all university initiatives)

- Implement digital literacy framework within curricular/ faculty development initiatives; **Metrics:** # programs integrated, # students/faculty in digital literacy programs
- Integrate modular-based learning content into courses/programs; **Metrics:** # courses/programs with integrated library content, # learning object repository downloads, # modules accessed
- Launch university-wide student ePortfolio program for VT-shaped student experience; **Metrics:** # graduating students with ePortfolio, # faculty ePortfolio adoptions, # ePortfolio hashtags indicating student success

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

- Development of research impact services; **Metrics:** # faculty profiles in Elements and CollabVT, # impact activities supported
- Development of research service to support team science, translational research, and evidence synthesis and provide training series for workflow tools; **Metrics:** # research collaborations, # research projects supported, # research activity by area
- Develop Open Science Framework Outreach and Support Services; **Metrics:** # uses sharing/collaboration, # tool integrations, # research materials/publications housed in OSF, # of external collaborations, # open repository integrations

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

- Refine [VTechData services](#) to improve features and functionality; **Metrics:** # VTechData datasets curated by campus units, # VTechData dataset downloads and record views, # VTechData datasets cited, # consultations
- Embed services and infrastructures to partner in current research environments; **Metrics:** # collaborations, # projects/programs co-sponsored by units, # outcomes (grant, publications, courses, etc.)
- Establish Library Student Research/Consulting Cohort to support data analytics, curation, and visualization; **Metrics:** # students supported, # digital projects, # student projects, # student research output (grants, papers, etc.)

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

- Establish arts, sciences, and cultural heritage digital library for VT, Appalachia, and Commonwealth; **Metrics:** # digital objects curated, # downloads/ record views, # top repository downloads with altmetrics, # sustainable, software/technology development consultations, # digital collection consultations, # disciplines supported
- Build internationally known archival and manuscript research collections, both analog and digital, to support research and regional/state-level cultural heritage advancement; **Metrics:** # consultations, # BOV digitization objects, # digitization and special collections grants, # BeyondVT projects, # courses incorporating original digital materials, # dollars raised, # instructional sessions for the community
- Establish regional stakeholder relationships for [DPLA](#) collection harvesting through Virginia Service Hub; **Metrics:** # partners served, # collection uses, # programs, # dark archive items deposited
- Build internationally recognized digital library infrastructure that supports the management, access, use, and reuse of a variety of research, scholarly, and creative digital assets; **Metrics:** Impact of technology development institutionally, nationally, and internationally, outcomes/impact of new re-

positories, # disciplines supported, # interdisciplinary research/teaching activity supported, # repository downloads/views, #citations, #altmetrics citations

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

- Increase research and scholarship capacity; **Metrics:** # publications supported, # students/faculty supported, # publication downloads/views, # consultations, # Open Education Resources (OER) published, # OER uses
- Establish research publications related to each DA and InclusiveVT; **Metrics:** # DA and InclusiveVT journals established, # publications supported, # faculty and students published, # publication downloads/views
- Deliver open educational opportunities (open licensing, pedagogy, publishing); **Metrics:** # of consultations per open formats, # open resource download/views by student/faculty, # dollars saved (economic impact), # authors publishing

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; **Metrics:** # patrons served, # existing spaces/partnerships, # new campus space collaborations # course integrated projects
- Develop robust research and learning spaces and integrate with academic 'agnostic' spaces such as new classroom building; **Metrics:** # student impact qualitative stories, # classroom building-library collaborations, # campus exhibits, # long-term relationships embedded into campus networks

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

- Expand NCR support for expected faculty/student FTE growth; **Metrics:** # NCR support library employees, # NCR partnerships created, # projects supported
- Create innovative spaces for NCR, HS&T/Roanoke Development; **Metrics:** # space users, # consultations, # services, # activities
- Support Digital Research Methods and Environments through broad collaboration; **Metrics:** # team science RCE Workforce skills development, # team science collaboration activities, # activities provided

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

- Integrate PID data to library collections and services; **Metrics:** # students using digital collections, # students using services, # return users, # unique users, # areas connected through the Office of Academic Decision Support (ADS)
- Collect and analyze library data and create visualizations reflecting strategic objectives; **Metrics:** # metrics collected, # relevant data points connected to ADS, # new collection areas benchmarked
- Incorporate electronic resources usage data into a central database to provide return on investment data about library collections; **Metrics:** # article downloads, # searches, # of chapter or full text downloads, cost per download

9. ADVANCEMENT (aligns with DAs, SGAs, & InclusiveVT)

- Finalize initial list of fundraising priorities and comprehensive campaign goals; **Metrics:** Identify top 10/50/100 prospects for campaign focus; develop strategies for each top prospect; includes annual, leadership, major, planned gifts
- Raise funds to support unrestricted and restricted purposes; increase annual donor base; **Metrics:** Reach a goal of \$X total for both purposes and reach 1,000 donors by the end of the 5-year strategic plan. Complete two applications per year to the crowdfunding program, JUMP.
- Develop comprehensive communications strategies and marketing plans that emphasize the Libraries' priorities and are tailored for the following audiences: external (donors and prospects / alumni / general public); students, faculty; Virginia Tech administrators; research library profession internal

(Libraries); **Metrics:** Documents that define and describe the strategies and plans. Documented implementation steps with milestones

10. INCLUSION AND DIVERSITY (aligning with Inclusive VT)

- Incorporate inclusive pedagogy and accessibility practices in library instruction; **Metrics:** # instruction sessions incorporated, # students participants, # ADA-compliant learning objects or integrated modules
- Sustain partnerships through inclusion and diversity events; **Metrics:** # events, # event participants, #partnerships

FY19–20 LIBRARIES BUDGET NARRATIVE

AUGUST 1, 2017

In the following year (FY19), the Libraries expect to be vigorously engaged in the implementation phase of several Provost-endorsed, Beyond Boundaries-inspired initiatives. As the strategic initiatives grow, we are making every effort possible to leverage additional Graduate Assistantships (or Graduate Fellowships) and undergraduate student assistants in scaling our new and expanding services and partnerships. This is the most financially economical and efficient approach to managing the growth of our strategic program areas. The most critical initiatives with acute resource needs by FY19 are as follows:

DIGITAL LITERACY AND E-PORTFOLIO PROGRAMS:

DATA SCIENCE EDUCATION LIBRARIAN (FACULTY) -- \$69,000 (60k salary + 3k supplies / equipment / software + 6k travel/professional development)

As part of the Libraries' Digital Literacy program, data education for students at Virginia Tech is growing rapidly, with new courses such as GRAD 5024 - Data Management Skills, new workshops via the Networked Learning Initiative, and the expanding Graduate Student Data Management Bootcamp in Virginia, led by the VT Libraries. Data education enable members of the Virginia Tech community at all levels and in all disciplines to work more efficiently with data. As a strategic initiative, it has grown to the point where we need a full-time Data Science Education Librarian to coordinate educational offerings, participate in their development, teach, and assess the overall program. This initiative aligns with and collaborates actively with the Data and Decisions DA curriculum development group. Virginia Tech has an opportunity to be a national leader in the area of data training education for undergraduate and graduate students; it would be prudent to invest more resources now.

STUDIO MANAGER (FACULTY) -- \$64,000 (55k salary + 3k supplies/equipment/software + 6k travel/professional development)

The Libraries do not have a full-time employee to provide daily oversight of the Data Visualization, Digital Media, and Virtual Environments studios, and the upcoming Immersive Environment and Simulation (ARIES) studio, intended to be constructed in FY19. The Studio Manager will interact with faculty and students using the studios and work with them on their research, teaching, and learning projects. The Manager will hire, train, and manage a large pool of student assistants who also will provide technology and project support. S/he will possess knowledge and experience with visualization, virtual/augmented reality, and digital media production and also have broad technology skills to install/repair equipment and troubleshoot.

DIGITAL LITERACY AND E-PORTFOLIO INITIATIVES, STAFF POSITION -- \$35,000

The Libraries need a staff position to support the logistics, scheduling, programming, web-site management, learning object repository depositing ([Odyssey](#)), and overall coordination of the Digital Literacy and E-Portfolio programs and other programs of our Teaching and Learning Engagement unit. Both of these Beyond Boundaries-inspired programs are strategically important to Virginia Tech; having a dedicated staff member is essential to supporting the Libraries' team of teaching and learning-focused professionals focus on the new instructional sessions, services, and content production activities in which they are engaged.

STUDENT ASSISTANT WAGE AND ETF FOR THE STUDIOS -- \$162,400 + \$60,000 ETF addition

We currently have \$54,000 invested in student wages for the studios: Digital Media (25k), 3D Design (18k) Virtual Environments (9k), and Fusion (2k.) We currently do not have a student assistant budget for the Data Viz studio, and urgently need one. This amount covers some basic hours of the studios and only fall semester 2018 for Digital Media. To provide a baseline of support to faculty and students

who are using the studios during the academic year, our target budget is \$216,400. Additional student assistant support is as follows:

- 6 students for Digital Media (\$50,400)
- 3 students for 3D Design (\$24,000)
- 3 students for Data Viz (\$25,200)
- 3 students for Virtual Environments (\$24,600)
- 2 students for Fusion (\$14,800)
- 1 graduate student for ARIES (\$15,000)
- 1 student for Data Transformation and Recovery (\$8,400)

The last studio identified above is our newest, the Data Transformation and Recovery studio, set to open in early 2017-18. While we are proposing tripling what we currently have for student wages in the studios, this approach is by far the least costly way to provide the skilled staff support required. A Library Fee increase is a logical source of funds; using the student fees to hire more students.

We need ETF support to be continued permanently in order to support the studios.

E-PORTFOLIO PEER LEADERS -- \$25,000 addition

We currently have \$42,000 (five student assistants) allocated for student wages related to e-Portfolio (and some digital literacy) support. The Peer Leaders will serve in two ways: they help in the classroom, providing technical assistance and related support to using the e-portfolio tools and they host open lab times in the library for 1-1 support. With additional funding, we can scale across the university, greatly expanding the number of courses we engage. We also can integrate better with FYE, Pathways, and the living learning communities, and we can develop partnerships with the Writing Center and the library studios. We need an additional \$25,000 to bring the total budget to \$67,000, staffing the Peer Leaders program with eight student assistants during the FY19 academic year.

ARIES STUDIO -- \$50,000 startup expenses

We anticipate the new Applied Research in Immersive Environments and Simulation (ARIES) studio launching in summer 2018. We intend to hire a graduate student (15k) with experience in virtual/augmented reality and digital simulations to support the studio's programming (cost found in second bullet above). To initiate this program, we anticipate needing \$50,000 in one-time funds (some of this could be ETF) to provide equipment and furnishings to open the studio.

DIGITAL LITERACY / DIGITAL HUMANITIES INITIATIVES -- \$34,200 + \$25,000 ETF addition

In August 2017, DHub (Digital Humanities Hub) opens for use by faculty and students. The program support course-based and workshop-style education programs in DH as well as Dh-related research projects. As we begin, DHub will be staffed by the Libraries Digital Humanities Coordinator (a recently created position coming from existing Libraries resources) and two post-doc positions assigned from CLAHS, who has agreed they will be dedicated to the DHub program. While this is ample resources to launch DHub, we do not have a student assistant budget and anticipate the need for their engagement by FY19. This is an excellent opportunity for humanities-related students to gain valuable experience with digital technologies and cutting edge methods in e-research and education.

- 3 students assistants for Digital Humanities education and project support in DHub (\$25,200)
- Support for several Digital Humanities events, sponsored lectures and seminars (\$9,000)

We need ETF support to be continued permanently in order to support the studios.

RESEARCH DATA PROGRAM:

DATA SERVICES -- \$112,000 addition

The demand for robust Libraries' Data Services continues to grow rapidly. Our current services involve

consulting services, data repository services, GIS services, health analytics, data visualization and analytics, data science education, and informatics projects. Below are necessary resources that foster the Libraries' ability to meet these needs in as economical a way as possible.

- 1 Graduate Assistant/Fellow for Health Analytics (\$35,000)
- 1 Graduate Assistant/Fellow for Curating Data Informatics (helping to bridge curation and informatics work, includes software preservation projects) (\$35,000)
- 2 student assistants for data science instructional support (offers Data and Decisions experiential learning to students) (\$16,800)
- 3 student assistants for engineering, art, social science data consulting (offers Data and Decisions experiential learning to students) (\$25,200)

BUSINESS AND INDUSTRY INTELLIGENCE ANALYST (FACULTY) -- \$74,000 (65k salary + 3k supplies / equipment / software + 6k travel/professional development)

In recent conversations with Brandy Salmon, executive director of the VT Business Engagement Center (BEC), she has articulated the BEC's need for business and industry intelligence work to be done, with a first priority on the cybersecurity industry. Salmon is concerned that no one is prepared to perform this activity at VT. The Libraries currently can produce systematic reviews of the literature pertaining to a field or industry, but does not host the skills to perform the analysis and intelligence production work based in these systematic reviews as well as other sources. The Libraries propose creating one new position -- Business and Industry Intelligence Analyst -- to support the BEC with its data- and information-intensive intelligence work. This proposal also leverages the dean of University Libraries' past experience as a director in charge of business and industry intelligence / market research services in the pulp and paper industry. The dean, along with Ms. Salmon, bring the relevant knowledge and experience to Virginia Tech to successfully initiate this program.

DIGITAL SCHOLARSHIP AND DIGITAL LIBRARIES PROGRAMS:

PUBLISHING TECHNOLOGIES -- \$90,000/year addition

Additional funds are needed to cover new licenses, subscriptions, and membership fees that help to increase open access to scholarly and educational content. These include systems and software such as Ubiquity (publishing platform), ORCID (author/researcher ID system), and Overleaf (online, collaborative writing). They support the DAs/SGAs interest in disseminating research outputs. Ubiquity in particular saves VT a minimum of \$200,000/year by automating the entire publishing process including organizing and hosting scholarly content.

STUDENT ASSISTANT WAGES FOR DIGITAL SCHOLARSHIP AND DIGITAL LIBRARIES -- \$104,400 addition

We currently have \$157,000 invested in student wages for Digital Scholarship and Digital Libraries activities: Digital Library Development (8k), Publishing Services (18k), Digital Imaging & Preservation (54k), Scholarly Communication (25k), Data Services (22k), and Research Collaboration & Engagement (30k). To provide a baseline of staff support during the academic year for faculty and students interacting with these programs, our target budget is \$261,400. This approach of using student wages is by far the least costly way to provide the skilled staff support required. A Library Fee increase is a logical source of funds; using the student fees to hire more students. The additional funds breakdown as follows:

- 3 student assistants for e-publishing projects (offers Data and Decisions experiential learning to students) (\$24,000)
- 2 student assistants to deposit scholarship in the [VTechWorks repository](#) (\$16,800)
- 1 student assistant to support library and faculty-led open educational resource development projects (\$8,400)
- 2 student assistants for digital preservation projects (offers Data and Decisions experiential learning to students) (\$16,800)
- 2 student assistants for digital library development projects (offers Data and Decisions experiential

- learning to students) (\$16,800)
- 3 student assistants for imaging projects (offers Data and Decisions experiential learning to students) (\$21,600)

RESEARCH IMPACT AND COLLABORATION PROGRAM:

RESEARCH COLLABORATION AND ENGAGEMENT -- \$140,800

With existing resources, the Libraries have formed a new unit named Research Collaboration and Engagement (RCE), which enables us to better support interdisciplinary research collaboration, team science, and the needs of individual faculty communicating the impact of their research, scholarly, and creative works in increasingly open online environments. More specifically, the RCE unit consults with and educates faculty on the new scholarly metrics being used to understand the impact of their work. This unit also is responsible for the Libraries' health sciences research support. It is currently staffed with the positions of 1) Associate Director, 2) Health Sciences Research Librarian, 3) Research Impact Librarian (search to begin, fall 2017) and three student assistants (\$25,200).

The FY19 priorities for the new RCE unit include set-up of Explorer for Institutions, expanding research support for health sciences in the Blacksburg district as well as the rapidly growing Roanoke campus, the HS&T building Research Education Hub planning, VTCOM transition, team building, CollabVT and Elements/eFARS outreach and faculty programs, Open Science Framework (OSF) for Institutions service model development and outreach, research impact/collaboration consulting service model development, master of health science literacy initiative, web presence, scholarly identity/research impact workshops, and systematic review software evaluation project. To achieve these objectives, the following support is sought to bolster and advance the Research Impact and Collaboration program:

- \$69,000/year - Health Sciences Librarian (\$60,000 salary with 3k technology, 6k travel/professional development)
- \$35,000/year - 1 Graduate Assistant/Fellow for Research Impact Services
- \$16,800/year - 2 student assistants
- \$9,000 - Systematic Reviews - software expenses
- \$20,000 - Explorer for Institutions software license (altmetrics on VT faculty publications)

INFORMATION TECHNOLOGY SERVICES -- \$119,000 addition

Each of the four critical, strategic programs will create additional demand for IT services. In addition, TLOS/Computer-intensive Learning Environments (CILS), is withdrawing laptop computing support from the Libraries.

The Libraries will increase the number of systems deployed as well as the diversity of technologies supported. Several new studios, new publishing technologies, and the trend toward mobile platforms will require unique software and custom deployment. To achieve success in the Libraries' strategic programs, the following support is sought:

- \$60,000/year - Application Analyst
- \$45,000/year Computer Support Specialist
- \$14,000/year - Equipment and travel/professional development for these positions

LIBRARY ASSESSMENT AND PROCESS IMPROVEMENT -- \$84,000 addition

The growth and diversity of the Libraries portfolio of services will continue to increase the complexity of the assessment process. The Libraries will need to go beyond demonstrating value to the user by ensuring that program outcomes align to strategic priorities. All library products and services will require leadership in assessment activities in order to develop data-driven process improvement. The Libraries have hired its Library Data Analyst, starting October 2017, to analyze library service data and partner with the Office of Academic Decision Support. However, to complete the cycle and assess the Libraries' programs, the Libraries are requesting one new position -- Assessment Librarian. This is a position missing from the portfolio of the VT Libraries, but is present in nearly all the libraries of the

