How do we engage students in digital scholarship projects and research?” This question has prompted a number of liberal arts colleges to start student-centered digital scholarship research programs. This past summer, inspired by programs at Lafayette College and Gettysburg College, librarians Courtney Paddick and Carrie Pirmann developed and co-facilitated the Digital Scholarship Summer Research Fellows (DSSRF) program. The eight-week fellowship is librarian-led, introduces students to digital scholarship tools and methodologies, and equips them with the skills necessary to undertake an independent, digitally-based research project.

For the inaugural cohort, four talented students, representing a wide range of majors: applied math; economics; film/media studies; comparative humanities and Spanish, were selected through a competitive application interview process. The fellows, whose work was partially funded through a grant from the Andrew W. Mellon Foundation, were: Tyler Candelora ’19, Justin Guzman ’19, Rennie Heza ’18, and Minglu Xu ’20.

During the program, students learned about topics such as text analysis, data visualization, timelines, mapping, network analysis, as well as platforms for displaying their final projects. While the students were all working on very dissimilar projects, they all shared the commonality that they learned to utilize innovative digital tools to present their research. Xu sums it up well: “the exposure to the myriad of tools out there is extremely valuable and I can see them being applied in so many ways beyond my summer project.”

DSSRF operates on a cohort model, and this gave students the opportunity to continuously share updates and receive input on their projects from each other. Candelora notes, “Digital scholarship encourages collaboration. It was an absolute pleasure to work in a student cohort with Justin, Minglu, and Rennie. Although we conducted independent research, throughout the summer we gave each other constructive feedback.”

Pirmann sums up the collaborative nature of the program perfectly: “DSSRF was truly a group effort between Library and IT staff. It would not have been possible without the generous help and expertise of so many of our colleagues in Research Services, Digital Pedagogy and Scholarship, and from other areas of the organization. It is remarkable that the vision we had for this program when we first started talking about it in January could come to fruition so quickly, and that is due in large part to the support we received from our Library and IT colleagues.”

Program website: http://dssrf.blogs.bucknell.edu/
Student projects: http://digitalcommons.bucknell.edu/dssrf/
This year, Library and Information Technology turns 20. In 1997, Bucknell University merged the library and technology departments into Library and Information Technology (at the time, known as Information Services and Resources) to create a unified organization. Library and IT has evolved into a division that has shed many of the traditional distinctions that separate library and IT departments, and in the process, has become much more nimble and academically focused.

I often ask my team to look from the outside in. This allows us to view things from the perspective of faculty, students, and staff. There is an increasing focus on end user experiences, and the consumerization of technology brings with it a shift of expertise to the end users. Being a merged library and information technology division allows us to tackle these issues and take advantage of the changing landscape in a much more agile way than if we were separate units on campus. It has helped us move both budget dollars and open staff positions towards our strategic initiatives. I came to Bucknell almost a decade ago. At that time, we had three and a half staff positions on our Digital Pedagogy and Scholarship team; today we have ten. These are not new positions, but positions we reallocated over the past five years to focus our efforts on academics. This is just one example of how we have reallocated staff positions and budgets for institutional initiatives.

Given all of our accomplishments, I am most proud of how our teams and staff work together with students and faculty. I’ll give you a few examples:

- This past summer, two of our librarians led the Digital Scholarship Summer Research Fellows program. We had four students as a part of this program. The students not only worked with the librarians, but also with our Digital Scholarship Coordinator, our GIS Specialist, and with our Business Intelligence team on data visualization. The students had a rich experience because they were mentored by staff with such varied skill sets.

- Our Digital Scholarship program now has staff from four different departments (Digital Pedagogy and Scholarship, Research Services, Enterprise Systems, and Systems Integration) working on our strategic digital scholarship efforts. For faculty projects and student research initiatives, this collaboration is essential for success.

- *Mammal Species of the World* is the foremost international reference for identifying and verifying recognized names and taxonomies of mammals. Professor DeeAnn Reeder approached Library and IT in 2014 to redesign the website and database for the edition. The design team included members of Enterprise Systems, Digital Pedagogy and Scholarship, and other Library and IT staff who collaborated with Reeder to create a dynamic new editorial and publication application that will accompany the 4th edition.

The most rewarding part of my job is enabling such initiatives, where different teams in Library and IT partner with faculty to support Bucknell’s academic mission. If you have questions about any of these initiatives, please feel free to stop by my office in Bertrand, or e-mail: param.bedi@bucknell.edu

Cheers, Param
I’ve worked in information technology for nearly 20 years. Before starting at Bucknell University in April 2016, most of my experience had been with manufacturing companies where my customers were primarily members of the “back office”—finance, customer service, purchasing, logistics, sales, etc. Bucknell is my first adventure in the world of higher education and it’s been a breath of fresh air, largely because of our higher purpose—“educating students for a lifetime of critical thinking and strong leadership characterized by continued intellectual exploration, creativity, and imagination” (Bucknell Mission Statement, https://www.bucknell.edu/Mission).

One of the key differences between Bucknell and my previous experiences is that our leadership had the vision to merge Library and Information Technology into a single organization 20 years ago. This has opened up many new possibilities for collaboration between the staff and given us IT folks the unique opportunity to work closely with students and faculty to help enhance the learning experience.

One such opportunity presented itself this summer when I was asked to participate in Bucknell’s Digital Scholarship Summer Research Fellows (DSSRF) program. This program, organized by members of the Research Services team, sought to educate a small group of student research fellows on the use of various digital technologies, which they then leveraged in order to complete their own independent research projects. I was thrilled when the program facilitators, Carrie Pirmann, Social Sciences Librarian, and Courtney Paddick, Arts and Humanities Librarian, asked me to participate in the program. Specifically, they asked me to provide the students with training on Tableau, a leading data visualization platform that we use at Bucknell and that I also use extensively in my personal projects. In addition to the four summer research fellows, two other students working on a separate research project joined us. We divided the training into two three-hour sessions, providing the students with a crash course in Tableau, including hands-on exercises. Six hours of training in any tool is not much, but I was amazed at how quickly the students picked it up and created fantastic data visualizations. More importantly, they understood exactly how and where the Tableau platform could fit into their research projects. At the end of DSSRF, each student presented their project and I was thrilled to see that half of them utilized Tableau.

On a day-to-day basis, our Business Intelligence team is able to bring value to the university by providing analytics solutions to help empower data-informed decision-making. This is immensely fulfilling, but the opportunity to help students directly is fulfilling on a completely different level. Traditional IT departments are filled with people whose expertise could be invaluable to students, but interactions between them and students are often limited. At Bucknell, our merged organization helps to bridge those gaps and we’re continually seeking out opportunities, like the DSSRF program, to engage with students and impart our hard-earned expertise. After all, while the normal day-to-day operations of a university are critical, the students are the reason we are here.
In 1999, two years after the Library and IT merger, the first floor of the Bertrand Library was transformed. The concept of a merged organization became a reality over a six-month construction project that introduced a necessary and very public component to what was then known as the Information Commons.

Prior to this date, the Tech Desk wasn’t a desk at all. Instead, it was an office on the second floor of the Computer Center, staffed primarily with students, with no work space or public presence. During the genesis of Library and IT, it became clear that creating an active technology services area and moving it to the first floor of the library would provide a concrete vision of the benefits of a merged organization. Construction involved removing a 24-hour study area and repurposing the space to provide collaborative computer stations that surrounded a new two-sided service desk for technology support. This desk, staffed by both students and professional staff, would also offer hardware repair and equipment checkout as well as software and network support.

In order to bring the new desk in line with the existing circulation and reference desks and to emphasize the combined nature of the various components, the project included an overhaul of the entire floor, including a consistent design along with new paint, signage, and carpeting. In addition to reducing the reference book collection, the commons added dozens of computers and printers with the idea that the space could be used for a variety of purposes in a changing electronic environment.

Over the subsequent years, the first floor of the library has continued to evolve. The equipment borrowing process expanded to such a degree that it demanded its own desk and service point. The reference desk was re-envisioned by combining some services such as circulation and reserves to become a library services desk, with Research Services librarians offering walk-in services and appointments within an expanded Research Help Area. A library cafe with seating was also added, providing needed sustenance for library patrons. The Tech Desk developed a laptop program and a corresponding maintenance and repair service that emphasized in-house repairs for computers under warranty.

Despite changes in staff and services offered since 1999, there have been a number of constants. Students, staff, and faculty have consistently been able to take advantage of the synergy made possible by the centralized location of a variety of vital technology and library services. Staff working in those areas have consistently collaborated to provide knowledgeable and efficient support, knowing that colleagues with answers were only a few steps away. The Information Commons provided a snapshot of all that a merged library and technology organization could offer to a campus, and the campus has responded by heavily utilizing the space.

Check out the redesigned Bertrand Library website at: bucknell.edu/library
Behind the Curtain: 
The Collaborative Core of Digital Scholarship

by Emily Sherwood, Assistant Director of Digital Pedagogy and Scholarship | emily.sherwood@bucknell.edu

If you search for articles discussing “What is digital scholarship?” you will likely find a definition that emphasizes the new modes of teaching, research, and knowledge creation afforded by digital tools and methods. But if you read on in an attempt to find out how institutions support digital scholarship or the advantages of this type of inquiry, you inevitably encounter the word collaboration. This is both a strength and a challenge of digital scholarship: the range of skills, tools, and resources needed to shepherd a project from concept through production necessitates a team effort. To do it well, with an eye toward sustainability and long-term viability of the project, deep understanding and expertise are required. Fortunately, as a merged organization, Library and Information Technology is readily able to collaborate with faculty and students on their digital scholarship projects.

When we say that Library and IT collaborates on digital scholarship projects, we mean the entire division. Discovery and Access Services maintains our institutional repository, secures access to databases and digital resources central to the production of much of our work, and provides deep knowledge of metadata, crucial for creating discoverable and easily accessible digital scholarship projects.

Technology Services manages the imaging on our computers and in our labs to account for specialized software needs for digital scholarship. To do this, they maintain software delivery systems to guarantee that software is readily available, compatible with multiple systems, and is customized for use at Bucknell. They are paramount when exploring new and emerging technologies and partnering on experimental programs, such as our current virtual reality pilot. They also administer and distribute a cache of devices central to the production of digital scholarship, often working with faculty and students in order to accommodate technology needs for classes and research projects.

Systems Integration keeps all of our hosted platforms updated and running smoothly. They provide expert feedback on a range of issues central to digital scholarship projects, including hosting, access, and storage options. Frequently, they come to our rescue when a rogue plugin or user mistake locks a system. Without their knowledge and ability to quickly problem solve, we would not be able to effectively work with faculty on complex projects.

Enterprise Systems audits project databases for stability, security, and interoperability. Often, we turn to the innovative and forward thinking Web Development team to help faculty conceptualize new ways to publish and interact with their research. Their ability to break down projects and explain the components helps us determine viability, and understand and expand our ideas of what is possible. The Business Intelligence group has partnered with faculty, staff, and students to provide training on new modes of data visualization.

Most digital scholarship projects require substantial data transfer and bandwidth. Without the expertise and support of Networking and Telephony, we would not be able to work with and render large data sets, produce complex multimodal projects, synchronously work with faculty and students, or make our projects publicly accessible.

Our Operations and Budgeting team reviews licensing and works with vendors to procure software and hardware necessary for our continued support of digital scholarship projects. They provide critical help in planning for and executing our workshops, events, and summer programs.

While members of Digital Pedagogy and Scholarship, Research Services, and Special Collections/University Archives are often the primary points of contact for faculty developing research projects, we could not provide this high level of support without the commitment and range of expertise from our colleagues across Library and IT.
My Perspective on Library and Information Technology

by Patrick Newhart ’18, Library & Information Technology Undergraduate Executive Intern | patrick.newhart@bucknell.edu

Throughout my four years here at Bucknell University, there has always been one place that I know would have every resource I would need to help me improve academically, co-curricularly, and even socially. I may be biased as I am going into my third year as the Executive Intern for the Library and Information Technology division, but in reflecting on my academic career, most, if not all of the help or resources I needed to aid me were provided by the division in Bertrand Library.

Starting in my first year, I realized that I could always find the perfect place to work in Bertrand Library. The main floor of Bertrand suited me well, being allowed to talk with other students over coffee while also focusing on my academic work. Over my next three years, I would come to know even more of what the Library and IT division could offer. I could always count on a knowledgeable Research Services librarian to assist me with a research project, an efficient staff member at the Tech Desk to help me with technological issues, or a skilled specialist to assist me with GIS and videography projects.

Furthermore, I knew I always had support from the leadership within Library and IT on any internal or personal initiatives. As an Executive Intern, I have a unique opportunity to be a conduit from the student body to administrators who make decisions that directly impact student life. Not only have I grown from my ability to interact with staff in a professional space and learn about behind the scenes processes in higher education, but I have become more aware of the need to listen to those around me. This skill has allowed me to give back in so many ways. I can be the voice of the students when talking to the staff, and I have helped provide a space for students to provide open feedback through my work with the Library and IT Student Advisory Group. It has been an amazing opportunity getting to work in such a rewarding position.

Working for and interacting with Library and IT has helped me grow academically as well as professionally. The division works hard to make Bertrand Library an inclusive, diverse, academically enriching, and even fun place for Bucknell students.

New Library and Information Technology Staff

Chuck Gerst
Assistant Director of Operations

Tammy Troup
Cataloging and Metadata Coordinator
In Memoriam

ROB KALET A

The Enterprise Systems team tragically lost Rob Kaleta on March 10, 2017. Rob joined Bucknell in 2013 as our Banner administrator. He was quickly promoted to Assistant Director - Operations and remained integral to the support and maintenance of Banner, the core institutional Enterprise Resource Planning system.

While certainly a key leader within Library and IT and a core technical contributor, Rob was more than that to us. He was a trusted friend and colleague. We miss his healthy cynicism and skepticism that made sure we didn’t overlook something in our planning. We miss his laugh and his sense of humor. We miss his company on long walks at lunchtime. We miss the stories of his sons’ successes and stumbles. We also miss his sunburned head the day after attending one of his son’s athletic events despite our many reminders to reapply sunscreen regularly.

His absence is felt every day by those who had the pleasure of working with him. There is forever a hole on our team and in our hearts.

Rob is survived by his wife Kelle and their sons Quentin and Justin. We know that he is extremely proud of their continued growth and success at Susquehanna University and here at Bucknell University, respectively.

- Kevin Willey

RICHARD PAULING

In May, we lost a friend and colleague with whom we worked with for more than 25 years. Richard Pauling was very dedicated to designing and providing robust technology-enabled classrooms. In the early days, Richard decided that we needed to provide control systems in our classrooms, so he worked through the night, weeks at a time, to bring them online before the start of the semester. That dedication speaks to Rick’s passion and tenacity. It wasn't unusual for Rick to bring in an AV system design drawn on a napkin, which he had figured out during dinner at a restaurant. He spent many hours researching and designing classroom systems on his own time.

Above all, though, Rick enjoyed mentoring students who showed ability and the interest to delve into the audio-visual field. Many went on to become professionals in the industry because of his influence. Regardless of their chosen professions, former students maintained contact with him over the years. They all held him in high regard.

We learned much from our friend. It wasn't so much his expertise—although his expertise was considerable. It was his approach to living. His positive attitude, sense of humor, and the vigor with which he lived were evident throughout Rick’s long battle with cancer. It was common for him to be here at work while going through treatments. It's where he wanted to be... it energized him. If he couldn't be here, he would always be just a phone call away.

We will miss him dearly.

-Cindy Ray and George Lincoln

DORIS DYSINGER

In March, we lost Doris Dysinger, retired Curator of Special Collections/University Archives (SC/UA). Meeting Doris for the first time, two thoughts came to mind: Doris loved the Bertrand Library and she was immensely dedicated to her work. During her 24 years on staff, Doris achieved much, often single handedly. She established an instruction program for SC/UA in the 1980s, an idea not as fully embraced by repositories as it is today. She initiated collecting artists’ books, laying a foundation for SC/UA collection strength in this area.

Doris was an integral partner as the Bertrand Library initiated its first foray into digital projects by selecting unique content from collections, bringing it to the web and sharing it beyond the physical boundaries of the library. She also had an appreciation of fine printing and printmaking techniques, working closely with the Appletree Alley Press, a well-respected local fine press, to select unpublished manuscript materials that formed the Ellen Clarke Bertrand Limited Edition series.

With a background as an educator in local public schools, Doris came to the Bertrand Library committed to Bucknell’s academic mission and its educational values, a commitment that she carried throughout her long career here. She personally realized this commitment by earning a Master’s degree in Women’s Studies from Bucknell, comparing the diary of Sallie Meixell held in SC/UA against the gender norms of the mid 1800s. Upon her retirement in 2008, Doris was looking forward to time with family, traveling, and pursuing her love of music by attending musical concerts and performances. The Bertrand Library will always be grateful for Doris’ professional commitment and accomplishments, which have helped establish SC/UA as an important and essential part of the library.

-Isabella O'Neill
This is what they had to say about us.....

Ryan Gibboney @firehoot
Anyone else feel the need to create a database with your notes from #BUDSC17

This conference shakes me out of my complacency and reenergizes me for the work that needs to be done.

Alicia Peaker @aliciapeaker
I’m inspired by the bravery of this room full of people sharing their professional fears. #BUDSC17

Lee Skallerup @readywriting
This isn't about what we call digital scholarship. This is living. #BUDSC17

Natalie Cainaru @tinyredflowers
"Important to recognize how it all comes together and enhances the undergraduate experience" #BUDSC17
#DigitalScholarship

Gail Goldman @gailgolderman
How do students explain to their peers about what Digital Scholarship is? Show them! Makes it clear. "Cooler than a paper" #BUDSC17

"The diversity of perspectives on and experiences with digital scholarship represented at this conference was impressive and inspiring."