This past summer, Library and IT, with support from the Andrew W. Mellon Foundation, awarded five student-faculty summer research grants. The grants were designed to support work being done by undergraduates participating in faculty-generated digital research. These grants represent ways in which digital approaches offer students high impact forms of academic engagement beyond the classroom, with students acting as research assistants for faculty members developing dynamic new approaches to scholarship. Over the course of the summer, eight students were awarded stipends to work with five faculty members on a range of projects, including an analysis of Pennsylvania’s hospitalization rates due to health care supply and environmental factors and a GIS study of the effect of aid at the disaggregated community-level.

We asked two of the students to give us some insight into their summer research projects, and how they see this type of interaction as enhancing their experience at Bucknell. Kyle Raudensky ’16, a computer science major, worked with Ghislaine McDayter (English) to experiment with developing game interfaces for her “Masquerade Project.” Nicole Bakeman ’16, a Managing for Sustainability major, worked with Amanda Wooden (Environmental Studies) on “Refracting Environmentalism Through a Tire: A View of ‘Fractivism’ Through an Anti-Incinerator Campaign in Central Pennsylvania.”

Kyle was involved in the development of the Masquerade Project virtually from its inception, and took part in both the literary and computing aspects of project development. When asked what it was like to be a Computer Science major working with a professor and graduate student in the English department, Kyle said, “Before this project I had never truly experienced interdepartmental collaboration. It really gave me an appreciation for all the different majors on campus and what we as students can accomplish when everyone brings his/her own strengths to the table.”

Nicole’s participation in the Refracting Environmentalism project involved working with Amanda Wooden and a group of students in interviewing local environmental activists - something she found particularly rewarding and transformative: “It’s funny because when people think of the word "activist", the first mental image that comes to mind is someone aggressive or radical, but if I’ve learned anything from this project, it’s that anyone can be and should be an activist. Whether you attend rallies or share an informative article to all of your Facebook friends, being an activist means standing up for what you believe in, being critically constructive and looking out for your friends and neighbors. I had the pleasure of meeting many people during this project, including an engineer, a soft-spoken old lady, a pastor, and even the author of my Economics textbook; they are all vital activists who contributed diverse things in stopping the tire burner.”

As part of the grant funding, students are offered the opportunity to present their work at academic conferences. A number of student-faculty teams will present their work at Bucknell’s Digital Scholarship Conference in November.

For a full list of grant recipients and projects funded, see the Bucknell Digital Initiatives website: http://goo.gl/uL1JQs.

For more information about Ghislaine McDayter’s project, see http://goo.gl/cw7rSW.
Since this issue is focused on how the Library and Information Technology teams are working with students on high impact experiences, I thought I would ask my former and current Executive Interns how their experience working with my office influenced (or will influence) their life after Bucknell. These students have worked on complex projects and have had a tremendous positive effect on Bucknell. I am very fortunate that I get to work with such talented individuals.

**HOLLY SCHOCH** – Optical Product Sales Specialist, Cisco Systems  
Executive Intern – 2011-2012

Had I not been given the opportunity to intern for the VP for Library and IT, I quite honestly might not have found my way into the IT industry. As an International Relations and Spanish major, Cisco Systems was the last place I saw myself. When I started the internship, I knew next to nothing about the IT world, but the position offered me the unique opportunity to see how quickly I could learn new things and excel. Now, instead of practicing international law like I originally intended, I’m selling optical networks for one of the largest IT companies in the world.

**KASHA SCOTT** – Risk Management Program Associate, GE Capital  
Executive Intern – 2013-2014

The Executive Internship helped me to develop the ability to learn quickly in an unfamiliar industry, and acquire the skills necessary to work on projects and solve problems independently. I frequented the library throughout my four years as an undergrad, but working in the office exposed me to an entirely new perspective on information technology in higher education. I had to quickly adapt to viewing the operations of the library from the perspective of a manager rather than a student. However, I still had the unique perspective of being a student and that allowed me to provide an alternative insight. In my current role, I have the advantage of being an outsider to the team, so I can question current processes and evaluate if they are the most effective or efficient way of getting things done.

**COLIN SYGROVE** – Class of 2015  
Executive Intern (current) – 2014-2015

As the Executive Intern with the VP for Library and IT, I expect to gain a lot of experience that will help to prepare me for life after Bucknell, when I plan to pursue a career in business development. There is no doubt that technology is an important aspect of everyday life as well as in the business world. By working with Param, I will gain greater understanding of the impact that technology has on an institution. More specifically, I will learn how we currently use technology, analyze new technologies that could improve campus, implement new technology, and how the implementation of new technology affects an institution.
TECH TIPS: WHERE YOU GO WHEN YOU DON’T KNOW

by Brianna Derr, Video Production Specialist | brianna.derr@bucknell.edu

Don’t know what Tech Tips is? You should! Tech Tips is a technical tips show, created entirely by students. We knew that traditionally, techie-fashioned video tutorials could be quite dry, so we wanted to keep things interesting and engaging as well as informative.

Sam Johansson ’17, one of ITEC’s lead Multimedia Consultants, began working last summer to develop the pilot episode and what he created was beyond ITEC’s expectations. He took the ball and rolled with it and now, one year later, we’re hooked. We’re all waiting for the next episode. When Sam was asked what he liked best about Tech Tips, he replied “My favorite episode would have to be the Final Cut Pro X tutorial. I asked my boss, Bri, if she wanted to be a zombie and the next morning she came in with make-up, severed appendages, and a fantastic living dead walk. Being behind the camera while she and former Multimedia Consultant, Stephanie Knaus, walked in front of the green screen while having bloody fingers thrown at them was hysterical.”

Sam’s filmic eye, creative flair, and sense of humor brought Tech Tips to a higher level. He has given us a Final Cut Pro X tutorial during a zombie invasion, showed us how to set up a three-point lighting system while battling with light sabers, and introduced us to the green screen and his clone. “What I love about Tech Tips is the freedom of it all. I’m able to put my own spin on each episode by trying different effects or tricks. Not many jobs allow you to incorporate a light saber,” said Sam.

Seven episodes have been filmed to date, including the Vixia kit pilot, the green screen, audio booth and Audacity, Final Cut Pro X, 3-point lighting set-up, video terminology, and iStopMotion.

What makes Tech Tips so special? Sam thinks it’s unique because “it’s a quick tutorial that’s tailored for Bucknell faculty and students. You can find other instructional videos online but these incorporate resources found only in Bertrand Library.”

Check out Tech tips at http://itec.blogs.bucknell.edu/tech-tips/.

Multi-Factor Authentication: Thwarting Cybercriminals

Many of us rely on passwords to protect the privacy and security of our online accounts, but passwords alone are no longer enough. Cybercriminals have access to sophisticated password cracking tools, algorithms, and dictionaries that represent a significant risk to our personal and institutional data. In order to counter this threat, Bucknell University is rolling out a technology called “Multi-Factor Authentication”, or MFA. MFA is based on requiring at least two identifiers — typically something you know, such as a password, and something you have, such as a smartphone — to be authenticated to a particular information system. Our Multi-Factor Authenticated virtual private network will be used to access sensitive and confidential university data from remote locations, enabling our users to enjoy a work-anywhere environment while ensuring that our critical data and systems are protected. For more information, contact Eric Smith at ejsmith@bucknell.edu.
As a former student affairs practitioner recently converted to the Library and Information Technology field, I was surprised by the interconnection and similarity in support provided to students between L&IT and the Student Affairs Division on campus. The traditional role of L&IT – to support the curriculum and teaching and learning of faculty and students - is still the main role of the organization, but L&IT also has a large effect on the type of learning that leads to holistic development (i.e. the kind of learning that comes from the cocurricular and extracurricular).

L&IT provides the technological infrastructure that allows for the day-to-day functioning of almost all aspects of the cocurricular and extracurricular experiences on campus. Technology is the springboard for clubs, organizations, events, campaigns, and learning as well as the foundation for almost all academic affairs and student affairs offices. Thus, L&IT not only supports student learning but also holistic student development at a structural level. With so much blending into student life, it makes sense that L&IT projects, initiatives, and decisions should be informed by theory and best practices in the Student Affairs field. To this end, L&IT regularly seeks student and professional input via our Student Advisory Group and ad-hoc project focus groups.

In addition to the ubiquity of L&IT through technology on campus, the library side of L&IT offers services similar in nature to those in the student life realm. Library Services provides many personalized and small group interactions with students in the form of reference consultations, information literacy instruction, workshops, and front line services through the library services desk and research help area.

Similarly, as one of the largest employers of student workers on campus, many L&IT staff members have the potential to be mentors. The frequent interactions we have with student employees give us the opportunity to make their work experiences be as much about personal and professional development as about getting the job done.

Communication is the key to knowing our student population and their needs.

**KINBER Community Day**

On August 14, 2014, Param Bedi, Vice President for Library and Information Technology, and representatives from the Keystone Initiative for Network Based Education and Research (KINBER) welcomed community members to campus to discuss the latest developments with PennREN, KINBER’s 1,800-mile broadband network that now stretches through 50 Pennsylvania counties, including Union County. Leaders from Bucknell and KINBER discussed the benefits of a next generation broadband network on healthcare, education, library, public media, economic development, governmental and other organizations. Both the Bucknell campus and the Bucknell University Entrepreneurs Incubator, located in downtown Lewisburg, are connected to PennREN.
CELEBRATING BUCKNELL’S STUDENT SCHOLARS
by Dan Heuer, Scholarly Communications Officer and Information Access Manager | dan.heuer@bucknell.edu 
and Chloe Barnett, Arts and Humanities Librarian | chloe.barnett@bucknell.edu

In 2014, Bertrand Library held two events to support and honor Bucknell student thesis writers.

In January, thirty seniors gathered for refreshments and conversation at the library’s first open house for honors thesis writers. At the evening event, which took place in the Library Lab, students met with librarians and Writing Center staff to discuss the thesis research, writing, and submission process. In addition, they learned about Writing Center services and opportunities for research assistance from librarians. The open house was so successful that the library will host a similar event for both seniors and graduate students during the 2014 – 2015 academic year.

As part of commencement weekend activities, the library hosted a reception honoring students who successfully wrote and defended honors or master’s theses for May 2014 graduation. The reception recognized 81 theses from 23 departments. Proud friends and family members joined the honorees and admired the exhibit, which consisted of individualized cards clustered by department with the student’s name, major, degree, thesis title, and abstract. The cards have proven to be so popular over the years that library staff print out two copies so the students or their family can take one, leaving one for display throughout the weekend.

All theses are submitted electronically and stored in Digital Commons. If a student has chosen to make his or her thesis available to the world, it is available for download at digitalcommons.bucknell.edu.

See a full list of 2014 theses: http://studentscholars.blogs.bucknell.edu/tag/2014/

Farewell to Patty Housner

This past July, our dear friend, Patty Housner, retired after 46 years at Bertrand Library. Patty has been an integral part of the library since 1968 and possesses a rich institutional memory. She worked in almost every department of the library over the years, and knows Bertrand Library inside and out. Not only did she have a big impact on the library and Bucknell during her tenure here, but she also made a difference in the surrounding communities. Each year, during the holiday season, she organized food and gift drives for underprivileged families.

We wish Patty and her husband Neal well as they enjoy retirement together, and look forward to seeing Patty regularly when she comes to the library to collect lottery money. “Let’s win,” as Patty always said!

Expanded Wi-Fi
In Residence Halls

In a wireless world, nothing is more irritating than a lack of signal. Unfortunately, some residences halls are built in a way that blocks wireless: concrete and steel are the natural enemies of anything that travels through the air.

In order to ameliorate this situation in two of our very solid residence halls, Smith and Vedder, L&IT continued a program we began last spring in Swartz Hall. This summer, staff and contractors installed many more wireless access points in a checkerboard pattern throughout these buildings. Access points were installed in every other room so students are ensured a signal from either their own room, the room next door, the room below, or the room above.

In total, Smith went from 22 access points to 68. Vedder saw an increase from 43 access points to 85.
NEW LIBRARY AND IT STAFF

MARK MINISCE, Programmer Analyst - Web Application Developer

Mark joined Library and IT in May as a Programmer Analyst – Web Application Developer after graduating from Elizabethtown College. While at Elizabethtown, he double majored in Information Systems and Business Administration with a concentration in finance. Prior to joining the Enterprise Systems team, Mark had the opportunity to work at Carpenter Technology as an Information Technology intern and conduct research in the field of vehicular networking at Carnegie Mellon University. On campus, he tutored for numerous business and computer science courses and worked as a Helpdesk assistant within the College’s Information Technology and Services department. Mark enjoys working in the close knit environment Bucknell offers and is looking forward to how he can improve everyday processes with web technologies. In his free time he enjoys reading, kayaking, biking, hiking, and relaxing.

EMILY SHERWOOD, CLIR Postdoctoral Fellow in Digital Scholarship

Emily joined Library and IT in July as the CLIR Postdoctoral Fellow in Digital Scholarship. She works closely with faculty and other members of the Instructional Technology team on Bucknell’s digital scholarship and pedagogy efforts. Previously, Emily served as an Instructional Technology Fellow at Macaulay Honors College, City University of New York (CUNY), where she collaborated with faculty across disciplines to design assignments and projects that helped foster digital literacy skills. She has a Ph.D. in English Literature from the Graduate Center, CUNY. Outside of work, Emily is an avid runner: in the last three years, she has completed the New York City Marathon, eleven half-marathons, and the 198 mile Hood to Coast Relay in her home state of Oregon.

GREG DAUB, Programmer Analyst

Greg joined Library and IT in July as a Programmer Analyst for the Enterprise Systems Development team. He came to Bucknell from Messiah College, where he worked as an application programmer providing Banner finance and database support. A native of central Pennsylvania, Greg grew up in Lebanon County, and he received his Bachelor’s degree in Computer Science from Messiah College. He views his position at Bucknell as an excellent opportunity to extend his career in higher education. He has found Bucknell to be both a welcoming and enriching environment. In his spare time he enjoys watching movies and spending time with his wife and two sons.

LEO BOTINELLY, Programmer Analyst - Web Application Developer

Leo joined the Enterprise Systems team last October as a Programmer Analyst - Web Application Developer. Originally from Rio de Janeiro, he attended Helio Alonso College and Gama Filho University, where he studied data processing technology. Most recently, he worked as a software architect at BTG Pactual in Brazil, and prior to that, as a senior software engineer at Elumini. He enjoys the family feeling of the Library and IT organization and believes that his position provides a very good opportunity to do important things in a structure that still has a lot of room to grow. Outside of work, Leo contributes his coding expertise to various open source projects, builds gadgets with Arduino, and enjoys astronomy.
NEW LIBRARY AND IT STAFF  (continued)

KYLE HERB, Database Administrator
Kyle joined Library and IT in April as the Database Administrator. A 2007 graduate of Bucknell with a B.S. in Computer Science and Engineering, he previously worked for Raytheon Information and Intelligent Systems in State College as a database administrator. He looks forward to working in an environment that promotes personal and professional development. In his free time, Kyle enjoys playing all kinds of sports. He has participated in golf, softball, wooden bat baseball, flag football, and two basketball leagues.

BEN HOOVER, Evening Library Services Specialist
Ben joined the Research Services team in July, filling the newly created Evening Library Services Specialist position. He previously worked at Georgetown University as a Program Coordinator for Georgetown Summer School. A native of north central Pennsylvania, Ben attended Bucknell as an undergraduate student, majoring in mathematics and economics. After a brief stint working for the federal government, he returned to Bucknell where he earned his M.S.Ed. with a focus in college student personnel. While completing his master’s degree, Ben worked as a Graduate Reference Assistant at Bertrand Library. Of his new role at the Library, Ben says, “This is an great opportunity for me to help L&IT support the learning and development of students within the educative role of Research Services.” In his spare time, Ben enjoys cooking, the outdoors, and playing with his English Mastiff, Zeus.

SUSANNA JACKSON, Project Manager
Susanna joined Library and IT in July as a Project Manager. In this role, she facilitates planning for a broad range of L&IT related programs and initiatives. In addition to her 13 years of corporate project management experience, Susanna has also taught GIS at Dickinson College. She received her BA in English Writing from University of Pittsburgh and her MS in Geography/GIS from Indiana University of Pennsylvania. She also has a Project Management Professional (PMP) certification and GIS Professional accreditation (GISP). Originally from central Pennsylvania, she is eager to re-engage with all of the outdoor activities and cultural events the Susquehanna Valley has to offer. She and her family enjoy kayaking, camping, and homesteading in advance of a zombie apocalypse.

JESSE GREENAWALT, Event Technology Support Specialist
Jesse joined the Library and IT team in July as an Event Technology Support Specialist. His responsibilities include assisting faculty, staff, and students with campus audiovisual technology for video conferences, presentations, and special events. Prior to coming to Bucknell, Jesse worked in the IT department at Geisinger Medical Center specializing in video conferencing and telemedicine. Jesse grew up in Lewisburg before leaving for Temple University to study music, and he is excited to be back and be part of the Bucknell community, citing the camaraderie and professionalism here. He also enjoys the many learning opportunities Bucknell provides, both in and outside of his official duties. In his free time, Jesse enjoys trail running and playing guitar.
I nnovation and creativity are central to a library's mission. Without those tenets, we'd still be using a card catalog and stamping books to circulate them. The staff at the Bertrand Library is always eager to find ways for improving our service and anticipating needs that may not yet exist. In academic year 2012-13, the Bertrand Library purchased more ebooks than print books. While these books are as discoverable in our catalog as their print counterparts, we did not have a good mechanism for making our patrons aware of their existence, whereas print books were prominently displayed on the Library's first floor. Staff brainstormed a possible solution: an interactive ebook display where we could curate a digital new book shelf. Coincidentally, one of Felipe Perrone's computer science engineering classes was soliciting proposals for senior design projects.

Then-seniors Daniel Eshleman, Davis Gallinghouse, and Chris Cook elected to pursue the ebook display as their final project. They developed several potential models, such as an array of e-readers preloaded with content, but ultimately chose to use an all-in-one touchscreen computer for which they would write an application that would help library staff quickly and easily add content. The library had few but demanding requirements: the device needed to be as visually appealing to patrons as a traditional book display, and the process of adding and deleting books from the display needed to be extremely straightforward. Daniel, Davis, and Chris investigated various APIs and were able to create an interactive display consisting of a grid of book covers, each of which, when touched, will pull up information about that ebook and can email the patron a link to the ebook. Library staff only need to maintain a simple WorldCat list, and the application does the rest of the work.

Next time you’re in the library, make sure you check out this great new addition, which is located adjacent to the self-checkout machine on the main level.