Fall 2013

Illuminated Magazine

School of Graduate Studies, East Tennessee State University

ETSU SCHOOL OF GRADUATE STUDIES

Illuminated Magazine

GRADUATE STUDENT RESEARCH MAGAZINE

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Illuminated Magazine

FROM THE SCHOOL OF GRADUATE STUDIES

The East Tennessee State University School of Graduate Studies is proud to present ILLUMINATED, a magazine that showcases the excellent work of our graduate students and their faculty advisors.

There are over 2200 students enrolled in graduate programs at ETSU. ILLUMINATED presents some of our students' research and creative works that make meaningful contributions to various disciplines, and contribute to our strong graduate programs. ILLUMINATED features research and creative projects that are currently happening on campus, and provides updates on alumni of ETSU graduate programs.

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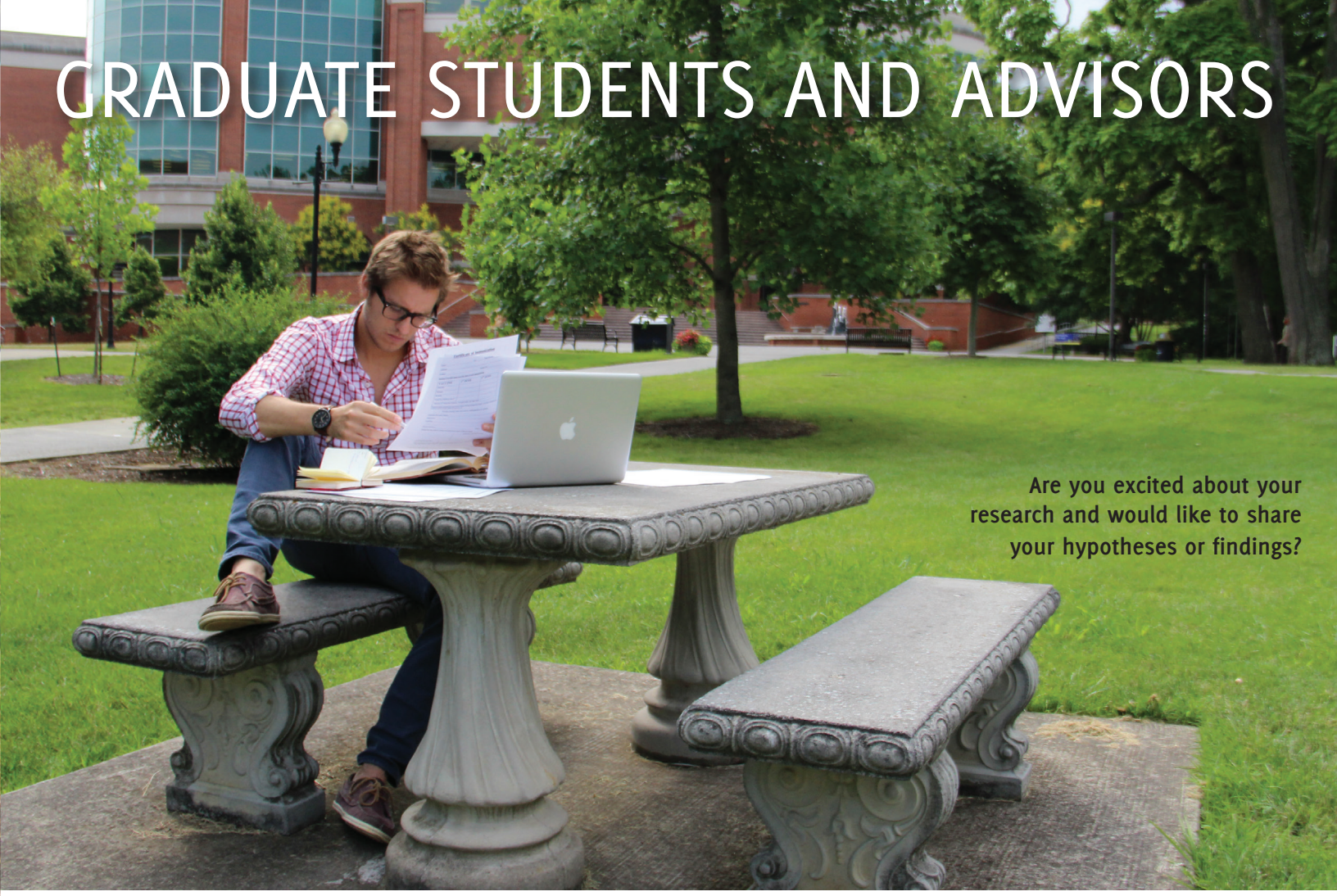

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- **For current graduate students and their advisors:**
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- **For former graduate students and their advisors:**
  Do you know an outstanding student who graduated from ETSU more than a year ago? We want to hear from them! The "Where Are They Now?" section features former ETSU graduate students who are now professionals in positions across the country.

Form available: http://www.etsu.edu/gradstud/pdf/Illuminated_Magazines/Illuminated_Nomination_Form.pdf

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THE *TENNESSEE* MILITARY MANEUVERS OF 1941

examining Tennessee's role in preparing soldiers for World War II

Second Army Tennessee Maneuvers. 3 miles west of Watertown.

by Jordan Powers

For some individuals history is merely a look at the past, but for Joshua Savage, a master's student in History, it is an important link to family. His interest in history and the inspiration for his thesis stemmed from his grandfather. "The idea for my thesis came from my maternal grandfather, who was a young child during the Tennessee military maneuvers," explained Josh. The Tennessee military maneuvers had important implications for the military, but are often overlooked in historical texts. The research for his thesis examines the maneuvers in detail, explores the changes made by the military during these maneuvers, how these maneuvers affected the middle Tennessee region, and details the procedural changes and strategies that were implemented by the U.S. military because of these maneuvers.

After Germany invaded Poland and France, the military began readying itself for the possibility of a war in Europe. General George S. Patton recommended they utilize middle Tennessee because this area

reminded him of central Europe and he had spent time in the state. The Japanese had not yet attacked Pearl Harbor, so it was believed that battles would begin in Europe near the French border. "In the larger context it [the maneuvers] was in response to German innovation because they had developed and perfected these military strategies," said advisor, Dr. Stephen Fritz. "We were trying to figure it out in the field rather than during battle."

Prior to the Tennessee maneuvers there was no realistic preparation for military troops. Twenty-one counties in middle Tennessee were chosen for the 1941 maneuvers. The military sent representatives to each of the farmers whose land they would be crossing during the maneuvers. They received their permission, as well as promising compensation for damaged property. 70,000+ troops arrived to participate which overwhelmed the small areas. Businesses ran out of supplies, and GI's looking for recreation led to some landing in jail. The upside of these maneuvers was the economic revenue it provided for businesses that were struggling because of the depression.

During the maneuvers the military made large changes in tactics and tested new weapons. The army switched from using a square formation (used in WWI) to a triangle formation. The square had approximately 22,000 men on average and was meant to be large enough to sustain itself without needing reinforcements. The problem was that it was so large they could not get enough supplies or train the army the way they intended to. Downsizing from the square to triangle took the formation from including four regiments down to only three. This allowed more specialization and facilitated better training and mobility. They also began experimenting with motorized divisions.

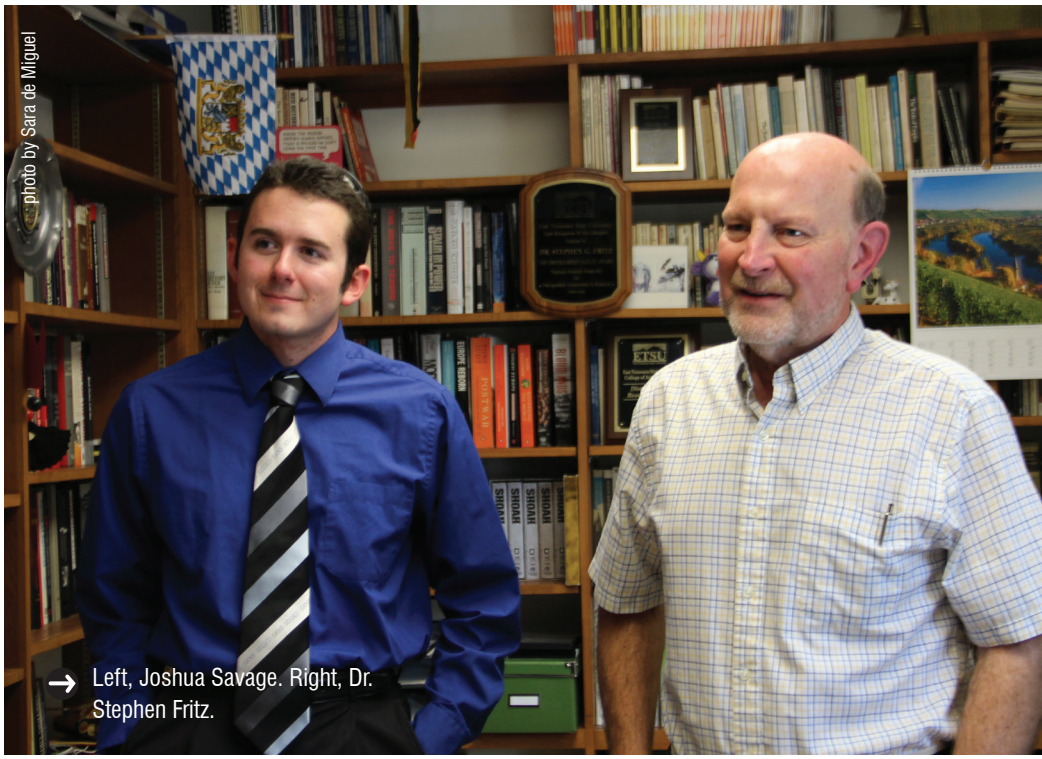
Many new ideas were developed using tanks. There was originally a debate between the cavalry and the infantry on who would be allowed to develop tanks. The cavalry won the right to develop the tank during mock action in 1940 but they had not tested it against the infantry until the Tennessee maneuvers. It was the first time the U.S. put an armored division into the field. Troops reacted to tanks in different ways, some dropping their guns and taking photos during the maneuvers. New rifles were also introduced, and the military performed a mock air raid over the city of Shelbyville. A region-wide blackout was held, and bombers flew out of Georgia over the city. The local people found all of these events both chaotic and amusing. "The civilians found it very entertaining to sit on their porch and watch the planes fly over while the troops fired blanks back at them," said Josh. The mock air raid was also broadcast live by WSM Radio from the courthouse.

Although the events proved diverting for the locals, the military had a serious agenda in mind when training these troops. In battle, the first experiences are confusing and terrifying, so the better a soldier is prepared, the lower the death toll, said Dr. Fritz. During the maneuvers poles were struck together to simulate guns firing, sulfur was burned to recreate smells and Klaxon horns were blown to simulate other battle noises.

In addition, strategic weaknesses were discovered in the army while conducting these maneuvers. For instance, supply depots were not adequately guarded, convoys would drive out in the open leaving them susceptible to air attacks and soldiers were inexperienced at marching quietly. Another important change was having the troops commanded from the front rather than the rear. If the commander was in the front he could respond more quickly to changes during the battle.

Joshua notes that his most shocking find was that these events have been overlooked. Although these maneuvers were small in scale they introduced advancements in the army that still exist today. He found few secondary sources to support his thesis, and drew his research from microfilms of old newspapers, old AP reports, division histories, and memoirs. He also travelled to Pennsylvania for a research visit to the U.S. Army Heritage and Education Center to gather information. "Dr. Fritz pushed me in the right direction for research locations and his suggestions were extremely helpful," said Joshua.

One non-academic book pertaining to these events has been published. Joshua states his goal for his research is to explain what happened in more detail using historical aspects and methods. Joshua would like to enter the private sector after completing his MA. •



→ Left, Joshua Savage. Right, Dr. Stephen Fritz.

"The idea for my thesis came from my maternal grandfather, who was a young child during the Tennessee military maneuvers."

CREATING NEW TECHNOLOGY AT ETSU TO HELP MONITOR VOLCANOES

innovating volcano instrumentation

by Jordan Powers

AM radio is not a new technology; but for Richard Freeman, a master's student in Geosciences, it provides him with the ability to measure the amount of lava flowing from Kilauea Volcano in Hawaii – one of the world's most active volcanoes. The amount of lava flowing from a volcano is called the lava effusion rate and it is a key objective for monitoring volcanic eruptions because it helps volcanologists constrain their models of magma storage reservoirs and conduits that transport magma to the surface. A significant percentage of erupting lava travels as molten streams within underground lava tubes, which are very common at basaltic volcanoes like Kilauea. The current instrument volcanologists use to measure effusion rates within lava tubes utilizes AM frequencies, but researchers must physically take the instrument to the volcano, which means measurements are only taken once or twice a month. According to Richard, "It's old technology, but with advanced computers you can get more out of it." New instrumentation being developed by Richard will allow volcanologists to measure effusion rates every few second – continuously over months – without being present.

After a successful career in computer science, Richard retired to Johnson City and began attending classes at ETSU. He discovered his interest in volcanoes while taking Dr. Gregg's Volcanology course. Dr. Gregg organizes field trips to Hawaii once every few years so students can obtain experience on active volcanoes.

Richard Freeman with the prototype VLF receiver at Kilauea Volcano.

It was on one of these trips that Richard learned about an opportunity to work at the US Geological Survey's Hawaiian Volcano Observatory (HVO). "Dr. Gregg told me about how he had worked there as a Volunteer for Science and how rewarding it was for him."

Richard was accepted to work for HVO for three months. During this time, he helped scientists study images of active lava flows. He analyzed time lapse photos taken of lava pools to see how the lava levels changed. The results of his hard work were compiled with other measurements to help the scientists conclude that the rises in lava levels were cyclical and caused by the formation, rise and release of large gas bubbles. Richard co-authored a scientific paper using these data.

Hawaiian Volcano Observatory. Halema 'uma' u crater. 27 September 2009. Courtesy of the U.S. Geological Survey

While at HVO Richard was asked if he could develop a method to constantly monitor the effusion rate, which is important in helping scientists predict volcanic hazards. For Richard's Master's thesis, he created an instrument that uses AM frequencies to measure the effusion rate every few seconds, week after week. The AM technology used in his device was developed by the US Navy to send messages to submerged submarines. These powerful AM transmitters emit very low frequency (VLF) radio waves that are strong enough to penetrate the Earth's crust. This is an important feature of Richard's instrument because the top layer of lava solidifies into a hard crust when it is erupted onto Earth's surface, creating what volcanologists call lava tubes, which contain the flowing lava underground.

Current technology to measure the lava effusion rate in a lava tube requires taking measurements from 20 different points along a line perpendicular to the lava tube, which takes about 30 minutes (1,800 seconds). Richard's instrument only needs one measurement point and can be collected in 1 second; over two orders of magnitude less than the other technology. Over the winter break, Richard plans to re-test his instrument at Kilauea, but this time with a side-by-side comparison using a more expensive instrument. Richard's instrumental design utilizes two stationary VLF receivers. One receiver has its antenna over a lava tube in order to measure the influence of the electrically conductive lava flowing in the tube on a radio signal transmitted from a remote US Navy transmitter some 400 km away. The second receiver has its antenna placed some distance (~30m) from the tube to measure the unperturbed background radio signal.

> "Dr. Gregg told me about how he had volunteered at the Hawaiian Volcano Observatory and how rewarding of an experience it was for him."

Flowing lava is electrically conductive, so when the AM VLF wave hits the lava it produces a tiny electrical current that causes the lava to emit a radio signal. The signal from both the transmitter

Left, Dr. Chris Gregg, Right, Richard Freeman.

photo by Sara de Mijolla

and the lava is picked up by the receiver placed on top of the lava tube. This instrument takes the amount of signal from the receiver and compares it to the signal received by the receiver located farther away from the lava tube. This second receiver that is placed away from the lava tube only picks up the signal from the AM VLF transmitter. By comparing the amount of signal from each receiver, the instrument measures the amount of signal that the lava emits, which is proportional to the amount of lava flowing in the tube (i.e., the effusion rate). When the signal from the lava tube rises it means the amount of lava in the tube is increasing. The signal is digitized by the instrument and stored on a computer hard drive, but eventually it may be telemetered back to HVO in real time, if the methodology proves successful after long-term testing.

"His instrument is going to collect data every few seconds, day-after-day, week-after-week," said Dr. Gregg. "It is not possible to collect data on these short temporal scales with the current technology, which can only collect a measurement every 30 minutes. However, having two people in the field continuously collecting data is cost prohibitive." Richard's first device cost around $1,000 to build, compared to tens of thousands of dollars that researchers currently spend to only get measurements once every few weeks.

Richard receives instruction on volcano processes from Dr. Gregg. He receives additional input for building his instrumentation from scientists at HVO. After reading about a VLF group at Stanford University, Richard contacted them and they now provide him with both intellectual resources and instrumentation. They donated two of their very sophisticated VLF receivers which Richard is currently adapting to be powered by batteries and solar panels in remote areas of Kilauea.

This project has been a large collaboration of knowledge and funding from multiple institutions, and Richard personally. "I've got the chief scientist at the observatory, researchers at Stanford, and Chris [Dr. Gregg]. I am lucky to collaborate with all these different people."

Richard had the opportunity to present his research at the American Geophysical Union Conference in San Francisco, CA. "This is the biggest annual meeting of volcanologists in the world," noted Dr. Gregg. They have received a great deal of positive feedback. Long term, Richard plans to complete his current project monitoring lava effusion rates, which he anticipates will take another two years. After its completion, he plans to continue using his background in computer science and volcanology to create lower cost instrumentation to aid in other aspects of volcano monitoring. ●

Richard plans to complete his current project monitoring lava flow, which he anticipates will take another two years.

MEET YOUR *PERSONAL* LIBRARIAN

A GUIDE TO UTILIZING THE LIBRARY AND ITS SERVICES

The library is a valuable resource for graduate students, but many graduate students are not aware of all its services, and therefore do not use the library to its fullest potential. Within the Charles C. Sherrod library, students can find Dr. Marie Jones, the Graduate Services Librarian.

by Jordan Powers

1. Who is the Graduate Services Librarian?

Dr. Jones is the librarian who works with graduate students, although her official title is Assessment Librarian. She is in charge of services to graduate students, assessing library services and collections, building issues and supervision of the INtopFORM librarian. "Working with graduate students is my favorite part of my job," said Dr. Jones. "I am not the only one who helps graduate students but I am the one who promotes the services."

photo by Sara de Miguel

→ Dr. Marie Jones

2. When should a Graduate Student Visit/Contact the Library?

Dr. Jones recommends making an appointment when you are writing a paper or your prospectus/proposal. "We can help you find whatever you need to get the literature review started." If you did not use the library often as an undergraduate student it is a good idea to visit at the beginning of your program. The scope of the materials that are available is large so a librarian can help to narrow the amount of information. "We have over half a million books, 162 databases, over 80,000 e-books and 22,000 e-journals." Librarians can help you identify appropriate resources, and suggest the most efficient searches in order to make sense of all the information and find exactly what you need for a project or a literature review.

3. Services

All services are available to both online and on-campus students.

4. Reference by Appointment

Reference by Appointment is one of the main services for graduate students. Students can make appointments with any of the reference librarians to work on research projects. The librarians can help graduate students find the best databases and help formulate the most useful keywords. Setting up an appointment helps students use databases to their fullest potential. For incom-

ing graduate students these appointments can help them learn where everything is and how to access it. Upper-level students often need help refining keywords and using databases to find specific information. These appointments usually last an hour and a student can schedule as many appointments as they need.

5. Interlibrary Loan

Interlibrary loan is an online system that allows the library to borrow materials from all over the world. If the library does not have a book or an article it can be requested through interlibrary loan. "Articles usually take about 3 days to arrive and books take between 5 to 8 days," said Jones. "Books always take longer because they come by mail while articles are delivered via email." Students can fill out an online form that is accessible from the library's website or click on the Get it @ ETSU link in a database to request an item. Students can also get a Tennessee Academic Library Card which allows them to check out materials from other academic libraries. This type of card is most useful for distance education students who live near a different academic library. For those who live here, interlibrary loan is easier.

All graduate students can get interlibrary loan resources for free. Part of the library fee students pay covers the costs for interlibrary loan. Previously students had to pay for services if the library was charged for the materials.

6. Document Delivery

The library also offers document delivery for online graduate students. This provides graduate students access to resources the library has wherever they are. "We will mail out books or email a PDF of an article or a book chapter. Online students, or those who take courses at locations away from the main campus, can get the same services on-campus students do, without ever coming to the library." Joanna Anderson, the Distance Education Librarian, is the person who coordinates those services.

7. RefWorks

RefWorks is a resource accessible online that helps students organize and cite sources. The library pays for RefWorks and it is accessible from any device. "I encourage students to get to know it early because it is a great tool that allows you to gather materials from databases, store their bibliographic information, and upload the PDFs so you have it all in one place. Then you can cite your sources and create your bibliographies using the tool." RefWorks has an add-on that works in Word that is called Write and Cite. As you write your paper, it will put the citations in the format you need and create your reference list. Students can change the format style and it will change the citations in the whole document. The bibliographies that come out of RefWorks aren't perfect, though. It is important to know your style

photo by Sara de Miguel

manual format well enough to proofread the RefWorks output. It is much easier than typing every reference by hand, but you still have to proofread. There are glitches in RefWorks so it is important for students to know their format so they can proofread. According to Jones it is a great tool to help graduate students organize and maintain sources for classes and research.

8. ProQuest Dissertations and Theses Full Text

ProQuest Dissertation and Theses Full Text allows students to access dissertations and theses from around the country. These documents are available to students in PDF full text. It is a great way for graduate students to see others doing similar types of research. It is also very useful for building literature reviews and looking at different kinds of methodologies.

9. Quick Reference Options

The library offers graduate students assistance with their research through avenues other than reference by appointment. Students can also receive assistance at the reference desk in the library, via email, chat and telephone. See http://libanswers.etsu.edu/ for more information about these services and to access the chat function. Students can visit the information desk and ask staff questions from 8 a.m.-10 p.m. The reference desk is staffed by either library staff or graduate assistants. If it is something the staff member cannot assist with, he/she can call a librarian who will work directly with the student.

10. Mistakes to Avoid

1) Do not procrastinate! Allow yourself plenty of time to do the research. When beginning a research project be sure to look and think ahead. Librarians can help you be more efficient in your research, but they can't magically find information on detailed topics in a short period of time. Make an appointment to meet with a librarian early in your research process to save yourself time later.

2) Ask questions!!!!! "We love to help people with information needs. We are so happy to help you and so happy when you come and ask us questions." Dr. Jones enjoys working with all disciplines because she learns different things every day. "Our job is very interesting and graduate students are what make it interesting." ●

WHERE ARE THEY NOW?

MELISSA WILSON

Professional Communication M.A. // 2012

Where do you work?

I currently work as a publicist for Bellafina Chocolates and as a Corporate Communications/ Media Relations intern for Hallmark Channel. At Bellafina I assist the owner with media relations by drafting press releases and writing and submitting articles for publication. I also use social media, especially Pinterest and Blogger. I enjoy getting to learn new trends in social media as well as talking to customers about their experience with the company.

How has your master's degree helped you?

Obtaining a master's degree has benefited me in several ways. First of all, I discovered a love for research and my research skills grew exponentially during my time at ETSU. I was lucky enough to get Dr. Amber Kinser to chair my thesis. I learned so much from her about qualitative research. The professors at ETSU are brilliant and know a lot about the field of communications.

What advice would you give to current graduate students?

My advice to current graduate students is to find your passion. There are so many opportunities and freedoms to research what you want and to write what you want. For me, writing my thesis, "Blogging in the Fatosphere: A Qualitative Study of Perceptions of Personal Risks and Benefits for Women who Blog about Weight, Weight Loss, and Dieting Issues", enabled me to discover a love for interviewing people and also writing on difficult subject matter.

The job market is incredibly saturated with new graduates and people who may have been laid off re-entering the job market. It may take you a while to find permanent employment. For me,w I've filled out over 150 job applications, interviewed with four different companies, and am still trying to find full-time employment in New York City ten months after graduation.

Stay positive during your search and find ways to use the skills that you learn in graduate school. Whether it's helping out a start-up business like I am, keeping a blog (mine is marriedtocwilson.blogspot.com), or doing more research, always work toward a goal. ●

SOLVING PUZZLES WITH ALGEBRA

Using group theory to find a unique solution for Instant Insanity II

by Jordan Powers

A lifelong love of math inspired Amanda Justus, a master's student in mathematical science, to continue taking math classes throughout her college career. "I really enjoyed my algebra classes at my undergraduate institution," said Amanda. "Here I have taken modern algebra at both the undergraduate and the graduate levels and I loved it."

When looking for a possible thesis topic she consulted her advisor, Dr. Robert Beeler, who had a fun project in mind. Dr. Beeler has always had an interest in games and puzzles. He introduced Amanda to a puzzle he had recently bought called Instant Insanity II. The first version of the game included four blocks with red, green, blue and white sides. The object of the game is to get each side to include only one block of each color. Instant Insanity II added a new twist by housing the colors inside of plastic cylinder, which allows the player to twist the base and move all of the colors at once. Players now try to arrange the colors so that one of each color is featured on each column as well as line up the colors around each row.

According to the manufacturers there is only one unique solution to the puzzle. While examining the game Amanda discovered that there were two solutions rather than one. She is now researching ways to manipulate the colors and tiles to get one solution rather than two using algebra. First the five colors were examined. "We viewed it as what are our missing tiles since there are five colors you should be able to make a 5x5 grid," explained Amanda. After discovering what the five missing tiles were they began looking at ways to fix the puzzle using the extra 5 tiles using a 4x5 and a 5x4 grid. One of the grids had no solution, while the other one had roughly 240 permutations. Permutations

photo by Sara de Miguel

Left, Dr. Robert Beeler. Right, Amanda Justus.

are possible arrangements of objects in a particular order, while a solution offers a resolution to the problem.

Upon further examination, she discovered that there was no solution to restore the game using either grid so she began examining the different permutations and group theory to classify her findings. "In algebra you learn about the symmetric group and the alternating group," she said. The symmetric group would be all of the possible permutations while the alternating group would be half of the permutations.

This led to an examination of what would happen if the game was changed from having two slots at the top to swap colors to only having one. By changing the number of slots, two groups can be formed and compared. Amanda developed a theorem and has a proof* showing that if the game has two slots any permutation can be achieved. If the manufacturers wanted to make the puzzle harder they could remove one of the slots which would only allow half of the permutations.

*

4 rows = n
4 columns = k

Gn,k

with only 1open slot at the top,
1- If k is odd, then Gn,k ≈ An,k
(we only get half of the permutations)
2- If k is even, then Gn,k ≈ Sn,k
(we get all possible permutations)

Dr. Beeler has aided Amanda in finding other research to base her calculations on. "I've learned you can't find the solution you want the first go round," explained Amanda. "It's trial and error." She examined research on the original Instant Insanity, Rubik's Cube and the 15 Puzzle to help her find the best way to approach Instant Insanity II. By examining these puzzles, Amanda was able to reach educated conclusions on how to find one solution for the puzzle.

Amanda plans to continue her education and her focus on mathematics. "I really enjoy the algebra behind it all," she said. "I would like to get my Ph. D. in Mathematical Sciences with a focus on algebra." ●

WHERE ARE THEY NOW?

RAQUEL FRATTA
Public Administration, M.P.A.
(Public Financial Management Concentration) // May 2011

Where do you work?

Currently, I am working in Asuncion, Paraguay, at the Moises Bertoni Foundation, a not-for-profit organization, which works toward sustainable development through nature conservation with social responsibility and the active participation of the people. We manage two natural private reserves in the country, a boarding school for young girls targeting indigenous and local peasants, and work closely with five municipalities to develop the territory surrounding one of the reserves. To achieve sustainable development, we work under the triple bottom line model which integrates social, economic, and environmental components.

What is your job about?

As an Officer of Initiatives for the New Economy, my role in the organization is to find opportunities that will help to support the foundation in the long run. I am responsible for supporting the efforts of analysis and expansion of current business processes, recommending improvements, and developing new business initiatives. The role is very dynamic, and it includes working across different departments, which is the fun part of my job. I am always learning new things from environmental education and honey production, to eco-tourism and grant writing.

How has your master's degree helped you?

My degree has helped me to gain a broad view of different areas including personnel management, organizational management, and policy analysis. Specifically, gaining knowledge on budget management has been very useful as well.

What advice would you give to current graduate students?

I have three pieces of advice for current graduate students. First, start networking early. This means that you do not wait for the last semester do it. Networking should be a style of communication. Take advantage of attending conferences, career fairs, workshops, public gatherings, and meeting new people. Secondly, identity organizations that you are interested in joining and research as much as possible about them. Sometimes it means taking an extra class to acquire a new skill, so consider taking a class outside your study program. For example, marketing skills are fun to learn and are always helpful in most job positions. Finally, do not take teamwork for granted. Learn how to work with people who are different from you in terms of their personality, culture, and skills. It will help you to get projects done and advance in your career.

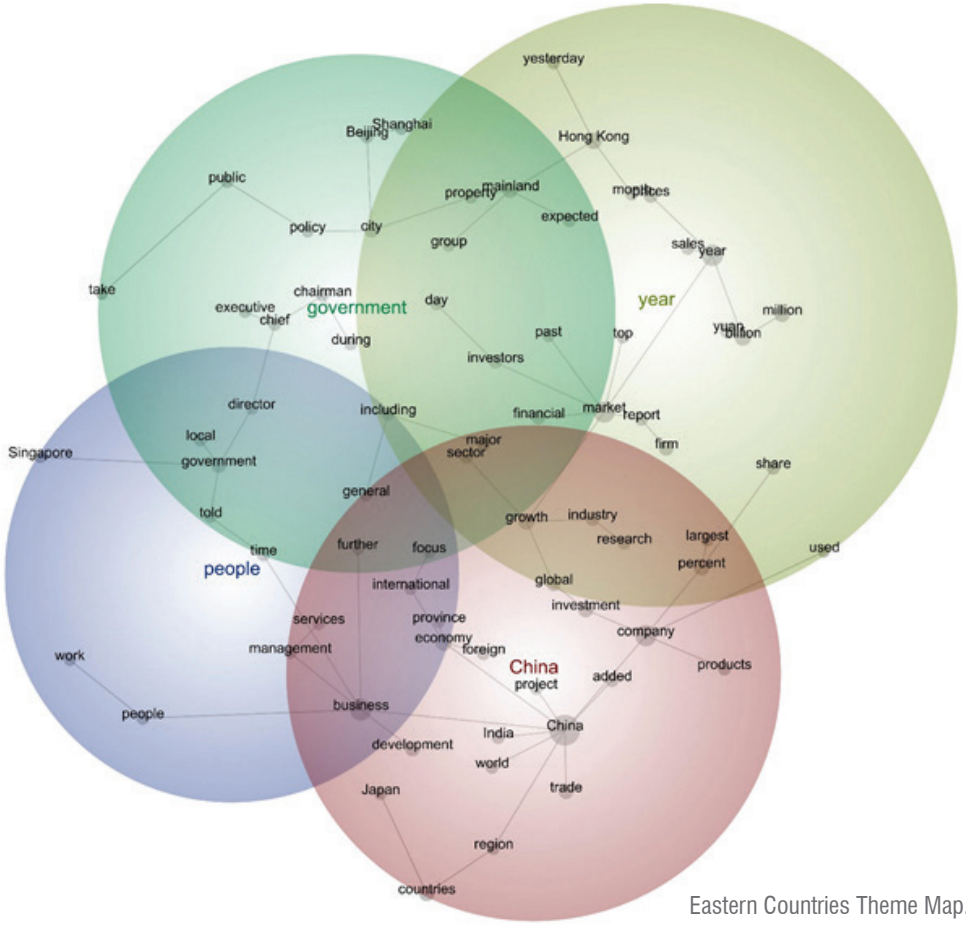
Anything else you'd like to share?

Develop healthy habits in college, as you will carry them after you are done with your degree. Be on time, exercise daily, play fair, and challenge yourself to explore the unknown. ●

A CLOSER LOOK AT PERCEPTIONS OF CHINESE BUSINESS

Investigating Eastern and Western Perspectives on Chinese Business

by Jordan Powers



Eastern Countries Theme Map.

As an international student, Xueyi Li knew she wanted to incorporate Chinese culture into her thesis. With help from her advisor, Dr. Stephen Marshall, she began researching how Chinese businesses are presented in newspapers within China and outside of the country. Due to a lack of access to materials from China, Xueyi and Dr. Marshall had to consider a new direction. They decided to compare and examine the differences in how eastern and western cultures portray Chinese business within news articles.

An important term in Xueyi's research is agenda setting. Agenda setting is how the media chooses certain pieces of information to set as important. Her research examines what themes and concepts are framed as important about Chinese business in Eastern and Western cultures. She began her research by using the database Lexus Nexus to help her find articles regarding Chinese business. The database provided her with over 2,000 articles from both Western and Eastern sources. Articles from September 2012, March and May of 2003 were chosen to analyze. "We randomized the times to avoid holidays and business events so abnormal concepts didn't arise," explained Dr. Marshall.

All duplicate articles were removed and the remaining items were compiled into a word document. Xueyi then used a program recommended to her by Dr. Marshall called Leximancer to help her analyze the articles. Leximancer is a text analysis program that allowed Xueyi to upload all of the articles in her word document. She had collected over 1,000 articles from both eastern and western sources which comprised hundreds of pages in a word document. The program then analyzed the articles and pulled out key themes and concepts to examine. Leximancer also created maps (see figure A) showing which themes and concepts overlap and how they connect.

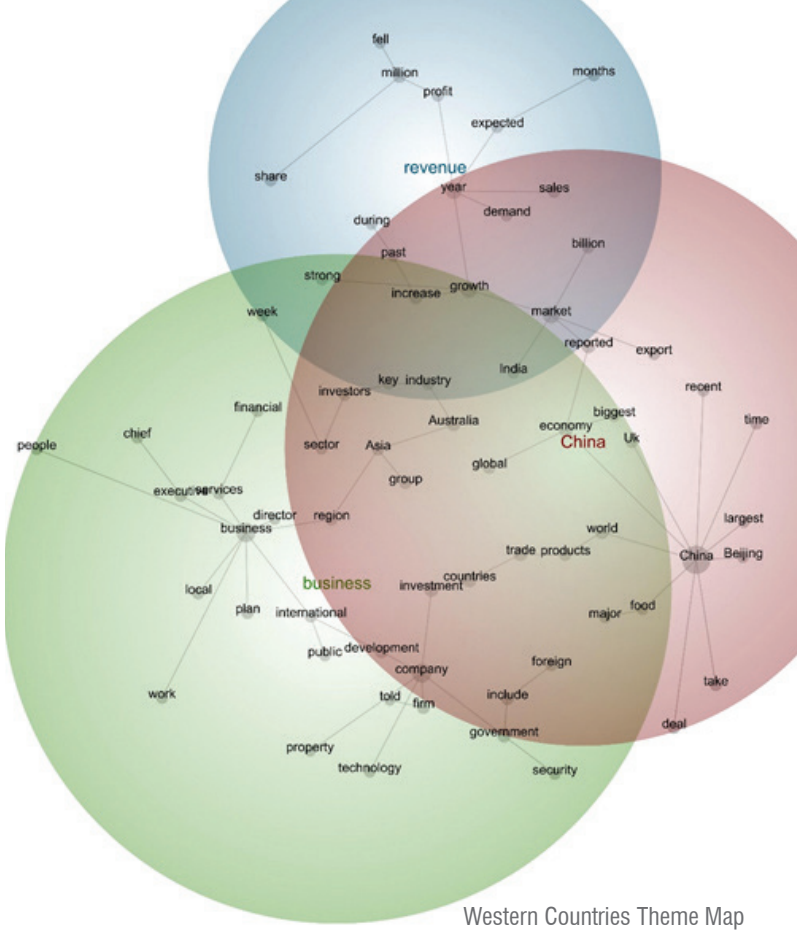
Four major themes were discovered for the eastern articles and three for the western articles. Themes within eastern articles included China, government, years and people, while the themes within the western articles were China, business, and revenue. It was necessary to do qualitative research in addition to her content analysis in order to understand the meaning regarding these themes. "A word like year has different meanings to everyone, so it was necessary for us to look closer at the context used in the articles to see what they really meant," said Dr. Marshall. Within the eastern articles, year was used to indicate what was currently happening in Chinese business at that particular time,

and how it was growing or changing. By qualitatively looking at the themes, deeper insights into how eastern and western cultures are portraying China could be found.

After examining the themes and concepts, Xueyi found the differences and the commonalties between eastern and western cultures. "Eastern countries talk about Chinese business in more detail and use specifics. Many eastern countries are near to China so they always do business with China which makes it is necessary for them to pay attention to changing government policies," said Xueyi. For western countries the focus is more general. They pay more attention to revenue and how Chinese business affects global business. Eastern and western countries both focus on the growth of Chinese business. Xueyi noted that she was surprised at the commonalties she found between the two and attributes them to globalization.

Four major themes were discovered for the eastern articles and three for the western articles.

Xueyi is a dedicated student, finishing her master's degree in just three semesters. "Xueyi is a very talented writer, said Dr. Marshall. She and Dr. Marshall have been working together for the past 5 years. Dr. Marshall was Xueyi's undergraduate advisor and they have developed a great working relationship. "We really trust each other," she said. Dr. Marshall has travelled to China and has insight into the transfer process for Chinese students. He believes the work being done at both the graduate and undergraduate levels is powerful for both the Chinese and domestic students.



Western Countries Theme Map

Xueyi and Dr. Marshall hope to have her thesis published and plan to participate in the Appalachian Research Symposium in the spring of 2014. Xueyi's future plan is to go back to China and work for an advertising agency. She noted that her approach to advertising will change depending on whether she works for a domestic agency or a western agency operating within China. ●

Left, Dr. Stephen W. Marshall
Right,Xueyi Li

IMPROVING CARE FOR CHILDREN WITH CLEFT LIP & PALATE

A Narrative Review

by Jordan Powers

Ashley Meredith, a master's student in Speech-Language Pathology, had the opportunity to participate in research to improve care for children with cleft lip and palate. Her research is part of an ongoing project with her advisor Dr. Brenda Louw and Dr. Lynn Williams, using the US Department of Education FIPSE Grant *Consortium for Promoting Cross-Linguistic Understanding of Communicative Disabilities in Children.* This project will span 4 years and Ashley's narrative review is the first step in the research process. A narrative review examines knowledge and findings within a field in order to determine what research has been done and to critically evaluate the research. Her research examined the use of the International Classification of Functioning Disability and Health- Children and Youth Version (ICF-CY) to help guide clinicians in their treatment of children with cleft lip and palate.

The ICF-CY was developed in 2007 by the World Health Organization (WHO) to serve as a framework to help guide clinicians for communication disorders and a variety of other impairments. "Our focus was on children with cleft lip and palate and how this framework can help guide us in terms of assessment and treatment of cleft lip and palate," explained Ashley. She critically examined past research in order to understand what research had been done on the application of the ICF-CY framework in terms of assessment and treatment. "What we found was that there is currently not a lot of literature in this area, but it's an emerging field." An emerging field is one in which progressive strides are being made within the research. She used a specific search procedure and found 26 articles but ended up with only nine articles and only one poster presentation that met the set criteria of her review, in examining the actual usage of the ICF-CY.

Left, Ashley Meredith,
Right, Dr. Brenda Louw

After examining the current research, recommendations were made for implementation and future research in the grant. Ashley recommends integrating the ICF-CY as a framework into undergraduate and/or graduate curricula in order to train clinicians to take a more holistic approach. "Many times, we as clinicians focus only on the child's impairment of structure and functioning," said Ashley. By focusing on only the cleft lip or palate (structural) and the speech problems (functional) resulting from the impairment clinicians are not viewing the child as a whole. The ICF-CY (WHO, 2007) can

inform clinicians to do a more holistic assessment and treatment of a child regarding their activities and participation in different situations. "What you often notice first in children with cleft lip and palate is the child's appearance, and by looking at them holistically you can examine how that effects them in making friends, how are they viewed within their family, and whether it limits the family from participating in events," explained Dr. Louw.

Ashley's project gained depth through the cross-cultural component included in the grant. Ashley and two other ETSU students participated in a student exchange to Brazil and had the opportunity to visit pediatric clinics and hospitals to see how professionals conducted clinical practices and research in Brazil. She also learned Portuguese in order to take classes during the exchange. "The most exciting part has been to experience how speech-language services are provided in another country." Ashley's trip to Brazil was part of the partnership between universities that helps to integrate a cultural component into the grant. Before and after her trip, Ashley took the Intercultural Development Inventory to help gauge her cultural competence throughout the experience. She also attended meetings via the internet that connected her with the other members of the project. International guest speakers at the forefront of the field also hosted webinars for the students. "It has integrated a research-based curriculum with cultural competence being a high priority," said Dr. Louw.

> "The most exciting part has been to experience how speech-language services are provided in another country"

Ashley's cross-cultural experience and research has helped lay the foundation for the research project of the next cohort of students. "The narrative review is one of the first steps of the project and examines what is in the literature. Our next step is to have the next set of students design a survey," said Dr. Louw. The survey they design will examine what practices speech pathologists are using, and it will be distributed to speech pathologists in the U.S. and the partnering country of Brazil to see how and if they are using the principles of the ICF-CY (WHO, 2007). The ICF-CY (WHO, 2007) is not being widely embraced in the area of cleft lip and palate so it is important to find out what is actually being done in clinics so further recommendations can be made.

Ashley had the privilege of attending and presenting her work at the annual convention of the American Speech Language Hearing Association held in Chicago in November 2013. "We are extremely proud of Ashley and her presenting her research." Ashley's plan is to become a travelling speech language pathologist and travel with her husband, who is also a speech language pathologist. In such a position, they may move every three months and be placed in a new part of the country. Due to her research and participation in the grant, Ashley notes that she has had the opportunity to travel and grow personally and professionally. ●

WHERE ARE THEY NOW?

HILARY ANNE GIBSON

Accounting, M.Acc. // 2012

Where do you work?

I work at PricewaterhouseCoopers in Kingsport, TN. My title is Experienced Associate.

What is your job?

I am an auditor. I work in a team environment to form an opinion over the fairness of public company financial statements.

What's your favorite part about the job?

My favorite part of my job is the wide range of tasks I get assigned from day to day. Every day feels different than the next. I also really enjoy my coworkers.

How has your master's degree helped you?

Earning an advanced degree helped me to stand out to future employers. Also, the master's program helped prepare me for my career path by exposing me to real-life problem-solving scenarios.

What advice would you give to current graduate students?

My advice to current students is to never pass up the opportunity to learn. I have used so many skills I gained through college while working in my field of study. ●

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