

## Undergraduate Research Award Essay

From the beginning of my involvement in the College Park Scholars Science, Technology and Society (STS) program I knew that I would have an opportunity to conduct research. This research would be on a pressing intersection of society and the technological sector, but specific interpretation was left up to each student. I began forming ideas early on in the process by exploring things that I was passionate about, and how the concepts and cases we discussed in class could relate. When I first entered the program, I was drawn to examining Chinese technological systems by my personal experience studying Chinese language and culture. As the structure of the research assignment grew clearer, and as U.S.-China political atmospheres became increasingly hostile, I decided to examine Chinese internet usage. Plenty of Americans are dismissive of the Chinese internet, drawing conclusions and asserting opinions with only a superficial understanding of the social motivations behind the people involved. I didn't want to defend the rampant censorship of the internet by the Chinese government; instead, I wanted to apply models of interaction that I had studied throughout my time as an STS scholar to the Chinese internet. The finished product was an attempt to provide a more nuanced understanding of the technological and social aspects of speech and access on the internet in China.

Finding sources for my project was a difficult task. I started by trying to locate academic, peer reviewed works on Chinese cybersecurity and cyberwarfare techniques and tendencies, only to find that those sources were hard to come by. Cyber espionage is by definition a secretive field, and the information I was able to find was incomplete or inconclusive. I quickly realized that I had to change tack. I began using the UMD library database catalog and talking to my professor to expand my field of view. Soon after, I decided to research not just the illicit functions of the Chinese internet but also the ways in which hundreds of millions of people interacted with the uniquely restrictive cyberspace every day. After finalizing my topic and preliminary research, I constructed a method of determining whether I could use a source as part of my project or not. My information came overwhelmingly from two places: news articles pertaining to China and the internet, or peer-reviewed original papers from scientific journals. When it came to news articles, I first had to verify the integrity of the source. Then, the integrity of the article – was the author a regular writer for the credible source, or was the article an editorial or work written by a guest author? What else has the author or publisher put forward in this field, and what biases have they shown? The process was similar for the articles located through the UMD databases from various scientific journals. I had to examine the platform the work was published on, then the author themselves, in an attempt to detect the integrity or biases of both.

I had the opportunity to work with a librarian, Dr. Eric Lindquist, along with the rest of my STS class at the beginning of the fall semester. This opportunity was the reason I developed the search techniques and criteria I mentioned above. Dr. Lindquist talked with us about how to effectively use the UMD library resources to find and evaluate sources, and was especially helpful in the location of online resources. However it was my sponsoring professor, Dr. Zeller, who helped change the direction of my research. I met with him multiple times in class to discuss my topic and the progression of my research, and he provided me with thoughtful questions and interesting analysis. This analysis helped shift my research to focus more on the social and

civilian aspects of Chinese internet usage, and allowed for more detailed consideration of the impacts my work would have on the field of STS.

This was my first major research paper of my college career, and the first research paper where I was able to delve into topics that I found both urgent and interesting. Through the research process, I found that no one perspective, even if it's a perspective displayed across multiple articles, can create the comprehensive picture that is the ultimate goal of a well-written research paper. That goal requires a depth and breadth of resources and perspectives across multiple mediums, and this paper helped me develop strategies for finding that kind of variety of information.

Having now completed the research and writing process, I've gotten a good sense of what I would do differently. Had I the chance, I would begin the citation process much sooner. When I was writing my paper in outline and rough draft form, I kept my folder and my physical resources close by but did not maintain a consistent bibliography or citation process throughout. That meant when I needed to put together a final draft and make the finishing changes, determining what information I had pulled from a certain source and coherently citing all the information was a daunting task. If I had been proactive in my citations and the construction of my bibliography, then the process would have been much more efficient.

My personal improvements also inform what I believe would be useful improvements to the library. I think the library can provide resources to assist with citation – some of the biggest difficulties students can face on extensive research assignments involve improper or insufficient citation, and online or in-person library resources would go a long way in making sure that students adequately credit the sources they use. Overall, however, my experience with the UMD library was an incredibly positive one. Both library staff and digital resources provided research strategies that were indispensable for this project and will undoubtedly be helpful in projects to come in my college career and beyond.