

## **2017 American Association of Health Sciences Libraries Data Scholarship Report Data Science and Visualization Institute for Librarians**

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The financial support provided by the AAHSL Data Scholarship allowed me to attend the 2018 Data Science and Visualization Institute for Librarians (DSVIL) at North Carolina State University (NCSU) June 4<sup>th</sup> – 8<sup>th</sup>, 2018. I wanted to attend the institute because I am interested in promoting data literacy and data-related competencies in librarianship to help better prepare information professionals to meet data-driven information needs as they develop in our communities. I am also transitioning from my previous position as Reference Librarian and Liaison to the School of Dentistry to the newly created role of Emerging Technologies Librarian. The foundation in data-related topics I gained by participating in the DSVIL has enabled me to make new connections across the University of Alabama at Birmingham (UAB) campus. I plan to continue developing my data-related skills and competencies, and hope to be able to advocate for the library developing data-related services related to the information and tools introduced during the 2018 DSVIL.

The DSVIL daily schedules are well-balanced and provide an even mix of presentations, discussions, and active learning sessions. Participant's time was used very effectively each day of the institute; breakfasts were organized around small group discussions of the previous day's activities, and morning presentations supported each day's workshop activities. The second speaker on the first day of the institute was Emily Griffith, a statistician who provided an extremely useful introduction to types of measurement and descriptive statistics. This was preparation for hands-on activities that introduced visualization and analysis in Excel, and then reinforced the ideas related to these topics through the completion of similar tasks in STATA and SAS. Handouts and information were also provided for similar activities in R, though R was not addressed in detail during the day's activities.

Other speakers used a similar blended didactic and active learning approach that enabled participants to gain basic skills with a variety of software tools in a short amount of time. Angela Zoss provided information on best practices in creating visualizations, followed by workshop activities in Excel, Tableau, and Plot.ly. John Little provided information on web scraping, data cleaning, and analysis of social media followed by activities that utilized OpenRefine and Webscraper.io. The institute also included an introduction to bibliometric network analysis using Gephi and bibliographic information from subscription databases found at most academic libraries. Gephi was a tool I had not encountered before attending the DSVIL and should prove to be extremely useful tool for providing visual bibliometric analysis.

In addition to the workshop-format portions of the institute, the week includes a tour of the Hunt Library's data visualization spaces, including a 360 classroom and an active learning space with immersive projection tools for teaching and student use. There are also opportunities to tour the library's "book robot" facility, a storage facility for the majority of the library's physical

collection that can be accessed using a robotic retrieval system. The Hunt Library is an ideal setting for the DSVIL as participants are able to observe the displays of visualizations and the results of data analysis blended into the library's physical environment.

Following my participation in the DSVIL I provided an information on the DSVIL to members of the UAB Libraries Reference Department. I briefly the introduced tools, topics, and potential research and teaching applications for topics covered by the DSVIL. I have also given three presentations on Data Visualization to groups at UAB since the 2018 institute concluded. On June 25<sup>th</sup>, 2018 I presented to participants in the Cancer Research Experience for Students (CaARES) summer program, and on July 19<sup>th</sup> and September 12<sup>th</sup> I presented to faculty at the UAB Center for Teaching and Learning (CTL).

Participating in the DSVIL enabled me to quickly and effectively gain information on both data topics and software tools that I had been attempting to learn to use independently. Since completing the institute I have been able to integrate the information I gained into several presentations, and plan to continue developing my skills in using visualization tools such as Tableau, Plot.ly, and Giphy, as well as my understanding of approaches to data analysis. The handouts, guides, and other written material provided for participants have been invaluable tools for me to continue building on the initial set of skills I learned gained by participating in the DSVIL. The institute is an excellent professional development opportunity, and attendance will be worth the time and financial commitment for any information professional with an interest or need to build professional competencies in data visualization and analysis. Many thanks to the AAHSL for the generous financial support that enabled me to pursue this opportunity.

Respectfully submitted

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