Research Lifecycle Support from Engineering Librarians

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SLIDE ONE — Hi, I’m Jamie Niehof, one of the engineering librarians that serve the College of Engineering. I’ll be talking today about four specific ways the engineering librarians support the Research Lifecycle for our faculty and students. This picture is taken from the third floor of the Duderstadt Center, where the Art, Architecture, and Engineering is located.

SLIDE TWO — Here’s a snapshot of who we serve. The College of Engineering has 17 departments and programs, ten thousand one hundred eighty five students, of which thirty-five hundred are grad students, and almost nine hundred faculty and researchers. And of course there are three engineering librarians.

SLIDE THREE — Here are the three engineering librarians and our liaison areas. This looks like a lot — and it is — but shortly we will be welcoming a new biomedical engineering librarian, which is very exciting.

SLIDE FOUR — Each year during orientation season the engineering librarians are invited to present our services to groups of faculty, researchers, and graduate students. We wanted a single slide to act as a backdrop for this conversation and that could double as a postcard handout, so we decided to highlight areas of the research lifecycle where librarians can be involved. I will talk about one thing from each column.

SLIDE FIVE — In January 2019 I built two Canvas Modules. Canvas is our Course Management System. The two modules were Intro to Citation Management and Beginning Literature Searching. The modules were designed specifically for engineering students, highlighting common software already used in labs in engineering and focusing on using engineering databases and searching on concepts like 3D printing using martian regolith. They are meant to be plug-and-play inside Canvas for any engineering instructor, and our goal is to integrate them into more courses and to develop more modules.

SLIDE SIX — Paul the engineering librarian, sometimes working with Paul Barrow the Grants librarian, offers training and consultations on the funding databases Pivot and Foundation Directory Online.

When submitting federal grants to places like the NSF and NIH, a Data Management Plan is required. In 2015 the engineering librarians set up a DMP Review Service to assist researchers and offer suggestions to improve their Data Management Plan based on funder requirements and best practices.

SLIDE SEVEN — One of the labs in the Chemical Engineering department that works on computer simulations of nanoscale systems approached Leena with a problem. Their grad students were graduating and leaving the lab without properly documenting how and where they were storing and organizing data. Leena worked with Jake Carlson from Research Data Services to develop an
exit interview for leaving students that captured the important information. The lab modified it make it a bit more specific to their environment and use it now.

SLIDE EIGHT — And finally, as the liaison to the Climate and Space Sciences and Engineering department, I assist with curating the data deposits from its faculty. The CLaSP department generates an incredible amount of data, and as such, makes the most data deposits in Deep Blue Data. This allows us to use (with permission) examples of well-written README files, and to develop Data Management Best Practices training sessions with a very captive audience.

QUESTIONS?