Findings from the DIL Interviews: Discovery and Acquisition

Skills in this competency may include:

- Locates and utilizes disciplinary data repositories.
- Evaluates the quality of the data available from external sources.
- Not only identifies appropriate external data sources, but also imports data and converts it when necessary, so it can be used locally.

Additional skills mentioned by an interviewee:

- Understanding and navigating data use agreements for reuse of data sets from external sources.

Average Ranking of Importance (5=essential): Faculty= 3.57, Students = 4.12

Faculty responses:

For faculty, the assignment of importance to these skills seemed to be correlated with the degree to which external data was used in the individual and team research projects for which that person was responsible. Several faculty indicated that the data they used were generated entirely in their labs, and so assigned a lower ranking to this competency. Others indicated that external data might be brought into the lab to compare with the data they generated or as a part of supporting the analyses done in the lab.

Student’s skill acquisition was derived through trial and error, consultations with advisors, and with peers.

- Faculty thought that student skills were highly variable in this competency.
- Some faculty expressed the opinion that locating and using data sources, if necessary, would be an easily acquired skill.
- No dominant theme emerged across faculty responses, but the ability to evaluate data quality, and have an “appropriate level of skepticism of outside data sources” was valued by some.

Student responses:

Despite a lack of experience with locating and using data from external sources for some, this competency was highly ranked overall. Skills were developed in consultations with peers and advisors.

Student’s experiences in acquiring data varied. Some found data that had been well documented making it easy to understand and use. Others noted that the external data they had acquired were difficult to understand or had used different measurement scales which had to be converted. A few students inherited data generated from others, reporting both positive and negative experiences in the transition. A student in Computer Engineering mentioned doing literature reviews as a means of searching for code.