Background

Assessment of Collection
- Usage statistics (SUSHI)
- Cost-per-use (CPU)

Examining Reference Lists
- Interpreting existing data
- Better understanding of research of the Biological and Environmental Science and Engineering (BESE) academic division

Significance
- Assess collection value
- Build a workflow for automation

Primary Objective
How and what are students in the BESE division citing in their doctoral dissertations?

Secondary Objectives
- Similarities/Differences of citation patterns
- Are cited resources in the library collection?

Methodology

Sample
Total PhD dissertations in IR = 447 (2012-2018)
BESE dissertations completed 2016 - 2018

 Workflow Process
- Converting reference lists to structured data
- Import into EndNote and clean up data
- Export to Excel
- Required field
- KNIME Workflow
- Ingest data into relational database (SQLite)
- Ingest lists from Summon (ebooks & ejournals)
- Test coverage and write results to database

Citations to resources other than journal articles

BioScience
Environmental Science
Marine Science
ALL

Age of Publication Cited

Top 10 Journals
# Students Citing

Collection
- Journal articles were the most cited (>90%)
- Citation patterns for other resources differ
- Top 7 of 10 Journals cited by 3 programs
- Age of publication cited is consistent across
- Most recent publications (0-5 years) account for 30% of citations
- 11 citations to 19th Century publications
- 20% of journal titles account for 73.6% of article citations (80/20 rule, Timms (2018))
- Over 80% of journals cited are covered in library collection

Information Literacy Program
- Use of citation managers for more efficient and accurate creation of reference lists
- Evaluating of information sources

Take-aways
- Rich available data from doctoral dissertation
- Citation analysis as a viable source of data to inform decisions on Collection and IL Program
- Not easy to obtain accurate coverage info from Discovery Platform

Future Steps
- Refinement of KNIME Workflow
- Remaining BESE doctoral dissertations
- Extend study to all doctoral dissertations
- Similar study on faculty publications

References