

“Identifying related literature” Exercise

Learning Objectives: Students learn (1) how to perform a thorough literature search using the proper resources and processes, and (2) how to organize their discovered articles.

Activity: Find and Organize the World

1. Give the student(s) a topic to focus on such as “testing security of web applications”. Several students should research the same topic so they can share and organize their findings afterwards and gain self-confidence through recognizing they have found many of the same articles.
2. Give the students a short mini-lecture on the processes for finding related work with respect to their topic.
 - a. Start with recent years’ of workshop and conference proceedings.
 - b. Target the most highly respected publishing venues in that research area. Provide them with a list of the top conferences, workshops, and journals in that research area.
 - c. Use Citeseer, Google Scholar, general search, and digital libraries. Try different keyword searches within these spaces.
 - d. Follow links to researcher web pages for more recent work they might have posted there.
 - e. Use related work sections of most recent papers and find relevant references in their reference list to follow backwards.
3. Student deliverable: A complete citation for each paper found. The citation should include all authors in order, title, conference/journal, and date. They can cut and paste, and correct, digital library citations or other online source.
4. Create a bibliography file, which they can use in the future for their reports.
5. Print out all the citations on a separate strip of paper. They should create a single file with all the citations, print it out, and cut the paper so each citation is separate.
6. Print out one copy of each paper.
7. Set up a group meeting with a large conference table. Put a timeline on the table—strips of papers with years. Charge students with placing their citations on the timeline.
8. Lead a discussion that guides students to identifying the major research sub-topics and/or sub-problems, research groups who worked on the problem, and overall discussion of the results. Could create a graphical picture of these different perspectives of the field showing the topics and their relation to each other, and how the research evolved over time.
9. Lead a discussion that discovers the connections between the citations. Which papers were most influential? Did multiple groups discover the same thing?
10. Lead a discussion that guides students to discuss the process of their learning experience, what they actually did, some of the places they found their citations, venues where the articles appeared and possibly how to view those articles (e.g., preliminary, high quality).
11. Lead a discussion on where to go from here. What articles would be the ones to start reading first.