

Related Work Writing Exercise

May 1, 2007

Goal: Understand the context and related work.

By now you've found a few papers related to your project. The ones you presented make a good start. This exercise is intended to help you add to that list and classify related papers.

The related work section of some (many?) papers may read like a disorganized list of papers the authors knew to cite, but didn't put much thought into the process. Such papers can be a chore to review, because it can be difficult to tell what separates the new paper from prior work. Why didn't the authors just use the existing solution? Should I believe that the authors use the best practice?

For every paper, you should be able to state:

1. that paper's central contribution (the takeaway lesson).
2. how the problem solved is different (in assumptions made or goals put forth).
3. why your problem (assumptions, goals) is more important.
4. how the solution differs (in concept or in measurable efficiency); fine if you extend their work to solve a bigger problem, reusing their solution in the process.
5. why that difference is important.

What to turn in at the end of class

One-sentence (possibly-long) descriptions of each of the five points above for $4 + 3x$ papers, where x is the number of members of your project group.

You may leave class to meet elsewhere, find more terminals, use the printer, or use a copier.

Tone

It can be tempting to criticize prior work, but often, the papers you're likely to cite are papers you wish you'd written. The authors of those most related

papers are likely to be tapped as reviewers for your journal submissions. So, be positive: prior work is awesome, their work enabled yours, they showed that an approach similar to yours was feasible, they showed that the problem was important, etc. Pick on just one weakness if you have to, and make sure it's a weakness your system doesn't have.

Strategy

Read only the introduction and the related work section of each paper to start; this will help you find the most relevant related work quickly, and to answer most of the questions above.

Use the bibliography to find prior work, author web pages to find similar work, and google scholar or citeseer to find other work based upon the papers.

Bonus

Make a table in which either: (a) the columns are features and the rows are systems (papers), the cells represent how or how well the systems provide the feature, or (b) the rows and columns are features or classifications, the cells include which systems match both features or goals. Your system should fit into this table somewhere.

Plan to include the table in your project report.