



Systems and Internet Infrastructure Security

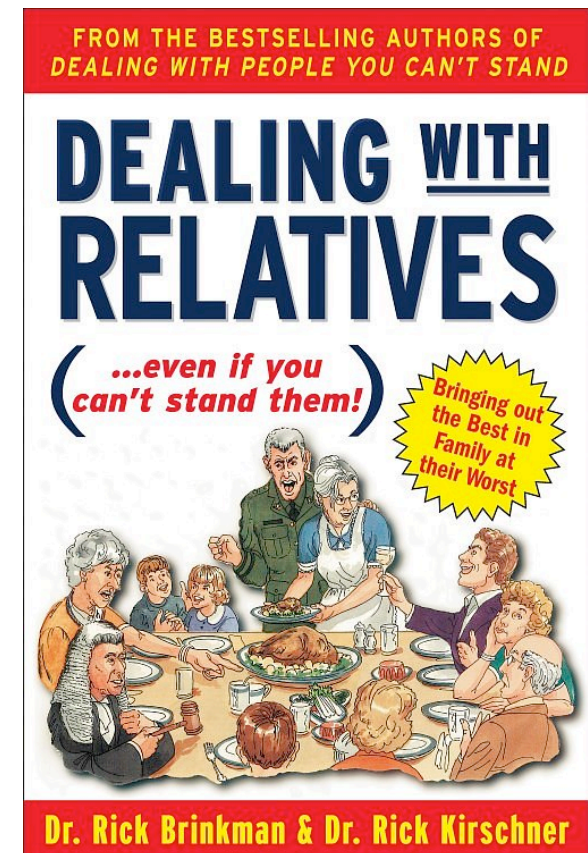
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Related Work

CSE545 - Fall 2006
Introduction Computer and Network Security
Professor McDaniel

Related Work

- Q: What is the point of writing a related work section?
- A: To establish
 - ▶ Need for work.
 - Why previous works don't get it done ...
 - The limitations of past work ...
 - ▶ Mastery over area.
 - Established bona fides ...
 - ▶ Relationship to other scientific areas.
 - How relates to bodies of other works ...
 - ▶ Others?



How?

- Common, *wrong*, way to write a paper.
 - ▶ Algorithms a, b, c, and d. have been done.
 - A is good because of Blah, bad because of Duh.
 - B is good because of Blah', bad because of Duh'.
 - C is good because of Blah'', bad because of Duh''.
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- A laundry list with no *introspection* about field in which it exists.

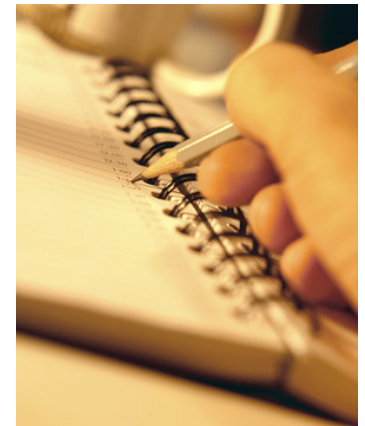
Narrative

- Tell a story about the field in which it exists. It should try to organize the field in such a way as you can see how the work evolves from start to finish.
- Ideally, ends with the conclusion that the present work is needed.
- Example:
 - (para 1) The early algorithms, A and B, sought to solve the requirements X, Y, and, Z by bit-twiddling. However such approaches eventually lead to blah and duh, to differing degrees.
 - (para 2) C, D, and other also tried to solve the same problem, but failed ...
 - (para 3) Ultimately, the authors were not attractive enough to solve the problem, so it was left to me.



Related work (summarized)

- A good related work section should include works ...
 - If they address the central problem
 - If they address a related problem
 - If they identified the problem
 - If they use the same methodology for a similar problem
 - If your work was inspired by them
- It should be a narrative about the field, its logical relatives, the problems it faces, advances and failures, and motivating articles.
 - Show how the body of work holds together in some philosophical or technological way
 - Demonstrate mastery of subject matter to establish credentials for paper (often a fatality if done wrong)



Related work ...

- A related work section for your course project is due on 3/22
 - ▶ Should cover 25-50 related works beyond just citation
 - ▶ It should be at least 2 pages long, add figures if necessary and relevant (be legible)
 - ▶ Writing style counts, so use good grammar (get readers)
 - ▶ You need to make some critical assessments about what work is relevant and why.
 - ▶ Assume I know nothing about the project and the area
 - ▶ This should be *ready for publication*, so it better be perfect and exhaustive