

Software Security

415.725SC

Lecture 28: Report Writing #3

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Report Writing

415.725sc-1.1

“Stock the Section Reservoirs”

- Why not... organise your notes before starting to write?!
- Use one page per section, plus references.
- For each item, ask...
 - Is it necessary? (Refer to your synopsis to decide. Also think about your audience: what does your reader need to know?)
 - Is it in the right section(s)?
- Do you have all necessary items?

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Report Writing

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“Construct the Tables and Figures”

- Careful, iterative design is required, so that your Figures and Tables will be helpful and attractive, rather than confusing or overwhelming.
- “In your final paper the tables and figures, together with the title and the abstract should form a coherent story.”
- Your reader may look only at your figures and tables, and possibly their captions, after reading your abstract.

“Construct the Topic Outline”

- I suggest you have four to five sections, two to five “major points” per section, and two to five “sub-points” per major point.
- Your topic outline should have approximately $4*3*3 = 36$ entries.
- Take the time to cut it back to size!!!
- You’ll write one paragraph per sub-point, plus one paragraph to introduce each major point, and perhaps one paragraph to conclude each major point.

“Construct the Sentence Outline”

- This step is optional but highly recommended, for the beginning writer.
- Write one complete sentence per item in your Topic Outline.
- Each entry in your Sentence Outline may be used as a “thesis sentence” for a paragraph in your paper.

“... Write the First Draft Continuously ...”

- *Unity* is a primary objective.
- Don't worry about grammar in a first draft.
- Let it flow!
- Write something on each of your essential points, sequentially, paying attention to transitions and logic.

“The Introduction”

- Keep it short!
- Woodward suggests three parts:
 1. State the general field of interest.
 2. State the main findings of others that will be challenged or developed.
 3. Specify the question to which the current paper is addressed.

Papadakis’ “Why and What(4)” Introductions

- *Why* is the topic of interest?
- *What (1)* is the background on the previous solutions, if any?
- *What (2)* is the background on potential solutions?
- *What (3)* was attempted in the present effort (research project)?
- *What (4)* will be presented in this paper?

“Construct the List of References As You Go Along”

- Woodward (and I) are offering advice, similar to “make backups of your files,” that could help you avoid painful problems.
- I suspect you’ll have to learn this lesson “the hard way” ...but just in case you’re listening:
- *Maintain full and accurate notes on your bibliographic sources!*

“Materials and Methods Section(s)”

- You probably won’t be reporting on the results of an experiment you have conducted.
- You probably will be reporting on other peoples’ articles, describing their experience with systems they have built or tested.
- You should explain the relevant facts about other peoples’ systems and tests.
- You might apply a different “analytic method” to the system under test in some article you have read. If so, you should explain this method.

“Results Section”

- If you haven't yet explained “how” you are analysing your system, this question should be addressed first.
- Next you can explain your analysis.
- You might draw “conclusions” from your analysis, or leave these to the next section.
- Don't compare your conclusions to other peoples' conclusions, in this section.

“Discussion Section”

- “This section is often the heart of a paper...”
- Don't include too much detail! Your reader is probably not as interested, or as able, as you to appreciate all the subtleties of your understanding. Keep it simple.
- Controversial issues make for interesting reading: be lucid, fair, and seek to explain rather than refute. Other authors will have other points of view...
- Speculation should be firmly grounded in evidence you have presented elsewhere in your paper.