

Software Security

415.725SC

Lecture 27: Report Writing #2

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Report Writing

415.725sc-1.1

Logical Communiation

[Eisenberg, 1989]

- “Communication that is logical is reasoned in the
 - proposition [the subject to be discussed, or statement to be upheld],
 - order [placement contributing to the force and beauty of expression, or to the clear illustration of the subject],
 - interconnection [mutual union],
 - development [unfolding, advancing], and
 - disposition [order, method, distribution, arrangement] of its elements.”
- “It is the first, most urgent job of the writer to make the logic apparent.”

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Report Writing

415.725sc-1.2

The “Murder Mystery”

- In a well-written murder mystery novel, the reader is in suspense until the last page.
- “In suspense” means held in doubt and expectation.
- **Don’t** write a technical report that keeps your reader in suspense until the last page.
- Few readers will be patient enough to read a mysterious report.
- When you write as a technical professional, your reader “needs first and foremost to understand the structure or path of your argument.”

Comparison and Contrast Format

- The topic sentence of a “comparison and contrast” paper, section or paragraph should set forth alternatives for doing something (e.g. growing crystals).
- Each section of a comparison and contrast paper should discuss the similarities (comparisons) and differences (contrasts) in the alternative methods.
- The first and last sections should give an overview.
- The middle sections should each discuss different points of comparison or contrast.
- For example, the section on “Preparing a Saturated Solution” contrasts the two methods. Another section, on “Preparing a Seed Crystal” discusses a similarity.

Problem – Solution Format

- First, state the “problem” – what is the question being answered by your paper?
- Next, outline a “solution” – how the problem can be solved.
- Give details of your solution.
- Give applications or examples.
- End your paper with a critical & appreciative analysis. Is the problem adequately “solved” in all contexts? What “similar questions” might be answered by “similar answers”?

Main Idea – Significance Format

- First, explain “what” – your central idea.
- Next, explain “so what” – why should anyone care about your idea?
- Now that you have the readers’ interest, you can discuss the details. Define your terms carefully, and explain their relationships in a way that illuminates your idea.

Mix and Match!

- Don't be afraid to combine patterns.
- Problem-solution + compare-contrast = a paper that discusses two (or more) solutions to a problem, and advises the reader on which solution to adopt.
- Main idea-significance + problem-solution = a paper that solves a significant problem.

Woodford's Form

1. Introduction
2. Materials and Methods
3. Results
4. Discussion

Suitable for any experimental study.

Question: Which of Eisenberg's formats is the "best match" to Woodward's form?

Report Titles & Synopses

- **Hardware Protection Against Software Piracy : Supplementing and Augmenting**

The hardware device for SW protection proposed by Maude&Maude has flaws, like any protective device. I intend to augment, maybe supercede, the device with other HW protection devices.

- **Confidentiality within IKP and SET**

In what way SET achieves better confidentiality than IKP and the drawback.

Report Titles & Synopses (2)

- **Forensics and Software Security**

How do forensic methods relate to Software Security?
Do they enhance our level of trust?

- **[Are] capabilities up to the task of providing a suitable environment for mobile code?**

I [intend] to analyse and rate capabilities in terms of providing a flexible secure environment to operate a modern mobile code system within. specifically I will be looking at java as that mobile code environment.
[Alternative: analyse “name space management” rather than “capabilities.”]

Report Titles & Synopses (3)

- **Component Security : Embedding Non-functional Specifications into Functional Specifications**

[Introduction] In traditional software engineering, security is considered in OOA as non-functional specifications where security constraints are distinguished, and then we make our system architecture and programs meet these constraints, and finally in the testing and evaluation stages, we check the conformance. Such a methodology works well in close systems. But for component-based systems based on third-party components, this separation between functional specifications and non-functional specifications supports no ways to guarantee system security, we need new methodologies to ensure system security for CBSs. This term paper tries to explain three new methodologies which embed the non-functional specification - security, into non-functional specifications.

Report Titles & Synopses (4)

- **E – CHECK**

Using the one way function to encrypt the information of check , So the hashed value is Bank check itself . Bank can identifies it by run the one way function again (It know the omitted information and password) .

- **Towards improving capacity of cover image based on LSB**

Increasing embedding capacity increases not only the risk of embedded message statistically detectable, but also degrade the image fidelity. So how to decide the number of bit of each pixel used to embedded message become an important issue.

Report Titles & Synopses (5)

- **Audio Watermark Technology for Next Generation Portable Devices for Digital Music(mp3)**

What is audio watermark for digital Music(mp3),how it works and The thread model.I also want to discuss the tamperproofing the watermark.