

CompSci 725
Oral and Written Reports

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Assessment: 15% oral report

- During a lecture period, you will deliver an oral presentation on a “classic” article in the security literature.
- Marking scheme:
 - **1 mark**, for rehearsing your presentation at a tutorial the week *before* your presentation. (You must schedule this rehearsal via Cecil’s “Streams” affordance.)
 - **1 mark**, for a title slide with your name and accurate bibliographic information on the article you’re discussing in your presentation.
 - **2 marks**, for your one-slide summary of the article. You may quote the topic sentence from the abstract of the article (if it has a topic sentence). Your summary must be appropriate for *your* presentation: it should mention the aspect you discuss in detail.
 - **1 mark**, for delivering the presentation in 8 to 12 minutes.
 - Plus another 10 marks for:
 - identifying (**2 marks**) an aspect (e.g. a concept or a technical consideration) that is either discussed in the article, or which *should* have been at least mentioned in this article,
 - which is worthy (**3 marks**) of careful consideration by your classmates, and
 - which you adequately explain in one to four slides (**5 marks**).
- Note: the aspects selected by you, and your classmates, are examinable.
 - If you select a trivial aspect, you won’t succeed in arguing that it is worthy of consideration.
 - If you select a complex technical concept, then you won’t succeed in explaining it adequately.
 - Your most important task, when reading the article, is to decide “what would be a good focus for our attention the next time someone reads it?”
 - Try to persuade your classmates to read the article again, to learn more about what you have discussed!

Example of an Aspect

- In Abadi96, the authors assert (in Principle 3) that the omission of two names in Message 3 of the protocol of Example 3.1 has “dramatic consequences”.
 - This article didn’t adequately explain why these consequences are dramatic.
 - In my presentation, I’ll explain this drama and why security professionals should learn how to avoid it.

An Aspect of Another Article

- In Birrell85, the author asserts that the use of CBC mode of DES encryption in their RPC protocol “reduces the probability of most undetected modifications to 2^{-64} .”
 - The author reminds the reader that an attacker can guess a DES encryption key with probability 2^{-56} .
 - I’m confused by this: does Birrell believe that attackers will make random modifications, without even bothering to guess a key?
 - In my presentation, I’ll discuss some other assertions in Birrell85 about the security of this RPC protocol, in an attempt to determine whether or not it should be considered a “secure protocol” or is merely a promising start on one.

A Temptation You May Feel

- You *might* be tempted to start reading other articles, to learn more about your “aspect” before finalising your oral presentation.
 - Resist this temptation!
 - Stay focussed on the article you’re presenting!
 - As soon as you’re done with your oral presentation, give in to the temptation – and you’ll then be making an excellent start on your written report. We’ll discuss this later...

Slideshow Length

- You should prepare five to nine slides for an eight- to twelve-minute seminar.
- If you spend less than one minute on a slide, it should have very little technical content.
 - You might devote 20 seconds to your title slide.
- If you spend more than two minutes talking about a slide, you should probably split its content into two slides.
 - Your important points should be made verbally, as well as in writing.
 - Your slideshow should tell a coherent story.
 - Your verbal comments should help your audience understand your story.

Creating your Oral Presentation

1. Read your article again, to identify an interesting aspect that you can explain.
2. Construct a first draft of your presentation: use PowerPoint or your favourite presentation builder (but not a document editor such as MS Word)
3. Rehearse your draft presentation by yourself, and then rehearse with a friend.
4. Revise your draft presentation after each rehearsal. Add a question if you haven't done so already.
5. Deliver your draft presentation at a tutorial, in the week **prior** to your scheduled presentation date at COMPSCI 725 lectures. (Carry your presentation file to the tutorial room on a USB stick, or on your laptop.)
6. Prepare a final version of your presentation slides, **after** hearing comments from the lecturer and other student(s) at tutorial.
7. Carry your final-version presentation slides to the COMPSCI 725 lecture on a **USB stick**, on the day scheduled for your presentation. **Your presentation file will be mounted on the class website.**
8. You'll probably spend **10 hours** preparing a good 10-minute presentation!

Your Lecturers' Expectations

- Each presentation will be focused on *one* interesting or important aspect of a technical article.
 - Each presenter will develop their own point-of-view on their article.
 - Multiple students may present on similar aspects of the same article.
- Non-presenters will read each article *before* its presentation begins.
- All students will participate, at least occasionally, in the classroom discussions held after each oral presentation.
 - We will discuss similarities and differences in our points of view.
 - Some of us may have some relevant experience or knowledge.
- All students will develop a working knowledge of what was presented and discussed in class.
 - This knowledge will be tested in your final examination.

Assessment: 25% written report

- Primary requirement: You must demonstrate your critical and appreciative understanding of
 - at least **three** professional publications relevant to software security.
 - At least **one** of your references must be a required reading for this course.
 - You must also cite and (at least briefly) discuss **any other** required class reading that is closely related to the topic of your term paper.
- Additional (form & style) requirements: see the next slide.
- I will publish your paper online, if you request this:
 - <http://www.cs.auckland.ac.nz/courses/compsci725s2c/archive/termpapers>
 - Your paper might be used by other scholars, see e.g. http://scholar.google.co.nz/scholar?hl=en&q=A+Taxonomy+of+Methods+for+Software+Piracy+Prevention&btnG=&as_sdt=1%2C5&as_sctp=

Additional Requirements on Written Reports

- If you use someone else's words, you **must** put these in quotation marks and add a reference to your source.
 - I will report extensive plagiarism to the HoD, for possible **disciplinary action**.
- Use your own words, except when quoting definitions or other people's opinions.
 - Light paraphrase (i.e. changing a few words) of a declared source implies that you have a very poor understanding of the technical meaning of your source material.
 - **Light paraphrase of an undeclared source is plagiarism** – and it implies that you have tried to hide your plagiarism by paraphrasing. Declare your source!!
- Technical words **must** be spelled and used correctly.
 - You should use a spell-checker and a grammar checker (e.g. MS Word), however we will not mark you down for grammatical mistakes and spelling errors on non-technical words (if your meaning is clear).
- Your report *should* consist of eight to twelve pages of 12-point type with generous margins and 1.5 line spacing.
 - Enforcement is indirect. A longer paper takes much longer to write well. A shorter paper is unlikely to show strong critical and appreciative understanding.
- *Try to* match the style of one of the articles you read in this class.
- Reports are due at 4pm on Friday 15 October.

Assessment of Written Reports

- 20 marks: Sources
 - Are your sources relevant and professional?
- 30 marks: Accuracy of Transcription
 - Should a professional rely on the information you present in your report?
- 50 marks: Depth of Interpretation
 - Would a professional learn anything important by reading your report?

Sources (20 marks)

- 0 marks: relies heavily on facts and interpretations found in non-authoritative sources.
 - A Wikipedia article *might* have accurate information. Read one of its cited sources!
- 10 marks: report relies heavily on articles that are written for non-specialist technical audiences.
 - e.g. most articles in *IEEE Computer*, *IEEE Security and Privacy*.
- 20 marks: report relies primarily on three articles written by and for specialists.
 - You may cite additional articles.
 - All of the articles on your oral-presentation list appeared in specialist venues, except Kagal01. Hint: look for a bibliography.
 - If you're writing a report on an aspect of Kagal01, you should read and rely on information from Kagal et al., "Centaurus: An Infrastructure for Service Management in Ubiquitous Computing Environments", *Wireless Networks* 8, 619-635, 2002.

Accuracy (30 marks)

- 0 marks: if we notice frequent spelling errors, inaccurately-transcribed technical content, or very careless formatting.
 - If you're reading a report that has been carelessly prepared, would you trust anything you read?
- 30 marks: if we *don't* notice any misspelled or misused technical words, nor any other error which could have been caught by a reasonably-careful proofreading and fact-checking.
 - This includes the bibliography. When we're fact-checking, we will attempt to read the same source as you did, so you must provide us with adequate and accurate bibliographic detail.
- Don't worry about the fine points of English grammar!
 - We'll be reading for technical content.
 - If your meaning is clear to us, then your grammar is “operationally fit for purpose” – even if it isn't formally correct.

Technical Depth (50 marks)

- 0 marks: if technical material is paraphrased, without any indication of the student's understanding
- 10 marks: if the student's writing exhibits some technical understanding of one source
- 20 marks: if the student's writing exhibits some technical understanding of individual sources
- 30 marks: if the student's writing exhibits some ability to develop a valid point of view that's based on multiple sources
- 40 marks: if the report does a good job of comparing and contrasting technical information from multiple sources, or if it synthesises technical information in some other non-trivial and valid way.
- 50 marks: if the report does an excellent job of synthesising information from multiple sources, developing a non-trivial conclusion or insight.

Getting Started

- When reading your article for your oral report, you should think about using it as a basis for a written report.
 - You may start from any other required reading, including Lampson04 (“Computer Security in the Real World”).
- Structural ideas:
 - **Compare/contrast** your article’s technology (or analysis, or research finding, or some other aspect) to another published work.
 - Think about how your article could be extended, find one or two articles discussing a similar extension, then write about **the feasibility and desirability of this extension**.
 - **Clarify** a point of confusion or difficulty in your article. (Did anyone citing your article mention this problem?)
 - Formulate a “**research question**”, and update it as you learn more. Try to form an interesting question which you can answer in your term paper. (Draw the bulls-eye around your arrow ;-)

Suggested Search Process

1. Find at least one “good” source, from your required readings.
2. Find more good sources by...
 - a) Finding sources **that cite** your “good” source (use Google Scholar, CiteSeer, or Web of Science).
 - b) Finding sources **that are cited by** your “good” source (use its bibliographic information)
 - c) Finding other sources **written by the author(s) and co-authors** of your “good” source (use www.google.com to find their website; use http://www.informatik.uni-trier.de/~ley/db/ to find their pubs)
 - d) Identify **key words and phrases**, use these to search with Google scholar, library databases.
 - e) Look at “nearby” articles: **same journal, same conference**.
 - f) If you’re using GoogleScholar, you’ll have to ignore ephemera, books, and other unsuitable sources.
3. **Narrow** your topic, to limit the number of relevant sources.
 - a) You should find two or three highly-relevant sources. Ideally you would be confident that other scholars on the same topic would identify these same sources.

Feedback on a Proposed Topic

- Students who would like early feedback from an instructor on their written report should send an email containing
 - A **proposed topic** (one or two sentences; not just a word or phrase),
 - Bibliographic detail on a **“base” article** (this should be a required reading), and
 - Bibliographic detail (at least author, title, DOI, year) on **at least one other proposed reference**.
- We will endeavour to respond within seven days to all such emails, if they are sent before the end of Week 6 (Friday, 29 August).
 - If you haven't started working seriously on your written report by the end of the mid-semester break, you have fallen behind!