CSC8205: Research Skills

There are two coursework elements for this module. Both concern a specific topic you have chosen with supervisory support.

- **Report** worth 70% (deadline Thursday 17th March 4 PM).
    - Up to 10 pages LNCS style, submitted as a PDF document (Word documents are not allowed).
    - Will include title, your name, an abstract and full bibliography. Other sections appropriate to the topic.
- **Presentation** worth 30% to be given in the week beginning 20th March (submission deadline for slides Thursday 17th March 4 PM).
    - A 15 minute conference style presentation (plus 5 minutes for questions).

Report marking criteria

A mark will be returned as a percentage. The report will be assessed according to the following criteria.

- Abstract: 10%
- Introduction (clear presentation of the topic, scope and motivation): 20%
- Scope and appropriateness of chosen literature: 10%
- Detail and correctness of descriptions of each source: 15%
- Critique (being able to show you understand the level of contribution of each source) : 10%
- Conclusions: 15%
- Referencing (use of citations and correctness of the bibliography): 10% • Form (including adhering to the LNCS style): 10%

General Comments and Suggestions on Report Writing

Plagiarism and Referencing

- Remember to observe the School's rules concerning proper referencing and plagiarism: http://www.ncl.ac.uk/computing/current/studenthandbook/coursework/plagiarism/
- The following website provides useful information and guidelines: http://www.ncl.ac.uk/right-cite/
- Adhering to the rules is easy; please keep them in mind!

Abstract

- The abstract should talk about what the contribution of the report actually is. Indicate what area you survey and why. Summarise your findings as well as indicate the subject area.
- A lot of abstracts in the computing literature fail to communicate results and instead are just extracts from the introduction.

Clarity of the scope and purpose of the review

- There should be a clear initial statement about the scope and purpose of the review.
- The purpose of the investigation should be clear to the reader from an early point in the paper.

Selection of papers to support the focus

- There should be a good selection of papers relevant to the area of research.
- Papers should include peer-reviewed journals, and conference proceedings.
- They should be all relevant and used well.
- Wikipedia is not as trustworthy a source as peer-reviewed journal or conference papers, and it is more volatile.

Quality of the review of the papers

- The review should have a clear structure.
- The discussion of the scope should make it easy for the reader to see the connections between the various pieces of research mentioned.
- It is important to present as unbiased a picture as possible. When describing a particular system, make sure you offer comparisons with other systems.
- There should not be a lot of re-telling of material found in the papers. You should simply summarise the main relevant concept presented in each paper that you use – the reader can go and read the source if they wish to find out all the details.
- Avoid unsubstantiated claims. When you make a claim make sure to state why.

Reflection on the reviewed material

- The reviewed material should be processed in order to form the basis for your own observations or reflections.
- Your research must provide a good level of commentary on the papers. There should be a clear narrative connecting the papers.
- Add value by offering comparisons, add some discussion on the limitations of current work, and discuss possible future topics.
- Give readers some additional insights, such as observing patterns in the state of the art, or by identifying new research directions.
- Another way to add value is to make the area better structured and more coherent, for example by giving general models, and then relating current activity to a particular general model, thereby helping people to make sense of large body of otherwise poorly structured information.

Structure and presentation

- The style should be clear with good use of structuring and headings.

- Explain the structure of the paper at the end of the introduction. This helps the reader to keep a mental map of where they are in the overall structure.
- You should use the standard style of Lecture Notes in Computing Science, published by Springer (Google for Springer LNCS author instructions). You should follow this style throughout, including the references. Deviation from the style will cost marks.
- You can prepare your report using any suitable word processing or typesetting system, e.g. LaTeX or MS Word, but you must submit it as a PDF document. Thoroughly check the PDF you produce to make sure that it meets your expectations and the format specification. In particular, check that it is within the 10 page limit as Word can extend PDF documents.oo
- Any material over-running 10 pages will not be marked and you will lose marks for not following the specification.
- Springer give specific guidelines on producing documents using LaTeX and MS Word: http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0

General advice

- Read plenty of papers that are published in reputable places like major conferences and journals. Deliberately try to adopt the same style as those papers. For each good paper that you read, try to list the things that contribute to that paper's good quality.
- **Watch out for grammatical and spelling errors!**

Presentation guidelines

Slides may be submitted to NESS in either PDF or MS PowerPoint format. You will be allocated a presentation slot in a session with four or five other students. You need to attend the whole session and listen respectfully to the other presenters. In your presentation you must use the slides submitted in NESS run on an MS Windows PC. Do not bring a different version with you as you will not be permitted to use it. The use of hyperlinks (if any) in the presentation should be strictly limited to additional external resources which illustrate particular issues, e.g. visualizations or short videos, and should not point to your own additional material. Remember that any time you use playing a video or visualization does not show your own work or understanding, so is unlikely to contribute much in the way of marks. Furthermore, you should not rely on specific specialist software being available on the PC you will use.

Marks are awarded for "technical" (what you present) and "presentation" (how you present it). There are 15 marks available for each aspect (i.e. the total mark is 30). Good coverage of all features: 12-15; coverage of most features: 9-12; reasonable attempt at several features 6-9; poor attempt 3-6; very poor 1-3; no presentation 0.

Presentation:
Clear structure, with overview/summary
Clarity of slides
Appropriate visual material (animation/images)
Good spelling/Grammar
Readability
Good timekeeping (not too long or short)
Clearly audible
Use of additional material where appropriate (e.g. handouts, links)

Technical: Context
Motivation
Scope
Discussion of key sources
Insight
Conclusions

For any questions contact your supervisor or the module leader:
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