# Research Methods in Computing & IT - Literature Review (70%)

## Dominic Carr

- You are required to write a formal literature review on any area of *active research* you choose related to the field of Computer Science.

- Your literature review should be of the order of 2,000 (minimum) to 3,000 (maximum) words

    - This does not include bibliography / references section.

- Your literature review should include at least ten credible, peer-reviewed sources (journals, conferences etc...).

    - A higher count than ten is strongly encouraged.
    - Every reference MUST include a URL.

- It is mandatory to write your literature review using LaTeX and BibTeX.

- The template provided on Moodle MUST be used to format and structure your document.

- This is an individual assessment.

## Notes

- Your literature review should be properly structured and aim to articulately and concisely:

    - Survey the literature in your chosen area
    - Synthesise the information in that literature into a summary
    - Critically analyse the information gathered by
        * identifying gaps in current knowledge
        * showing limitations of theories/perspectives/approaches
        * reviewing areas of controversy
        * identifying areas for further research.

- It is likely that a minimum of 12-15 high quality literary sources will need to be read to deliver on this requirement.

- This needs to be written in your own words (as well written as possible), suitably supported by reference to the literature.

    - Take care to avoid plagiarism.
    - Properly referring to others' work without plagiarising is a key learning outcome of this exercise and is a core requirement of the assessment.
    - Plagiarism will mean, at best, you get 0. At worse Expulsion.

- Please don't submit a document full of spelling mistakes.

    - It will make me so sad.
    - Use the awesome power of modern technology to check your spelling and grammar.

- Use a scientific, impersonal, tone.

- Cite *primary* sources *primarily*. Do not cite blogs or Wikipedia etc.

    - If I have no idea why a source should be trusted why take it seriously?

# Learning Outcomes

This assignment assesses 5 of the 6 learning outcomes of this Module:

**LO1** **Apply modern research methods appropriate to applied computing research problems / questions.**

**LO2** **Discuss current challenges and research foci in selected areas.**

**LO3** **Independently acquire and assess relevant knowledge that is contextually appropriate and specific to an applied area of computing research.**

**LO4** **Formally exhibit his / her research capabilities within an area of applied computing.**

**LO5** **Demonstrate an appreciation of the professional standards relevant to the process of research in computing / IT.**

# Progress Measurement

It is required that each student showcase their ongoing work to the lecturer three times before submission. This will exclusively take place in the tutorial sessions. For each missed showcase the student will be penalised 10% of the assessment weight. The student can do this in any three weeks of the semester. The student will show the lecturer what they have done, and this will be recorded by the lecturer. Failure to progress between showcases will result in a penalty of 5-10%.

# Deliverables

The date will be provided on Moodle. You must submit the LaTeX source files and a compiled PDF. These must be placed in a zip file.

# Marking Scheme

| | >=70% | >=60% | >=50% | >=40% | Fail |
|---|---|---|---|---|---|
| Document Quality (10%) | Literature review well structured, excellently written, free from grammatical and spelling errors. | Literature review reasonably well structured, excellently written in parts, free from most grammatical and spelling errors. | Literature review is adequately structured, well written in parts, free from some grammatical and spelling errors. | Literature review is passably structured, written such that the reader can comprehend, attempt evident to reduce grammatical and spelling errors. | Literature review is poorly structured, written such that the reader cannot understand in part or whole, no attempt evident to reduce grammatical and spelling errors. |
| Depth of Literature Review (30%) | All pertinent literature has been analyzed at great depth | Most pertinent literature has been analyzed at great depth | Some pertinent literature has been analyzed at depth, gaps are noticeable | Some pertinent literature has been analyzed at depth, gaps are obvious | Very little pertinent literature has been analyzed at depth, gaps are overwhelming |
| Critical Analysis (30%) | The flaws, and gaps, in the literature have been extensively documented with clarity, precision, and correctness. | The flaws, and gaps, in the literature have been extensively documented with clarity, precision, and correctness to some extent but not in the entirety | The flaws, and gaps, in the literature have been documented, with clarity, precision, and correctness to some extent but not in the entirety | The flaws, and gaps, in the literature have been documented to some extent but not in the entirety | The flaws, and gaps, in the literature have been only documented partially and their are errors in the analysis. |
| Synthesis of the Literature (30%) | Student has demonstrated a synthesis of the literature which is suitable, well presented, structured and documented. | Student has demonstrated a synthesis of the literature which is suitable, well presented, structured and documented, in some areas. | Student has demonstrated a synthesis of the literature which is,suitable, adequately presented, somewhat structured and documented, in some areas. | Student has demonstrated a synthesis of the literature which is suitable, passably presented, somewhat structured and documented in some areas. | Student has failed to synthesise from the reviewed literature. |