Guidelines/Recommendations for PhD Proposals in the Carleton School of IT

Please note that these are guidelines, and you should discuss your particular case with your PhD supervisor.

Length:

Your proposal should be a maximum of **about 10,000** words. References and **appendices/publications are not included in this page count**. The proposal should have a balance between literature review and proposed research. The literature review should extend beyond what you have written for your Qualifying Exam, and be specifically focused on illustrating the need for your research/the gap in current knowledge. The Proposal should contain expected milestones as part of a detailed plan for your research, and should demonstrate your ability to carry out the proposed research through your ability to select an appropriate methodology, timeline, and present any preliminary findings.

If you have published research based on any preliminary/pilot studies you have undertaken (which is strongly encouraged, but not expected at this stage), these can be included in an appendix, or summarized in the body of your Proposal. You may also copy-paste information from any of your own published work into your proposal, but if you are a co-author, it should be indicated where the work is copied from and what your contribution was to the original document being copied from (i.e. did you write that part, or did your colleagues/supervisor?).

Intent:

The purpose of a PhD is to make a significant, original contribution to knowledge. Your proposal should demonstrate that your research question will make such a contribution, and convince the committee that your proposed solution is the best approach to answer this question.

A proposal must answer these questions:

- What am I going to do—what is my research question?
- Who has done similar research, and what did they find? What is missing from the existing knowledge?
- How am I going to pursue and answer my research question?
- What makes my research so unique and worthwhile?

Suggested Outline :

(note your outline may vary depending on the stage of your work)

1. Title/Area
2. Abstract
3. Introduction, Motivation and Problem/Objective of Research
4. Previous work (Literature review) What is the current state of the art in this subject? In what ways does it fail to address your research question?
5. Proposal of new model/technique/idea/approach—What you plan to do and any preliminary/pilot studies you have undertaken (if you have undertaken any preliminary studies).
6. Research Plan: Hypothesis, methodology and anticipated results—your expected contribution to the research area. Milestones and timelines for completion
7. Conclusion
8. Bibliography
9. Appendix: any published work (not required at this stage).

Abstract:

An effective abstract is a short summary of your research. In a Proposal, it should state your research question and the problem(s) that you hope to address in answering it, the objectives and scope of your research, the relevance or significance of the work, and your overall methodological approach/instruments.

Introduction

Write a concise introduction in which you define the research problem and any key terms the reader should know. While closely related to your research question, this part expands on the question by discussing *why* your research needs to be conducted.

1. Tell the reader about your research question/problematization.

2. Tell the reader what is significant about this question/problem.

3. Introduce the reader to the overall outline of the sections of your proposal.

Previous Work/Literature Review

The purpose of the literature review is to demonstrate that you have a deep knowledge of the work that has already been done in this area. It may or may not include literature review on the methods or approach you are taking, the theoretical underpinning of the work, and how others have approached the problem or similar or related problems.

This review should generally be thematic, identifying particular aspects of your project that have been studied and/or particular ways in which your topic has been approached by others.

It should not just be a list of research that has been completed, but should show the strengths and weaknesses of how others have approached your topic, and any key relevant information that the reader should know about.

Your examiners may come up with keywords and check Google Scholar, ResearchGate, or other sources to see that you have actually reviewed the relevant work in your area, so be thorough in your literature review. You do not need to critique every work in the area, but can add in footnotes authors who have published related work without anything significant to add.

Your literature review should be a summary of literature, including those that you've read since your qualifying exam, but should not take up the bulk of your Proposal.

Proposal of new topic/idea/approach/method/etc.

Your literature review should demonstrate that there is some gap or hole in the existing knowledge that needs to be filled, or some set of contradictions or contentions that need to be resolved—that there is a problem that exists that should be resolved, which is your problematization or research question. Refer back to your literature review to demonstrate the existence of a problem, and motivate why the problem should be resolved. Contextualize the problem in terms of existing knowledge.

Provide a statement of your study objectives. Clearly state your research questions and/or hypotheses. Identify how answering these questions and/or hypotheses will contribute to the existing literature on your topic.

Research Plan

Your Research Plan is the key part of your proposal: your examiners need to see that you are capable of finishing the PhD, and as such a detailed plan of your research needs to be proposed. Explain how you plan to conduct your research. What is your methodology/ies and why do you think it/they is/are the most appropriate for tackling the research problem?

Will you use quantitative or qualitative methods? Where and how will you gather your empirical evidence? What existing methods or scales can you use, or how will you approach collecting your own data and creating your own methods? Will you require ethics approval? What challenges might you encounter and how will you approach those challenges (what is your "Plan B"?)

Your study designs should be fleshed out and easy to follow. You may want to run a pilot study to test the feasibility of prototypes or methods.

Outline your timeline for completion of the work.

Bibliography

Cites all sources that were used in the Proposal. You can use any relevant format for this, such as IEEE, ACM, or APA style of citing references, but **refer to your supervisor for your specific area**.