Bachelor Project Guidelines

Prof. Rebekah Overdorf

This document is not intended to be a list of rules for you to follow, but rather serves to give you advice and tools to aid in writing a high quality report.

How to Find Good Papers

How do I find papers?

Your main resource to find papers is `scholar.google.com` and the EPFL/UNIL libraries. You should aim for around 25 citations (not a hard limit). You should try to find papers that are published in reputable journals and conferences. For *most* sub-disciplines of computer science, most of the "top" venues are conferences, while in other disciplines the inverse is often the case). This is not to say that computer science papers found in journals are not very good nor that a law paper at a conference is poor quality, only that you should not discard a venue based on whether it is a conference or a journal.

How do I know if a conference is any good?

A pretty good ranking portal for computer science conferences is `www.core.edu.au/conference-portal`. If a conference is ranked A or A* here, it is a good, vigorously peer-reviewed, world-renowned conference. That does not necessarily mean that if you do not find it there or if it is ranked as B that it is not a valuable paper that you cannot cite. You may also find workshop papers that are relevant to your topic. Some workshops are peer-reviewed and others are curated (papers chosen by 2 or 3 organizers). As with the arxiv papers in the next section, read these works critically to determine if you should cite them.

What about `arxiv.org` papers?

Many papers these days are published to `arxiv.org` by their authors before they undergo the peer review process. This is usually because they want a paper to be out "in the wild" for others to read but do not want to wait for the often long and arduous peer-review process to end. In fact, you will find my papers there for exactly this reason. You should first check that this paper has not been published since it was posted (`http://dblp.uni-trier.de` will tell you this). If it has not been published, it does not mean that you shouldn't read it cite it. It may be that the paper is presenting something very new that is very relevant to your subject. However, you should read it critically. Do the claims made make sense? Are they in line with the existing literature on the topic? Are the authors clearly experts on the subject? Has the paper been positively cited by other peer-reviewed papers?

What about non-primary sources (e.g. Wikipedia, blogs)?

Wikipedia is not a primary source. This is not because the information on it is inaccurate, but because Wikipedia aims to collect information (much like you are required to do in this report), not create information. Academic papers are "academic" because they create knowledge and teach us something that we (as humans) did not know before *and* undergo a rigorous peer review to validate the veracity of their claims. Depending on the subject you select, you may find that you want to cite news articles or even tweets! In this context,

it is perfectly fine, and these sources should be correctly attributed, but should not be considered as one of your roughly 25 primary sources.

How to Write Good Papers

Advice on the Introduction

Use this section to motivate your thesis. Why is this topic relevant and interesting? What makes it an important area to study and synthesize?

Advice on the Discussion

Use this section to further explore the topic outside of the existing literature. Here is where you reflect on what you've learned about the field. In this section, I would like to know what you know after your literature review that someone who only read any one of the papers you cite does not know. That is, if I assign each of the n papers in your bibliography to n different students so that they've only read one of the papers, what is it that you know that none of them know?

If you're worried about accidentally plagiarizing

Don't be. First, remember that the goal of a thesis is not to summarize the works of others, but to discuss a topic and the work that has been done on the subject. If you're finding it difficult to summarize a good resource on a topic without copying it, try to read it again to make sure you really understand it on a deep level, close it and walk away from it for a while, and then try to summarize it without viewing the resource again. If you really understand the topic, this should not be a challenge. Otherwise, try to better understand it.

A note on language

Your report must be written in English. You will find that a large majority of the literature that you review for this project will be in English, so use this to your advantage. While reading, you will quickly learn the correct terms and vocabulary to use. In grading, am much more concerned with your ability to read and understand papers and then organize them into a literature review than your ability to write in English. That said, please make an effort to write coherently. Fortunately, there are a number of tools that you can use to help.

Tools:

- MS Word has a fairly good grammar checker

- Google docs has a better grammar checker

- grammarly.com has a better grammar checker

Misc. Advice

- Do not use contractions

- Keep your sentences short and to the point. If a sentence is more than about three lines long, consider making it two sentences.

Formatting

I encourage you to try to use LaTeXand will send you a template on Overleaf to work with if you want it.