An exploration of word meaning using hyperdimensional computing.

Pedro E. Alonso

Dept. of Computer Science, Electrical and Space Engineering
Luleå University of Technology
Luleå, Sweden

Supervisors: Marcus Liwicki, Foteini Liwicki, Denis Kleyko

Marcus Liwicki, Foteini Liwicki, Denis Kleyko

To my past-self...

Abstract

This is an abstract, imported from the file *abstract.tex*.

Abstract section here monograph...

No more than 500 words. Keyword: here!

1. Update of the SRT full dept. name on the 1st page in the file cseethesis_example.
2. A change to defaultbibliographystyle{**plain**} in the cseethesis_example file instead of the old, which gives blank in-text citation.
3. Inclusion in cseethesis_example of makeglossaries, the example: newacronym{nlp}{NLP}{Natural Language Processing} for handling acronyms and the closing printglossary at the end of the file.
4. Example usage of the acronym package in the paper1 file: Natural Language Processing (NLP) is the full version of this short version NLP and the long version Natural Language Processing.
5. Addition of **newcommand{\makepapertobesubmitted}** in cseethesis file for manuscripts yet to be submitted.
6. Figure included on the front page in the file cseethesis_example since the old logo alternative is tricky.

Contents

Acknowledgments

The creation of this template has taken several years, and the shape it is in now would not have been possible with out the patient testers out there. To mention just a few who found and reported bugs, and occasionally even provided bug fixes: Gustav Johansson, Sara Sandberg, Yvonne Aitomäki, Fredrik Hägglund, Jesper Martinsson, Patrik Pääjärvi, and Martin Sehlstedt. To all of those I forgot to mention, please accept my apologies.

Luleå, June 2009
Johan E. Carlson

Improvements by Tosin Adewumi, October 9, 2021.

Part I

Chapter 1

Thesis Introduction

"This report, by its very length, defends itself against the risk of being read."

Winston Churchill

1.1 Title: To be filled after

Current version of the `cseethesis` document class is: 3.1.
Last modification: October 9, 2021

As of version 3.0, the template is no longer backwards compatible.

1.1.1 Sub1...About the document class

This document class was originally created in 2002 when I was working on my own PhD thesis. Since then, many people used it, found bugs (and occasionally even corrected them), and suggested improvements.

The style is tailor-made for the typical types of theses that we write at the department, i.e. an introductory part followed by a collection of published or submitted research papers.

The template supports the use of both LaTeX and pdfLaTeX. If you use the command `\includegraphics` to import your figure and you supply the filename with its extension (e.g. .eps, .pdf), compilation should be possible with either one. For this to work, both .eps and .pdf versions of all figures must be available.

The template is totally free to use, modify and distribute, as long as reference to the original author is kept and as long as all files remain in the package. Modified versions can only be distributed if it is clearly mentioned in the document class that modifications have been made and by whom.

The whole package comes AS IS. I will correct bugs every now and then, but other than that, don't expect any support whatsoever.

1.1.2 Sub2...About this document

This document, as well as the actual LaTeX code for it, makes up the documentation on how to use the document class.

Only this chapter contains any readable information. Chapters 2 and 3 are only included as examples of some of the features of the template. The text is nonsense, but the corresponding LaTeX code may be of some use. The same goes for the appended papers, which are only there as examples of a few options of the document class.

Read this chapter carefully. If you have comments on what else should be in here in order to simplify the use of the document class, let me know.

1.2 Introduction...Chapters

1.2.1 Defining chapters

Background info and context General focus Thesis statement (research Qs?) Attract attn. Why this topic

`\makechapter[optional quote]{page header}{toc entry}{Chapter title}`

The reason this is solved like this is to allow for shorter page headers if the chapter name is very long. Also, if the actual chapter heading needs to be manually split in several lines (if the automatic splitting does not look so good), the table of contents (toc) entry might have to be defined differently. Note that normally, the last three arguments can be the same.

The use of an optional quote as an introduction to the chapter is demonstrated in this chapter. It can just as well be left out, which is demonstrated in this document (see the code).

1.2.2 Importing chapter contents

The sub-documents containing the chapters should start directly, i.e. they must not contain any \begin{document} or \end{document} tags.

See this file, *chapter1.tex* for details.

1.3 Methodology section...How to append papers

data collection analysis and interpretation how? Here! Description of the process

To make the separator sheet preceding each paper, use one of the following commands:

- `\makepaper` – Published paper.
- `\makepaperaccepted` – Accepted, not yet published paper.
- `\makepapersubmitted` – Submitted, not yet accepted paper.

- \makepapertobesubmitted – Not yet submitted paper.

See code for this example document for examples on how to use.

1.4 Literature Review... Cross-references

Overview of major or important works for this topic Cite Find gap Fill gap usual.

A simple trick to make sure this is the case and that will also help you keep track of all labels you used is to use the following naming convention:

- ch1:fig:labelname, ch1:tab:labelname, ch1:eq:labelname, etc. all denote figures, tables and equations in Chapter 1.
- paperA:fig:labelname, paperA:tab:labelname, paperA:eq:labelname, etc. all denote figures, tables and equations in Paper A.

For existing text, e.g. papers, this is easily achieved by a simple search-and-replace operation on the string \label{. Any text editor will do that for you!

1.5 Results Section.... Appendices

What did I find? What did I not find? What I did find that was not expected?

To add appendices to papers, use the \paperappendix command

1.6 Dicussion Section... Including bibliography lists

Interpret results Data supports goals? Contribution or new? Limitation (scope)

This is solved using the bibunits package together with a slight work-around in this template. For the first part of the thesis, there is only one bibliography list, typeset like a chapter (see this example document). In the papers, the bibliography lists are typeset as un-numbered sections. See this file cseethesis_example.tex and paper1.tex for examples how to place the bibliographies.

Note that the command

- \makebib is used in Part I, to typeset the reference list in the thesis introduction.
- \putbib is used in the papers in Part II.

1.7 Conclusion Section... How to compile your project

Finally, you probably like to know how to build your project to a final PDF or PostScript file. Start by verifying that you can compile this document. This is how it goes:

1. Run LaTeX (or pdfLaTex) once.

2. Then run BibTeX on all the bu¡i¿ files.

3. Run LaTeX twice more, to build the final DVI document (or pdfLaTeX if you want a PDF file).

The above steps are easily collected in a script or batch file. See the files `make.bat` and `compilebibunits.bat` for examples.

1.8 If I'm here is completed... Revision history

By following : presentation The template has evolved during several years and the exact revisions are not clear to anyone. Starting from version 1.6, however, the changes are more well-documented. This example document will always support only the latest release of the template. Below is a list of the revisions made to the document class (and when applicable, the example document):

- Version 3.1, September 1, 2010
  - Fixed bug related to appendix numbering.
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  - Added a comment at top of cseethesis_example.tex, for improved compatibility with some editors.
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  - pdf and eps class options removed. The document class compiles with either pdfLaTeX or LaTeX.
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  - Update of the \makechapter command. It now requires three arguments. See main document for example.
  - Support for BibTeX, using the bibunits.sty package.

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Chapter 2

Methods used

2.1 Methods first section of the second chapter

data collection analysis and interpretation how? Here! Description of the process

Chapter 3

Literature Surveyed

3.1 Literature first section

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Chapter 4

Results obtained

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Chapter 5

Discussion of things

5.1 Discussion first section

Interpret results Data supports goals? Contribution or new? Limitation (scope)

Chapter 6

Conclusions made, insights gathered

6.1 Conclusions first section

Finally, you probably like to know how to build your project to a final PDF or PostScript file. Start by verifying that you can compile this document. This is how it goes: Conclusions

References