

Thesis Examination Amendments

Professor Doina Caragea, Kansas State University

Thank you for the time and effort reading and evaluating this thesis. I am appreciative of the favorable marks.

In response to Professor Caragea's suggested amendments the following changes have been made:

Suggestion	Response
Chapter 1, Section 1.1 (Research questions) - It would be good to include some high-level insights for RQ 3, similar to what was done for RQ 1 and RQ 2.	The preceding paragraphs explaining RQ1-3 have been moved and modified to follow their respective points rather than build up to it.
Chapter 1, on the first page of the Introduction: "Wickham and Grolemond (2017) describes" - > "Wickham and Grolemond (2017) describe"	This has been fixed.
Chapter 2, on the first page of Background: "The last chapter" -> "The previous chapter"	This has been fixed.
Chapter 2, Section 2.3 - explain notations	Terminology and notation has been better introduced in Section 2.3. The Appendix Glossary has been modified to include terminology as well.
Chapter 2, Section 2.4 - "Definitions and surveys of quality metrics for the distortion of nonlinear reduction are given in Bertini et al. (2011). The latest, most comprehensive quantitative surveys are discussed in Espadoto et al. (2021) and Nonato and Aupetit (2018)." - I would say "given by Bertini et al. (2011)" and "discussed by Espadoto et al. (2021) and Nonato and Aupetit (2018)." Alternatively, if you want to refer to the work, you could say "given in (Bertini et al 2011)" and "discussed in (Espadoto et al 2021) and (Nonato and Aupetit 2018)." I found this in other places	Changed. I have reviewed each citation and made sure that <i>author (year)</i> is grammatically treated as person/people and present tense when relevant. And <i>(author, year)</i> is grammatically treated as the work itself.

throughout the thesis. Please consider changing consistently everywhere.	
Also as citation style, you have something like (Lubischew (1962)) in some places. It should be (Lubischew 1962). Please change everywhere in the thesis	This has been fixed along with two more grammatically complex cases.
Please make sure you have permission to reproduce the figure from Ribeiro et al. (Figure 2.6)	I have removed the figure from Ribeiro et al. and produced a similar mock up of non-linear classification boundaries.
I would use capital letter when referring to specific chapters, sections or figures in the text (similar to proper names). For example, on the first page of Chapter 3, I would change "tours were introduced in chapter 2." to "tours were introduced in Chapter 2."	This has been fixed along with another with another two similar instances.
I found at least a link that was not working, specifically link to PC4 on page 38. Please doublecheck all links.	The source file has been corrected. Appendix urls have also been changed from short.url.at have been changed to tinyurl.com for url permanence.
You mention purple clusters in several places. I don't see purple myself. Should that be "blue"?	Kim, Di, and I see a pale purple, at any rate there should be little chance to conflate with the orange or green. This is following the color brewer's 'Dark2' palette (colorblind resistant).
Chapter 4. For completeness, it would be useful to provide the information that was used to instruct and train the crowdsourcing authors. At the link you provided, I could only identify material relevant to the paper/chapter. If it's there and I missed it, that information should be reorganized/renamed to make it easier to find.	The instructional video has been uploaded to Vimeo. This is linked in the chapter and appendix as well.
One final careful proofreading is still needed. I found some small issues (an extra to, of, some sentences without a verb, some sentences that don't read well, etc.) in several places throughout the thesis.	Another round of Grammerly edits and careful proofreading has been conducted finding several of the listed issues.

Dr Sigurdur Olafsson, Iowa State University

Thank you for your time reading and examining this thesis. Your commendation on Chapter 4 is noted and appreciated.

Dr. Olafsson did not include any amendment suggestions.

Nicholas Spyrison

01 June, 2022