Review report of a final thesis

Student: Alina Vigriyanova
Reviewer: prof. Dr. Ing. Petr Kroha, CSc.
Thesis title: Classifying Twitter election news as FakeNews
Branch of the study: Software Engineering

Date: 28. 5. 2019

<table>
<thead>
<tr>
<th>Evaluation criterion</th>
<th>The evaluation scale: 1 to 4.</th>
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<tbody>
<tr>
<td>1. Fulfilment of the assignment</td>
<td>1 = assignment fulfilled, 2 = assignment fulfilled with minor objections, 3 = assignment fulfilled with major objections, 4 = assignment not fulfilled</td>
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</tbody>
</table>

Criteria description:
Assess whether the submitted FT defines the objectives sufficiently and in line with the assignment; whether the objectives are formulated correctly and fulfilled sufficiently. In the comment, specify the points of the assignment that have not been met, assess the severity, impact, and, if appropriate, also the cause of the deficiencies. If the assignment differs substantially from the standards for the FT or if the student has developed the FT beyond the assignment, describe the way it got reflected on the quality of the assignment’s fulfilment and the way it affected your final evaluation.

Comments:
The assignment was fulfilled in all points.

<table>
<thead>
<tr>
<th>Evaluation criterion</th>
<th>The evaluation scale: 0 to 100 points (grade A to F).</th>
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<tr>
<td>2. Main written part</td>
<td>100 (A)</td>
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Criteria description:
Evaluate whether the extent of the FT is adequate to its content and scope: are all the parts of the FT contentful and necessary? Next, consider whether the submitted FT is actually correct – are there factual errors or inaccuracies? Evaluate the logical structure of the FT, the thematic flow between chapters and whether the text is comprehensible to the reader. Assess whether the formal notations in the FT are used correctly. Assess the typographic and language aspects of the FT, follow the Dean's Directive No. 26/2017, Art. 3. Evaluate whether the relevant sources are properly used, quoted and cited. Verify that all quotes are properly distinguished from the results achieved in the FT, thus, that the citation ethics has not been violated and that the citations are complete and in accordance with citation practices and standards. Finally, evaluate whether the software and other copyrighted works have been used in accordance with their license terms.

Comments:
The thesis was written in excellent English. It is good structured and good organised. I found only some small mistakes in using commas.

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<td>3. Non-written part, attachments</td>
<td>100 (A)</td>
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Criteria description:
Depending on the nature of the FT, comment on the non-written part of the thesis. For example: SW work – the overall quality of the program. Is the technology used (from the development to deployment) suitable and adequate? HW – functional sample. Evaluate the technology and tools used. Research and experimental work – repeatability of the experiment.

Comments:
All figures are very illustrative and carefully drawn. Experiments are repeatable.

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<td>4. Evaluation of results, publication outputs and awards</td>
<td>95 (A)</td>
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Criteria description:
Depending on the nature of the thesis, estimate whether the thesis results could be deployed in practice; alternatively, evaluate whether the results of the FT extend the already published/known results or whether they bring in completely new findings.

Comments:
In this thesis, common properties of not Fake news have been used to classify coming news. Some standard classifiers have been used.

The main question is, what is a Fake news and what is not a Fake news. The topic of distinguishing Fake news from the others is a hot, open research topic. It is politically biased, too. There is the dimension of linguistics, networks-based dimension, and metadata-based dimension. All these dimensions cannot distinguish what is the truth.
5. Questions for the defence

Criteria description:
Formulate questions that the student should answer during the Presentation and defence of the FT in front of the SFE Committee (use a bullet list).

Questions:
In your thesis, there is an illustrating example missing. Assume two news:
1. "Mr. President is an idiot".
2. "Mr. President is not an idiot".
Please, illustrate, how do you decide the question, which of these news is a Fake news. We know that after stop words removal, the linguistic vectors will be the same.
Explain the network-based and metadata-based approach, and illustrate them on this example.

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<td>6. The overall evaluation</td>
<td>95 (A)</td>
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Criteria description:
Summarize which of the aspects of the FT affected your grading process the most. The overall grade does not need to be an arithmetic mean (or other value) calculated from the evaluation in the previous criteria. Generally, a well-fulfilled assignment is assessed by grade A.

Comments:
It is a very nice, research-oriented thesis.

Signature of the reviewer: