

# **Technology of Online Voting Systems**

**by Michal Kováč**

## **Supervisor Report by Kenneth Froehling, M.A.**

Michal Kováč thesis deals with the concept of online voting in democratic elections. He describes which countries are using online vote, in whole or in part, and which countries had pilot projects in using this voting method in the past, but ended up cancelling it for different reasons. This paper focuses heavily on internet voting in Estonia, where he goes into detail in chapters 2.1 and 3. Finally, in the last part of his thesis, the author discusses the pros and cons of online, giving his own opinion here.

Mr. Kováč, in my opinion, has done a very good to excellent work in each part of his Bachelor thesis. He did a lot of research beforehand, sources which are in three different languages: English, Czech and Russian. In chapter 1.1 he details all the different voting methods, including traditional paper ballots, machine and postal voting, and naturally online voting. His descriptions of these methods are apt and concise. In chapter 1.2, Michal outlines all the different types of voting and election frauds, and he does this very well too. Chapter 2 is the largest chapter where all online voting systems in several countries in the world, focusing mostly on its development in Estonia and Russia. This was done very well too, especially regarding the controversies and criticisms of this voting method in the latter countries. However, because Estonia has been more successful in ironing out its problems with online, it becomes the primary focus of attention in Chapter 3. Here Mr. Kováč provides a lot of data, including graphs, and again does a very good analysis of this data.

Finally, in the last two parts of the paper, the author again does a very good job in going into positives and negatives of online voting, including how it can be used to increase voter turnout, which as it turnout was more successful for reasons given in Estonia. The major point here is Michal provides the reader with actual data to make his assessment, which he completes in the Conclusion, where he gives own personal opinion.

There is very little negative to mention here in this paper. There are occasional mistakes, but very few though, since this paper is cleanly written overall. However, in chapter 2.3.3 on 'Municipal Elections' in Canada, the second of two sentences is very confusing. And while I like Michal giving his opinion freely in this paper, on p. 38 he makes a prediction on the war in Ukraine with "Even after Ukraine drives out its invaders, the government might change its mind

about such a [online] system..." While it may be OK to hope for such a scenario, this non-factual statement is the opposite of his many apt and factual points the writer makes throughout his paper.

The data and graphs are done very well the bibliography is correctly done too. As for style, overall this is OK, but Michal does not really explain why he puts certain names and terms in bold font, especially when he uses single quotation marks. And I think it is better to use the dollar sign (\$) when writing \$6.2 million USD instead of the way it was done on p. 35. But other than these small things, this is a very cleanly written paper stylistically.

Therefore, I congratulate Michal Kováč on his excellent work and give him a final mark of **93%/A**.