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Doctoral Dissertation of Mariyana Petkova Nikolova
Cyberethics in the Management of Information Technologies in E-Government
Review of Prof Dr Dr h.c. Christoph Stüeckelberger

The Review refers to the English version of the dissertation and its chapters/pages as attached. We have to be aware that some of the remarks may be slightly corrected if we look at the original text in Bulgarian language. The term Cybernetics in the automated English translation is replaced by the correct term Cyberethics.

1. Objective and Relevance of the Topic

“The aim of the study is to synthesize, substantiate, study and pilot implement an innovative conceptual model for assessing the impact of cyber factors on the management of information processes in public administration in order to optimize and bring them in line with strategic principles and goals of public administration.” (introduction, p. 10)

“The applied orientation of the presented research coincides with the strategic messages of the new European initiatives in the field of information society and specifically in e-Government, as an example of

this is the so-called "Berlin Declaration on Digital Society and Value-Based Digital Government" (Introduction, p.8).

The topic is indeed highly relevant for Bulgaria, but also worldwide. E-Governance is needed and even more so under Covid conditions and restrictions. But E-Governance and E-government is confronted with mistrust of part of the citizens and therefore needs clear transparent ethical standards, procedures and measurable indicators. This dissertation is an important contribution to it.

The above quoted very recent developments in the EU of 2020 makes this dissertation even more timely and highly valuable to be submitted in early 2021.

2. Content and Structure of the Dissertation

I limit my summary here on a few remarks as the Director of thesis will be much more extended in it and as a reviewer my role is mainly an external assessment.

The above quoted objective is well implemented in the structure and content of the dissertation. The structure follows classical steps of a dissertation from introduction to problem description to normative chapters on ethical values, a conceptual framework for solutions and closing with practical recommendations. The dissertation aims at contributing to solutions by applied ethics and thus has immediate relevance for decision makers, first in public administration. However, it can be used, to some extent, as a model for information and communication ethics also for other sectors of society such as academic institutions, private sector and non-governmental organisations.

3. Assessment of Content with a Focus on Ethics and E-Governance

The dissertation places ethics in its specialized application of Cyberethics at the core of the values-criteria and value-judgment. In chapter II, Ethics and Cyberethics is adequately developed and also linked to relevant sectorial topics such as artificial intelligence and blockchain. As chapter III applies Cyberethics to E-Government and E-Governance, in chapter II the relation between Ethics and law is explored.

Some parts of Chapter II are rather short, but it can be justified as the dissertation is not submitted in the field of ethics, but in the field of information and communication technologies with ethics as a key angle.

Chapter III on a "Model for Formation and Development of Cyberethics in E-Governance" is then the core chapter. It is innovative and independent in its thinking and approach. It integrates the practical and political experience of the author, systematizes it in a research methodology and combines it with the commitment to offer reflected recommendations and solutions. The core virtues and values of respect,

honesty, legality, transparency, confidentiality, responsibility and objectivity are consequently the reference benchmarks throughout the chapter. I recommend to make the link of these values and virtues with Chapter II more explicit. The conclusion of chapter III should be enlarged.

The Chapter Conclusions is important, but remain a bit general. They could be more specific (for a publication) in order to harvest the fruits of the dissertation for more implementation steps.

4. Methodology of Research and Understandability

Research Method: the research method is well-described in the introduction (p.11) and is adequate to the subject. For a doctoral dissertation, it would have been good to elaborate a bit more in detail.

Terminology: most terms are well defined and precisely used. However, the key terms of Cybernetics and Cyberethics (Cyber-ethics) are sometimes mixed. The main title and content is on Cyberethics (КИБЕРЕТИКА), but the English translation mixes it with “Cybernetics”. Cybernetics is the transdisciplinary approach of circular causality and networked feedback systems. Cyber-ethics is the field of applied ethics in the cyber space. Example from chapter 1.2.2: “Cybernetics differs from ethics as a definition only in that it relates to cyberspace with all its specifics.” Here, it should read „Cyberethics differs from ethics...” (Киберетиката... in the original version) This lack of precision in some paragraphs is most probably due to the English (automated) draft translation. It has to be compared with the original text and be made more precise in the English version.

Bibliography: the Bibliography with its 194 entries of Bulgarian and English references is rich, diverse, international and balanced. It reflects the inter-disciplinary approach of the content of the dissertation, but still with a clear focus on ethics of information and communication technologies, e-governance and public administration.

Footnotes: a serious issue of this text is that it does not work with footnotes nor with clear references to works in the bibliography. E.g. chapter 1.2.3, second para (p.30), the first WSIS+10 Review Event is mentioned and a quote follows, but no precise footnote or endnote with the source and page of the citation (they are also missing in the Bulgarian version). Serious in the same chapter are pages 31-35: the reference to a Globethics.net publication is made, but then follow on four pages (31-35) the nine points until the end of chapter 1.2.3 and again practically the whole chapter 1.2.4 as a full quote, but without quotation marks, therefore not visible as a citation (by chance I was the author who drafted the original text). It is not plagiarism in the proper sense as the author mentions the source, but it has to be mentioned as a citation with quotation marks! A citation of four pages length is not excluded, even though rather unusual. Part of it could be in form of a summary of the author in her own words.

A bibliography should only list works, which are also quoted in the text, therefore the link between text/citations and bibliographic works must be visible. My strong recommendation will be mentioned below in conclusions.

Plagiarism: I used the antiplagiarism software Compilatio to analyze the text of the dissertation. I screened the English version. The Bulgarian version did not give reliable results and screening was certainly done by the Bulgarian thesis director. The result was, that the analogies have been 3-6%, which is lower than an average of about 10% in comparable texts. It means that according to our analysis there is no substantial plagiarism involved. Nevertheless some pages are using word by word texts without mentioning the reference: E.g. p.72f, at the end of chapter 2.3, one full page of an article of mine is taken literally, without reference to my article and quotation mark. Similarly in chapter 2.8 (pp. 89-92) where a good part is taken from my article on ethics of secret services in the book Cyber Ethics 4.0 (427-431). The book in general is mentioned in the bibliography, but the article is not listed. These remarks are not about me as author, but it is about the principle of academic honesty. It is another example for the above remarks about missing quotation marks and references that have to be corrected!

Language: In order to have impact, academic works need to be understandable, especially in interdisciplinary research as this dissertation offers. This thesis is well written and understandable across disciplines. It therefore fully fulfills in my view this criteria of adequate language and understandability.

Conflicts of Interest: The author is not only a PhD candidate with this thesis, but is a high level politician in her capacity as Deputy Prime Minister for Economic and Demographic Policy and Minister of Tourism in the Republic of Bulgaria. This high responsibility could raise the question if the academic work is independent enough from political constraints and interests or if there is a potential conflict of interest between the objective academic work and the political responsibility. The author makes this role transparent in her note at the end of the introduction. I could not discover biased academic argumentation due to this political responsibility. On the contrary, the insights of the author in daily practical political decisions in information and communication legislation and E-government allows her to write a thesis which is really relevant and meaningful for analyzing and further developing the E-government policies, legislation and raising awareness in Bulgaria, the whole of Europe and globally.

5. Conclusion and Recommendation

1. It is an important, clear contribution to academic analysis and solutions for the vital topic of E-Government from the perspective of Cyberethics.
2. It is a laudable and impressive effort of the author to write such a dissertation besides being in a highest-level political responsibility in Bulgaria with all its time constraints and constant unforeseen urgencies.
3. For a publication, footnotes or in-text references to the works in the bibliography and the other remarks of this review have to be integrated.

4. Because of the high relevance of the topic, I recommend to publish the dissertation after acceptance by the university in Bulgarian and in English (for the English version, I can also offer a publication – as one option - in the [Thesis Series of Globethics.net](https://thesisseriesofglobethics.net), where I am the president.
5. As Reviewer, I recommend to accept the dissertation for the PhD, under one important condition: footnotes or endnotes with the precise source of references and citation marks where a text is a citation, have to be added carefully and throughout the dissertation and before it is published. This is important for every academic work and even more so for an author with such a high-level public profile.
6. I congratulate the author again and hope that the work and its recommendations can be taken up on the national and international level to be considered for implementation.

With best regards



Prof. Dr Dr h.c. Christoph Stückelberger