CL/4327

Preliminary Report on the first draft of the Recommendation on the "Ethics of Artificial Intelligence", prepared by UNESCO experts.

Remarks by prof. Włodzisław Duch, approved by the members of Polish Alliance for the Development of Artificial Intelligence (PP-RAI).

I have been working on AI for over 30 years, so these remarks are from the point of view of someone who develops AI algorithms. I do not find this document relevant to my work at all. Values and principles are important, but for computer scientists who create AI they are relevant only if they work on specific applications.

1) The name "Ethics of Artificial Intelligence" is misleading.

This is about ethics of selected AI applications, not ethics of AI. People that develop AI are mostly computer scientists working on new algorithms. We do not discuss ethics of theoretical algorithms, or ethics of mathematics. Some applications rise ethical issues, but it should be clearly stated which application areas rise ethical issues.

Do we need legal framework to regulate development of bioinformatics algorithms for protein folding, evaluation of chemical synthesis pathways, control of robot movements, or improvement of optimization algorithms in manufacturing? On the other hand regulations about the protection of personal data are already in place.

- 2) Recommendations should not be restricted only to the AI applications. It may be difficult to claim that some applications really belong to AI. Is profiling people based purely on statistics not biased and does it not lead to the same kind of problems as AI applications? Recommendations should cover applications of computer algorithms of all kinds in areas that can lead to problems. This document is focused only on AI systems but so far most problems with software had little to do with AI, it was rather leaks of personal data due to inadequate protection, or fake news in social networks. Some are generated by bots, but some are written by people. Both are harmful.
- 3) Problems may appear in specific applications of software, so instead of Al Ethics Officers more general Business Ethics Officers should monitor all aspects of business that may influence people on larger scale. Some activities of banks have not been ethical, but not because of the use of Al systems. This document does not specify what is so special about Al technologies and why they may be more harmful than other software and business related technologies. Challenges mentioned in (87) are related to many branches of science, Al is not universal solution here. What is the point of encouraging Member States to adopt Al for solution of global problems? Are there any countries who need such reminders?
- 4) Lack of this distinction makes these recommendations rather incoherent. Gender biases and stereotyping is not something that can be applied to many algorithms that people working on AI develop. Please look at the list of applications of AI in Wikipedia. Very few may create ethical problems. Try to separate those that may be gender or ethnic-specific, those that are not, and theoretical work on AI. Without such analysis discussion about ethics of AI becomes as meaningless as ethics of mathematics.
- 5) To whom is this document addressed? As it stands, I cannot imagine my colleagues reading long documents like this and trying to apply them in their work.

Many recommendations simply state that legal restrictions should be obeyed, ex. "International law and sovereignty should be respected in the use of data". Is writing that one should respect laws and regulations really necessary? I do not know anyone who is studying legal documents to learn what is acceptable behavior. Most likely these recommendations are written for lawyers who should create appropriate regulations in member States. But, do they really need to be reminded that law should be respected?

- 6) Member States are strongly encouraged to actively involve patients and their representatives in all relevant steps of the development of the medical system? What kind of involvement? It is highly unlikely that patients will have sufficient knowledge to get involved in development of medical systems. Robot control? Image analysis? Support for MRI scans interpretation? Drug administration or development? How can patients be involved without expert knowledge?
- 7) Perhaps this document is written for philosophers, not computer scientists. Asimov has proposed 3 simple laws or robotics and wrote 500 stories to show how they can lead to misinterpretations. This document allows to write thousands of stories that will illustrate how trying to fulfill all recommendations will lead to disasters.

 Or maybe it is written for business people, but are they going to read about ethics?
- 8) Most of the applications in such fields as medicine or education require a lot of research to understand their potential advantages and disadvantages. General recommendations at this stage will be either obvious (obey international law, keep gender balance etc) or will be based on ignorance.

In summary, this document is way too long and will have zero impact on the development of AI applications and negative impact on the science behind AI.

Most of the statements are fairly obvious: either already covered by existing regulations, or recommending to use AI applications for solving various challenges. This is being done, in many countries support for development of AI has substantially increased. New AI applications are developed and when they are successful they are going to be used on a large scale without the need for top-down government intervention. General recommendation to improve education, remember about gender balance etc. will not have any influence on activities related to AI.

However, ethical aspects of business that is not related to AI have been neglected. AI may be used to optimize drug development without any ethical problems. Introduction of ineffective drugs on European markets by large pharmaceutical companies of course is not ethical and should be closely monitored, but this is another issue not related to AI. So, instead of AI ethics, business ethics should be discussed and monitored.

I have listened to the Al Alliance Assembly 2020 on 9.10.2020. Regulation of algorithms has been mentioned many times. Nothing on regulation of business procedures.

Prof. Włodzisław Duch, Fellow, International Neural Network Society, Past President, European Neural Network Society,

Head, Neuroinformatics and Artificial Intelligence Group, Center of Excellence, and Neurocognitive Laboratory, Center for Modern Interdisciplinary Technologies, Nicolaus Copernicus University in Toruń, Poland