Preparation for debate

JC/IPAAG – English for Academic Purposes I - B2
Jiří Škoda – jiri.skoda@student.upce.cz
Faculty of Electrical Engineering and Informatics, University of Pardubice
Pardubice, 2022

(paper for opposition)

Automation and robotization will bring bright future for everyone

1) Opening

We live in fascinating times of precipitous development of technology. This process keeps accelerating and has impact to our lives on daily basis. Is this impact only in positive manners? Is future with automation and robotization bright and bright only? My name is Jiří Škoda and in my opinion this may not be the only truth.

2) Definition of terms

As an automation and robotization we understand process of next big step in industry, that brings more complex digital technology into various aspects of our lives. It is also called by someone 'next industrial revolution'. Goal of this process is to get industry more effective whilst requiring less people involved. This process also puts stress on whole society and creates problems in intergenerational relationships.[1]

3) Main arguments

a) Workplaces

[1] Although automation and especially robotization could help in some jobs to eliminate harsh, unhealthy or dangerous tasks, it has some negative impacts too. Imagine for example workers in Amazon warehouse. Whole day, you are packaging orders one after one. And some day, and its happening, this is not sci-fi, company makes decision to partly robotize your workplace. Your performance cannot meet robot one, so you become redundant. And if not redundant, according to studies of effects of effects of robots densification from years 1993 to 2007 shows, that you, as low to middle skilled worker, you will suffer with salary reduction.

b) Excessive reliance on machines

[2] Human is lazy being by nature. Someone can say that laziness is true power of development. So automation is. But when everything gets automated, all processes can run without human intervention, its easy to completely skip all checks which can be done by human only. But when automation fails, and human does not intervene expecting all should be done itself, terrible accidents could happen. For instance, in July 2002 a Russian passenger jet had a collision with cargo plane flying over Germany.

---

[1] *This definition was copied from forum (https://moodle.upce.cz/moodle/mod/forum/discuss.php?d=10951)*

Both planes were equipped with collision warning systems, yet accident ended with seventy-one people dead. At the end, mankind could become unable to do anything without automated systems.

c) Society vulnerabilities

[3] Imagine robot which has cameras, infrared radiation sensors, smart, powerful artificial intelligence powered software and looks like human (*humanoid*). If it is standing in front of you, robot now can read your emotions like no human can. Your intimate feelings are not your private thing anymore. Anyone, who build such a robot, now can find your vulnerability, and easily take an advantage of it.

4) Forum reflection

Many of you, who responded in our forum questions, mentioned except stated problems problem with resources, especially electricity. I can agree with that, it can be seen on everyday basis, as cost of electricity tops every imaginable borders.

5) Discussion

6) References

[1] Q.-C. Pham, R. Madhavan, L. Righetti, W. Smart and R. Chatila, "The Impact of Robotics and Automation on Working Conditions and Employment," *IEEE ROBOTICS & AUTOMATION MAGAZINE,* pp. 126-128, June 2018.

[2] J. B. Lyons and C. K. Stokes, "Human–Human Reliance in the Context of Automation," *Human Factors,* vol. 54, no. 1, pp. 112-121, February 2012.

[3] N. Liberati and S. Nagataki, "Vulnerability under the gaze of robots: relations among humans and robots," *AI & SOCIETY,* vol. 34, pp. 333-342, 2019.