

Pavel Volyk

I.G. Hulina, research supervisor

V. V. Hubkina, language adviser

National TU «Dnipro Polytechnic», Dnipro, Ukraine

### **Perils of Artificial Intelligence Development**

Not long ago Artificial Intelligence (AI) was just a part of science fiction and nowadays it surrounds us and makes our lives easier. As any powerful tool its use has some risks. Let us examine what perils the development of AI may bring and which of them have essential reasons to worry about.

The first thing to be considered is the main feature of AI. Generally, it is an artificially created entity (device or programme) being able to perform tasks usually requiring human intelligence. Such unity is usually divided into Artificial General Intelligence (AGI) that could successfully perform any intellectual task that a human being can and Artificial Super Intelligence (ASI) that possesses intelligence far surpassing that of the brightest and most gifted human minds.

The most worldwide known danger of AI development is the possibility to obtain self-consciousness and conquer the world resulting in extinction mankind. This kind of hazard is widely extended because of Hollywood films, for instance Terminator or Matrix, but chance of such scenario is quite low, at least nowadays.

The first reason is the fact that now science is far from making so powerful ASI. Another occasion is that such features as the desire to obtain power, unjustified accumulation of resources, self-preservation, etc. are not indispensable and typical for any intellect as well as natural or artificial ones. These dangerous features may be brought into AI accidentally or intentionally rather not appear independently.

Another peril, namely, as an unemployment rise, has substantial grounds to worry about. The progress in AI development, robotics and other connected fields makes it possible for machines to carry out more and more complicated works faster and cheaper than a person does. According to the estimates of Oxford scientists, about 47 percent of total US employment is at risk of being redundant in a decade or two. Similarly, Moshe Vardi from Rice University in Houston, Texas, admits, that robots will take 50 percent of jobs by 2050.

Not so obvious but still serious risk may be called post-truth world. Current technologies allow creating quite believable video counterfeits being able to imitate speech and its manner. These technical possibilities are often used in film production. Further development may lead to complete identity and blurring of the boundary between truth and fiction, making all people able to create media indistinguishable from the original. Audio, video and photo materials will not be proof of the truth for the trial any more, but still will be able to wet one's reputation.

Finally, we should not forget about trivial human factor. This item concerns ways of AI development rather than its results, but it should be mentioned for the sake of completeness. Artificial Intelligence is created by people that are supposed to make mistakes. Different errors during designing, checking, training and improving of AI may lead to appalling and catastrophic results, which cannot be predicted and avoided.