

# Development of artificial intelligence and his impact on right to work

## **Abstract**

The purpose of this article is to discuss the influence of artificial intelligence, which currently is developing rapidly, on the law, in particular on the labor law which is one of human social law and human rights. It is clear that, fourth industrial revolution will change lives of societies as well as previous revolutions. To this end a review of the literature in this area and the latest legal solutions that appear on labor market was carried out. The conclusion comes from this analysis that artificial intelligence will effect on labor market – relation between employers and employees, as well as their privacy and monitor them. It also will influence on hiring and dismissing employees. The main question is how to create law with respect for new technical solutions and human dignity, according to international law and human rights. What consequences artificial intelligence will bring with ?

**Keywords:** artificial intelligence, human rights, labor law, labor market, right to privacy.

## **1. Introduction**

According to a report of the future of jobs of the world economic forum, humanity stands at the threshold of the fourth industrial revolution. Industrial revolutions appeared over the centuries and were caused by large technological achievements that echoed the lives of societies. First industrial revolution, started in 1760 with the invention of the steam engine, changed lives from agrarian and handcraft style to industry and manufacturing societies. The greatest achievement of the second revolution, which began in 1900 was facilitation to mass production by providing oil and electricity (Xu, David, Kim, 2018, p. 90). The preceding third revolution started in 1960 was connected with the development of information technology

which was used to automate production. Information and communications technology is characterized by a fusion of many technologies, like computerization and access to the Internet, which undoubtedly changed the way of functioning of entire societies (Xu, David, Kim, 2018, p.90). The fourth industrial revolution, which is an extension of information communication technologies (ICT), will be based primarily on computer systems with high computing power, robots, extended ICT technologies. This revolution is not a sudden moment – is was a long process. In literature is emphasized that goal of creating non-biological intelligence goes back millennia (Spector, 2006). However, the big data and artificial intelligence are going to take crucial role. The development of artificial intelligence is not a future, but this is the present reality. Currently, it is estimated that the size of the artificial intelligence market is around USD 664 million, by 2025 a sharp increase to USD 38.8 billion is expected – such statistics were indicated in the opinion of the European Economic and Social Committee from 1<sup>st</sup> June 2017 Artificial intelligence: the influence of artificial intelligence on a single market (digital), production, consumption, employment and society. In the opinion the main interesting subject is included: making new law with regards on human dignity and human rights, like right to work or right to privacy. It is also a question of this article, how to make law in accordance to human rights. In article short analysis of new methods based on artificial intelligence will be presented, too.

## 2. The concept of artificial intelligence

However, there is no simple answer to the question what artificial intelligence is. In general terms, artificial intelligence is known as a study of cognitive processes using the conceptual frameworks and tools of computer science (Rissland, 1990, p. 1957). In this sense, the science of artificial intelligence has developed in the mid-fifties (Rissland, 1990, p. 1957). Martin Minsky, one of founder of artificial intelligence said that “*artificial intelligence is science of making machines do things that would require intelligence if done by man*” (Rissland, 1990, p.1958).

According to opinion of European Economic and Social Committee from 1<sup>st</sup> June 2017 AI is divided into few fields: *cognitive computing* (algorithms that reason and understand at a higher (more human) level, *machine learning* (algorithms that can teach themselves tasks), *augmented intelligence* (cooperation between human and machine) and *AI robotics* (AI imbedded in robots). According to this document there are two types of artificial intelligence: narrow and general. Narrow

AI is dedicated to specific tasks, AI in general meaning is capable of carrying mental tasks as human. In recent years science has made great progress in the field of narrow AI. In opinion was indicated that research also focuses on reasoning, knowledge acquisition, planning, communication and perception (visual, auditory and sensory). In literature it is broadly known that artificial intelligence should also have features like humans – creativity (Boden, 1998, p. 347).

However, each of these solutions may involve other effects in the legal sphere. For this reason, it is important to define artificial intelligence on the basis of legislation. It is still lack of legal constructions in the full extent of AI. The need to define concepts related to artificial intelligence was expressed in the opinion of the European Economic and Social Committee, too. According to Comitee, the code of ethics in the development, implementation and use of artificial intelligence is necessary, so that artificial intelligence systems throughout the operational process are compatible with human dignity, integrity, freedom, privacy, cultural and gender diversity and, most importantly, fundamental human rights.

Law and artificial intelligence are fields strongly connected with each other. There are two ways of these connections – legal solutions for using AI and separate field of science. For example law and AI is a field of science started thirty years ago (Rissland, Ashley, Loui, 2003, p.1). Solutions based on artificial intelligence helps with negotiations, online dispute resolutions, argumentation etc. It will develop so far.

Due to such rapid progress, arises question how this civilization gain will serve humanity and how will it affect human rights, and in particular the right to work that interest me and the related with it right to privacy? The Comitee recommends adopting an approach to artificial intelligence based on *human-in-command*, including in particular responsible, safe and useful development of artificial intelligence and assuming that machines remain machines and that people are always able to control them. However, the question arises whether these postulates are feasible in the context of the protection of human rights?

### 3. Right to work as a human right

Talking about the right to work, the history should be briefly outlined. This right is regulated in many legal acts. The first international document in which the right to work was formulated was the Universal Declaration of Human Rights of 1948 proclaimed and adopted by the United Nations General Assembly. According to art. 23 (1) *Everyone has the right to work, to free choice of employment,*

*to just and favourable conditions of work and to protection against unemployment.* Another, very important document is the International Covenant on Economic, Social and Cultural Rights adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966 in art 6, which recognizes *right to work, which includes the right of everyone to the opportunity to gain his living by work which he freely chooses or accepts, and will take appropriate steps to safeguard this right.* There is a number of other documents, just as the Constitutions of individual countries, which also regulate these matters. For example in Polish Constitution exists article 65 which provides that *everyone shall have the freedom to choose and to pursue his occupation and to choose his place of work. Exceptions shall be specified by statute.* Due to the status of legal acts concerning the right to work, this work is known as a human right (Trivedi, 1981, p. 131). This is also one of the basic human social rights (Bucińska, 2006 p. 139).

#### **4. The influence of artificial intelligence on the realization of right of work? Opportunities and threats for employees**

For sure, AI will have an impact on employment levels and the nature and character of many jobs and on social systems. There is a discussion whether AI influence on labor market will be positive or rather negative. For example, according to the Mc Kinsey and Company report to 60 percent of occupations in the near future will be gradually replaced by computer systems using artificial intelligence. Among the examples of such works, there are mainly those that are characterized by high repeatability. However, the EESC rightly points out that the current technological change can be called the second age of the machine. Older machines replaced muscle strength, while new ones also replace mental potential and cognitive skills, so it also applies to professions related to analytical work. The catalog of professions threatened with replacement by artificial intelligence is very wide. The AI will affect on all sectors simultaneously, on low – skilled employers and highly skilled ones (Szczurowska M, 2017). It will automate easy employee's obligations for example cashier in shop, but also these more complicated requiring more complex processes – it will helps lawyers in searching law regulations and argumentations. Unfortunately, this is a reality and not a distant future, that now employees lose their jobs as a result of replacing them with technologies. However, the chance that the machine will fully replace human work is very small (Bradford, 2018). Experts say that

along with the elimination of many professions, there may also be new ones that will be a response to the development of artificial intelligence.

According to opinion indicated above artificial intelligence should function based on human-on command system. This role can be realized for example in using smart computers for eliminate overtime work or accidents at work. Algorithms will also reducing the risk of making a mistake by employees. These are positive aspects of functioning artificial intelligence. Many authors declare that for the sake of human dignity regulators should create legal regulations with much caution (Brownsword 2017, p.117). There are issues that require a lot of consideration in order to properly regulate. One of such examples are autonomous vehicles that already travel on roads today. They not only replace professional drivers, but there is a subject of liability for accidents caused by these vehicles. Another examples are autonomous weapons and criminal trials provided with assistant of smart machines.

Moreover, hiring and dismissal of employees by artificial intelligence could be also o new solution for labor law. In 2016 Bridgewater Associates, one of the largest financial funds in the world, announced the automation project of company management, including hiring and dismissing employees (Walsh, 2018, s. 234). The question arises about such solution whether all strategic decisions, including in particular dismissal of employees, can be made by machines? Is this consistent with respect for human dignity?

## 5. Right to privacy

Artificial intelligence will affect not only the amount of work available, the choice of the type of work, but also the type of work performed. Artificial intelligence develops significantly in the field of employee monitoring, and so it calls into question the autonomy and privacy of employees. Monitoring with the use of artificial intelligence in the workplace is available, according to General Data Protection Regulation (GDPR), if the monitoring method is adequate to the purpose and employees are informed about it. Artificial intelligence probably will broaden this matter in other activities.

For example, in London in the company Status Today employers use the metadata provided by clients to monitor employees. Employer can see information about when an employee browsed files, when using a magnetic card and the algorithm build the company image and inform in case of

deviations. Behavior of employees is evaluated for understand the behavior and productivity of employees. There are many disadvantages of such solution. Data tells a lot about the personality of an employee, they can reveal what is its resistance to stress, show how an employee can behave outside of work, show the character traits that an employee does not want to disclose at work. On the other hand, employees may experience a lack of confidence on the part of the employer and in their opinion, constant supervision does not have to positively affect employee motivation; on the contrary, it may reduce their productivity. Apart of that, AI and such systems can help in work by preventing accidents, informing about dangers, such as computer vision in cooperation with Microsoft cloud.

## 6. Conclusions

Changes in societies because of AI is currency problem also for law and law makers. However, we should see in artificial intelligence a chance for development. Every industrial revolution carried a positive transformation in societies lives. However, the conclusion from this analysis is respect for human rights despite the upcoming changes and The European Economic and Social Committee also calls for this.

## References

- Boden, M. A. (1998). Creativity and artificial intelligence – Journal Artificial Intelligence 1-3 p. 347
- Branford, L. (2018). How AI Is Improving The Landscape Of Work (access 6 August 2018) (<https://www.forbes.com/sites/laurencebradford/2018/03/29/how-ai-is-improving-the-landscape-of-work/#1f169dc75866>)
- Brownsword R., (2017) From Erehwon to AlphaGo: for the sake of human dignity, should we destroy the machines? Journal Law, Innovation and Technology Vol. 9, p. 117
- Bucińska, J. (2006). Konstytucyjne prawo człowieka do pracy na tle standardów międzynarodowych. Roczniki Nauk Prawnych. Vol. XVI, No. 2 p. 139
- Mc Kinsey and Company (2017), The AI revolution How artificial intelligence will change business in Poland

- Rissland, E. L. (1990). Artificial Intelligence and Law: Stepping Stones to a Model of Legal Reasoning. *Yale Law Journal* Vol. 99 article 4 1990, p. 1957
- Rissland, E.L., Ashley, K.D., Loui, R.P (2003). AI and Law: A fruitful synergy. *Artificial Intelligence* 150 p. 1–15
- Spector L.,(2006) Evolution of artificial intelligence, *Artificial Intelligence* 170 p. 1251–1253
- Szczurowska, M., (2017). Sztuczna inteligencja zastąpi część pracowników już za 45 lat (access 3 August 2018) in: <https://aibusiness.pl/sztuczna-inteligencja-zastapi-czesc-pracownikow-juz-45/>
- Trivedi R.N., Human rights, right to development and the new international economic order – perspectives and proposals (1981). *Development, Human Rights and the Rule of Law Report of a Conference Held in the Hague on 27 April–1 May*, p. 131
- Walsh, T. (2018). To żyje. Sztuczna inteligencja. Od logicznego fortepianu po zabójcze roboty p. 234
- World Economic Report (2016). *The Future of Jobs Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*.
- Xu, M. David, J.M., Kim, S.H. (2018). The Fourth Industrial Revolution: Opportunities and Challenges. *International Journal of Financial Research* Vol. 9, No. 2 p. 90-96

### **Internet sources**

<https://www.bridgewater.com/>

<https://www.statustoday.com/>

### **Legislation**

European Economic and Social Committee 526th EESC plenary session of 31 May and 1 June 2017, 2017/C 288/01 Opinion of the European Economic and Social Committee on ‘Artificial intelligence — The consequences of artificial intelligence on the (digital) single market, production, consumption, employment and society’ (own-initiative opinion)

International Covenant on Economic, Social and Cultural Rights Adopted and opened for signature, ratification and accession by General Assembly resolution 2200A (XXI) of 16 December 1966

Polish Constitution Dz.U. 1997 nr 78 poz. 483, art. 65

Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)

Universal Declaration of Human Rights of 1948 proclaimed and adopted by the United Nations General Assembly