İNSAN&İNSAN, Yıl/Year 8, Sayı/Issue 30, Güz/Fall 2021, 69-83 Araştırma Makalesi / Research Article
DOI: https://doi.org/10.29224/insanveinsan.976915 www.insanveinsan.org e-ISSN: 2148-7537

The Role of the Artificial Intelligence in the Labour Law Relations in European and Asian Aspect

Avrupa ve Asya Açısından İş Hukuku İlişkilerinde Yapay Zekânın Rolü

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Abstract: *Artificial intelligence and automation are some of the most defining elements of the XXI century, whose significant imprint is manifested in society and social relations. Digital development is transforming the world of work - this thesis is the starting point of many kinds of research. This principle is also the basic premise of the present study, as it transforms working and employment conditions to develop and spread digital technologies, resulting in an untraceable process. As the maker of individual decisions, artificial intelligence can create a new context in labour law. The study aims to examine the labour law entity of artificial intelligence, outlining the Asian and European distribution of reactions to the introduction of automatic decision-making and the impact of MI on industrial relations. The outstanding importance of the topic is also shown by the fact that numerous studies deal with examining legal personality outside labour law.*

Keywords: *Artificial intelligence, Automation, Employment, Industrial relations, Labour law*

Öz: *Yapay zekâ ve otomasyon, toplumda ve sosyal ilişkilerde önemli yansımaları bulunan, XXI yüzyılın en belirleyici unsurları arasındadır. Dijital gelişme iş dünyasını dönüştürmektedir- bu iddia birçok araştırma türünün başlangıç noktasıdır. Bu iddia, çalışma ve istihdam koşullarını dijital teknolojileri geliştirmek ve yaymak için dönüştürdüğü ve izlenemez bir sürece yol açtığı için bu çalışmanın da temel önermesidir. Bireysel kararların alıcısı olarak yapay zekâ, iş hukukunda yeni bir bağlam yaratabilir. Çalışma, otomatik karar vermenin getirilmesine tepkilerin Asya ve Avrupa dağılımını ve MI'nin endüstriyel ilişkiler üzerindeki etkisini ana hatlarıyla belirterek, yapay zekânın iş hukuku varlığını incelemeyi amaçlamaktadır. Tüzel kişiliğin iş hukuku dışında incelenmesine yönelik çok sayıda çalışmanın olması da konunun olağanüstü önemini göstermektedir.*

Anahtar kelimeler: *Yapay zekâ, Otomasyon, İstihdam, Endüstri ilişkileri, İş hukuku*

Gönderim 31 Temmuz 2021 *Received 31 July 2021*
Düzeltilmiş Gönderim 21 Ağustos 2021 *Received in revised form 21 August 2021*
Kabul 10 Eylül 2021 *Accepted 10 September 2021*

Yayıncı / Publisher: Okur Yazar Derneği / Literacy Association, İstanbul, Turkey
Website: https://www.okuryazar.org.tr

Introduction

Today's industrial revolution, "Industry 4.0" is characterized by algorithms, Artificial Intelligence (AI), decentralized production networks and mass production, the presence of globalization, the experience society.[1] In parallel and later, we can talk about the development of society 5.0 and industry 5.0.[2] Society 5.0 is based on a basic idea in which the emphasis is on the joint action of machines and people. In the new social order based on the Japanese idea, the idea of merging cyberspace and real physical space refers to a cycle in which data flows seamlessly from physical space (real world) to cyberspace, and then back in the form of meaningful information from cyberspace to the real world, that is, to physical space.[3] Contrary to earlier basic social ideas, this is not based on natural goods but on innovation.[4] Although the drive for digitization is ongoing, there are differences between continents and countries in terms of both use and reception, further nuanced by the attitudes of individual economic sectors and companies. For now, the announcement of Industry 5.0 is futile, as each country is at a different level of development, and there are places where achieving Industry 4.0 is also a problem. As György Bőgel put it: "The spread of innovation shows the usual pattern, i.e., behind the pioneers, there are many cautious progressors and laggards; moreover, anti-digitization sounds are sometimes heard at conferences, likewise, at other professional events".[5] The central topic of our study is the role of AI in industrial relations, in the framework of which we examine its place in European and Asian culture, human attitudes toward MI, and the emotional connection established, certain levels of trust, and rejection. Among the preliminary considerations, it is vital to include the economic and societal aspects that might be projected as a result of the spread of AI. The role of AI in industrial relations raises economic and ethical-moral issues concerning the trustworthiness of the employment relationship, based on which legitimate issues of social risk could (perhaps shortly) challenge the legislation. The labour law issues raised by industry 4.0 need to be addressed now, which will also meet the needs of a 5.0 society to some degree. That is why we need to look at how AI behaves in each labour law role and its relation. The issue of trust and responsibility comes to the fore. AI has the potential to have a huge impact on society, hence it is critical to establish trust in it. As a result, the European AI sector must be founded on European principles and fundamental rights, such as human dignity and privacy protection.[6] Moreover, trust is an issue that is also important in the relationship between employer and employee. Pope Francis himself emphasized the need for so-called algorithm ethics.[7]

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[1] Török Emőke, *Munka és Társadalom - A Munka Jelentésváltozásai Bérmunkán Innen és Túl*, Budapest: L'Harmattan Publisher, 2014. p.111.

[2] "Industry 5.0 will Bring about a New Paradigm of Cooperation between Humans and Machines", European Economic and Social Committee, December 06, 2018, accessed: July 10, 2021, https://www.eesc.europa.eu/en/news-media/eesc-info/012019/articles/66151.

[3] Atsushi Deguchi et al., "What is Society 5.0?", *Society 5.0*, ed., Hitachi-UTokyo Laboratory, Singapore: Springer, 2020, p.1-23, https://link.springer.com/content/pdf/10.1007%2F978-981-15-2989-4_1.pdf.

[4] "Society 5.0", Cabinet Office of Japan Government, accessed July 10, 2021, https://www8.cao.go.jp/cstp/english/society5_0/index.html.

[5] György Bőgel, "Mesterséges Intelligencia a Humánpolitikai Munkában", *Opus et Educatio,* 5/3 (2018), p.352.

[6] "White Paper: On Artificial Intelligence - A European Approach to Excellence and Trust", European Commission, Brussels, 19.2.2020, accessed July 10, 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0065&from=EN.

[7] "Pope's November Prayer Intention: That Progress in Robotics and AI 'Be Human'", Vatican News, November 5, 2020, accessed July 10, 2021, https://www.vaticannews.va/en/pope/news/2020-11/pope-francis-november-prayer-intention-robotics-ai-human.html.

The existence of AI, algorithms, and decision-making robots has long been a fiction that has created countless literary works, and their film adaptations, from Isaac Asimov's I, the Robot, through the Terminator to Arthur C. Clarke's Space Duel series. Before examining the role of AI, it is necessary to briefly provide a framework for our research. The most crucial topic in this circle may be the exploration of the legal background. Therefore, in our study, in addition to the role of AI in labour law, we pay special attention to the examination of the legal personality of AI's employers and employees.

We also consider the latter issue to be important because, with digitalization development, it is becoming more and more common for workers to be based on AI utilization or for a significant part of the work to be done by AI. This phenomenon raises one of the fundamental questions of the dissertation: is there a problem in recognizing the legal personality of AI?

The perpetual dilemma of legal regulation emerges in connection with the subject, namely that legislation reacts more slowly to everyday events than economic operators find more and more solutions to problems that arise. Regarding the new opportunities offered by AI, the central issue of our study is the role of AI in labour law, which is related to the question of the indispensability of the human element in the system of labour relations. As a prelude to this, we also examine the attitudes of individual people. A joint study by Oracle and Future Workplace has shown that, in some cultures, they have more confidence in AI than in their boss.[8] Of course, the study cannot undertake to examine the differences between countries, but it can undertake to parallel Asian and European attitudes.

The Way of Digital Changing in the Framework of Labour Law

Barely a few years have passed since the names Industry 4.0 and Society 4.0, and we can already find ourselves confronted with the concepts of Industry 5.0 and Society 5.0. The first conceptual circle aims to perpetuate quality and production processes and data collection by triggering repetitive and stressful work by less-skilled workers. Industry 5.0 is the work of highly skilled workers and robots to create unique products, services, and experiences. Industry 5.0 is essentially a blend of robot capabilities and human expertise. Society 5.0 and the super-smart society, which covers a people-centered society in which cyberspace and physical space are intertwined. AI, Internet of Things (IoT), Big Data, robotics are linked.

When we talk about AI, we usually associate the distant future. The reality, however, is that AI, or at least its basis, is already present in our daily lives. The reality, however, is that AI, or at least its basis, is already present in our daily lives. Big data databases provide the foundation for AI. Additionally, the expansion of technology and digital technologies has enabled the creation of massive databases from which valuable data can be extracted. This type of invention is impossible to achieve on a human scale; it requires the assistance of machines and technology.[9] Fast analyses of massive databases form the basis of systems that put the data into the system

[8] "From Fear to Enthusiasm: Artificial Intelligence is Winning More Hearts and Minds in the Workplace", Oracle & Future Workplace AI@Work Study 2019, Oracle, 2019, https://www.oracle.com/a/ocom/docs/applications/hcm/ai-at-work-ebook.pdf.

[9] Nagy Valéria and Hajdu Vanda, "A Mesterséges Intelligencia Lehetsége Hatás(i) a 'Munka Világára'", *Jelenkori Társadalmi és Gazdasági Folyamatok*, 16/1–2 (2021), p.82.

based on the frequency of individual events and data and thus enable autonomous decisions.

AI and its foreshadowing surround us. It is in social media algorithms, car security systems, industrial robots on the production line, and every smart gadget that, in many situations, is already interacting with one another. In the turmoil of digital change, we did not even realize that AI had become a part of our lives. All of these changes, of course, manifested themselves in the workplace. It is stated as a general principle that AI should be used to benefit prosperity, with legislative safeguards in place to protect workers from the risks of AI.

One of the most common uses of AI in employment is in labour selection and recruitment. Perhaps the best-known case is Amazon's HR robot. The company experimentally involved AI in Human Resource Management. The most interesting result of the experiment was that the system made unjustified differences between men and women. In our opinion, the main reason for this is that the algorithm organizes the information along one central aspect. Of course, it is possible to give several aspects. At the same time, we cannot expect decisions from one person, as one relies not only on specific statistics and the conclusions drawn from them when making a decision but also on other emotional other practical aspects. Perhaps the greatest danger of AI lies in the fact that the vast databases from which AI extracts the information on which it makes autonomous decisions do not cover reality. Just think of how different decisions are made by an AI which "socialized" on the HR data of a Chinese company than one that is "grow up" on a European database. Indeed, it is possible to change these problems, but the example shows that the databases from which the system works are of enormous importance. Furthermore, we do not always influence this due to the size of the database; people cannot select the wrong, inappropriate elements so that it does not distort the statistics based on which the AI can make a decision. The greatest danger and uncertainty stems from the fact that the AI can process the data extracted from the database; however, it can soon lead the system astray. AI is thus involved in our lives as an outside observer, but this point of view gives rise to many erroneous conclusions if it is only possible to experience certain parts.

The European Commission's White Paper outlines the importance and risks of AI and reaches the following conclusions: The use of AI apps for recruiting processes and scenarios affecting employees' rights would always be considered "high-risk," and the rules specified below would apply at all times. Also, AI applications for remote biometric identification and other intrusive surveillance technologies would always be designated "high-risk," and the requirements listed below would apply at all instances.[10]

In employment, we do not only find the use of AI in the field of recruitment. An increasingly common way for workers to control their wearable devices. These devices are essentially portable computers that can be placed on our bodies and receive various information from our bodies and our immediate environment. This information can be used for various purposes, such as medical, medical, or inspection purposes. The latter goal appears when the employer analyzes the employer's performance through wearable smart devices based on the location coordinates

[10] "White Paper: On Artificial Intelligence - A European Approach to Excellence and Trust".

obtained by the device or just through the employee's heart rate data. AI can therefore lead to increased employer control.[11] However, it is essential to note that much data is recorded and, where appropriate, transmitted, which is considered health data, thus falling within the scope of sensitive, particularly protected data. Knowing these data, the employer becomes even more dominant, while the employee becomes more vulnerable in the field of employment. Continuing the line, one could mention various electronic performance monitoring solutions, such as tone monitoring or software utilization that records activity on a computer. These methods are suitable for accumulating data from which productivity can be further optimized through AI. Through this, it is possible to hire the "perfect" person for the given position, and it is possible to optimize lead times and thus increase productivity. This process is essentially known as the "People-Analytics" collective name. However, analyzing a large amount of data that supports employer decisions involves several risks. Increasingly, humane and ethical employment can be lost, creating almost laboratory conditions for working. This issue carries additional risks for fundamental rights and discrimination.

Automated decision-making processes could also be mentioned as a forerunner of AI. This question leads directly to the fact that AI can even be our boss, so it exercises labour manager or, where appropriate, employer rights. Ildikó Rácz points out that the methods used in the case of platform works, which give employees "more" room for maneuver and choice, actually designate the work paths that are limited and constrained by the platform.[12] It also raises a serious ethical issue as it allows workers to be exploited by being influenced or manipulated by the platform or AI resulting in freedom of choice is becoming just an illusion.

We can see that digitization and AI have quietly but more rapidly emerged in employment, which raises the need for labour law regulation. From the point of view of the legal framework, there are many issues and areas for regulation related to AI in employment. One of the most important of these is whether AI can be an employer, i.e., what kind of legal category we can treat. Who takes legal responsibility for the decisions made by AI, and to what extent? In this context, we intend to address the legal personality of AI in the remainder of this study.

The Impact of AI on the Labour Market and Labour Relations in Asia: Responses and Effects

Some individuals may feel sceptical of modern technology such as AI because of growing concerns about its potential to replace human occupations[13], as well as the increase of competition among employees due to perceived threats of this new technology[14]. In fact, the subject of whether technological advancement, machines, and innovation may pose a danger to human occupations is not new; it has been debated for decades. In 1981, Aristotle emphasized this issue in his book. He stated

[11] Mihalis Kritikos, "Work in the Era of AI: Time for a Digital Social Contract", European Parliamentary Research Service, accessed July 26, 2021, https://epthinktank.eu/2021/02/10/work-in-the-era-of-ai-time-for-a-digital-social-contract/.
[12] Ildikó Rácz, "A Digitalizáció Hatása a Munkajog Egyes Alapintézményeire", PhD Értekezés, Budapest: Károli Gáspár Református Egyetem Állam- és Jogtudományi Doktori Iskola, 2020, p.156.
[13] Bart Larivière et al., "'Service Encounter 2.0': An Investigation into the Roles of Technology, Employees and Customers", *Journal of Business Research,* 79 (2017), p.242.
[14] Wyatt Schrock et al., "Better Together: Trait Competitiveness and Competitive Psychological Climate as Antecedents of Salesperson Organizational Commitment and Sales Performance", *Marketing Letters,* 27/2 (2014), p.357.

that machines and inventions might eventually replace workers, providing an alternative and more effective way of performing job tasks.[15]

However, if we delve deeper into how AI works, the changes that occur as a result of AI integration are unlike those that occurred during previous industrial revolutions. More specifically, it demonstrates that AI encompasses cognitive, relational, and structural intricacies, as opposed to earlier technological advancements that only concentrated on automating or replacing routine manual labor.[16] Align with that argument, several prior studies claim that AI is unlikely to replace human tasks[17] [18]. These findings are also consistent with a report from the Asia Development Bank (ADB) (2018), which found that the adaptation of AI does not entirely replace the humans' jobs but rather reshapes the labour force.[19] In a more detailed explanation, task automation may restructure some types of jobs that are typically mundane low-level jobs, similar jobs with routine and repetitive tasks[19], and jobs that place humans in harmful or dangerous situations[20]. This job restructuring, in many cases, has resulted in freeing up workers to focus on more complex work. For instance, the ATM deployment in the bank industry has transformed the role of bank tellers into customer relationship management.[19]

In addition to that, the emergence of robotics, AI, and the Internet of Things creates new companies and industries, as well as being a major driver for job creation through numerous channels. For example, in India, Malaysia, and the Philippines, 43%-57% of new job titles created in the last ten years are in Information and Communication Technology (ICT). Other new jobs are also expected to emerge in the Asia region, including health care, education, finance, insurance, real estate, and other business services[19]. This finding is consistent with The Future of Job Report 2021, which predicts that by 2025, up to 85 million jobs may be displaced by a shift in the division of labour between humans and machines, while 97 million new roles such as AI, machine learning engineer, process automation specialists, and big data analyst will emerge as they are more adapted and better suited to the new division of labour between humans, machines, and algorithms[21].

Moreover, AI is likely to appear to give more benefits for the economic growth, labour market, and society. In Japan, the rapid decline in the labour force due to the aging population, low birth rate, and the limited influx of immigrants, create a major blocker for its economic condition, which undoubtedly gives a powerful incentive for automation technology and AI. According to government reports, even small and medium-sized businesses embrace this new technology to compensate

[15] Aristotle, *The Politics,* London: Penguin Classics, 1981, p.135.
[16] Andreas Kaplan and Michael Haenlein, "Rulers of the World, Unite! The Challenges and Opportunities of Artificial Intelligence," *Business Horizons*, 63/1 (2019), p.45.
[17] Joe McKendrick, "Artificial Intelligence Will Replace Tasks, Not Jobs", Forbes (Online News), accessed: August 14, 2018, https://www.forbes.com/sites/joemckendrick/2018/08/14/artificial-intelligence-will-replace-tasks-not-jobs/?sh=5c5671dea7fa.
[18] Priya Mohanty, "Council Post: Do You Fear Artificial Intelligence Will Take Your Job?", Forbes (Online News), accessed: July 6, 2018, https://www.forbes.com/sites/theyec/2018/07/06/do-you-fear-artificial-intelligence-will-take-your-job/?sh=7e88044811aa.
[19] *Asian Development Outlook 2018: How Technology Affects Jobs*, Manila: Asian Development Bank, 2018, accessed July 17, 2021, http://www.esocialsciences.org/Download/repecDownload.aspx?fname=A2018412164731_57.pdf&fcategory=Articles&AId=12717&fref=repec.
[20] Keng Siau and Weiyu Wang, "Building Trust in Artificial Intelligence, Machine Learning, and Robotics Supply Chain Management View Project", *Cutter Business Technology Journal,* 31/2 (2018), p.50.
[21] "World Economic Forum: The Future of Jobs Report 2020", Geneva: WEF, 2020, accessed July 20, 2021, https://www.weforum.org/reports/the-future-of-jobs-report-2020.

for human resources shortages and remain competitive[22]. For instance, Family Mart, a Japanese retail convenience store chain, is speeding up the implementation of self-checkout registers. At the same time, other examples abound in hotels and restaurants industries that have been maximizing the utilization of robot chefs.

Besides, the adaptation of AI and robots in Japan has aided in improving the quality of life. For example, Ory Laboratory Inc, a Japanese robotics company, is developing semi-automated avatar robots to combat social isolation and establish an inclusive labour market by providing jobs for persons with disabilities. In practice, these Demirobots are operated remotely via the internet, serving as avatars for people who cannot engage in physical jobs owning to physical limitations, disabilities, childcare, or other reasons. [23]

The Basis of the Relationship: Is AI a Person?

Legal personality as a concept has developed in private law. Closely related to the issue of legal personality is the issue of legal capacity. The participants in the legal relationship are the legal entities who have rights and obligations - thus, we also touched on the definition of legal capacity. Legal capacity and legal personality itself is an abstract concept, not the embodiment of entitlement; however, it is a general condition for participation in a legal relationship. A legal entity can be a natural person (depending on the social system), a legal entity (a group of people whose legal capacity is recognized by law, its legal capacity is tied to a purpose), or the state also appears as a legal entity.[24] The latter should not be confused with the legal personality of state organizations (this is a group of legal entities).

The basic thesis of any legal system is that man has legal capacity, obligations, and rights. Regarding the concept of legal capacity, civil law states that all human beings have legal capacity, which arises from human birth and lasts until their death.[25] However, in addition to legal capacity, we also need to define legal personality. Legal personality cannot be granted or taken away, given that it derives from dignity.[26] The elaboration of a dogmatic system and a unified theoretical framework of the legal entity of fundamental rights is of a gap-filling nature. The legal personality is not only of a civil law nature - but it also has a complex legal personality; its legal personality is diverse.

In the case of the examination of legal personality, it is an entire thesis that all people have unconditional and full legal personality, and the legal personality of organizations / legal entities is generally recognized. Nowadays, however, new applicants (such as AI, nature) have also emerged to recognize legal personality.

[22] Todd Schneider, Gee Hee Hong and Anh Van Le, " Land of the Rising Robots", *Finance & Development,* 55/2 (2018), p.28-31.
[23] Kazuaki Takeuchi, Yoichi Yamazaki and Kentaro Yoshifuji, "Avatar Work: Telework for Disabled People Unable to Go Outside by Using Avatar Robots 'OriHime-D' and Its Verification", *Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction*, March 23, 2020, https://doi.org/10.1145/3371382.3380737.
[24] Hungarian Civil Law. 3:405. § *[Legal personality of the state].*
[25] Hungarian Civil Law. 2:2. § (1)-(2), 2:4. § 8.
[26] János Frivaldszky, "Jogalanyiság és a Jog Mint Egyetemes Elismerõ Viszony", *Iustum Aequum Salutare*, 5/2 (2009), p.34-40.

In connection with the topic, the primary question is: is the AI an independent legal entity? Even without an answer, additional questions arise: can they be entitled to rights; can they be burdened with obligations? Can AI make a valid legal statement or appear as a contracting party to a legal relationship? In order to answer the questions, it is essential to examine the theoretical theses of legal personality and AI. The answer is complicated by the fact that the development of a uniform definition of AI itself is complex. The most uniform wording that offers an acceptable definition for all scientific fields is that of the European Commission:

> "Artificial intelligence systems are software (and possibly also hardware) systems designed by humans 3 that, given a complex goal, act in the physical or digital dimension by perceiving their environment through data acquisition, interpreting the collected structured or unstructured data, reasoning on the knowledge, or processing the information, derived from this data and deciding the best action(s) to take to achieve the given goal. AI systems can either use symbolic rules or learn a numeric model, and they can also adapt their behaviour by analysing how the environment is affected by their previous actions. As a scientific discipline, AI includes several approaches and techniques, such as machine learning (of which deep learning and reinforcement learning are specific examples), machine reasoning (which includes planning, scheduling, knowledge representation and reasoning, search, and optimization), and robotics (which includes control, perception, sensors and actuators, as well as the integration of all other techniques into cyber-physical systems)".[27]

Already in the 1990s, the literature dealt with algorithms treated as legal entities (beyond the fact that the vision of the film Terminator revealed a rather interesting worldview before our eyes). Leon Wein put it this way in the introductory part of his work: "The law, which plays a dominant role in providing a framework within which human beings interact, also has responsibility for keeping technology within the bounds of human governance and control. What follows is an exploration of the role of our legal system as arbiter; the law is the instrument with which we seek to tame this "monster" and keep technology under control." [28] In 2007, a research group examined ways of expressing contracts and contractual will in the development of AI.[29]

A common term in information technology is a software agent, which is apostrophized as an "agent" in the context of AI, a software-based computer system characterized by autonomy, communication ability, adaptability, mobility, and, in addition, personality.[30] Thus, we call agents "artificial" creatures, which are programmable and therefore excellent for use in a simulation environment that processes

[27] The European Commission's High-Level Expert Group on Artificial Intelligence, "A Definition of AI: Main Capabilities and Scientific Disciplines", Brussel: European Commission, December 18, 2018, https://www.aepd.es/sites/default/files/2019-12/ai-definition.pdf.
[28] Leon Wein, "The Responsibility of Intelligent Artifacts: Toward an Automation Jurisprudence", *Harvard University Journal of Law and Technology*, 6/1 (1992), p.122.
[29] Francisco Andrade et al., "Contracting Agents: Legal Personality and Representation", *Artificial Intelligence and Law,* 15/4 (2007), p.360.
[30] O. Etzioni and D.S. Weld, "Intelligent Agents on the Internet: Fact, Fiction, and Forecast", *IEEE Expert,* 10/4 (1995), p.47.

the information received and provides feedback about it, and uses its previous results and feedback during the other modeling process.[31] Peter M. Asaro examined the legal aspect of AI, starting from the fact that we must first examine whether the legal provisions in force cover the problems induced by Machine Intelligence (MI). Based on its position, the rules of product liability apply to the robot (as a product), while the rules of user responsibility apply to the agents based on contractual relations.[32]

Based on the above examples, we can state that AI (agent) is practically an autonomous entity that examines its independent legal entity; we must start from the definition of a civil legal entity.The legal regulation of AI and robots is based on the definition of their legal status, for which the report of the Committee on Legal Affairs made a novel proposal: its focus was on ensuring the electronic identity of AI and robots, their personality can be legally assessed, based on which the rules of liability can be enforced. Although the absurdity of the suggestion is indisputable, in terms of legal capacity would not be the first step to broaden the scope of subjects: an excellent example of this is the recognition of the rights of slaves and women throughout history, and the study of the legal personality of animals is now the subject of research. We can also drew a parallel with the legal status of slaves; in his view, we are talking about a limited case of legal capacity in the same way, as we will ever be concerning humanoid robots.

However, the broadening range of legal entities raises civil law issues, while dogmatics pose new challenges and legislation must be preceded by wide-ranging analyses. The question of the legal personality of AI is an increased dilemma in the field of jurisprudence. In what form could a legal entity be established for a robot or software? Can the analogy of the legal personality of legal persons be applied in this respect, or is it less relevant because of the underlying human action? Solum's thesis is that legal capacity is not an exclusively human characteristic. However, the legal capacity of AI and legal entities are from different sources. Although legal persons are fictitious, their legal capacity derives from practical consideration; for AI, the lack of human character, consciousness, intention, and emotion calls into question AI's ability to reproduce, that is, the extent to which it can display human intellect, which alone does not provide a basis for or against legal capacity.[33]

Based on the previous ones, human knowledge and thinking, consciousness would create the right to exist for the legal personality of AI, a new kind of intelligence would require an entirely new regulatory principle. Réka Pusztahelyi also strengthens this line, in her opinion: "The artificial emotions could create a false impression of human connection or interaction or could generate a false sense of bonding. It is especially very dangerous when the emotional AI may affect vulnerable and susceptible persons to have an unethical or harmful influence upon their minds and the freedom of their decision-making process and choices".[34] All in a way that no human consciousness appears behind it.

[31] Stuart Russell and Peter Norvig, *Artificial Intelligence: A Modern Approach*, New Jersey: Pearson, 2010.
[32] Peter M. Asaro, "Robots and Responsibility from a Legal Perspective", *Proceedings of the IEEE,* 4/14 (2007), p.22.
[33] Lawrence B. Solum, "Legal Personhood for Artificial Intelligences", *North Carolina Law Review* 70/4 (1992), p.1250.
[34] Réka Pusztahelyi, "Emotional AI and Its Challenges in the Viewpoint of Online," *Curentul Juridic*, 32/2 (2020), p.20.

Employer or Employee?

It has evolved unevenly since the advent of AI. There were high hopes and a bleak future vision, some were very disappointing, and the projected success and popularity fell short. A few years ago, it was once again enjoying a tremendous boom, driven by the collection, sorting, and storage of a hitherto unprecedented amount of data in human history, as well as the exponential growth of computer computing power and the capabilities of algorithms.

In examining the issues of legal personality of AI, we need to pay special attention to define the role of AI, whether it can act as employees or employers. However, in actual practice, defining the role of AI in the employment relationship is very tricky.

Regardless of the physical forms, whether it is displayed as a robot or software, AI can be seen as an employee legal personality at first glance since it is designed to automate human tasks that may directly or indirectly replace people from doing some particular jobs. However, the situation is much more nuanced than this. We believe that these efforts are not primarily aimed to omit the human factor but instead focus on increasing work speed and even protecting employees from high-risk and dangerous jobs.

An excellent example is the automation of industrial battery or drug manufacturing jobs to safeguard workers from harm and injuries at the workplace. Toxic dust or vapors containing chemicals, radiation, or harmful substances can be produced during the manufacturing of such products, which would be extremely dangerous if inhaled by human workers. In this situation, the utilization of robots can surely increase worker safety and protect them from hazardous environments.

In another light, AI can be viewed as a tool or apparatus that helps both employees and employers do their jobs better. This type of AI application can only be used to complete specific tasks or components of a larger work that do not directly affect human job replacement. It is because AI frequently has limitations and is unable to perform and complete tasks on its own. In current practice, AI technology will almost always require human intervention to operate, control, or navigate it according to its individual needs and functions.

Let us take SmokeBot as an example. SmokeBot is a humanoid robot that is designed by an Örebro researcher, Achim Lilienthal.[35] This robot is created to perform dangerous tasks in an emergency, such as a house fire or gas leak indoors. While remotely controlled by rescue workers, Smokebot can assist the fire service departments and rescue units in monitoring the progression of fires and navigating the team by plotting maps of its surroundings using its gas sensors, radar, a laser scanner, and a thermal camera. As a result, the fire service crew will have an easier time dealing with the incident or summoning more help if necessary.

A study conducted by Wasng et al. (2016) also demonstrates how human-AI collaboration can yield a favorable result. The study's primary purpose was to use AI to identify metastatic breast cancer from radiological images. The study uncovered that when AI and human pathologists performed the task alone, AI resulted a 7.5%

[35] Han Fan et al., "Towards Gas Discrimination and Mapping in Emergency Response Scenarios Using a Mobile Robot with an Electronic Nose, *Sensors*, 19/3, 685 (2019), p.15.

error rate and personnel had a 3.5% error rate.[36] Meanwhile, the error rate was reduced to 0.5% when the tasks were completed using a combination of human pathologists and AI technologies. These samples, as mentioned earlier, show how the collaboration between AI and humans in the organization had led to positive outcomes.

The emergence of AI integration on the employer side is more elusive, raising ethical-moral issues due to the trustworthiness of the employment relationship. It is increasingly used in the workplace to monitor employee activities, measure performance and evaluate it. In addition to the above, it appears as algorithmic management that forms the basis of managerial decisions, not only in terms of economic competition but also in underpins decisions that affect employees. – From HR recruitment (which is somewhat further away from the field of labour law but still plays an important role) to possible redundancies. What is interesting about our research on this issue is the transformation of the power of the employer.

The recruitment process has not escaped technological development, nor has the labour market. AI already appears in the recruitment process. This application was reinforced by the lockdown caused by the coronavirus epidemic, which significantly contributed to the relocation of selection processes and recruitment conversations to digital space. Already in the selection itself, AI became the key player: the data uploaded by the users, the completed tests contain valuable and less valuable information that forms a complete data set, from which the algorithm itself works. From the deservedly famous LinkedIn portal to resumes uploaded to a more straightforward online database, social networking sites all provide valuable data, and AI uses this complex data package to make decisions.

Another critical area of research is the trust issue, given that the employment relationship itself presupposes a relationship of trust. Research on this was conducted by Oracle and Future Workplace, which came as a surprising result: 64% of people trust the robot or AI more than their supervisor. According to their respondents, managers are better than robots in areas such as understanding their feelings (45%), coaching (33%), developing a work culture (29%), and evaluating team performance (26%). However, robots are better than human bosses in tasks like providing unbiased information (36%), maintaining work schedules (34%), solving problems (29%), and managing budgets (26%).[8]

As AI reshapes the relationship between people and work and between employees and their bosses, it questions the trust-based nature of the traditional employment relationship. Additionally, according to a White Paper from independent research group Pierre Audoin Consultants (PAC), current work methods, productivity tools, and physical locations will become entirely obsolete during the next eight years. At the same time, the White Paper also warns today's companies that they need to embrace a culture of innovation and teamwork, both within and outside the organization, and that outdated technology and work practices degrade productivity and employee motivation.[37]

[36] Dayong Wang et al., "Deep Learning for Identifying Metastatic Breast Cancer", ArXiv abs/1606.05718, June 18, 2016, accessed July 14, 2021, https://arxiv.org/abs/1606.05718.

[37] "Workplace 2025: Take a Glimpse into the Future Workplace", White Paper, Fujitsu, accessed: August 31, 2017, https://digitalworkplace.global.fujitsu.com/white-paper-workplace-2025-take-glimpse-future-workplace/.

The Challenges and Conclusions

Future prosperity will undoubtedly be aided by emerging technologies such as AI integration, robotics, and the internet of things. However, there are complex ethical, legal, and security problems to be answered, and the eventual impact on employment remains to be seen, including the widespread talent gap caused by the mismatch skills that furthermore is expected to result in poor wage growth and worsen income inequality in developed and developing economies alike. Therefore, every country must improve and strengthen its digital infrastructure, develop a larger talent pool with advanced digital skills, provide intensive up-skilling and retraining programs for the potentially displaced workers and ensure that a thoughtful regulatory framework is in place to tackle the challenges, as well as, to give humans the best chance against the machines.

As we have seen, people's attitudes regarding machines, new technologies, and AI differ depending on where they live. Asia has a higher level of trust in AI than Europe. It can be due to Asian culture defined by an ethos that encourages people to be open to new experiences. It is also simpler to imbue machines with emotions or show them as girls who can be fostered emotionally. This acceptance is more natural in Asian countries than in Europe. European culture and religion focus first and foremost on human relationships and are much more reluctant to acknowledge the emancipation of things, objects, or even AI. All this makes it not surprising that the idea of society 5.0 also originated in Asia, and Japan in particular.

Our study has focused on labour market actors; employees and employers. The central theme of our research also reflects the different perceptions that characterize the two continents. While in Asia, the use of these is entirely open on both sides, in Europe, it is surrounded by reservations. That is not to argue that Europe is not using technology, but there are many other issues to consider. In European culture, the need for legal deregulation is always quick to arise. We can formulate in the language of the law, in this case, labour law, what to do when using AI for employee tasks.

The main question has shifted to the examination of collaborative forms. The main question is not whether or not there will be redundancies because of the use of AI. Nor is the main issue when AI integration will create more jobs than it eliminates, but how the direct application of these jobs will be achieved and how the relationship of trust between the employee and the employer is transformed. According to the findings in this study, the transformation is more straightforward in Asia since people accept AI more willingly than they do in Europe. Asimov's basic robotic principles are far more strictly adhered to in European culture.[38]

European society and law are much more individualistic than Asian cultures. A significant proportion of Asian ethnic groups rely on collectivism, with China at the forefront. It seems unlikely that a universally consistent viewpoint will develop in the foreseeable future. Not just the world, but the European Union's member countries are frequently divided on this topic. However, what is obvious is that, notwithstanding the variances, cultural embeddedness within a specific cultural domain remains the same.

[38] Isaac Asimov, "Runaround", *Astounding Science Fiction: Street & Smith*, 29/1 (1942).

Our conclusion from the above is that the scope is the same in both European and Asian cultural circles, but the approach is different. Accordingly, the chances of implementing Society 5.0 are higher in Asia than in Europe. In Europe, many countries have not even adopted Society 4.0 and Industry 4.0. This is also true for the poorer regions of Asia.

In terms of labour relations, there are complex questions for European and Asian policymakers to answer. But different answers to the same questions are already inevitable.

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