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ISSUES IN TERMS OF EMPLOYMENT AND SOCIAL SECURITY IN THE MIRROR OF INDUSTRY 4.0

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The fourth industrial revolution is changing many aspects of life. Technological changes and certain aspects of labour law are dealt with by many authors. This paper, however, examines a less focused but equally important issue. This issue is the social and societal aspect of the issue. We cannot, of course, disassociate it from labour market developments, but we try to treat it as an issue of equal importance at every stage of the analysis. It is for this reason that the changing social structures generated by the Fourth Industrial Revolution are presented through the lens of social issues. Primarily through literature and the interpretation of legal texts, but where possible the practical side will be included.

Keywords:

social security,
industry 4.0,
standards,
labour law.

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1. INTRODUCTION

The fourth industrial revolution has brought numerous innovations which have significant effects on workplaces, and so, on the changes in working conditions and the labour market itself. The fourth industrial revolution means the new era of mechanization and automation, that is also strengthened by the digitalization of work. Because of this, several questions emerge that should be solved and regulated by the tools of law. This is a multifaceted problem. Law as a universal system is only partly affected by the phenomenon. As a result, the regulation process itself is not too fast. The other question is to what extent soft law solutions can play a role. The legislator is in this period right now, when it defines white books, strategies, and other soft law tools. Should it take more drastic steps? Before answering the questions, it is essential to point out that the law is a following system. It always follows technical development and usually does not generate it. Moreover, the law is a linear system, while the technical and digital development of nowadays is cyclic and periodical. What is considered as a world-saving technical innovation on one day, may turn out to be a dead-end on the other. Law and rather the legislators need to wait to be able to follow the mainstream of development. These periods are often *ex-lex* periods. The legislator tries to create the regulation based on the experience gained in the meantime. But is the legislator prepared? Can it prepare for constituting law which can manage the life situations created by Industry 4.0? Because of the extent limits, the complete legal context cannot be examined in this study. And it is not even the goal. However, we would like to present the fields most affected by the changes. Searching for the answer to the questions above, primarily labour law and the related social law will be examined, as the direct effect of the fourth industrial revolution can be observed in the workplace. The typical question always emerging in connection with this topic should also be answered: “Will many people lose their jobs because of automation and robotization?” If that is true, then, are the current legal tools enough to manage the situation? Is fourth-generation law necessary to solve emerging situations? And the most important question: is the legislator able to constitute such a law if needed?

2. FOURTH INDUSTRIAL REVOLUTION AND LABOUR MARKET

We are living in the era of the fourth industrial revolution. But what does this mean exactly? The starting point can be that changes have happened to such an extent in the industry that there have been no examples since the 18th century. The last time such technological jump and development may have been at the time of the first industrial revolution. However, this development should never be evaluated by itself

[28] [26]. In the current conditions, we should look at not only the frameworks provided by the Industrial Revolution themselves but also the belonging concepts. Although, it is not sure at the first moment that we understand the significance and content of these concepts. However, understanding these concepts will have a key role later. One of these concepts is Industry 4.0, which seems to be a great but ultimately well-circumscribed field at first sight. But if it is examined closer, it turns out that it is a concept which affects almost everyone in our society directly or indirectly, and so, it reflects the digital transformation that can be found everywhere. Industry 4.0 can be explained as something that integrates the value-creating activities of the company and the whole value-creating chain with the help of digitalization¹ (KPMG, 2016). Judit Nagy (2017) sees the goal of Industry 4.0 as it strives for the digitalization of all physical tools to unify them in a digital ecosystem, together with the partners cooperating in the value-creating chain. However, this level of integration requires the standardization of the systems, huge capital investment and such level of trust between the members of the digital ecosystem that is not obvious in the corporate culture of every country [21].

The newer industrial revolution is powered by the internet, by which not just people, but machines also communicate with each other in the cyber-physical system (short term: CPS). Due to the above, the value chains and relations created earlier are transforming. We must get to know such concepts in a completely different context as robotization and automation. But completely new concepts come to the fore as well, such as the issue of smart factories. The concepts and phenomena mentioned as examples have been parts of our everyday life for a long time. Many times, they have conquered space in our everyday lives without being noticed. Compared to its great predecessor, the fourth industrial revolution does not have a smaller significance, but it is felt to be more silent. But we allow ourselves the assumption that this is only the silence before the storm. At the time of the first industrial revolution when steam engines occurred, significant labour movements were formed. There were several movements among these like the Luddite movement led by Ludd, which saw the solution of the process in machine destruction. We are not at this point yet. However, there is no doubt that automation and robotization will gain significant space in the future. The study of the MKIK GVI (*Hungarian acronym for the Institute for Economic and Enterprise Research operated by the Hungarian Chamber of Commerce and Industry*) also highlights that the international literature examining the possible effects of automation on the labour

¹ KPMG. (2016). *The Factory of the Future*. Retrieved 11 23, 2023, from <https://assets.kpmg.com/content/dam/kpmg/es/pdf/2017/06/the-factory-of-the-future.pdf>

market starts from the premise that, based on our current assumed future technical knowledge, living labour is or will be replaceable in case of some of the currently existing working tasks, so, the demand for manpower will decrease on these fields. In other fields, such as the field of designing and operating new technologies, an increasing demand can be expected [20]. In the case of these opposite effects, Osborne and Frey (2013) highlight the importance of balance. In their opinion, the effect of automation on the labour market depends on the balance between the two effects [7].

The question is: getting to know the above-mentioned processes and effects, what will be the legislator's goal? How would it like to regulate the processes, and the greatest question is whether it wants to regulate them at all. The effect of Industry 4.0 processes on a certain labour market in a certain society is not independent of the economic policy of the country's government. However, it should be seen that Industry 4.0 processes have started, and they cannot be stopped. The legislator can form the regulation framework system according to its choice. And within this, the question is how conservative, neoliberal, probably social economic policy is imagined by it. But these choices will influence the global labour market as well. This is true primarily for the labour market of the European Union. The EU strives to orient the member states with the tools of soft law², and sometimes hard law³. Among the current globalized processes, their even more far-reaching effects can also be imagined.

3. INDUSTRY 4.0 AND WORK

To examine the labour market and its regulation, the definition of work should also be examined. Work is such an activity performed for other people that is usually performed in the framework of a (work) contract for wages. Over these classic approaches' methods, we also accept the social usefulness of domestic work. The EU law resources often refer to work vaguely. Its aim is usually that it would like to keep all the personal groups protected by the member states under protection. Numerous regulations have been created in the EU in which the interpretation of work and labour law relationship depends on the interpretation of a certain country. The situation of platform workers will be a good example of this [19].

² Recommendation of the directive of the European Parliament and Council on platform work. Retrieved 07 02, 2022, from <https://eur-lex.europa.eu/legal-content/HU/TXT/PDF/?uri=CELEX:52017IP0051&from=HU>

³ Recommendation of the directive of the European Parliament and Council on platform work.

The Court of the European Union will define principles in the problematic cases, but the reception of case law is also always mixed.

Of course, not just work, but the working processes will also change. Two significant directions of the automation of certain working positions can be differentiated. In one case, the strengthening of systems created by the harmony of mechanics and human labour will happen soon by using cooperative robots [3]. In the other case, the goal will be real automation and the creation of such systems that are closed work processes without people. The first process will affect primarily labour law issues, while the second one will influence primarily labour market processes. More effects should be observed in the case of the labour law and labour market effects of robotics. Two viewpoints should be analysed here: one is robotics connecting to the “effect replacing” human manpower; the other connects to the cooperation with robots or other cooperative work processes. This will result in two different effects realized in the same direction. In one case, the starting point is how much human manpower will be replaced. As József Hajdú also highlights, the number of robots installed in European plants is continuously increasing [9]. Among others, he also highlights the PwC’s relevant research, the lessons of which are also analysed via our filter.

According to the PwC’s research, nowadays, automation endangers only 3% of the workplaces on average in the countries participating in the study. But this rate will increase to 20% by the end of this decade. And the rate of employees whose jobs will have been replaced by robotization may be around 30% by the middle of the next, 2030 decade. An important result of the research is that the effect of robotization will affect the different genders on different dates. At first, the increase of automation may affect mainly women, while men may feel its effects rather only in the third wave, in the middle of the 2030s. Not only will the differences between genders influence who and when will be reached by the process, but it will also depend on education. This is interesting because according to the above, women will be affected by the process at the soonest, however, in the long term, men with lower education will be at the greatest risk. It is more typical for employees with higher education levels to be better at adapting to technological changes. They are the employees who work in decision-making and leadership positions. Humans are needed in these positions. We also agree with this, however, algorithmic management significantly shades the picture [29]. The rate of workplaces which have a good chance of being replaced by automation by the 2030s is different by country. According to the research, it may be only about 20-25% in some Eastern Asian and Northern European farms where the education level is higher. In contrast,

this may exceed 40% in Eastern Europe⁴. The above-mentioned results should be examined in light of the report of the Boston Consulting Group. Based on the report, the spread of autonomous machines and artificial intelligence will deepen social inequalities and may generate massive unemployment in the future (4.0 technological unemployment). According to the research, the phenomenon will affect a wide scale of work positions. As the PwC's report also highlights, those who earn more can re-educate themselves to change to other fields, while people in less favourable financial situations will not have the chance to take advantage of the same opportunity.

4. ROLE AND GENERATIONS OF LAW

One of the main issues of the examination described in the frameworks of our study is what law will do with all the effects and questions emerging as the consequence of technological development. This is also important because the law is a following system. It has always been in a position to create rules in the light of the acquired experience. But this is also not the terminal station, because it needs continuous fine-tuning.

Legal regulation needs to be changed; it is not a question. The question is whether this can be realized on the current level of law, or whether new legal structures should be created. Is Law 4.0 necessary for the regulation of the current frameworks? Law in its current situation may be suitable for defining the new rules at a principle level. The examination of certain legal institutions always refers to the most basic issues [15]. But this does not mean that there is no need for a new generation of legal rules. The best example of this is the situation of human rights. Three generations of human rights are differentiated. Civil and political rights have a place in the first generation. The second-generation fundamental rights are the economic - social and cultural rights. The third-generation rights are the rights associated with the effect of globalization. No new elements should be included in this list, mainly as the emerging questions will affect mostly the second-generation fundamental rights at several points [16]. For example, the content of the right to work, or the right to social security. Such questions will emerge during the interpretation of these rights or their adaptation to the Industry 4.0 environment raising the demand whether it would be

⁴ *Will robots really steal our jobs? An international analysis of the potential long term impact of automation*. Retrieved 12 02, 2020, from https://www.pwc.co.uk/who-we-are/regions/northernireland/r-WillRobotsTakeOurJobs_020218.pdf

necessary to catch up with the technological innovations of the fourth industrial revolution somehow. Its necessity is generated by not only the most complicated situations but also such legal issues as home office vs. teleworking in the recent period [27]. All this so that teleworking has had legal regulation for about three decades. But, surely, rights need to be approached by a new perspective which may bring the new generation of rights in another approach. Such a specific example is the change of responsibility rules [23]. However, such questions are raised also by the compensation law concepts and legislation regarding damages caused by self-driving cars [12].

We call the thoughts of Roger Brownsword about the law to help define and think about this. According to Brownsword (2021), we are living in the era of Law 3.0. He associates the generation of rights with the level of technological development. Law 1.0 means the basic roots of law on which it is worth holding, but technological development embarrasses it: Classic legal situations should also be developed further. Its reason is the development of the world. And the problem with Law 2.0 is the availability of technology. Law 1.0 held back innovation. The challenge of Law 2.0 was the creation of such a regulation environment which could answer these deficiencies that could not be answered by Law 1.0. The concept of Law 3.0 is that it tries to adjust the law to the changing life conditions [4]. Its best example was the conceptual dualism of home office and teleworking during the period of the pandemic. Is it enough to adjust only law to technology? The questions are also true in reverse: should technology be adjusted to law? And the main question: where are the boundaries?

5. ROLES OF STANDARDS IN THE MIRROR OF LAW 4.0

It is not possible to adapt the old legislation to technology indefinitely, mainly in the light that we should talk about a specific rule type which may be one of the bases of the Law 4.0 rule. Law 4.0 will be the consequence of innovation. And not necessarily the consequence of product innovation. Naturally, new technologies also generate the necessity for regulation. Social innovation will be the generator of the new level of regulation [22]. New technologies also generate such new life situations which will be over the point that arises from mutual adaptation. Such rules are needed that can react to critical situations as fast as possible.

This type of rule is the standard. The primary field of using standards is the workplace where humans and machines work together. That is why the first appearance forms of Law 4.0 can be expected in the fields of labour law and employment law. With the massive application of technology, it becomes unavoidable that freely available legislation mandatorily applicable to the relationship between humans and machines would grow out from the standards now still paid. Primarily, work safety rules and rules dealing with the cooperation of humans and machines could be created. The need for standards has also been highlighted by the European Parliament in point 22 of its Recommendation. According to the Recommendation, the issue of the creation of standards and interoperability has key importance from the aspect of the future competition growing in the field of technologies related to artificial intelligence and robotics. The European Parliament prompts the Committee to continue the cooperative work with the International Standard Organization in the field of the international harmonization of technical standards to promote innovation, avoid the fragmentation of the internal market and create minimal safety standards in the work environment. The Recommendation emphasizes the importance of legitimate engineering deconstruction and open standards, to maximize the value of innovation and ensure that robots can communicate with each other (European Parliament, 2015)⁵. The role of standardization and testing robots in real-life situations is essential to evaluate and avoid possible risks (European Parliament, 2015). Its tolerance values cannot exceed a certain level of force effect [8].

However, not just standards in connection with using robots have been created, but also those in connection with work in general. In our opinion, general work safety orders and standards should also get special attention during cooperative collaboration. The employer must ensure the conditions of safe work not endangering health. On the one hand, the use of the above-listed standards is needed for this during the collaboration of machines and human manpower; on the other hand, general work safety regulations should also be enforced continuously. This is helped by the new healthcare and work safety standard with code ISO 45001 created by international experts.

⁵ Recommendations to the Commission on Civil Law Rules on Robotics (2015/2103(INL)).

6. THE ROLE OF PRINCIPLES AND THE RIGHT TO SOCIAL SECURITY

Employment and social security connect quite closely. That is why the existence and quality of labour law and employment rules also influence access to social benefits. In our current system, continuous employment legal relationship is one of the methods of the acquisition and maintenance of the insured status. Taxes and contributions deducted from the wage ensure membership in the system of social insurance. The contribution paid is like a voucher which can be redeemed at almost any time during the existence of the insurance relationship. However, the range of benefits forms a constantly changing structure. The new life situations and the application of new technologies will induce new social benefits as well, and the practice of the existing ones may also transform. Such example can be the regulation of accident sick pay. Employees will be exposed to new expositions at the workplace. The way of load will be new, and the cooperation with robots may generate completely new relations [6] [11]. It will not be possible to answer these questions with the help of standards.

A continuous insurance relationship means an opportunity for the payer to receive care if needed based on the principle of solidarity. In terms of social security, solidarity is considered to be one of the most important principles with the greatest effect. The principle of solidarity operates not just social insurance, but the complete social security system as well [1]. That's why it is important how the role of employees and their situation changed under the influence of the fourth industrial revolution. The technical changes of the 21st century affect the field of the right to social security at multiple points. Flexible forms of work that are made possible by the technical conditions come to the fore more often [13]. It is characteristic for these almost without exception that institutions providing social security are missing behind them. These new phenomena include the sharing economy, among others, which means the marketing of unused resources as services via online platforms. Such resources can be for example the unused seats in our car, the free spaces in our home, or our free time. We would like to deal with these flexible forms in another study. In the current frameworks, we would prefer to examine the effects of robotization and automation. In connection with the right to social security, it is essential to talk about another affected group, namely those who lose their jobs because of the application of the widespread robots and automatic data processing systems. In our view, we will also have to classify artificial intelligence to these factors soon [25]. Because of another effect of digitalization changes, those who belong to this group find themselves in a situation where social security comes to the fore. In certain sectors like public administration, professionals say that the work of almost three-quarters of the

employees may be replaced by digital developments. Regarding its level, exact numbers cannot be seen yet, although, it can be established along the guidelines of the developments that a significant part of employees may become unemployed. Of course, the occurrence of new workplaces can also be expected because of digital effects. In this situation, the role of social policy is appreciated. We can talk about social policy in a broader and narrower sense. The broader sense includes every activity that serves the reproduction of both society and manpower, such as education and healthcare services, while the narrower sense includes the support of groups with no income, and the provision of the needs of people in difficult situations [5]. Starting from the broader concept of social policy, the form of state aid provided in connection with education will come to the fore in those cases when the employees lose their jobs *en masse* because of the wide-range application of artificial intelligence and robot technology. These can be realized by the provision of free or discounted retraining and further training opportunities. Besides this, they will be eligible for benefits available for unemployed people, which can provide some solutions in the transitional period. Of course, companies should get a significant role in the further- retraining of employees in the framework of social responsibility [17].

In the field of unemployment, a strong connection point can be found in association with the right to work and social security. The state can do the most for unemployed people by creating jobs and promoting the expansion of employment, ensuring that they do not get trapped in the captivity of social benefits. Passive employment policy tools provide only temporary solutions, but the system can push the individuals to the periphery in the long term and keep them in captivity as people in need of social benefits. The way out of this is to start work as soon as possible, which can be significantly promoted by the state by the expansion of employment. To realize these, solidarity on the social level is needed. Not just in insurance-type systems, but in the aid system as well. As Árpád Homicskó (2019) also highlights, it will be a serious challenge in the 21st and the next centuries to determine how the increasingly expensive healthcare services can be financed by the state. He also highlights that financing aspects in the regulation mostly focus on the reimbursement of services. At the same time, regarding the services, the rules do not necessarily define qualitative goals to be achieved in terms of the healthcare services. From the aspect of the operation of the healthcare system, the quality of healthcare services the patient receives should also have significance, the same way as the fact whether the patient receives the highest level of care available based on the most modern and newest research results [10]. However, it will not work without constant contributions. The core of the principle of solidarity is the contribution to the financing of benefits. This is true even if the pay-as-you-go system needs supplementation because of the basic principle of the state's

underlying responsibility. Not the contributors finance the whole system, but it would collapse without their contribution. The reform of the social care system is on the agenda anyway because of the decreasing population. Its effect can be enhanced if the masses of employees lose their jobs because of any reason. This reason can be automation and robotization, but also high inflation right now. If a part of the funding falls out, how is responsibility going? The other question is what kind of social benefits are needed in the changed working conditions. Labour law changes highly influence the health insurance system of social insurance, but even pension benefits and accident insurance within social insurance. If the human capital performing work falls out of the market intermittently and/or finally, how much responsibility is taken over by the state and how much should be taken over by the individuals themselves? The question is whether 4.0 social law strengthens the social elements, or it follows the Anglo-Saxon model where a system thinking in terms of mainly benefits in kind and reduced to extremes is operating.

To examine the whole picture, the aid system should also be reviewed as this is also a great segment of the social care system. In the case of these benefits, state involvement primarily means subsidiarity. However its examination is unavoidable since if we count on the prognosis of increasing unemployment due to automation, more and more people will get to this level. Therefore, the changes in the aid system cannot be separated from the whole social system. As has been mentioned, aid can be evaluated as a subsidiary asset which works as a last safety net. Aid comes to the fore when the affected person cannot receive any benefits from other solidarity funds [18]. Aid can have several forms, its extensiveness and real-level changes by countries. There is only one fixed point, and this is personal need as a basis. The factor that who can be considered as a person in need strongly depends on the traditions of the certain country.

If the national situation is examined, it can be seen that the principle of subsidiarity is strengthened by the legislator's latest proposal for an amendment affecting social aid. The document T/1620, which is a draft law on the modification of certain acts serving the security of Hungary, contains the amendment. The amendment had a first text causing a big storm, according to which:

“(1) Primarily the individual himself is responsible for his social security.

(2) If the individual, through no fault of his own, is unable to establish his social security, giving help is the duty of the relative, in proportion to the relative's financial opportunities and personal ability.

(3) If the individual's living cannot be provided by himself and the relatives, the municipality of residence has the duty of care.

(4) It is the task of the charitable organizations receiving state support to search and help, in proportion to their strength, people not living on social security.

(5) If, despite the content of section (4), the individual's social security cannot be established, ensuring that is the duty of the state.”

The above-mentioned first text draft defined several basic premises which went against the previous practice and the expectation arising from the practice of the social functions of the state. Based on this, the state ranked itself as last in the range of the realization and provision of social security. However, this solution raised the question of whether how it is compatible with Article XIX of the Fundamental Law according to which Hungary strives to the establishment of social security. And it contributes to this by its measures and the institutions maintained by itself. However, timing is questionable as it is not sure that shifting responsibility to other actors is the expected behaviour in case of constant inflation and an energy crisis affecting citizens. According to the first text draft, everybody is responsible for themselves. This means that in the first round, it is the person's responsibility to establish his/her social security. This point of view is similar to the point of view of the USA and other states following liberal economic policy. On the market, everyone is worth what they achieve. Thus, the losers of the market are primarily responsible for themselves. This solution would have significantly reduced the role of social policy [14]. In the next round, the role of the family and its social functions would have stepped forward. The family duty of care would have been established only if the person was unable to care for himself through no fault of his own. The meaning of the “fault of his own” is a great question here. Even the justification of the proposal has not filled it with meaning. Moreover, it is an important question that who would have been eligible to decide what the issue of the fault of his own is. The issue of the fault of his own regularly returns in the Hungarian social legal conceptual system. One of its definitions can be found in Article XIX of the Fundamental Law. It has also come to the fore now. It will likely come to the fore in the next period in some form as well. Can it be considered a mistake in the future's labour market if someone has lost his job because of mechanization, but because of his skills, he could gain knowledge leading him back to the labour market only over the expected deadline? But if we stay at the original idea, even then, it is difficult to interpret the concept. We will not have illusions in connection with that the new rules will contain fewer difficult legal concepts.

In the planned regulation, the family was defined as an active actor on the next level. If the family was also unable to help, the responsibility of the municipality of the residence would have been the primary. On the one hand, this is evident based on the previous regulation in the fields of financial benefits and benefits in kind and the range of basic services. If the municipality cannot help, then the state steps forward as the last actor in this order of responsibility.

The proposed provision created a quite great echo, so, the legislator refined the proposal, and it has come into force with the following text:

(1) Everyone is responsible for themselves.

(2) If the person is unable to take care of himself, he is helped by relatives - in the order according to the rules regarding relative maintenance found in Act V of 2013 on the Civil Code (hereinafter: CC), by their capabilities and possibilities.

(3) If the person is unable to take care of himself and the relatives do not fulfil their duties of care by section (2), the municipality of the person's residence has the duty of care by the conditions defined by law.

(4) If the person is unable to take care of himself, the relatives do not fulfil their duties of care by section (2), and the municipality does not fulfil its duty of care by section (3), the state has the obligation by the conditions defined by law.

(5) During the performance of their duties, the state and the municipality cooperate with church and civil organizations relating to the provision of the conditions of social care.

(6) The establishment of the system of social institutions and measures, and the provision of their operational frameworks are the tasks of the state and the municipality in the way defined in this act.

Social security has been taken out from the first sentence in the modified proposal, which reduces the person's responsibility to a general responsibility. Over this, the close relatives' responsibility, and therefore, the family's responsibility is left on the level of relative maintenance, by which the definition of 'fault of his own' has been taken out from the text. And the greatest change is that the state has ranked itself in the penultimate place. Civil organizations are mentioned as the last place by which the state and municipalities cooperate.

The above legislation product is the product of crisis management, in the frameworks of which the state intends to minimize its role and responsibility. The question is whether the state chooses this way in such a critical period when it has to face with the challenges of Industry 4.0 more seriously. This is also a possible way of responding to the social challenges of the fourth-generation industry. The above-mentioned solution can adumbrate quite a lot of things as well. It is not known whether the legislator chooses this way. It can only be seen that it has done it once before.

If we are thinking about how Law 4.0 should be created, it is worth a complex solution. Therefore, social law cannot be separated from either labour law rules or tax law rules, which deal with financial issues.

Over the risks and besides the positive effects of robotization, it should also be mentioned that our social and social insurance system is unstable anyway becomes even more vulnerable to the increase of unemployment due the technological development and its consequences. Its eligibility for funding is currently problematic as well. If more tax and contribution income falls out from the Fund in the future, the benefits will not have the necessary coverage, not even with the state's (currently "mandatory") contribution. The idea that companies using robots should also be burdened by taxes and contributions like companies using human resources has already emerged in 2017. This could be evaluated at the companies as 'social responsibility'. But if it would be binding as a legal norm, solutions may (could) be born for its enforceability, and the incomes gained like this could (also) be used for saving the collapsing social care system. However, the companies using robotization see the dam of innovation and productivity in the idea. However, we do not have information about how the introduction of a new tax "creating a dam", as they say, would be proportionate with the expenditures saved by the automated processes. Lacking the exact data regarding this, it is difficult to determine the real effect of such a tax. However, it is certain that in the case of the creation and realization of a well-developed tax system, the companies' expenditures would not be so high that could endanger the profit, even after paying the robot tax. But it could be a real danger if a country, or even an economic region, would tax robots; then, using the opportunities of globalization, production would move to countries with better tax conditions. It would be worth promoting common European acting in this issue. So, factories could be seduced by not just cheap manpower, but the tax exemption of using automation processes. The legislator will face a serious dilemma. In the future, the question can be interpreted in social law fields as competitiveness vs. social benefit.

7. CONCLUSION

The consequence can be deducted from the statements of the above examined via multiple connection points that the role of the right to social security will be more appreciated in the future. Currently, we feel only the initial effects of digital changes in the labour market, but, surely, numerous new measures of the state and gaining numerous new competencies and knowledge will be necessary from the employees, so that they do not need social benefits. The lack of protection of working forms occurring at an increasing rate by the digital effects originates from its flexible feature. If the legislator decides like that new working forms will be the subjects of regulation, their popularity will decrease in that case (in our opinion) as their application would entail more emerging costs. Of course, it may happen that intervention and the modification of the regulation will be needed in case of certain new employment forms, if it is called for life by social demand, for example, if a significant part of the society performs income-generating activity within the mentioned frameworks. The mentioned employment forms have a rather private law character, by which the emerging risks, like the guarantee of social security, are pushed to the employee from the employer [24].

The role of law will change in the mirror of the industrial development and the fourth industrial revolution. The change originates primarily from the recognition and the need for the regulation of such life situations that social circumstances are changing. The existing rule systems should be developed. But this process will have limits. There will be such life situations when new rules, and probably new principles, will be needed. In connection with this, resources suitable for Law 4.0 should be searched. Standard may be one of these resources that could provide help primarily in the regulation of workplace relations. But this could be only one of its resources. Industry 4.0 also generates numerous questions, primarily social law issues, that can be derived from principles, not standards. The examination of these latest forms is planned in the future.

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CUESTIONES EN TÉRMINOS DE EMPLEO Y SEGURIDAD SOCIAL ANTE EL ESPEJO DE LA INDUSTRIA 4.0

RESUMEN

La cuarta revolución industrial está cambiando muchos aspectos de la vida. Muchos autores abordan los cambios tecnológicos y determinados aspectos del derecho laboral. Este artículo, sin embargo, examina una cuestión menos específica pero igualmente importante. Esta cuestión es el aspecto social y social de la cuestión. Por supuesto, no podemos disociarlo de la evolución del mercado laboral, pero intentamos tratarlo como una cuestión de igual importancia en cada etapa del análisis. Es por esta razón que las estructuras sociales cambiantes generadas por la Cuarta Revolución Industrial se presentan a través del lente de las cuestiones sociales. Principalmente a través de la literatura y la interpretación de textos legales, pero siempre que sea posible se incluirá el lado práctico.

Palabras clave: seguridad social, Industria 4.0, normas, derecho laboral

工业4.0视角下的就业与社会保障问题

摘要

第四次工业革命正在改变生活的许多方面。许多学者都在研究技术变革和劳动法的某些方面。然而，本文探讨了一个较少受到关注但同样重要的问题。这个问题是社会学和社会层面的问题。当然，我们不能将其与劳动力市场的发展割裂开来，但我们在分析的每一个阶段都试图将其视为一个同等重要的问题。正因如此，第四次工业革命带来的社会结构变化才通过社会问题的视角来呈现。本文主要通过文献和法律文本来解释，但在可能的情况下，也会包括实践方面。

关键词：社会保障，工业4.0，标准，劳动法