

## A FEW REFLECTIONS ON HUMAN LABOUR. WORKER'S SAFETY IN THE LIGHT OF SCIENTIFIC AND TECHNOLOGICAL PROGRESS VS. THE TEACHINGS OF THE CATHOLIC CHURCH

Maciej Jarota, Ph.D.

Department of Labour Law and Social Security Law

Faculty of Law, Canon Law and Administration at the John Paul II Catholic University of Lublin

e-mail: [m.jarota@kancelariajarota.pl](mailto:m.jarota@kancelariajarota.pl); <https://orcid.org/0000-0001-6568-1626>

**Summary.** Scientific and technological progress requires employers to ask questions about the axiology of work again. This article takes up considerations regarding legal regulations of employee health protection in the context of guidelines offered by the teachings of the Catholic Church from the perspective of the development of science and technology in work performance. The purpose of this publication is not to present a detailed analysis of the scientific and technological progress including new forms of employment. The existence of such progress is only a contribution to the reflections on the topicality of the legislation on occupational health and safety and on the adequacy of applied employee health protections in the light of dangers occurring in the workplace in the context of goals and values indicated by the teachings of selected representatives of the Catholic Church.

**Key words:** human labour, employee health protection, occupational health and safety, ancillary copyrights, scientific and technological progress

Significant scientific and technological progress has been observed since the times of the encyclical by Leo XIII *Rerum novarum*, which was the reaction of the Catholic Church to the first industrial revolution that occurred in the 19th century.<sup>1</sup> At present, technology is a material component of the economic development of the society. In *Laborem exercens* issued on the 90th anniversary of *Rerum novarum*<sup>2</sup> Pope John Paul II stresses that “While it may seem that in the industrial process it is the machine that «works» and man merely supervises it, making it function and keeping it going in various ways, it is also true that for this very reason industrial development provides grounds for reproposing in new ways the question of human work” (no. 5). While indicating the need to protect human work<sup>3</sup> in the analysed encyclical, the Pope highlights the achievements of *Rerum novarum* and of the Vatican Council II in the context of the progress of technology and science. One can say that, even though both encyclicals looked at work from different time perspectives, they still have a lot in common [Sylwestrzak 2012, 318].

---

<sup>1</sup> Leo PP. XIII, Litterae encyclicae de conditione opificum *Rerum novarum* (15.05.1891), ASS 23 (1890–1891), p. 641–70. Pope Leo XIII stated in the encyclical that the capital cannot do without labour, nor labour without capital.

<sup>2</sup> Ioannes Paulus PP. II, Litterae encyclicae de labore humano, LXXXX expleto anno ab editis Litteris Encyclicis «Rerum Novarum» *Laborem exercens* (14.09.1981), AAS 73 (1981), p. 577–647.

<sup>3</sup> For the concept of work protection see Liszcz 2017, 62–65.

The scientific and technological progress materially influences the process and the organisation of employees' work. Specific threats occur with it in the work environment. It is particularly visible in the area of digitalization and robotic automation.

## 1. SELECTED AREAS OF SCIENTIFIC AND TECHNOLOGICAL PROGRESS

Fast scientific and technological progress influencing the occupational health and safety of workers occurs in various areas, including: digitalization and robotic automation using artificial intelligence. Another area that experiences principal changes in the work process is digitalization that allows for the collection of the information processed electronically in an enterprise [Magnus and Glazner 1986, 467]. In the classical meaning, digitalization is about the employer and workers operating in a virtual environment [Świątkowski 2019a, 11]. It makes it possible to perform work via electronic communication means.<sup>4</sup> Digitalisation makes it possible for the workers to fulfil their duties remotely, e.g. from their homes [Gaber and Mansfield 2001, 262]. In particular, it helps healthcare entities provide healthcare [Calouro, Kwong, and Gutierrez 2014, 19]. Examples of its use include digital workplaces thanks to which a worker can perform work from anywhere while retaining access to the necessary data [Mazurek 2019, 50–51].<sup>5</sup> Digitalisation enables the employer to use modern and mobile technologies in the workplace [Świątkowski 2019a, 12].

In turn, when referring to the robotic automation that can be briefly described as the use of programmed multi-function equipment designed to complete various tasks, one has to note that it can lead to the replacement of human work with the work done with the use of robots [Scheel 1993, 28]. The literature on the subject indicates that robots are not only a software solution but also that they should be classified as physical objects [Rojszczak 2019, 7]. Such robots can sometimes be equipped with artificial intelligence that simulates the intelligent behaviour of computers or man [Buiten 2019, 43–45]. Combining robotic automation with AI algorithms offers a chance for IT systems to make decisions with no human control [Rojszczak 2019, 5]. Artificial intelligence can learn appropriate functions and understand specific phenomena [Dobrescu and Dobrescu 2018, 71–72]. Thanks to its unique features, it is applied in banking services among other things [ibid., 74–76]. The literature indicates that the use of artificial intelligence can improve work productivity [Brown 2017, 209–10].<sup>6</sup>

---

<sup>4</sup> For more about new forms of work see Gospodarek 2019, 9–17. Additionally, electronic employment platforms are described, among other things in: Świątkowski 2019b, 18–23; Kozak 2019, 18–23; de Castro 2019, 20–24.

<sup>5</sup> About Digital Workplace see also Pęczak 2019, 28–33.

<sup>6</sup> The European Commission seems to have noticed the materiality of the use of artificial intelligence when it indicated its strategic importance to the EU economic development [Dobrescu and Dobrescu 2018, 79].

## 2. LEGAL PROTECTION OF WORKERS' HEALTH IN EUROPE AND IN POLAND

Many legal regulations exist both in Poland and in Europe to guarantee safe and hygienic work conditions to workers. On the EU level, this area is regulated, in particular, in the Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work.<sup>7</sup> Legislations of individual European states vary significantly despite the said framework directive being in force, which can sometimes result in a non-uniform degree of legal protection of health and safety at work in enterprises [Piątkowski 2017, 250]. Additionally, legal regulations relating to the safety of appliances operating in the workplace are in force in the European Union. As regards the way that machinery is used by workers, one can observe, in particular: Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC<sup>8</sup> and Directive 98/37/EC of the European Parliament and of the Council of 22 June 1998 on the approximation of the laws of the Member States relating to machinery [Hansen and Kristensen 2014, 89]. Another law in force is the Directive of the European Parliament and of the Council 2014/53/EU of 16 April 2014 on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC.<sup>9</sup> One cannot forget that, pursuant to Art. 2 of the European Social Charter of 18 October 1961,<sup>10</sup> parties signing the Charter within the Council of Europe in order to guarantee the effective execution of the right to fair work conditions, undertook, among other things: to remove dangers related to the performance of work that is dangerous or noxious for health and, where the removal or a sufficient reduction of such dangers is not possible, to guarantee either shorter working hours or additional paid holiday for workers employed for such work. According to Art. 3 of the ESC, they also undertook to do the following in agreement with employer and employee organisations: to define, implement and periodically review the integrated national policy on safety, health of workers and of the work environment; to issue regulations on health and safety; to guarantee means of control over the application of such regulations and to promote the gradual development of occupational medicine services available to all workers, with preventive and counselling tasks as their priority objectives. A general referent to work conditions can also be found in Art. 31, sect. 1 of the Char-

---

<sup>7</sup> O.J. UE L 183/1.

<sup>8</sup> O.J. UE L 207/1.

<sup>9</sup> O.J. UE L 153/62. There is also Council Directive 85/374/EEC of 25 July 1985 on the approximation of the laws, regulations and administrative provisions of the Member States concerning liability for defective products, O.J. UE L 210/30 and Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety, O.J. UE L 11/4.

<sup>10</sup> The Charter was ratified by The Republic of Poland to a certain degree on 10 June 1997 (Journal of Laws of 1999, No. 8, item 67 [henceforth cited as: ESC]).

ter of Fundamental Rights of the European Union of 14 December 2007<sup>11</sup> according to which each worker has the right to working conditions respecting his health, safety and dignity. Pursuant to Art. 32 of the CFR, adolescents permitted to work have to be guaranteed work conditions adequate to their age and to be protected from economic exploitation and from any work that could compromise their safety, health or physical, moral and social development or hinder their education.<sup>12</sup>

In the Polish legal reality, the general rule regarding the occupational health and safety is defined in Art. 66, sect. 1 of the Constitution of the Republic of Poland of 2 April 1997,<sup>13</sup> according to which everyone has the right to safe and healthy work conditions.<sup>14</sup> A worker is entitled to statutory holidays and annual paid leaves; maximum working time standards are defined in the law (Art. 66, sect. 2 of the Constitution of the RP). In turn, Art. 68, sect. 1 of the Constitution of the RP introduced the rule according to which everybody is entitled to health protection. According to Art. 24 of the Constitution of the RP, work is under the protection of the Republic of Poland, and the state exercises supervision over the conditions of work. The constitutional legislator refers to the law as regards the manner of exercising the right to safe and hygienic working conditions. In the Polish legal regime, OHS regulations are contained in the Act of 26 June 1974, the Labour Code.<sup>15</sup> According to Art. 15 of the Labour Code, the employer is obliged to ensure safe and hygienic working conditions for employees. Pursuant to Art. 207, para. 1 of the Labour Code, the legislature has introduced the rule according to which the employer is obliged to protect the health and lives of workers by guaranteeing safe and healthy working conditions with the appropriate use of scientific and technical achievements. According to Art. 226, sect. 1–2 of the Labour Code, the employer evaluates and documents professional risk related to the work performed and applies necessary preventive measures to reduce the risk; the employer informs employees about professional risk related to the work performed and about rules of protection from threats. Pursuance to Art. 220 of the Labour Code, the use of materials and technological processes with no prior determination of their noxiousness for the health of workers and the implementation of appropriate preventive measu-

---

<sup>11</sup> O.J. UE C 303 [henceforth cited as: CFR].

<sup>12</sup> Health and safety regulations are specified at the level of the International Labour Organization, see, inter alia: ILO Convention No. 155 on safety, health of workers and the work environment, <http://www.mop.pl/doc/html/konwencje/k155.html> [accessed: 6.10.2019]; ILO Convention No. 161 on Occupational Health Services, <http://www.mop.pl/doc/html/konwencje/k161.html> [accessed: 6.10.2019]; ILO Convention No. 81 on labour inspection in industry and trade, <http://www.mop.pl/doc/html/konwencje/k081.html> [accessed: 6.10.2019]. See also, inter alia: ILO Recommendation No. 164 concerning the safety, health of workers and the working environment, <http://www.mop.pl/doc/html/zalecenia/z164.html> [accessed: 6.10.2019]; Recommendation 171 regarding occupational health services, <http://www.mop.pl/doc/html/zalecenia/z171.html> [accessed: 6.10.2019].

<sup>13</sup> Journal of Laws of 2009, No. 114, item 946 [henceforth cited as: Constitution of the RP].

<sup>14</sup> According to Art. 24 of the basic law, work is protected by the Republic of Poland and the state supervises the work performance conditions.

<sup>15</sup> Journal of Laws of 2019, item 1040 as amended [henceforth cited as: Labour Code].

res is prohibited. Detailed solutions allowing the employer to evaluate potential threats in the workplace properly are defined in the appropriate OHS provisions.<sup>16</sup>

When analysing work in conditions that automate the work process, one should note that, according to Art. 211, sect. 3 of the Labour Code, the worker is obliged to comply with OHS regulations and rules, in particular, he is supposed to ensure the due condition of the machinery, appliances, tools and equipment as well as the order in the workplace. The employer is obliged to guarantee that the applied machinery and other technical equipment offer safe and healthy work conditions, in particular, protect the worker from injury, impact of hazardous chemicals, electric shock, excessive noise, mechanical vibrations and radiation as well as the noxious and hazardous impact of other factors in the work environment as well as take the principles of ergonomics into account (Art. 215 of the Labour Code). Detailed technical requirements for machinery are regulated in the Regulation of the Minister of the Economy of 30 October 2002 on minimum requirements regarding occupational health and safety of the workers' use of machinery during their work,<sup>17</sup> defining the machinery as all machines and other technical devices, tools and systems used in the course of work as well as equipment for temporary work on heights, in particular, ladders and scaffoldings. According to Art. 237<sup>4</sup> of the Labour Code, the employer is obliged to issue detailed instructions and guidelines relating to occupational health and safety on work positions. Issues relating to occupational health and safety of operation of all machines including computers can also be regulated in internal legal acts of the employer such as instructions.<sup>18</sup> Presented OHS regulations are a part of the legal worker health and life protection system [Sobczyk 2013, 172]. The general obligation of the employer to guarantee safe and healthy work in the workplace corresponds to the worker's right to the appropriate preparation of the work performance location [Liszczyk 2017, 67–68]. Legal regulations in force apply in each case of work performance, also if work duties are performed in the conditions of digital work, and with the participation of artificial intelligence in the work process. However, there is no doubt that new areas of scientific and technological development give

---

<sup>16</sup> Among other things: Regulation of the Council of Ministers of 18 June 1968 on occupational health and safety when applying ionising radiation, *Journal of Laws* of 1968, No. 20, item 122; Regulation of the Council of Ministers of 12 July 2006 on detailed conditions of safe work with sources of ionising radiation, *Journal of Laws* of 2006, No. 140, item 994 or even Regulation of the Minister of Health of 24 July 2012 on carcinogenic or mutagenic chemical substances, their mixtures, factors or technological processes in the workplace, *Journal of Laws* of 2016, item 1117. Detailed solutions regarding permitted concentrations of factors with negative impact on health of workers are defined in the Regulation of the Minister of Labour, Family and Social Affairs of 12 June 2018 on the highest permissible concentrations and intensities of factors noxious for health in the work environment, *Journal of Laws* of 2018, item 1286.

<sup>17</sup> *Journal of Laws* of 2002, No. 191, item 1596.

<sup>18</sup> General requirements regarding machinery used in the work environment and obligations regarding the introduction of instructions by the employer are respectively regulated in para. 41 and para. 51 of the Regulation of the Minister of Labour and Social Policy of 26 September 1997 on general occupational health and safety regulations, *Journal of Laws* of 2003, No. 169, item 1650.

rise to new challenges related to worker health protection in workplaces that, as a consequence, generate more requirements of employers when it comes to the modelling of appropriate working conditions in an enterprise. The legislation in force does not define a robot in the work process and does not explicitly specify rules of human communication with it while artificial intelligence has more and more opportunities for action. However, there are OHS rules referring to devices that should be applied in a specific situation. The employer should independently take additional preventive measures if it considers the worker health protection measures resulting from said legal acts are insufficient [Wyka 2003, 248]. Certain rules of conduct with robots or work with means of electronic communication can be set out, e.g. in rules and conditions or in appropriate OHS instructions.

### 3. OHS THREATS IN SELECTED AREAS OF THE SCIENTIFIC AND TECHNOLOGICAL PROGRESS

Many various threats can occur in the work environment. These can include physical, organisational or psychomoral risks. In practice, there is no way to eliminate noxious factors in the workplace entirely; however, one can take action to restrict their occurrence [Liszcz 2017, 67]. Even though digitalization makes remote work possible, it also generates certain OHS threats. In particular, it impacts eyesight, spine and limbs [Mendez 2016, 561]. Workers can worry whether the use of digitalization will make them face stricter requirements and if it will – whether they will be able to meet them. Therefore, they can be stressed [Ahlers 2016, 86–88]. Additionally, work with the use of means of communication can promote workers' dependence on digital technology on the one hand and, on the other hand, induce their extremely negative attitude to technological novelties in the work process [Mendez 2016, 562–63].

In turn, if one considers the participation of artificial intelligence in the work process it will be difficult to identify all threats related to work performance involving a robot due to its novelty [Gaskins 2004, 960; Roe 2019, 333]. In particular, it is not possible in certain situations to specify the degree and rules regulating the use of robots by humans and their interaction [Caccavale, Natale, et al. 2001, 691–99]. Artificial intelligence raises ethical questions; in particular, it is problematic whether it shall apply rules of ethics applied by working people [Wynsberghe 2016, 319] as it feels no emotions typical for man [Scheel 1993, 28].<sup>19</sup> Workers have concerns regarding job loss because artificial intelligence can replace human intelligence, which makes the occurrence of a potential risk of unhealthy competition between people and robots in the work process more likely [Neagu and Vieriu 2019, 356]. A question arises about how such competition can

---

<sup>19</sup> Scientific research is currently conducted as regards making robots similar to people even though it is not possible to state that artificial intelligence emulating feelings is something natural. It can be taught to express appropriate feelings which does not mean that expressing them will be a true reaction [Giger, Piçarra, et al. 2019, 117].

influence the compliance with OHS standards in the workplace [Sparkman 2008]. Eventually, such phenomena can lead to mental conditions such as, e.g. neurosis or depression [Liszcz 2018, 147].

#### 4. CATHOLIC CHURCH AND THE VISION OF WORKER'S HEALTH PROTECTION IN THE SCIENTIFIC AND TECHNOLOGICAL PROGRESS OF THE WORK PROCESS

The Catholic Church has been stressing for a long time that development understood as “act more, have more abilities, possess more”<sup>20</sup> not only influences the property aspect but should also refer to the internal enrichment of each human being, which is particularly stressed in the encyclical by Paul VI *Populorum progressio*. The Pope points out that progress is not only limited to the economy but it should also contribute to the development of each human being.<sup>21</sup> In turn, Pius XI stresses that “bodily labour, which Divine Providence decreed to be performed, even after original sin, for the good at once of man's body and soul, is being everywhere changed into an instrument of perversion; for dead matter comes forth from the factory ennobled, while men there are corrupted and degraded.”<sup>22</sup>

John Paul II indicates in *Redemptor hominis*<sup>23</sup> that man of today seems to be under threat from what he produces, that is to say from the result of the work of his hands, of his intellect and the tendencies of his will. Fruits of man's labour are or can be directed against him at least in part. The Pope asks whether technological achievements go hand in hand with the progress of ethics and with the spiritual development of man. “Man's situation in the modern world seems indeed to be far removed from the objective demands of the moral order, from the requirements of justice, and even more of social love” (no. 16). In his opinion, the meaning of man subduing the earth, the “kingship” of man over the visible world given to him by God consists in the priority of ethics over technology, of spirit over matter or the primacy of the person over things (no. 16).<sup>24</sup> Therefore, the harmonization of technology and man that can beneficially influence the matter [Stolarczyk 1998, 59–60] should also allow man to become better through the perfor-

<sup>20</sup> Quoted after: Charles and Maclaren 1995, 371.

<sup>21</sup> Paulus PP. VI, Litterae encyclicae de populorum progressionem promovenda *Populorum progressio* (26.03.1967), AAS 59 (1967), p. 257–99.

<sup>22</sup> Pius PP. XI, Litterae encyclicae de ordine sociali instaurando et ad Evangelicae legis normam perficiendo, in annum XL post editas Leonis XIII litteras encyclicas «Rerum novarum» *Quadragesimo anno* (15.05.1931), AAS 23 (1931), p. 177–228, no. 135.

<sup>23</sup> Ioannes Paulus PP. II, Litterae encyclicae ad Venerabiles Fratres in Episcopatu, ad Sacerdotes et Religiosas Familias, ad Ecclesiae filios et filias, necnon ad universos bonae voluntatis homines Pontificali eius Ministerio ineunte *Redemptor hominis* (4.03.1979), AAS 71 (1979), p. 257–324.

<sup>24</sup> The need to subject technique to ethics was pointed out by John Paul II 20 years after the announcement of the encyclical of Paul VI *Populorum progressio*, see: Ioannes Paulus PP. II, Litterae encyclicae ad Episcopos, Sacerdotes, Familias Religiosas, Filios et Filias Ecclesiae et ad universos homines bonae voluntatis, vicesimo expleto anno ab editis Litteris Encyclicis a verbis «Populorum progressio» incipientibus *Sollicitudo rei socialis* (30.12.1987), AAS 80 (1988), p. 513–86.

mance of work [Wyszyński 1983, 47]. The Church is not against progress as such, on the contrary, it points out that progress creates new possibilities of work thanks to which one can work more but also more easily [Wyszyński 1991, 9]. However, it cannot be treated as the highest value but rather as the appropriate means [Stolarczyk 1998, 48]. Progress should not cause situations in which man is treated as the object of progress rather than its subject [Stolarczyk 1998, 55–56]. John Paul II points out at the beginning of *Laborem exercens* that “through work man must earn his daily bread and contribute to the continual advance of science and technology and, above all, to elevating unceasingly the cultural and moral level of the society.” The Pope stresses that striving for profit can objectify the worker, depriving him of his specific rights while a man of work should remain conscious and free [Stolarczyk 1998, 165–69]. A worker should be guaranteed an appropriate level of physical and moral health in the work process (no. 19).

Cardinal Stefan Wyszyński observes that pontifical encyclicals forecast dangers that can occur in the world of labour in the future. Production and exports are of greater importance than man. In his opinion, this situation confirms the vision presented in *Quadregesimo anno*.<sup>25</sup> Instead of being refined by work, man is frequently debased in it, e.g. through its excess and due to an improper organisation of the work process. Therefore, work should be organized so as to change the situation that is detrimental to the worker [Wyszyński 1983, 5–7]. In the age of the automation of the work process, workers’ tasks often involve the monotonous operation of a machine for many hours that, in general, can reduce the self-esteem of the person performing such duties. A worker trained to perform the planned action can fail to perceive the significance of his work [Tyburski 2011, 52]. A situation occurs in which the worker feels deeply dissatisfied with his actions and stops being creative [Stolarczyk 1998, 56]. Cardinal Stefan Wyszyński stresses that “what will be the benefit of man being urged and rushed to work more if his mental and physical resilience does not allow him to work better?” [Wyszyński 1983, 46–47].<sup>26</sup> Therefore, the worker should work with dignity and the most important thing is not “for man to do a lot in a short time but rather to work for a long time because his experience expands with the passage of years of work” [ibid., 101]. Considering above-mentioned facts, the Catholic Church highlights the need to guarantee appropriate rest to workers in order to allow for their spiritual recovery so that they can work even better [Charles and Maclaren 1995, 351]. After the finished work, the worker should have the willingness and strength sufficient to fulfil other tasks [Wyszyński 1991, 10].

---

<sup>25</sup> See *Nauczanie społeczne Kardynała Stefana Wyszyńskiego. Wybór tekstów*, Wydział Inicjatyw Społeczno-Katolickich Stowarzyszenie Pax, Warszawa 1983, p. 165–66.

<sup>26</sup> The Primate of the Millennium also calls into question the work method of the previous economic regime in the PRL period, namely, whether people working underground would be permitted to work in the interwar period in the light of their health and the OHS standard in the workplace [Wyszyński 1983, 93].



The Church points out one more aspect of human work that can be important from the perspective of scientific and technological development. It stresses after *Quadregesimo anno* that people of work should create the community for the benefit of the workplace [Charles and Maclaren 1995, 359]. Cardinal Stefan Wyszyński stresses that man called upon to cooperate [Wyszyński 1983, 11] and the performance of work by itself is a service to another [ibid., 15]. “Love of thy neighbour requires [...] not to hinder others’ work through one’s conduct” [Wyszyński 1991, 94]. “In each work, man meets man; therefore, the relationship has to be personal, i.e. connect persons, not objects and matters. Working people have the priority; affairs or objects occupy the second position” [ibid., 97]. This attitude corresponds to the vision of St. Thomas Aquinas preaching the precedence of a person over an object [Idem 1963, 195].<sup>27</sup>

### CONCLUSIONS

How, therefore, should working conditions be modelled in a workplace in the light of above-mentioned opinions expressed by selected representatives of the Catholic Church? There is no doubt that man should be placed at the centre, not matter. Work should ennoble the worker and the worker should not be excessively attached to matter. Additionally, the Catholic social science encourages the cooperation between the people of work, among other things, because this is how a personal relationship between them is forged rather than a relationship attaching man to an object. John Paul II and Cardinal Stefan Wyszyński point out the importance of the process of work from the perspective of the protection of the highest value of the work, i.e. the human being. During the performance of work, man should be guaranteed the protection of mental and physical health. The performed work should not contradict human morality.

The Catholic Church does not dispute the importance of scientific and technological progress that can facilitate the performance of work to workers, however, it notices certain threats related to such development. There is no doubt that science and technology can only be the means to an end. Man should always be the end. Above-mentioned guidelines are worth considering along with existing physical and mental risks in the workplace.

We have to share the position taken in the literature on the subject according to which mental threats can only be eliminated to a limited extent by appropriate legal regulations. In fact, even a well-developed legislation cannot replace the morality of people and their character<sup>28</sup> [Liszczyński 2018, 147]. However, there is no doubt that new threats also require, to a degree, some reflection on the current le-

---

<sup>27</sup> See more about the philosophical theory of work by St. Thomas Aquinas, among other things: Strzeszewski 1978, 163–200.

<sup>28</sup> C. Strzeszewski points out the material significance of ethics in work protection [Strzeszewski 1978, 290–99].

gislation, in particular, seeing whether it corresponds to current and future needs of workers' health protection.

As regards the participation of artificial intelligence in the work process, one surely has to equip workers with appropriate knowledge of the operation of a robot. However, it cannot be treated as human because it is matter. It is not possible to talk about the cooperation between a robot and man subject to the same rules that apply to the cooperation between the working people. A robot equipped with artificial intelligence is not a worker as understood in Art. 2 of the Labour Code and there is no personal relationship between it and man.

In this context, postulates that point out the need to assign various rights typical for man to robots operating on the basis of artificial intelligence [Dobrescu and Dobrescu 2018, 79]. It seems that a robot should be considered matter with no particular legal significance at most, both for axiological and practical reasons. In particular, the basic question that arises is why a robot would be treated as a human while it is an artificial creation and, additionally, e.g. the Constitution of the RP and European laws only refer to the respect for human dignity [Nagenborg, Capurro, et al. 2008, 350–55]. One can only talk about the use of robots in the process and organisation of work as the means making a better performance of work possible. It is worth mentioning as a side note that, were robots to be considered human persons, the actual liability for the operation of a robot would be problematic. Man should be customarily responsible for actions taken by artificial intelligence because a robot is only a machine [Upchurch 2018, 212]. Therefore, the position presented in the pontifical encyclicals that point to the primacy of a person over an object such as a robot gains special significance. In the context of the increasing digitalisation of work, one has to direct particular attention to the worker's mental health. It is worth analysing from the employer's perspective whether digital tools used in the workplace can lead to the addiction of a worker to them so that it is possible to react properly to the existing danger. An excessive attachment to digitalization can reduce the worker's rest, which does not benefit his family life. After work, the worker should have some time for private life rather than continue to use work tools, especially for business purposes, as such an activity may be inconsistent with the fulfilment of tasks other than the professional ones.

#### REFERENCES

- Ahlers, Elke. 2016. "Flexible and remote work in the context of digitization and occupational health." *International Journal of Labour Research* 8, no. 1–2:85–99.
- Brown, Ronald C. 2017. "Made in China 2025: Implications of Robotization and Digitalization on MNC Labor Supply Chains and Workers Labor Rights in China." *Tsinghua China Law Review* 9, no. 2:186–210.
- Buiten, Miriam C. 2019. "Towards Intelligent Regulation of Artificial Intelligence." *European Journal of Risk Regulation* 10, no. 1:41–59.
- Caccavale, Fabrizio, Ciro Natale, et al. 2001. "Achieving a cooperative behavior in a dual-arm robot system via a modular control structure." *Journal of Robotic Systems* 18, no. 12:691–99.

- Calouro, Christine, Mei Wa Kwong, and Mario Gutierrez. 2014. "An Analysis Of State Telehealth Laws And Regulations For Occupational Therapy And Physical Therapy." *International Journal of Telerehabilitation* 6, no. 1:17–24.
- Charles, Rodger, and Drostan Maclaren. 1995. *Kościół w świecie współczesnym. Nauczanie społeczne Kościoła w świetle Soboru Watykańskiego II*. Translated by Jan Grosfeld. Poznań: W drodze.
- Dobrescu, Edith M., and Emlian M. Dobrescu. 2018. "Artificial Intelligence (Ai) – The Technology That Shapes The World." *Global Economic Observer* 6, no. 2:71–81.
- Gaber, Joan T.A., and Nancy Mansfield. 2001. "On The Increasing Presence Of Remote Employees: An Analysis Of The Internet's Impact On Employment Law As It Relates To Teleworkers." *Journal Of Law, Technology & Policy* 2:233–66.
- Gaskins, Richard. 2004. "New Dynamics of Risk and Resonsibility: Expanding the Vision for Accident Compensation." *Victoria University Wellington Law Review* 35, no. 4:951–68.
- Giger, Jean Ch., Nuno Piçarra, et al. 2019. "Humanization of robots: Is it really such a good idea?" *Human Behaviour & Emerging Technologies* 1, no. 2:111–23.
- Gospodarek, Gabriela. 2019. "Status «niezależnego» usługodawcy a trójpodmiotowy model świadczenia usług w gig economy – cz. 1." *Praca i Zabezpieczenie Społeczne* LX, no. 2:9–17.
- Hansen, Steffen F., and Henrik V. Kristensen. 2014. "Horizon-Scanning and Identification of Emerging Risks among Nanotech Companies in Denmark." *Nanotechnology Law & Business* 11, no. 1:82–92.
- Kozak, Marta. 2019. "Zatrudnienie w gig economy na przykładzie Ubera." *Praca i Zabezpieczenie Społeczne* LX, no. 6:18–23.
- Liszczy, Teresa. 2017. "Konstytucyjne podstawy ochrony pracy." In *Prawo ochrony pracy – współczesność i perspektywy rozwoju*, ed. Teresa Wyka, and Marcin A. Mielcarek, 62–69. Warszawa: Wolters Kluwer Polska.
- Liszczy, Teresa. 2018. *Aksjologiczne podstawy prawa pracy. Zarys problematyki*. Lublin: Wydawnictwo UMCS.
- Magnus, Margaret M., and Linda K. Glazner. 1986. "Computing in Occupational Health. The computer as a Tools for Occupational Health Nurses." *AAOHN Journal* 34, no. 10:467–69.
- Mazurek, Jan. 2019. "Cyfrowe miejsce pracy." *COMPUTERWORLD* 1086, no. 3:46–51.
- Mella Mendez, Lourdes. 2016. "E-Work and Prevention of New Occupational Risks in Spain." *US-China Law Review* 13:553–68.
- Nagenborg, Michael, Rafael Capurro, et al. 2008. "Ethical regulations on robotics in Europe." *AI & Society* 22, no. 3:349–66.
- Nauczanie społeczne Kardynała Stefana Wyszyńskiego. Wybór tekstów*. 1983. Warszawa: Wydział Inicjatyw Społeczno-Katolickich Stowarzyszenie Pax.
- Neagu, Simona N., and Aniella M. Vieriu. 2019. *The Impact of Technological Progress on Young People*. The 15th International Scientific Conference eLearning and Software for Education Bucharest September 11–12 2019.
- Pęczak, Artur. 2019. "Cyfrowe biuro dla wszystkich." *COMPUTERWORLD* 1089, no. 8:28–33.
- Piątkowski, Jan. 2017. *Aksjologiczne i normatywne podstawy prawa stosunku pracy*. Toruń: TNOiK.
- Roe, Madeline. 2019. "Who's Driving That Car?: An Analysis of Regulatory and Potential Liability Frameworks for Driverless Cars." *Boston College Law Review* 60, no. 1:317–47.
- Rojszczak, Marcin. 2019. "Wpływ robotyzacji na rynek pracy i sektor ubezpieczeń społecznych." *Praca i zabezpieczenie społeczne* LX, no. 7:5–14.
- Santagata de Castro, Raffaello. 2019. "Rethinking the Concept of Employee: the Digital Transformation of Work in Germany and in Italy." *Monitor Prawa Pracy* 4:20–24.
- Scheel, Paul D. 1993. "Robotics in industry: A safety and health perspective." *Professional Safety* 38, no. 3:28–32.
- Sobczyk, Arkadiusz. 2013. *Prawo pracy w świetle Konstytucji RP*. Vol. 1: *Teoria publicznego i prywatnego indywidualnego prawa pracy*. Warszawa: Wydawnictwo C.H. Beck.

- Sparkman, David. 2008. "Robot Safety: It's Not Science Fiction, It's the Law." <https://www.industryweek.com/safety/robot-safety-it-s-not-science-fiction-it-s-law> [accessed: 6.10.2019].
- Stolarczyk, Ireneusz. 1998. *Postęp i rozwój w nauczaniu społecznym Kościoła*. Tarnów: Wydawnictwo Diecezji Tarnowskiej Biblos.
- Strzeszewski, Czesław. 1978. *Praca ludzka*. Lublin: Towarzystwo Naukowe KUL.
- Sylwestrzak, Andrzej. 2012. "Filozofia pracy w encyklikach Leona XII i Jana Pawła II". In *Wolność i sprawiedliwość w zatrudnieniu. Księga pamiątkowa poświęcona Prezydentowi Rzeczypospolitej Polskiej Profesorowi Lechowi Kaczyńskiemu*, ed. Michał Seweryński, and Jakub Stelina, 317–31. Gdańsk: Wydawnictwo Uniwersytetu Gdańskiego.
- Świątkowski, Andrzej M. 2019a. "Digitalizacja prawa pracy." *Praca i Zabezpieczenie Społeczne* LX, no. 3:11–18.
- Świątkowski, Andrzej M. 2019b. "Elektroniczne platformy zatrudnienia." *Monitor Prawa Pracy* 7:18–23.
- Tyburski, Zbigniew. 2011. *Encykliki Jana Pawła II. Fundamenty wiary i moralności katolickiej*. Lublin: Norbertinum.
- Upchurch, Martin. 2018. "Robots and AI at work: the prospects for singularity." *New Technology, Work and Employment* 33, no. 3:205–18.
- Van Wynsberghe, Aimee. 2016. "Service robots, care ethics, and design." *Ethics and Information Technology* 18, no. 4:311–21.
- Wyka, Teresa. 2003. *Ochrona zdrowia i życia pracownika jako element treści stosunku pracy*. Warszawa: Wydawnictwo Difin.
- Wyszyński, Stefan. 1963. *Uświęcenie pracy zawodowej*. Paryż: Societe D'Editions Internationales.
- Wyszyński, Stefan. 1983. *Praca a godność człowieka*. Częstochowa: Prymasowski Instytut Ślubów Narodu na Jasnej Górze.
- Wyszyński, Stefan. 1991. *Duch pracy ludzkiej. Myśli o wartości pracy*. Warszawa: Wydawnictwo im. Stefana Kardynała Wyszyńskiego „Soli Deo”.

#### KILKA REFLEKSJI O PRACY LUDZKIEJ. BEZPIECZEŃSTWO PRACOWNIKA WOBEC POSTĘPU NAUKOWO-TECHNOLOGICZNEGO A NAUCZANIE KOŚCIOŁA KATOLICKIEGO

**Streszczenie.** Postęp naukowo-technologiczny wymaga od pracodawców postawienia na nowo pytań o aksjologię pracy. W artykule podejmowane są rozważania na temat regulacji prawnych dotyczących ochrony zdrowia pracowników w kontekście wskazówek płynących z nauczania Kościoła katolickiego z perspektywy rozwoju nauki i techniki w świadczeniu pracy. Celem niniejszej publikacji nie jest szczegółowa analiza przejawów postępu naukowo-technologicznego z uwzględnieniem nowych form zatrudnienia. Jego istnienie stanowi jedynie przyczynek do podejmowanych rozważań na temat aktualności prawodawstwa bezpieczeństwa i higieny pracy i adekwatności stosowanych środków ochrony zdrowia pracowników do występujących zagrożeń w zakładzie pracy w kontekście celów i wartości, na jakie wskazuje nauczanie wybranych przedstawicieli Kościoła katolickiego.

**Słowa kluczowe:** praca ludzka, ochrona zdrowia pracownika, bezpieczeństwo i higiena pracy, prawo ochrony pracy, postęp naukowo-technologiczny

**Informacja o Autorze:** Dr Maciej Jarota – Katedra Prawa Pracy i Ubezpieczeń Społecznych, Wydział Prawa, Prawa Kanonicznego i Administracji Katolickiego Uniwersytetu Lubelskiego Jana Pawła II; e-mail: m.jarota@kancelariajarota.pl; <https://orcid.org/0000-0001-6568-1626>