

## Digital competences of the parties in the employment relationship

Andriyana ANDREEVA<sup>1</sup>, Galina YOLOVA<sup>2</sup>

<sup>1</sup> University of Economics, Varna, Bulgaria  
[a.andreeva@ue-varna.bg](mailto:a.andreeva@ue-varna.bg)

<sup>2</sup> University of Economics, Varna, Bulgaria  
[ina\\_yolova@ue-varna.bg](mailto:ina_yolova@ue-varna.bg)

**Abstract.** The purpose of this article is to examine the problems associated with the digital competence of the parties in the employment relationship. Employers and employees have a different set of rights and obligations which are in correlation dependence not only within themselves, but also in view of the processes of digitalization. In this aspect, the authors, for the first time in the labor law doctrine, bring forward in the field of doctrinal research the questions related to the digital competences in employment relationships about subjective rights and obligations. Subjected to normative analysis are relatable norms of the national legislation as well as European Acts concerning the problem. Based on the research topical questions are posed for scientific debate and overviews and conclusions are formulated so that the legal framework is updated. The study makes use of conventional legal study methods – normative analysis, comparative law analysis, induction and deduction. The processes of digitalization of labor call for urgent reforms in legislation as well as in the good practices of hiring and performance of labor. There are increasingly distinguishable and widely adopted European policies on prioritizing digital skills as a decisive factor for employment, on the one hand, and as a prerequisite for upgrading employment relationships in terms of stimulus for career advancement, adequate payment and various employers' policies based on effective incentives and quality digital skills

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### 1. Introduction

In the digital era the consequences of the process of digitalization are studied in every scientific field because of the direct and indirect impacts on the respective area of social relationships. Labor law is a domain that is strongly affected by digitalization as many employment institutions are influenced by technological innovations. The right to work is a fundamental constitutional right and an object of legal regulation of Labor Law. In this sense, without a shadow of doubt, the norms of this legal branch are aimed at its regulation, to protect the right holder – the worker, as well as the overall framework of all the components that guarantee the normal implementation of the right to work and the achievement of benefits from performing workforce in the interest of employers (Dimitrova, 2010). In this connection the relationships between the parties in the employment process are constantly monitored by the legislator with regards to being maximally adequate to norms and their correspondence with the labor market dynamics.

New conditions of labor, generated by technological development, are a prerequisite for considerable benefits, but also for the emergence of new risks in the working environment (Ivanova, P., Antonova, K., 2021). The digital era has exposed countries to challenges of various character. For employees these stems from the need for digital competences depending on the job they hold and the work-related duties. For employers' digital competence seems to point in the opposite direction – on the one hand employers have to guarantee a work process organized in such a way as to ensure safe and healthy working environment and observing workers'

rights, respectively. It is not enough to merely comply with legislation (i.e., limiting activities to only what is required), but rather foster a value-based mindset (i.e., using a social responsibility approach in order to develop social innovations and additional attention to employee's needs) (Andreeva et al., 2020: 231).

The European legislator has considered the impact on the labor market, and in 2017 the European Commission published Digital Competences 2.0 – Digital Competence Framework. This document identifies 5 key digital competence components in 5 major areas: 1) Information and data literacy; 2) Communication and collaboration; 3) Digital content creation; 4) Safety; 5) Problem solving.

In 2018 the European Commission published a new version as an amendment to Digital Competences Framework 2.0 for Citizens. (DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use).

Digital competence is appreciated as a key competence for the 21st century. It is a prerequisite not only for personal development, but for successful professional realization as well. No wonder digital competence is an object of research interest, with authors striving to offer theoretical models, competence frameworks and research instruments (Helsper, Ellen and Eynon, Rebecca, 2013) (Martin, 2006) (Martin, 2005) (Lankshear, Colin, and Michele Knobel, eds, 2008).

A number of studies have been carried out in Bulgaria, as well, aiming to analyse digital competence levels for various age groups, whereby related notions are researched (internet literacy, information literacy, media literacy and other) (Mavrodieva, I., M. Stoicheva, N. Tsvetkova, (Merdzhanov, 2014) (Peicheva-Forsythe, 2012).

The aim of the present article is to study the problems of digital competence of the parties in employment relationship. Employers and employees have a different set of rights and obligations, which are in correlation dependence between themselves, but also viewed from the perspective of the digitalization processes.

In this aspect the research is definitely up to date, as it is for the first time in the labor law doctrine that questions of digital competences in the employment relationships feature in doctrinal research, examined through the prism of parties' subjective rights and obligations. Subjected to normative analysis are national legislation norms as well as European acts and strategies that bear a relation to the subject of the study.

Based on the study, topical questions are put to scientific debate and summaries and conclusions are made so that the legal framework is updated.

To achieve the objective set, the following research tasks have been set by the authors:

1. Normative analysis of relatable national legislation norms, as well as European acts and policies connected with the digital competences of the parties involved in employment relationships.
2. Formulation of conclusions and summaries, bringing forward suggestions for the need to synchronize legislation and good practices to adapt employment relationships to the new conditions of digitalization of work.

The study makes use of conventional legal study methods – normative analysis, comparative law analysis, induction and deduction. Authors do not claim their work is exhaustive, given the limited volume of the present text. The doctrinal issues presented, however, will be the object of following scientific research in view of in-depth study of each question.

The content is relevant according to the legislation applied as of 30 March 2022.

## **2. Digital competences of the employee – problems and perspectives**

At present Bulgaria is at the bottom of the rankings in terms of digitalization, but the aim is to quickly move forward, as this is required by the contemporary labor market. Yet, many companies already realize how important digitalization is for the successful development of their business. (Steliyanova, n.d.).

Developing a successful business in the modern digital world is inevitably linked to the digital competence of the workers employed. In this process there is not only a growing need for current employees to upgrade their knowledge and skills to expand their digital competences, but there can also be observed the appearance of new professions and positions in the organizations, such as , for instance, Chief Digital Officer, Artificial Intelligence and Machine Learning Expert, Facebook Marketing Specialist and other. (Serafimova, 2020).

In this connection the work force members are “dependent” on the processes of digitalization, as on the one hand they face requirements for the necessary level of knowledge, skills and competences, and on the other hand dependence is associated with their labor rights which are being transformed.

New terms are entering the doctrine, already we speak of “digital citizens” who should be informed, motivated, involved in causes, actively participating in social activities and campaigns. We agree with prof. Mavrodieva that digital competence seems different for the different groups within Bulgarian society. Based on

profession, education and age, different levels of digital competence can be identified, and thus a certain digital inequality is observed. The latter is associated not only with the persons' digital competence, but also with inadequate technological supply.

We believe that within the context of the range of problems studied, it will be good to introduce the term "digital employees"; where at this stage the notion should be used in the labor law doctrine. In the content of this term an emphasis should be placed on formulating the particular competences workers must possess in order to perform their labor functions to the high-quality standards of the digital world.

The work process is getting increasingly "digitalized" and this is linked to the technological boom, the advances of AI in work activities and the connectivity of information streams through the Internet. Digitalization is already an inseparable part of people's personal as well as professional life. New communication networks do not have a clearly defined boundary between personal and work-related communication, we see transformed not only the need for a level of skills for professional realization, but also the need for coping with daily "digital" obstacles. (Aleksandrov, 2019) (Aleksandrov, 2020 pp. 338-348).

Present days' young people belong to the digital technology generation which makes their adaptation to processes very flexible. In contrast, older employees not only lack the level of digital skills relevant to modern technologies, but also face the challenges of stress, slower mastering of skills, etc. In this connection digital inequality in the work process will deepen, unless prompt attention is paid to digital literacy and skills, these being of key importance in today's global society (Milenkova, 2019).

Digital divide is a complicated and dynamic phenomenon (Van Dijk, J. & K. Hacker, 2003) and is conceptualized as a form of stratification, resulting in an uneven access and use of the Internet (Hristova, n.d.). Apart from the information divide, another significant problem today is the division of information resulting from the way people use the Internet. Differences in the degree of mastering the digital environment generate new inequalities which are the main focus of research interest in the so called second level of digital divide. (Dobson, T. & J. Willinsky, 2009) (Hargittai, 2002) (Van Deursen, A. & J. Van Dijk., 2010).

Digital literacy is an object of analysis from various aspects – from what skills people have to possess for successful realization in the knowledge society (Sefton-Green, J., H. Nixon & O. Erstad, 2009) through the concept of media literacy (Erstad, 2010), as well as the building of necessary skills and the responsibility and roles of educational structures (Sefton-Green, J., H. Nixon & O. Erstad, 2009).

In the theory on the subject A. Ferrari suggests a following and even more encompassing variant for defining digital competence: "Digital competence is a set of knowledge, skills and attitudes (including abilities, strategies, values and awareness), which are necessary in using ICT and digital media to perform tasks, solve problems, communicate, manage information, cooperate, create and share content and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically and reflectively for work, leisure, participation, learning, socializing, consuming, and empowering." (Ferrari, n.d.).

The term "Digital work competence" as a notion cannot be found in the national labor law standards. Digital competence may be presented as a concept describing the skills a worker should possess to successfully accomplish the set of work duties within the work function that has been assigned to them. From the point of view of content, the notion covers skills relatable to using technologies and applying these skills in the particular job.

In our opinion this term brings together and summarizes other, more concrete terms such as: computer skills, information skills, technological competence.

In a study by Bisht and Radhakrishnan the skills for work with social media are defined as one of the three digital skills to be of key importance for the success of a company (Bisht A. & A. Radhakrishnan, 2013). This is a prerequisite for employers to realize the need for digital learning and set it as a component of their requirements when recruiting staff for their companies.

Terminology that was until recently the domain of informatics is increasingly entering employment communication. This calls for the legislator to adapt legal vocabulary in a manner that corresponds to the real-life processes in society. Thus, on the one hand there will be achieved compliance with required content, and on the other – an opportunity will be offered for legal institutions to evolve.

Sources of labor law are characterized by a certain variety and presently this renders it possible for non-governmental sources to cover the demand for workers' digital competences in the particular internal acts of employers.

In this sense we can draw a conclusion that there is a need for standards and notions pertaining to a certain level to enter a higher one, like state sources standards. What is necessary is not only action on the part of individual employers engaged with a given economic activity, but determination and government policies aimed at developing workers' digital skills and literacy. This task should be set at different levels and accomplished by means of different tools. First should be the role of the educational institutions at their different levels – primary,

secondary and higher education. The educational process should be committed to the real needs of the labor market. Next comes the role of employers and their responsibilities, as they are the ones to create the necessary conditions for adapting people's digital competences to the concrete requirements of a particular job and the work process specifics.

No less important is the role of the state for building a common policy for digital communication culture.

### **3. Employer's engagements regarding digital competences – general guidelines and legal framework**

As an already decisive factor in the employment relationship digital competences are a serious challenge for employers in terms of timely synchronization with the processes of providing labor. In this sense the higher demands when hiring employees should be matched by a corresponding functional volume of employer competence in order to ensure an adequate level of digital skills recognition and their upgrade in the employment relationship by means of providing and ensuring conditions for the acquisition, development and improvement of the said skills. On the other hand, given that already there are firmly established forms of remote work through digital platforms, an increasing need occurs for legal mechanisms which should impose particular engagements and obligations on the part of the employer about the conditions and quality of work, a harmonious and free-from-discrimination working environment, as well as various forms of compensation for unconventional conditions of work and ensuring a balance between one's personal and professional life.

In the above-mentioned aspects, European policies are predominantly described in the "e-Skills for Jobs" campaigns of 2015 – 2016 and the following European Commission document "The e-Skills Manifesto", 2016, European Qualifications Framework, The Directive for Professional Training Recognition. Their further development particularly in the sphere of the ongoing educational policies can be found in the Digital Skills and Jobs Coalition, European Qualification Framework (EQF), the EU Skills Profile Tool for Third Country Nationals, the Europass framework, the Detailed action plan for sector cooperation in the field of skills and lastly, the recommendation about tracking the realization of graduates and other. (Andreeva, A., Yolova, G., 2020).

The notion of e- leadership is a fundamental one in the common European policies and is perceived as essential for developing the quality of employees. Viewed as a new philosophy and conceptual understanding of the essential ICT abilities, but also as personnel management competences, the nature of e-leadership is becoming a qualitatively new level of recognition, evaluation and use of the possibilities associated with ICT innovations. In this sense it is supposed to include systems of knowledge and a set of competences for initiation and management of innovations with the help of ICT, according to the established categorization of e-skills.

In the E-skills Manifesto published within the campaign E-Skills for Jobs 2014 as an European Commission initiative funded by COSME program ( competitiveness of enterprises and small and medium-sized enterprises) and organized together with the Digital Skills and Jobs Coalition of the EU, high quality e-leadership is outlined as successful in two aspects – by means of lasting trends for the establishment and execution of legally guaranteed mechanisms for employers' direct engagement in recognition and use of digital skills, and in the further development of these skills in the real- life working environment. In this sense the Manifesto's recommendations concern the development of technological management and awareness of good managerial practices. The document also recommends adequate and continuous training for employers, so that ICT are more effectively used, granting proportionally better working conditions for staff with e-skills, by prioritizing them when assigning tasks directly, beyond tasks of purely technological nature, as well as adequate remuneration in order to overcome the unwelcome gap between employees with skills and those with longer work experience but fewer skills; providing better promotional prospects for employees with e-skills, and last but not least – creation of possibilities and models of comparing the quality of the basic e-skills at the labor market. At the same time, it is emphasized how important it is that each ongoing and upgraded digital literacy training be coordinated with employers in a manner that ensures comparable certificates for timely recognition, upgrading and development of e-skills.

E-Skills – Measuring International Impacts of Digitalization states there are over a hundred policies related to e-skills in the member countries and underlines the need for these policies unification through three categories of policy – horizontal, education-related and job-related. Regarding job-related policies, the document emphasizes the need for the creation of national e-skills sector councils which should work in close collaboration with employers, as well as the introduction of well-developed and effective monitoring of the labor market, appropriate identification of e-skills, adoption of ICT competence frameworks, as part of the EU idea about e-Competence Framework (e-CF), as well as developing measures for raising ICT specialists' qualification and re-qualification in sectors like automation and off-shoring.

In this sense, here again a major recommendation is made for a policy that is to stimulate entrepreneurship, innovations and job creation by encouraging and developing skills for e-leadership and digital entrepreneurship. This aim is to be achieved through designing business models and exploiting key innovation possibilities.

On 9 March 2021 the 2030 Digital Compass: The EU Path to the Digital Decade, a communication of the European Commission to the European Parliament, the European Council, the European Economic and Social Committee and the European Committee of Regions, Brussels, 9.3.2021 COM (2021) 118 final, highlights the need for quick and quality transformation of enterprises, depending on their ability to introduce new digital technologies, including in service and industry ecosystems. In this sense it is envisaged, by means of the Single Market Program, Digital Europe Program and the Cohesion Program to encourage the creation and use of digital capacities, including data spaces, computational power, open standards, testing- and- experiment equipment. The objectives planned in individual priority policies are mainly in the spheres of increasing digital literacy on the one hand, and relentless job digitalization, where the primary aims are as follows: 75% of companies must use cloud computations, big arrays of information and artificial intelligence; over 90% of small and medium-sized enterprises in the EU must achieve at least a basic level of digital intensity, as well as broaden the way for creating growing numbers of innovative firms and their access to funding by doubling the number of unicorn companies in Europe.

In this aspect constantly growing trends are suggested for developing e-leadership for prompt recognition of working capacity and its effective use in employment relationships through combined systems of measures for quality working environment, adequate payment and incentive tools for development and maintenance of high level digital skills.

On a national level, the national program “Digital Bulgaria 2025”, a road map for the period till 2025 are also synchronized with common European trends and the two main objectives set in Priority 3: Raising digital competences and skills:

- Objective 7. Improving workers’ qualitative characteristics in information and computer technologies context, expected to be achieved by the measure “Improving staff digital skills, including financing training for acquiring professional qualification and key ICT competences and
- Objective 8. Increasing the number of highly qualified ICT specialists, which is expected to be achieved by the following measures: Increasing the number of young people who are trained for ICT jobs and raising the qualification of ICT specialists through the life-long learning perspective (Banov, 2020) (Banov, 2017), where responsibilities are shared with employers in High-tech and tech and ICT sectors.

The Labor Code covers reasonably widely the employer’s engagements concerning digital skills in the case of remote work as an alternative to the conventional employment contract. As a specific form of performance of labor by using information technology, remote work is characterized by maximal volume of flexibility, efficiency, speed and at the same time – effectiveness and correctness in the performance of labor, where working remotely suggests a certain high degree of self- organization regarding working time management. (Yolova, 2021).

Here the employer’s engagements are identified on several main levels: Body text:

- Creation of quality work environment (art.107par.3), whereby the employer is to create, at their own expense, the necessary equipment for remote work, as well as consumables thereof, software provision, technical support and prophylactic, communication devices for the remote worker, including internet connection, data protection, (Mateeva, 2021) information and requirements regarding work with the said equipment and keeping it in order, as well as the legal requirements and rules, including those of the company in the field of data protection, the data that are going to be used during remote work, surveillance system, should one need be installed at the work station and the employee’s written consent is obtained thereof, other technical or documentary devices according to the individual employment contract and/or the collective bargaining agreement.
- Ensuring healthy and safe working conditions, in accordance with the minimal requirements for healthy and safe working conditions as defined in the Law on Healthy and Safe Working Conditions and the regulations concerning its application, as well as the responsibility for them in compliance with regulations, the applicable collective bargaining agreements and the company’s policy on health and safety at work, as well as all requirements and rules about the organization of work and about work with video displays ( art.107 k,par2, par.3).
- Measures to prevent isolation (art.107 i), by creating conditions for periodically carrying out work or social meetings in the employer’s offices/premises, company virtual space for free

communication, access to company and professional information necessary for remote work, participation in the organizational and social life of the trade union organizations in the company.

- Defining the amount of remuneration is to be done with the individual employment contract, in compliance with the labor law provisions and in accordance with the collective bargaining agreement and in-company rules regarding remuneration, so that the remote work employee is entitled to all additional payments established in the current legislation, internal regulations, in the individual employment contract and/or the collective bargaining agreement (art.107m. (New – State Gazette, issue 82 of 2011), par.1,par.2). Here obviously an emphasis is placed on the principle of equality between those working in real environment and those working remotely, without, however, taking into consideration the specific of labor performance and level of digital skills. In this sense, the text should be corrected in a direction following European policies on giving priority in terms of additional material incentives and overall – higher remuneration, committing salaries to the corresponding higher level of digital skills and not so much to general rules for defining remuneration.

Also generally described are employers' obligations concerning upgrading training. In this sense it is assumed that remote workers have the same access to training and career opportunities as those who work on the employer's premises and are an object of the same policy of appraisal, while at the same time have the right to appropriate training in accordance with the technical equipment provided and the characteristics of this form of work organization (art.107o, par.1, par.2). Evidently, in a broader sense, as well as, there should be introduced more clearly defined engagements on the part of employers regarding the provision of continuous upgrading training with indicating the respective forms of training and qualification frameworks.

Obviously, the skills for effective recognition and adequate use of digital skills in employment relationships are in a process of seeking their timely and relevant legal frameworks. In this aspect, it is particularly urgent to introduce various tools to support digital literacy levels – from unified recognition by means of common qualification frameworks to effective use and legal protection by various regulations for defining remuneration and incentive policies of various nature which are based on result-yielding and upgrading qualification stimulate.

#### **4. Conclusion**

The processes of digitalization of labor call for urgent reforms in legislation as well as in the good practices of hiring and performance of labor. There are increasingly distinguishable and widely adopted European policies on prioritizing digital skills as a decisive factor for employment, on the one hand, and as a prerequisite for upgrading employment relationships in terms of stimulus for career advancement, adequate payment and various employers' policies based on effective incentives and quality digital skills. In this sense the national regulatory framework needs timely adaptation, mainly in the following directions:

- Defining the term “Digital work competence” in the general labor legislation as a concept describing the skills an employee should have to fulfill the set of employment obligations within the labor function assigned to them.
- Including texts on the introduction of unified ICT competence frameworks.
- A change in norms and mechanisms for defining remuneration by introducing incentives, directly depending on the respective level of digital competence
- Developing measures based on effective qualification incentives as well as creating monitoring mechanisms for assessment of the results achieved in meeting the need for digital education and life-long learning.

Clearly, we are bound to see a pressing need for coordinated and timely measures on synchronizing national legislations with the common European policies, in a way ensuring adequate and high level of scientific achievements and quality educational strategies, on the one hand and on the other – creating a culture and practice of contemporary employment relationships based on a high technological culture.

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