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REQUIREMENTS FOR THE SUPRA-PROFESSIONAL COMPETENCIES OF GRADUATES IN REMOTE EMPLOYMENT

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Abstract

The study aims to determine the requirements for the development of the supra-professional competencies of university graduates for work in remote employment. The work is based on a content analysis of distance employment trends and previous research into the contextualization of the discussion. To assess the demand for supra-professional competencies in the remote employment market, the authors conducted a formalized online survey. The article presents key trends in the field of distance employment, based on the study of the dynamics of the World market of distance employment. As a result of the study, the authors formulated the key features of distance employment and identified the key supra-professional competencies necessary for specialists to work effectively outside the usual workplace using ICT. A formalized survey of 146 representatives of employers confirmed the importance of the key supraprofessional competencies that we identified for a university graduate who has to work in the digital era, including in the conditions of distance employment. The labour market is changing, the requirements of employers for the supra-professional competencies of employees are changing, the transformation of student training programs at universities is necessary. Higher education should be focused not only on the development of professional competencies of students, but also on the development of their flexibility, adaptability, labour motivation, relationships and abilities that allow them to be effective for themselves, organization and society in the digital economy and the growing popularity of distance employment.

1. Introduction

The rapid technological development, the emergence and widespread dissemination of artificial intelligence, robotics, software and social networks dramatically affect the economic and social life of people around the World (Bakhshi et al., 2017; Brynjolfsson & McAfee, 2014). The observed dynamics of technological development has an instant effect on the structure of the labour market. Employment is being transformed, new types of employment have appeared, including remote, online employment, gig work, self-employment. The sectoral structure of the economy is changing, and other key approaches to personnel management are taking a different look (Marler & Parry, 2015; Nazari & Naghavi, 2015).

Modern employers are focused on the reception of employees who are ready for new technological, economic, and socio-psychological challenges, having competencies that provide adaptability and mobility in solving current problems and working in uncertain and rapidly changing conditions. At the same time, there is a slight gap between the expectations of employers regarding the development of professional and supra-professional competencies of graduates and students of higher educational institutions and the actual level of training at universities (Bridgstock & Jackson, 2019; Pereira, 2013; Pesha, 2020; Suleman, 2018). New digital technologies affect intellectual development, the development of emotional intelligence, the formation of values and lifestyles, educational needs and labour motivation of students.

The whole set of changes in technology, future motivation, values and expectations of young specialists, restructuring of the labour market provides for the transformation of the required skills and training programs at universities.

2. Problem Statement

Digital technologies open the horizons of large-scale changes in higher education - both in terms of opportunities to improve the educational system, and with the need for fundamental modernization of business processes, organizational design, and development of teachers' potential (Ananiadou & Claro, 2009; Bridgstock, 2017; Brooks & Gibson, 2012; Popenici & Kerr, 2017). The need to change educational programs of higher education is dictated by the need to pay more attention to the development of supra-professional competencies of students, which are in demand in the modern labour market of the knowledge economy, including in the context of growing opportunities for remote employment.

Thus, the definition of key requirements for the development of the supra-professional competencies of university graduates is a prerequisite for changing the content of educational programs and ensuring the competitiveness of future specialists in remote employment.

Key concepts

Remote employment (telework) is defined as work outside the normal workplace and associated with it through telecommunications or computer technology (Nilles, 1994, p. 109).

Supra-professional competencies - a wide range of skills and behaviours, interpersonal relationships and personality traits that allow a person to quickly navigate and adapt to the tasks and

challenges of the environment, establish relationships and establish contacts, show high work efficiency and achieve goals and objectives (Pesha, 2020).

3. Research Questions

To determine the requirements for the development of professional competencies of graduates in the context of distance employment, we ought to consider such questions as: what is the dynamic of the distance employment market in the World, Russia and the city of Yekaterinburg? What are the key trends in distance employment in the digital era? What are the features of distance employment and what supra-professional competencies of future specialists will be valuable for working at a distance?

4. Purpose of the Study

The main purpose of this work is to carry out a theoretical and empirical analysis of the requirements for the development of the supra-professional competencies of university graduates for work in remote employment.

5. Research Methods

The research is based on the modern concepts of science and practise of human resource management and labour economics, as well as humanities. In the process of studying the requirements for the development of the supra-professional competencies of university graduates in the context of distance employment the methods of content and logical analysis, interpretation, comparison, generalization of trends and previous studies were used to contextualize the discussion. We applied a formalized online survey of the demand for supra-professional competencies in the remote employment market.

6. Findings

6.1. Dynamics and trends of remote work

A large number of modern employment studies are devoted to automation issues and its impact on the labor market (e.g. Fedorova et al., 2019; Frey & Osborne, 2017; Odegov & Pavlova, 2017; Tonkikh & Pesha, 2019). The new era of the knowledge and innovation economy has identified the main product that is the result of work - knowledge. Technological modernization and advances in science provide a wide range of intelligent technologies and the possibilities of their use in a new labour format (Bailey & Kurland, 2002).

The concept of "telework" was introduced in 1973 Nilles (1994), who conducted a series of experiments showing the benefits of working at home relative to standard office employment. The main types of remote work are teleworking, home-base work, self-employment (Hutchinson, 2018). In particular, a number of studies demonstrate evidence of increased levels of job satisfaction and increased productivity of company employees when using flexible, including remote forms of employment (e.g. Bloom et al., 2015; Voronina, 2016). Remote work is very in demand, it is becoming a trend in the labour market, this is due to a number of its advantages: to independently distribute their working time; combine

several works at the same time; work from another region (country); combination of work with studies, child care (this is especially important for young families with children); saving time and transportation costs.

Even before the spread of COVID-19, a virus that hit the health of a huge number of people around the world, the answer to the development of technology was the spread of telecommuting. Currently, the recommendations of the World Health Organization on countering the coronavirus pandemic regarding the avoidance of social contacts lead to an intensification of the growth in the number of people employed at home via the Internet.

According to the results of a study conducted by Upwork, it is likely that by 2028 about 73% of all companies will have remote workers ("Future Workforce 2019…", 2019). First of all, researchers associate their forecast with the entry into the labour market of the Millennials, for which the solution of various problems using technologies is commonplace.

Currently, according to researchers in the World, the number of remotely employed has grown by 159% since 2005 (Global Remote Working Data & Statistics, 2020). According to the OECD, no more than 3% of the participating countries of the Organization are employed in teleworking (Organisation for Economic Co-operation and Development, 2019). In the United States, according to the National Compensation Survey (NCS) of 2019, about 7% of citizens have the option of "flexible work" or telecommuting (Desilver, 2020).

In more detail, we presented in the study data on the dynamics of distance employment in Russia based on the data of the HeadHunter analytics service reports for the period 2014-2019. The sample constitutes vacancies represented in the 10 most popular professional areas by employers. The selection is limited to a search specification of the requirements for the "remote work" work schedule. The results of the statistical analysis are presented in Figure 1. From the data presented, it cannot be concluded that the percentage of remotely employed workers in all three samples over the past 5 years has increased. The trend towards the growth of remote employment was observed in Yekaterinburg, but in 2019 the general trend showed a stagnation in the demand of employers for remote workers.
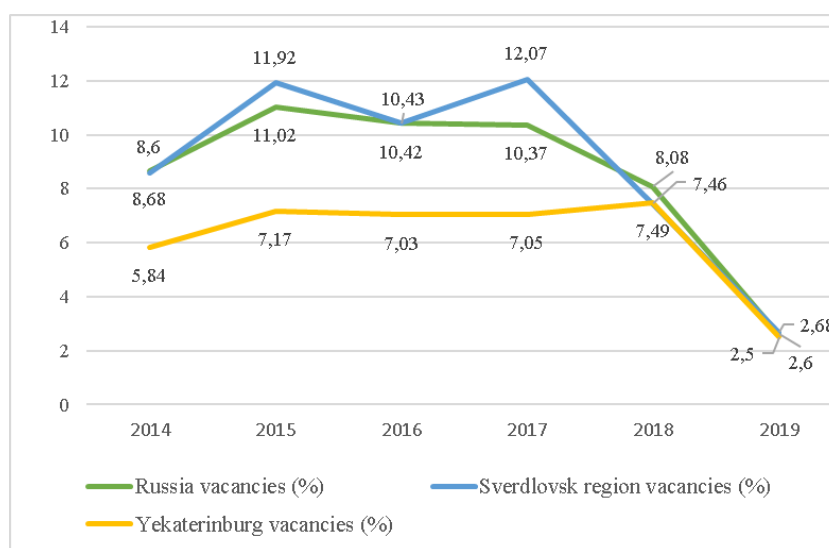

Figure 01. Percentage of remote work vacancies in Russia, Sverdlovsk Region and Yekaterinburg in the period 2014-2019 (in% of the total number of vacancies for the period)

The statistics of 2019 to a greater extent do not indicate a decrease in demand for remote workers, but rather are associated with the adoption of the Law on the Self-Employed in the Russian Federation (January 01, 2019 Federal Law No. 422 "On the Experiment on the establishment of a special tax regime" Professional income tax »), And providing citizens with the opportunity to work remotely officially, without employment in the company.

Based on content analysis of the results of previous studies (Branson, 2018; Deloitte Global Human Capital Trends, 2019; Mann, 2017; Reynolds, 2017; Reynold, 2017), we have identified key trends related to flexible and distance employment:

1. The demand for distance employment and other forms of precarious work is growing

The COVID-19 virus is rapidly developing in the world, becoming a serious crisis in the modern healthcare system. Many economists predict a widespread recession caused by a pandemic. In conditions of self-isolation and quarantine, many businessmen and government agencies are forced to transfer their employees to remote employment to maintain economic activity and the survival of companies ("Likelihood of a coronavirus…", 2020). According to the results of the 2019 study by Global Human Capital Trends, more than 50% of respondents reported their readiness to hire employees on precarious working conditions (Deloitte Global Human Capital Trends, 2019). Data on precarious work is likely to increase substantially by the end of 2020. The relevance of the work of "home office" is increasing (Mathias, 2017).

2. People quit if the company does not provide remote, flexible employment opportunities

Technological progress allows you to work remotely, or with a flexible schedule of presence at the workplace. Highly qualified specialists, whose work is predominantly mental, feel confident in the labour market and understand that they can satisfy the need to work remotely, or on flexible terms. An increase in the number of vacancies with flexible working conditions contributes to increased demand among job seekers.

3. Remote companies have almost four times more female executives than traditional ones

One of the key trends of the past few years in the field of personnel management is diversity (personnel diversity management). Studies conducted by Remote.co among 128 companies working remotely showed that 28% of the companies are either female-owned, or the woman is the founder or president of the company (Reynolds, 2017). At the same time, according to fortune.com, which conducts annual surveys of 500 companies, showed that 6.4% of women executives work in them.

4. Remote work is perceived by employees as benefits

A Gallup study on the status of jobs in 2017 shows that 37% of workers want to work remotely and perceive this opportunity from the employer as an incentive and / or benefit, but only 24% of employees noted that this opportunity existed at their current place of work (Mann, 2017).

5. Remote work allows you to save talent

The best employees (the most talented) come to those companies that offer them flexible employment opportunities. Confirmation that the offer by the employer of flexible employment opportunities is becoming a competitive advantage of the company in the labour market is the statement of the largest companies in the World about attracting a large number of employees to remote work (for example, Amazon, Apple).

6. Remote employment helps reduce company costs and increase productivity

This happens due to a decrease in overhead costs, a reduction in rents for working premises.

7. An increase in the number of employees aged 60 and over

This trend also affected Russia, it is connected not only with the change in the pension legislation, but also with the global trend of population aging and the need to attract people of older age than it was in the last 50 years. In addition, the labour activity of people over 60 is also growing, they are ready to take an active part in the economy of their countries. Employees of the older generation need a flexible work schedule due to age-specific health conditions, as studies show that 60% of retirees are ready to return to work on conditions of flexible employment (Reynold, 2017).

8. New online professions are emerging

SMM- (content) manager, whose activity is to develop strategies and conduct advertising campaigns, as well as collecting and analysing campaign results, curating brand channels on social networks. This is primarily due to the popularization of social networks that have changed the process of communication and doing business. In the near future, an increase in demand and the share of those employed in these professions can be predicted. The popularity of Internet professions is confirmed by an expert from one of the personnel companies in the city of Yekaterinburg, according to her, local employers are ready to hire an SMM manager, as well as an accountant, a recruiter, there is a great response to such vacancies - up to 150 resumes for 1 vacancy. According to expert estimates, approximately 60% of women apply for remote work, and men - 40% in all professions as a whole (Kamarova, 2019a).

9. In the labour market, Generation Z, which effectively uses digital technology for remote work. According to expert forecasts, the number of representatives of generation Z in 2020 will reach 36% of the global labour market (Link, 2018). Generation Z prefers remote work, outside the office, with the most flexible working conditions.

Remote employment helps to maintain a balance between work and personal life, as well as to regulate your work regime. Based on the results of a previously conducted content analysis of resumes and distance employment vacancies by the authors, it can be concluded that interest in distance work is growing every year from both employers and employees. Having studied the structure of the remote employment resume for one major work portal, it can be noted that 30% of the demand for this format of work is for young specialists who begin their career after graduation (Kamarova, 2019b).

6.2. The supra-professional competencies of graduates in remote employment

In parallel with the development of technology, the economy, the labour market and employment, the requirements for the recruitment and level of development of professional and supra-professional competencies of specialists are changing. People's competencies also change and adapt to ongoing changes (Becker & Muendler, 2015; Boyatzis & Boyatzis, 2008). In the transforming labour market, with the advent of new professions and the spread of distance employment associated with the introduction of new technologies, the requirements for the development of digital competencies of employees, computational thinking and media competence are increasing (e.g. Ananiadou & Claro, 2009; Pesha, 2020; Rakesh, 2020). The organization of remote work is closely linked primarily with the development of digital competencies and skills. So, according to a study by Shahverdyan (2020), it is noted that in the list of the 20 most sought-after skills of the 21st century, 9 are associated with technical competencies, including data storage, web design, application development and others. But, for success and competitiveness in the field of distance employment, only digital competencies and competencies related to interaction with information technologies may be insufficient (Bakhshi et al., 2017; Bridgstock & Jackson, 2019; Cinque, 2015; Sahin, 2019).

At present, in the labour market, the priority requirements for candidates are personal qualities, motivation and the ability to adapt to the environment, and professional experience is becoming secondary, the employer often has enough basic knowledge of the profession. This fact is confirmed by a number of studies, some of which were conducted more than 20 years ago (e.g., Posner, 1987; Succi & Canovi, 2019). Shahverdyan (2020) also notes the importance in the selection of personnel not so much a diploma of higher education, but rather the development of skills and competencies (78% of responding staff managers noted this trend).

According to a study by "The future education and skills Education 2030" (Organisation for Economic Co-operation and Development, 2018) identifies three key competencies necessary for specialists of the future: creating new value, reconciling tensions and dilemmas, taking responsibility.

Rakesh (2020), based on a study conducted in the USA on demanded skills in the digital and green economy, concludes that fundamental skills are more important. Active listening, oratorical skills, critical thinking and understanding of meanings and social skill are the most important of the 35 skills that were studied. In addition, the development of programming and data analysis skills is important in 163 professions out of 967 studied.

The International Labour Office (International Labour Office, 2019) analysed what skills are needed to transition to a green economy. According to the results of the study, a top list of skills of qualified specialists of the future was formed: analytical thinking; coordination management; innovative skills; marketing; counselling; networking, IT and multilingualism; strategic and leadership skills.

Common in all studies of recent years on the competencies and skills necessary for the digital economy and the "green economy" is the emphasis on the demand for supra-professional (soft) skills and competencies.

In our study, we, based on previous studies of the necessary skills and competencies of the 21st century and the features of the organization of remote work, have deduced the key requirements of the modern labour market for the development of the supra-professional competencies of university graduates

(Table 1). Also, we asked representatives of the professional HR community to assess the level of demand for the displayed list of competencies in modern conditions (Figure 2).

Table 01. Supra-professional competencies of working in the remote employment format specialists

Features of remote work	Necessary supra-professional competencies
1. Work in the virtual space	- technical (digital) literacy; - the flexibility of the mind; - customer focus; - media literacy; - information management.
2. The use of digital tools	- technical (digital) literacy; - computational thinking; - programming, modelling, web-design; - learning ability.
3. Online communications and virtual team interaction (communication via interfaces, instant messengers and social networks)	- media literacy; - understanding of the meanings; - interaction with people; - multilingualism and multiculturalism; - Negotiation.
4. Managing people and processes in the cloud	- understanding of the meanings; - interaction with people; - social intelligence; - honey literacy.
5. The close relationship between work and personal life	- self-control and self-organization; - social intelligence; - emotional intellect.
6. Change in the structure of tasks and functions	- self-control and self-organization; - the flexibility of the mind; - emotional intellect; - work in a mode of high uncertainty and quick change of task conditions.
7. Greater autonomy compared to work in the office	- self-control and self-organization; - systemic thinking; - project thinking.
8. Most of the remote work is associated with creativity and project work	- creativity and innovativeness; - information management; - project thinking; - social intelligence; - interaction with people.

In the process of remote work, not only the key labour tools that digital technologies become, change, but also the interaction. The management process of the contractor's activities on a remote work schedule is also subject to changes. To a greater extent, the manager needs a high level of trust in the executor, since it is difficult to control remote work, reference points and a high level of development of competencies in time management, self-monitoring and employee self-organization are necessary. In most cases, an employee needs to make decisions within his function, to be responsible for the results of work. In addition, team interaction is also changing, which also goes into a virtual format, which is now possible to support using a large number of online services.

In February-March 2020, we conducted a study on the demand for the supra-professional competencies of university graduates by modern employers. The study involved 146 business leaders, as well as HR managers. 35.6% of respondents offer employees part-time or full-time employment opportunities. The results of the study are presented in Figure 2. We asked employers to assess the relevance of the development of the supra-professional competencies of university graduates in the main professions that are in demand for work in their companies. The assessment was carried out on a 5-point scale, where 1 is a low level of interest in the development of competence, 5 is a high (critical) level of need for a high level of development of this competency. As a result of the study, we found that the most relevant competences in communications in the current economic environment are interaction with people and customer orientation (4.86 and 4.68 points, respectively). High importance is noted by employers regarding the ability to distinguish and filter information by importance, as well as understand how to maximize cognitive functioning using various tools and methods and information management (4.68 points). This result confirms the conclusions made by scientists in previous studies on the importance of not only digital competencies, but also competencies related to interaction with people (Bakhshi et al., 2017; Bridgstock & Jackson, 2019; Cinque, 2015). As for the seemingly most demanded and necessary competencies for working in a remote format - digital competencies, the respondents do not overestimate their importance for their companies, noting that for non-IT professionals it is enough to have digital competencies at the level of "confident user", capable of formulate a request and process information to solve problems from the professional field (4.04 points assessment of competence "technical literacy"). Media literacy, as the ability to critically evaluate and develop content, analyse, evaluate and create messages in different types of media, genres and new media forms was rated by respondents at 4.15 out of 5, and programming and work with artificial intelligence, modelling and web -design received an importance rating of 3.53 and 3.12 points, respectively.

As can be seen from the diagram in Figure 2, all the supra-professional competencies that we identified as necessary for fulfilling tasks in the form of distance employment were rated by employers as "important" (more than 3 points) and very important (more than 4 points).
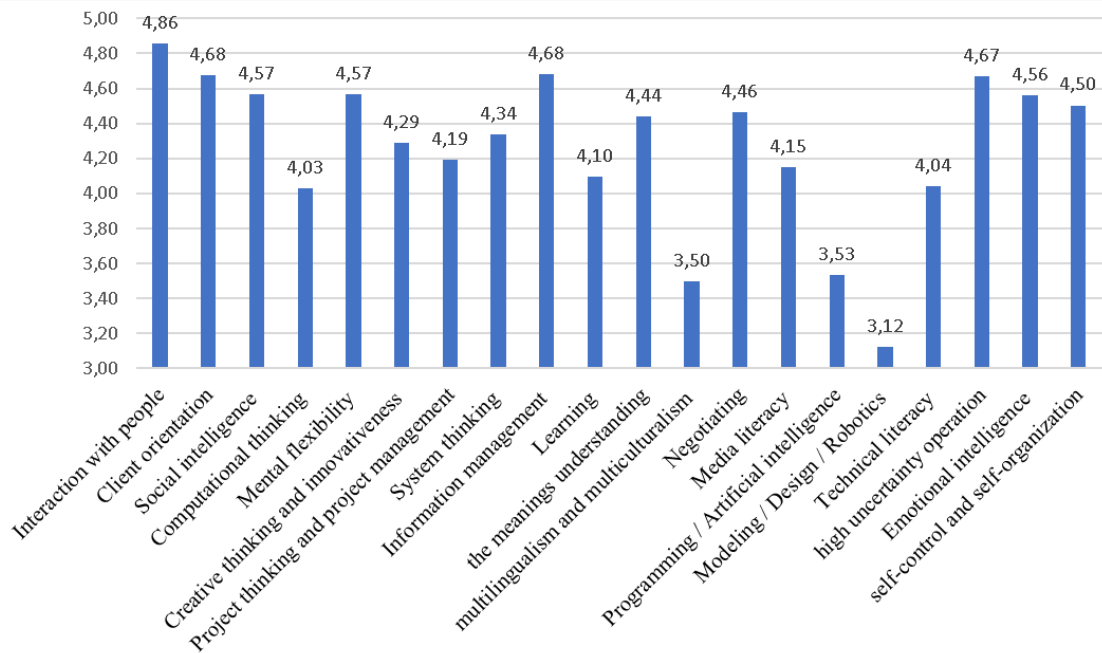
Figure 02. The results of a study of the demand for supra-professional competencies of university graduates from employers (on a 5-point scale, where 1 is a low need for competence, 5 is a high need for the development of this competency)

7. Conclusion

Changes are taking place in the structure of employment in the labour market, a form of employment such as remote has appeared and it harmoniously integrated into the country's economy. Its appearance was facilitated by the development of the worldwide Internet and the development of information and communication technologies (ICT). In turn, changes are taking place in the organization of labour for working at a distance, in the management of remote workers, in the system of their motivation, in the control by employers over the performance of labour functions. It is also important that when working remotely, it is necessary to build communications in a new way, using messengers, internal corporate portals, and Internet applications.

There are costs of remote employment that may appear after some time, namely a lack of involvement, confirmation of one's own significance and relevance. For employers, the task will be to retain young employees, to prevent burnout. Using the game format of gamification, the employer can perform adaptation and assessment processes, develop interest among employees, turning routine tasks into interesting motivational tasks.

Currently, the requirements for candidates in the digital labour market are changing significantly. The organization's task is to create conditions for comfortable and productive work, for employee growth and development on a remote schedule. So, until recently, when searching for personnel, the main skills were "Hard Skills", professional skills and competencies that can be taught and measured, which are necessary for an employee to work in a particular profession and position. In modern society, the most important are supra-professional, soft skills and competencies, which are important in each profession and

depend on the personality of the employee: communicative, social, cognitive and digital competencies (Bakhshi et al., 2017; Marler & Parry, 2015; Nazari & Naghavi, 2015).

For example, when searching for a candidate for the position of HR manager, attention was paid to professional competencies: the application of knowledge of psychology, HR administration, labour law, now priority is given to supra-professional competencies, for example, learning ability and the ability to quickly learn new technologies, managing Big data, flexibility of mind, presentation and sales when attracting the right candidates. In the era of automation in the digital economy, changes are also taking place in a number of business functions and professions, you need to evaluate what automation can replace, and vice versa a "living" person will do better, and look for just such a person with the necessary professional skills for the company in today's reality.

In this paper, we analysed the current state of the distance employment market in the World, Russia and Yekaterinburg, formulated a number of key trends in the field of distance and flexible employment. The analysis showed that at present the distance employment market is growing, from 3 to 10% of the able-bodied population of countries are employed remotely. In Russia, the dynamics of distance employment is uneven, according to the results of 2019, the number of remotely employed stagnates, which may be due to changes in legislation and the introduction of self-employment in the country. The new challenge that humanity is facing today (COVID-19) will affect the dynamics of the demand for remote employees and jobs in the labour market. The forecasts made by researchers that by 2028 73% of employers will have employees of workers on a remote form of employment can be adjusted after the stabilization of the situation with coronavirus and understanding of its economic consequences.

The remote form of employment transforms the idea of the importance of developing the supra-professional competencies of specialists in the labour market. Higher educational institutions already need to take into account in training programs the features that remote work has and the requirements that are necessary to ensure the effectiveness of the specialist and the company working in a remote format. Based on a number of studies by foreign scientists and a study conducted by the authors on the importance and relevance of supra-professional competences for distance work, we have formed a pool of supra-professional competencies that are most important in the new digital and economic conditions (Table 1, Figure 2). Most of the foreign studies in forecasting the sought-after talents of future specialists study the importance of skills (e.g. International Labour Office, 2019; Rakesh, 2020; Shahverdyan, 2020). In our study, we are based on a broader approach to formulating the talents of specialists of the future, analysing supra-professional competencies that reflect the manifestation in the behaviour of knowledge, skills, motivation and personal characteristics that will be necessary for graduates of universities with distance employment in the labour market.

The importance of the selected list of supra-professional competencies for distance learning specialists was confirmed by us in a formalized online survey in which 146 employers took part. The survey results confirm the high importance of the development of digital competencies among university graduates, but at the same time, the most important competencies for work in the 21st century remain communicative competencies. The formats of interaction are changing, the tools for transmitting and receiving information are changing, the importance of media literacy communications is increasing,

however, interpersonal interactions remain the basis for success in the digital and knowledge economy, new forms of employment.

The social, economic life of people in the world changes significantly under the influence of the development of technology and technology. The labour market is changing (Marler & Parry, 2015; Nazari & Naghavi, 2015). The requirements of employers to the competencies of employees are changing. To narrow the gap between employers' expectations and the actual level of development of the supra-professional competencies of university graduates (Bridgstock & Jackson, 2019; Pereira, 2013; Pesha, 2020) requires the transformation of university education programs. The programs of academic disciplines should be balanced and oriented not only to the development of professional competencies of students, but also to the development of their flexibility, adaptability, labour motivation, relationships and abilities that allow them to be effective for themselves, organization and society in a digital economy, including in terms of distance employment.

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References

Ananiadou, K., & Claro, M. (2009). *21st century skills and competences for new millennium learners in OECD countries.* OECD Education Working Papers 41. OECD Publishing. https://doi.org/10.1787/218525261154

Bailey, D. E., & Kurland, N. B. (2002). A review of telework research: Findings, new directions, and lessons for the study of modern work. Journal of Organizational Behavior. *The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *23*(4), 383-400. https://doi.org/10.1002/job.144

Bakhshi, H., Downing, J. M., Osborne, M. A., & Schneider, P. (2017). *The future of skills: Employment in 2030*. Pearson and Nesta.

Becker, S. O., & Muendler, M. (2015). Trade and tasks: an exploration over three decades in Germany. *Economic Policy, 30*(84), 589-641. https://doi.org/10.1093/epolic/eiv014

Bloom, N., Liang J., Roberts J., & Ying Z. J. (2015). Does working from home work? Evidence from a Chinese experiment. *The Quarterly Journal of Economics, 130*(1), 165-218. https://doi.org/10.1093/qje/qju032

Boyatzis, R., & Boyatzis, R. E. (2008). Competencies in the 21st century. *Journal of management development, 27*(1), 5-12. https://doi.org/10.1108/02621710810840730

Branson, R. (2018). *Billionaire: 3 reasons you should let your employees work remotely.* https://www.cnbc.com/2018/03/13/richard-branson-3-reasons-you-should-let-your-employees-work-remotely.html

Bridgstock, R. (2017). The university and the knowledge network: A new educational model for twenty-first century learning and employability. In M. Tomlinson & L. Holmes (eds,) *Graduate employability in context* (pp. 339-358). Palgrave Macmillan. https://doi.org/10.1057/978-1-137-57168-7_16

Bridgstock, R., & Jackson, D. (2019). Strategic institutional approaches to graduate employability: navigating meanings, measurements and what really matters. *Journal of Higher Education Policy and Management, 41*(5), 468-484. https://doi.org/10,1080/1360080X.2019.1646378

Brooks, C., & Gibson, S. (2012). Professional Learning in a Digital Age. *Canadian Journal of Learning and Technology, 38*(2), 2. https://doi.org/10.4324 / 9781315853529

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies*. WW Norton & Company.

Cinque, M. (2015, Nov.18). *Comparative analysis on the state of the art of Soft Skill identification and training in Europe and some Third Countries*. [Speech at workshop] "Soft Skills and their role in employability–New perspectives in teaching, assessment and certification". Bertinoro, FC.

Deloitte Global Human Capital Trends (2019). *Tendencii v sfere upravleniya personalom v Rossii. Delojt Konsalting* [Personnel Management Trends in Russia. Deloitte Consulting]. https://www2.deloitte.com/content/dam/Deloitte/ru/Documents/human-capital/russian/HC-Trends-2019-Russia-General-Report.pdf

Desilver, D. (2020). Before the coronavirus, telework was an optional benefit, mostly for the affluent few. https://pewrsr.ch/2qwk1zt

Fedorova, A., Koropets, O., & Gatti, M. (2019). Digitalization of human resource management practices and its impact on employees' well-being. In M. Kavaliauskiene & J. Stankeviciene (Eds.), *International Scientific Conference „Contemporary Issues in Business, Management and Economics Engineering".* (pp. 740-749). Vilnius Gediminas Technical University. https://doi.org/: 10.3846/cibmee.2019.075

Frey, C. B., & Osborne, M. A. (2017). The Future of Employment: How Susceptible are Jobs to Computerisation? *Technological Forecasting and Social Change, 114,* 254–280. https://doi.org/10.1016/j.techfore.2016.08.019

Future Workforce 2019: How Younger Generations are Reshaping the Future Workforce (2019, March 5). 73% of all teams will have remote workers in the next decade. https://www.slideshare.net/upwork/future-workforce-2019-how-younger-generations-are-reshaping-the-future-workforce/1

Global Remote Working Data & Statistics (2020). https://www.merchantsavvy.co.uk/remote-working-statistics/

Hutchinson, D. (2018). Work-life balance in the workplace. In C. T. Eira de Aquino & R. W. Robertson (Eds.), *Diversity and Inclusion in the Global Workplace* (pp. 185-200). Palgrave Macmillan. https://doi.org/10.1007/978-3-319-54993-4_11

International Labour Office (2019). *Skills and Employability Branch. Skills for a greener future: key findings*. ILO.

Kamarova, T. A. (2019a). Usloviya udalennoy zanyatosti kak faktor demograficheskogo razvitiya: tipichno zhenskiye professii (Remote employment conditions as a factor in demographic development: typically female professions). In O. A. Kozlova (Ed.). *Socio-economic and demographic aspects of the implementation of national projects in the region. X Ural Demographic Forum.* (pp. 154-160). Institute of Economics, Ural Branch of the Russian Academy of Sciences.

Kamarova, T. A. (2019b). Gendernyy analiz otraslevoy struktury rynka udalennoy (distantsionnoy) zanyatosti na osnove kontent-analiza banka vakansiy i rezyume (Gender analysis of the industry structure of the remote (distance) employment market based on the content analysis of the job bank and resume) / *Management Issues*, *6*(61), 158-169. https://doi.org/10.22394/2304-3369-2019-6-158-169

Likelihood of a coronavirus recession: Views of leading US and European economists (2020). https://voxeu.org/article/economic-impact-pandemic-igm-forum-survey

Link, J. (2018). *Engaging the Workforce of the Future: the emergence of Generation Z.* Randstad.

Mann, A. (2017). *What Are the Best Employee Perks? 4 Questions to Ask First.*: https://www.gallup.com/workplace/236141/best-employee-perks-questions-ask-first.aspx?g_source=ALL_GALLUP_HEADLINES&g_medium=topic&g_campaign=tiles

Marler, J. H., & E. Parry. (2015). Human resource management, strategic involvement and e-HRM technology. *The International Journal of Human Resource Management, 27*(19), 2233-2253. https://doi.org/10.1080/09585192.2015.1091980

Mathias, B. (2017). *Home Office in Deutschland*. https://de.statista.com/infografik/9161/verbreitung-von-home-office-in-deutschland/

Nazari, S., & Naghavi, M. (2015). A study on electronic human resource management at the Central Bank and effectiveness of human resources management system. *European Journal of Business and Management, 7*(10), 290-299.

Nilles, J. M. (1994). *Making telecommuting happen: A guide for telemanagers and telecommuters.* Van Nostrand Reinhold.

Odegov, V. N., & Pavlova, V. V. (2017). Transformaciya truda: 6-oj tekhnologicheskij uklad, cifrovaya ekonomika i trendy izmeneniya zanyatosti [Labor transformation: 6th technological structure, digital economy and employment trends]. *The standard of living of the population of the Russian regions, 4*(206), 30-41. https://doi.org/:10.12737/article_5a3c328a04f761.55103398

Organisation for Economic Co-operation and Development. (2018). *The future education and skills. Education 2030.* oe.cd/education2030

Organisation for Economic Co-operation and Development. (2019). *Employment Outlook.* https://www.oecd.org/employment/outlook/

Pereira, O. P. (2013). Metacompeteces: how important for organizations? Analysis of a survey in Portugal. *Regional and Sectoral Economic Studies, 13*(2), 73-88.

Pesha, A. V. (2020). Assessment of the expectations from the development of supra-professional competencies on labour market. *In 19th European Conference on Research Methodology for Business and Management Studies (ECRM).* Academic Conferences and Publishing International Limited International Ltd. (in press)

Popenici, S. A., & Kerr, S. (2017). Exploring the impact of artificial intelligence on teaching and learning in higher education. *Research and Practice in Technology Enhanced Learning*, *12*(1), 22. https://doi.org/10.1186/s41039-017-0062-8

Posner, B. Z. (1987). What it takes to be a good project manager. *Project Management Journal*, *1*, 51-54.

Rakesh, K. (2020). *New, emerging jobs and the green economy are boosting demand for analytical skills*. https://pewrsr.ch/2Un8CmG

Reynold, B. W. (2017). *6 Key Stats About Remote and Flexible Work in 2017, and 2 Predictions*. https://www.flexjobs.com/blog/post/stats-about-remote-and-flexible-work-2017-predictions/

Reynolds, B. B. (2017). *Remote Companies Have More Women Leaders, and These Are Hiring.* https://remote.co/remote-companies-have-more-women-leaders-these-are-hiring/

Sahin, A. (2019). The Role of Interdisciplinary Project-Based Learning. in Integrated STEM Education. In A. Sahin & J. M-S. Margaret (Eds.), *STEM Education 2.0* (pp. 93-103). Brill Sense. https://doi.org/10.1163/9789004405400_006

Shahverdyan, N. (2020). *State of Remote Work in 2019.* https://krisp.ai/blog/state-of-remote-work-2019/

Succi, C., & Canovi, M. (2019). Soft skills to enhance graduate employability: comparing students and employers' perceptions. *Studies in Higher Education*. https://doi.org/10.1080/03075079.2019.1585420

Suleman, F. (2018). The employability skills of higher education graduates: insights into conceptual frameworks and methodological options. *Higher Education*, *76*(2), 263-278. https://doi.org/10.1007/s10734-017-0207-0

Tonkikh, N., & Pesha, A. (2019). The Theoretical and Methodological Research of Female Employment and It Correlation with Parental Work. In J. G. Claudet (Ed.), *DEStech Transactions on Social Science, Education and Human Science* (pp. 1-7). Destech Publicat Inc. https://doi.org/10.12783/dtssehs/icesd2019/28064

Voronina, E. V. (2016). Analiz rynka distancionnoj zanyatosti v RF. [Analysis of the remote employment market in the Russian Federation] *Scientific Almanac*, *2*(1), 125-129. https://doi.org/: 10.17117/na.2016.02.01.125