# SELF-ASSESSMENT OF ECONOMICS STUDENTS' READINESS TO ENTER THE LABOUR MARKET IN BULGARIA

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## Abstract

The trend towards digitalization of processes in the modern economy through the use of information and communication technologies, modifies the models of carrying out business activities. Professions are changing as activities become more and more technology-intensive. This makes the use of digital technologies a key element of workforce training.

As a result, digital transformation radically changes the labour market. It affects the quantity of job positions and the quality characteristics of workforce. These changes pose the question of developing the digital skills and competences of working people, especially those of young people who are about to start their career. This problem is particularly relevant given the fact that youth unemployment is a serious challenge both at national and European level.

The analysis outlines the possible obstacles regarding the labour market inclusion of young people through a self-assessment of their digital competences. Emphasis is placed on the skills that economics students must develop or improve in order to meet the demands of the labour market in Bulgaria. This is an important condition for their professional realization.

The self-assessment of skills and the awareness of the shortage of digital skills with students will facilitate the process of developing a vision for improving their digital literacy. The ability to identify the necessary skills in perspective is the basis on which to build the education system in Bulgaria. The latter can ensure the readiness of young people to realize in the labour market. However, the pace of development of new technologies suggests that the skills required will continue to change for all job positions, making life-long learning a vital necessity.

**Keywords**: Digital technologies, professional realization, entering labour market, students' self-assessment

## 1. INTRODUCTION

In the first decades of the 21st century, significant changes have occurred with respect to the conception of work and the development of a professional self within the paths of one's life and career trajectories (Magnano et al., 2021). The labour market has undergone substantial changes due to technological advancement and globalisation (Sarkar, Gibson, Karim, Rhys-Jones & Ilic, 2021). Technological advancement has created new opportunities and redefined existing roles. This has challenged graduates to recognise and adapt to frequently changing career opportunities and distinguish themselves from other competitors in this globalised world (Evans-Greenwood, O'Leary, & Williams, 2015; Oliver, 2015). This has influenced the emergence of competence-based education focusing on required graduates' behaviour within a range of relevant job situations and the knowledge, skills and attitudes (Baartman et al., 2007).

Competence-based education is expected to better prepare students for their transition to the labour market and their professional future (Koenen et al., 2015).

The uncertainty and instability that characterize the world of work today make it necessary for newly graduated students to develop positive resources that allow them to actively adapt to this uncertain environment. (Magnano et al., 2021). School-to-work transition marks an important turning point in the lives of many graduates. According to the Eurostat data, in 2017, approximately 4.8 million students in the EU completed higher education and took the first step into the labour market (Eurostat, 2019).

Career transition readiness represents "the extent to which one is task-oriented and motivated to move ahead with the career transition"; this construct reflects how individuals appraise their motivation for making a career transition (Heppner et al., 1994). The university-to-work transition literature has explored the influence of sociodemographic variables (gender, nationality, type of school), personality (open-mindedness, locus of control), and career development variables (decision-making and career planning) (Hirschi, 2010, Santisi, 2018). As employability comprises a process of learning for life, many graduates may lack a well-developed set of skills required by their potential employers (Sarkar, Overton, Thompson, & Rayner, 2020). However, the school to work transition does not always go well, and an unsuccessful transition to the labour market can have long-term consequences for the careers of starters, such as long-term unemployment, lower job satisfaction and accepting a job below their skill level (Baert et al., 2013; Ryan, 2001; SalasVelasco, 2007).

Because of the disconnection between higher education and the world of work, the Bologna declaration in 1999 initiated a change from the delivery of knowledge towards putting knowledge in the context of students acquiring competences. Higher education's increased focus on graduates' acquisition of competences geared to the needs of the workplace (Baird and Parayitam (2019); Braun and Brachem (2015)).

This study focuses on the economic students' readiness to enter the Bulgarian labour market. The authors' team puts the focus on the students' self-assessment of their readiness. Self-assessment, therefore, engages students in a process of structured reflection which may contribute to improving their thinking and action capabilities (Moon, 2006). This notion aligns with the need for developing a propensity for lifelong learning (Hinchliffe, 2006), which is critically important in the rapidly changing world of work and therefore potentially impacts on student experience and outcomes (Murdoch-Eaton & Whittle, 2011). According to Murdoch-Eaton and Whittle the continual monitoring of, and reflecting on, their own performance of generic skills may help students to take responsibility for their own skill development as well as developing their ability to transfer these skills in education and future careers (Murdoch-Eaton & Whittle, 2011). According to Di Stefano et al. engaging students in the reflection process potentially can influence their self-efficacy and task understanding with a result of productive learning experiences (Di Stefano et al., 2016). This logically may result in improving students' employability potential.

## 2. RESEARCH METHODOLOGY

This research aims to evaluate economic students' readiness to enter the labour market. The study focuses on students from the North-Central Region of Planning (NCRP), Bulgaria and their perceptions of professional realization under the conditions of digital transformation. The authors' team focused this research on the NCRP because the D. A. Tsenov Academy of Economics Svishtov is located there. Moreover, the researchers need to investigate how undergraduate students in the North-Central Region of Planning differ in levels of labour market readiness. The study analyses students' readiness to enter the labour market through the self-assessment in a group of 126 students in Economics, from seven universities located in the North-Central Region of Planning, Bulgaria. The approach is quantitative, non-experimental, cross-sectional, and descriptive and framed within an analytical empirical paradigm. The questionnaire survey is self-administered, a hyperlink to the questionnaire is sent to over 200 students, and 126 willing respondents completed the survey. These 126 respondents formed the research's voluntary response sample. The anonymity of the respondents was guaranteed during the survey implementation. When students entered the first page of the questionnaire, a detailed description of the study was offered, and students were informed that all participants should be of their own free will. A 23-question questionnaire containing single-choice, multiple-choice, matrix and Likert-type questions was divided into four groups. The first group of questions focuses on the socio-demographics of the respondents, the second group – on the self-assessment of skills and competencies, the third group focuses on the assessment of the environment, and the fourth group explores opportunities to improve/enhance students' readiness for the labour market. This particular research is focused on the questions concerning students' readiness to enter the labour market. The results represented in this article are a part of a research project aimed at examining the

preparedness stage of students-economists from the North-Central Region of Planning (NCRP), Bulgaria for career realization in the labour market.

## 3. RESEARCH RESULTS

The use of digital technologies is becoming an invariable part of people's lives. There is an ever-increasing volume of personal and professional activities carried out in an environment and in a manner where individuals are separated in time and place. Being elements of the economic system, education and training cannot stay away from this process, especially since one of their main tasks is to make people ready to adapt to a new environment, which in this case is the virtual one. The Covid-19 pandemic that broke out in 2020 accelerated the process and conclusively proved the need for even more active use of computer and information technologies in education and training.

In this sense, in order to establish the degree of digitalization of the educational process and the specific ways of using modern technologies, the respondents were asked the question of how they use electronic devices and the Internet in the process of training, including outside the compulsory periods of distance learning, which contains options for more than one answer (Figure 1).

According to the results obtained, almost 83% of the respondents use them to search for additional information on the relevant subject or topic, which shows the contribution of technologies to increasing students' commitment to the training process and their desire to expand the acquired knowledge. Over 77% of the students use them to prepare themselves for seminar classes, exams, etc. More than half of the respondents (61%) use technology capacity and the global network for presenting reports, coursework, solutions to case studies, etc. during seminar classes, which makes presentations more effective, and the students themselves can also demonstrate more specialized digital skills. Another way of application, indicated by 48% of the students, is during lectures, when lecturers present the topic and make references to various electronic sources of information. Although passive for the learners, this approach supports the learning process and contributes to the easier perception and assimilation of the material taught. The same is the share of students (48%), who, with the help of electronic devices and the Internet, communicate with their lecturers and/or colleagues on the subject of study thus increasing their knowledge. The more intensive application of technology and the corresponding technical equipment in education became necessary during the pandemic situation. However, the trend continues, given the clearly realized conveniences of this way of teaching and training. In general, the presented results show that electronic devices and the Internet are increasingly entering the classroom and extracurricular work of students.

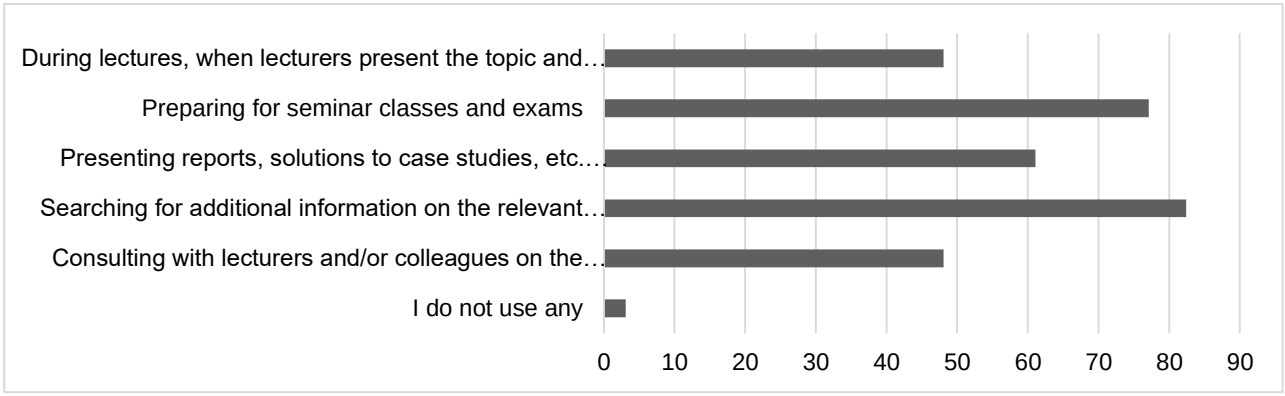



Fig. 1. Use of electronic devices and the Internet in training (self-assessment)

Source: Data from a survey conducted (https://docs.google.com/forms/d/1SoVESrNbJk-wy1MQu_vR1XSu67Bkh3oSgtMlq6zSfi0/edit), analysis by the authors

Students must possess appropriate digital skills for the effective application of ICT and technical tools in education. In this process, the perception of whether they can handle the relevant activities in a digital environment is of particular importance. In this regard, the respondents were asked to make a self-assessment of the skills they possess, which can be conditionally divided into three groups – basic, medium, and high-class skills (Figure 2). With a few exceptions, the results obtained met our expectations.

In terms of basic skills such as using a search engine, word processing, and communicating via the more popular channels, nearly 70-80% of the students surveyed state they have excellent skills. The high degree of proficiency is probably due to the activities performed mainly in students' free time and when

communicating. However, the acquired skills are very useful in carrying out their daily preparation for the classes. Only 2-3% are those who do not have sufficiently developed basic skills.

As the activities performed in the digital environment become more complex, the share of learners possessing the relevant skills decreases. These are medium-level skills such as: working with a spreadsheet, creating presentations and graphics, using cloud space, using editing software, etc. Nevertheless, more than half of the surveyed students (53-56%) believe they can perfectly cope with the first two of the listed activities, since, as mentioned above, this relates to their training and research work. A little lower (40%) is the number of students who definitely claim they know how to organize and share information in a cloud and take advantage of the benefits of cloud services. The task of editing photos, audio and video files using specialized software turns out to be more complicated – such skills are well developed by only 23% of the respondents. During the training process students are less often required to carry out similar activities and this could be a possible reason for this. It should be noted, however, that for each of the four medium-complexity skills, 1/5 of the students state they master them at a good level, which forms positive expectations about improving their skills in the near future. In contrast to the base segment, logically the share of respondents who do not feel confident enough in their digital skills is greater and increases with the increase in the complexity of operations.

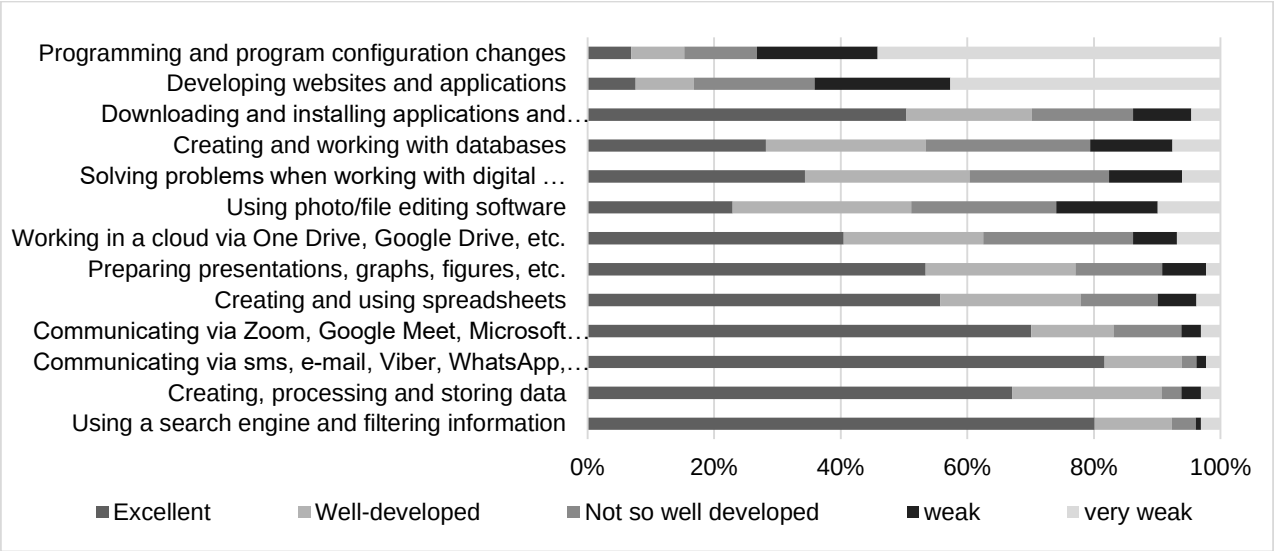



Fig. 2. Self-assessment of skills for working in a digital environment

Source: Data from a survey conducted (https://docs.google.com/forms/d/1SoVESrNbJk-wy1MQu_vR1XSu67Bkh3oSgtMlq6zSfi0/edit), analysis by the authors

With high-class skills considered, there is an ongoing trend of decreasing the share of students with excellent and well-developed skills and a trend of increasing the share of insufficiently competent ones. The only exception is the ability to download and install applications and software, where over 50% of the students say they have excellent skills and almost 20% say they have a very good level of proficiency. The explanation in this case can be found in the misinterpretation of the nature of the activity/skill by the students, as well as in their emphasis on working with applications. It is likely that the respondents associate this skill with downloading and installing free (custom) applications mainly on mobile devices, while in fact it is about installing and setting up professional business systems that require specialized skills and experience. The skills for programming and developing websites and applications are possessed by the lowest number of students (about 7% have excellent command and about 9% – command at a good level), since they are rather professional and in most cases are built with students studying in certain IT-related majors.

Soft skills have always been of utmost importance for the successful integration of young people into the work environment and for their professional recognition. In today's digital world, soft skills are becoming even more important, as they are what distinguishes humans from artificial intelligence and robotics and prevent their complete replacement. For this reason, soft skills become a key factor for the professional realization of young people.

In this regard, students studying economics were asked to rate the soft skills they possess on a scale from 1 (excellent) to 5 (insufficiently developed). Most of the respondents rated their sense of responsibility highly.

Almost ¾ of them (73.3%) indicated that it was excellently developed, with none considering that they do not have this skill. (Figure 3) Slightly less than 2/3 of the respondents considered they have excellent skills to successfully organize their daily activities, as well as to work in a team. Slightly more than half of the students who responded to the survey (an average of 52.3%) believe they can adapt to changes, prioritize their tasks and communicate very well. Equally, they rate their learning skills as highly developed.

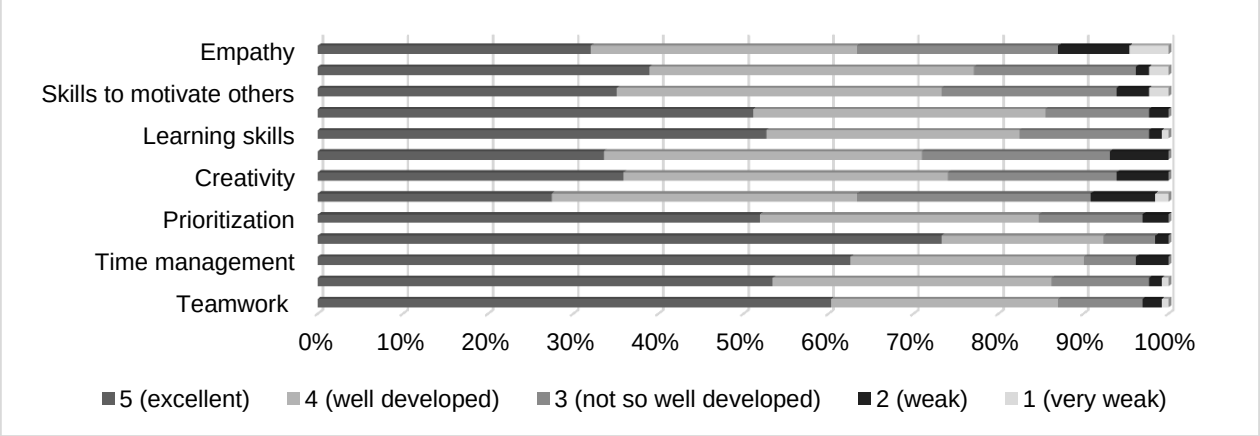



Fig. 3. Self-assessment of soft skills

Source: Data from a survey conducted (https://docs.google.com/forms/d/1SoVESrNbJk-wy1MQu_vR1XSu67Bkh3oSgtMlq6zSfi0/edit), analysis by the authors

The ability to take risks, creative and critical thinking, the skills to motivate people and resolve conflicts stand out as not well developed. A little over 1/3 of the respondents believe the specified soft skills are excellent or at least well developed in them. Among these skills, respondents feel most insecure about the ability to take risks. Almost 1/5 of them (9.2%) find it weak or poorly developed. Empathy is the skill the respondents assess as insufficiently developed – in less than 1/3 it is excellent or very well developed, and with more than 1/5 (13%) of the respondents it is weak or very poorly (insufficiently) developed.

Given that soft skills are primarily personal characteristics, developing and improving them is more difficult than acquiring specific digital skills. Developing soft skills requires a change in people's attitudes and behaviour, which is not always possible. Therefore, the level of soft skills possessed, according to the self-assessment of economics students, can be defined as very good. This could give them an advantage in terms of their professional realization, even though they do not possess some of the digital skills or they are poorly developed.

Working in virtual space is also associated with many risks. The following question aims to reveal to what extent students can protect themselves from unfavorable situations and possible abuses. Three response options are provided (Figure 4). It is noteworthy that for each of the possible statements, positive answers ("yes" and "rather yes") have the largest share, which shows that students are confident enough to work safely with modern technologies.

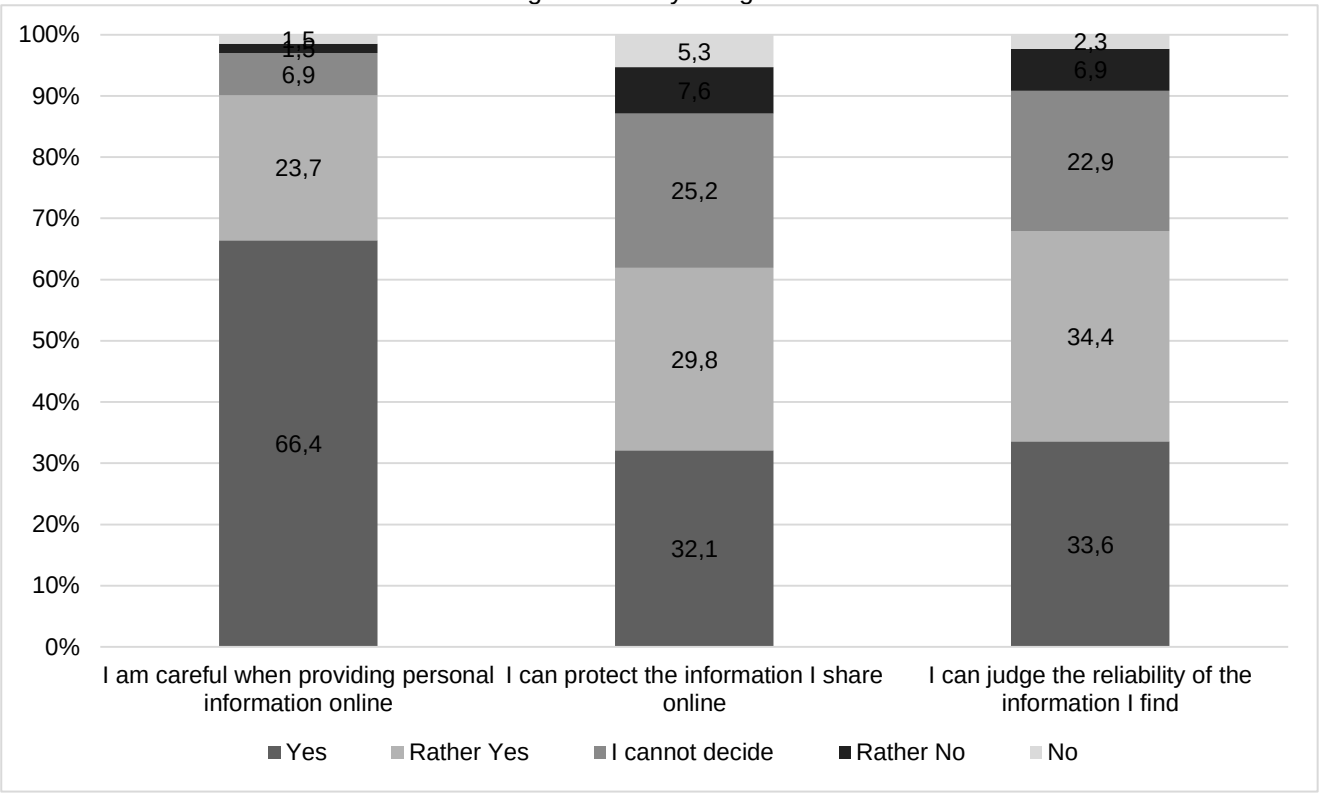
The vast majority of respondents (90%) say they are careful when providing personal information online, with over 66% strongly convinced that they take good care of their data security. It is encouraging that only 3% are negligent in this direction, yet all students must permanently develop a responsible attitude towards information security.

In relation to the skills to protect the information they share on the Internet, 32.1% of the respondents definitely confirm the presence of such skills, and almost as many (29.8%) believe that they rather possess them. Thus, according to the presented data, more than half of the respondents are able to protect the information they share on the Internet. The results are similar regarding the possibilities of assessing the reliability of the information students find on the Internet – 68% of them state they have no problems determining the reliability of the information, resp. to consider whether and how to use it.

Alarming, however, is the fact that about and over 1/3 of those asked cannot or are not sure if they can protect the information they share, as well as can assess the reliability of the information they find on the Internet. This means that a considerable number of students do not have the necessary experience and knowledge in the field of security and are vulnerable to possible attacks. Therefore, rapid and effective measures must be taken aiming at carrying out broad information campaigns on security issues, including

these issues in the curricula and programs of higher education institutions, as well as developing specialized courses and training where students can learn to recognize threats and acquire knowledge and skills to protect their devices and information.

Fig. 4. Security in digita




l space (self-assessment)

Source: Data from a survey conducted (https://docs.google.com/forms/d/1SoVESrNbJk-wy1MQu_vR1XSu67Bkh3oSgtMlq6zSfi0/edit), analysis by the authors

The majority of students (80.9%), consider that they need additional training in some areas. (Figure 5). To the greatest extent, this applies to the use of security programs on digital devices and especially in relation to the resolution of problems encountered in the process of using digital devices. Respectively, 26% and 29.8% of the respondents declare that they need additional training in these two areas in order to feel confident in the modern labour market. This can be easily understood given that skills in these areas require more complex training and higher digital competence, which students obviously do not think they possess.

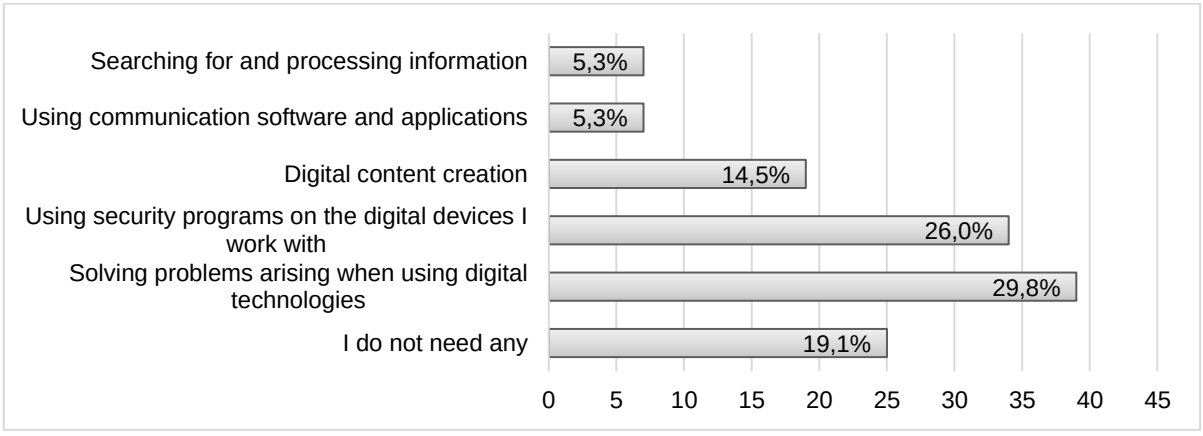



Fig. 5. Self-assessment of the need for additional training in specific areas

Source: Data from a survey conducted (https://docs.google.com/forms/d/1SoVESrNbJk-wy1MQu_vR1XSu67Bkh3oSgtMlq6zSfi0/edit), analysis by the authors

A small number of the respondents (14.5%) believe they need to improve their skills in the field of digital content creation. The least are those who are of the opinion they need additional training for the process of searching for information (only 5.3%) and for the process of communicating in a digital environment (only 5.3%). This corresponds to the results of the students' self-assessment of their digital skills, which show that they rate the most their abilities to search and process information and to communicate through various programs and applications. This can be explained by the fact that these skills are already absolutely necessary for everyday activities, as well as in the process of working and training in modern conditions.

Almost 1/5 of the respondents (19.1%) believe they do not need additional training. This means they clearly consider themselves fully prepared to meet the demands of the modern labour market, as they assess their skills and competences for working in the conditions of digital transformation as sufficiently well developed. This suggests that these students probably do not appreciate the need for lifelong learning.

The results of the survey confirm this assumption. Although only 2.3% of the respondents say they do not accept the idea of lifelong learning, over a fifth of them (21.4%) say they have not thought about it. (Figure 6) This suggests that these students do not realize the importance of this principle in the modern world. In addition to this, 22.9% accept the idea of lifelong learning although they are reserved about it. The last two findings are worrisome given the dynamic nature of the modern digital world, in which constant expansion and enhancement of competences through training is necessary. This is precisely what maintains the level of acquired competences and ensures the professional realization of young people, economics students in particular, as well as of older people.

Nevertheless, the majority of the respondents (53.4%) are aware of the need for constantly upgrading skills and competences and strongly support the idea of lifelong learning.

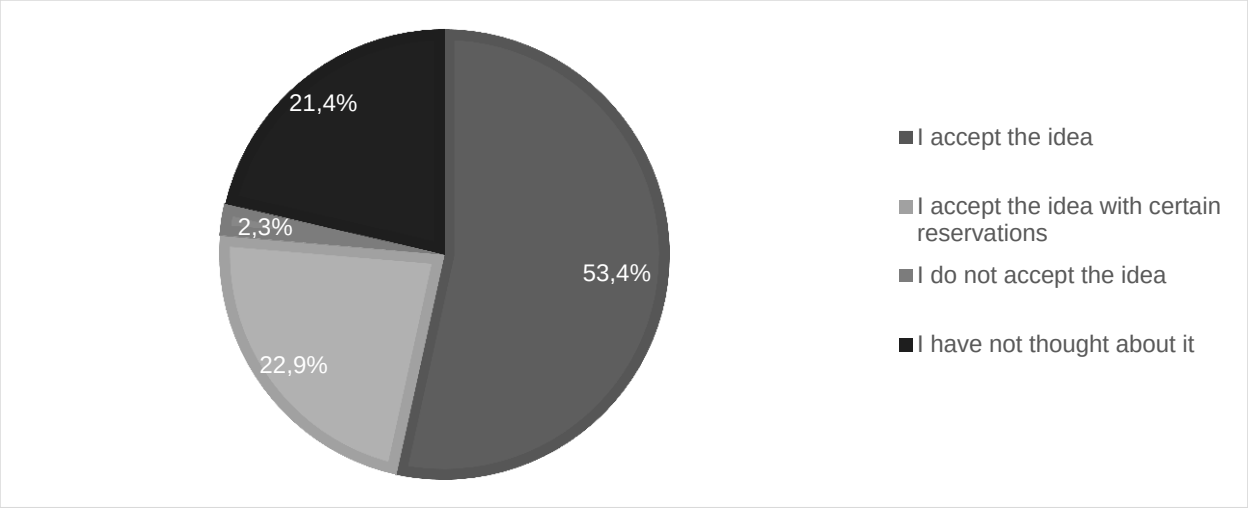



Fig. 6. Attitude towards the idea of lifelong learning

Source: Data from a survey conducted (https://docs.google.com/forms/d/1SoVESrNbJk-wy1MQu_vR1XSu67Bkh3oSgtMlq6zSfi0/edit), analysis by the authors

In addition, economics students were asked whether they are motivated to acquire new digital and soft skills. The results of the survey are encouraging in this regard, as 88.5% of the respondents definitely state they are motivated to acquire new competences. (Figure 7) This means they realize they do not possess some of the skills that could be decisive for their professional realization, a fact that was also identified in connection with the answers to the question about the need for additional training in specific areas. Having knowledge and skills relevant to modern conditions will allow students to become more competitive on the labour market in the digital economy.

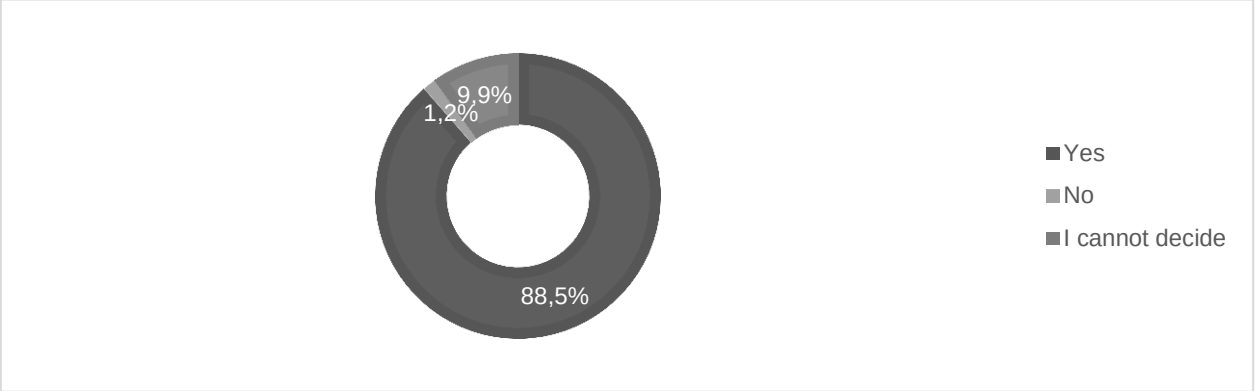



Fig. 7. Motivation to acquire new digital and soft skills

Source: Data from a survey conducted (https://docs.google.com/forms/d/1SoVESrNbJk-wy1MQu_vR1XSu67Bkh3oSgtMlq6zSfi0/edit), analysis by the authors

A very small number of the respondents (only 1.2%) lack any incentive to acquire new knowledge and skills, and 9.9% cannot give a definite answer to the question. This may be due to their confidence that they have the necessary competences, or to financial difficulties, or to the fact they are personally involved in other projects that prevent them from thinking seriously about it. Of course, this is not favorable for the future professional realization of these young people, since improving qualifications is extremely important to ensure compliance between the skills demanded and offered in the labour market.

The survey results clearly point to the need to define and implement tools to motivate and encourage students to acquire new knowledge and skills (digital and soft) to enable them to become more competitive in the labour market.

## 4. CONCLUSION

The analyzed survey results show that the self-assessment of the respondents regarding their readiness to enter the labour market s high. According to the results obtained, the majority of the students use digital tools and technologies which results in increasing their commitment to the training process and their desire to expand the acquired knowledge. Moreover, nearly 80% of the students surveyed state they have excellent digital skills. On the other hand, regarding digital security and using different tools for protecting personal information, as the activities performed in the digital environment become more complex, the share of learners possessing the relevant skills decreases. The more complex the skills considered, there is an ongoing trend of decreasing the percentage of students with excellent and well-developed skills and increasing the share of insufficiently competent ones. Most of the respondents rated their soft skills highly. Working in a virtual space is also associated with many risks. The majority of the respondents are aware of the need for constantly upgrading skills and competencies and strongly support the idea of lifelong learning. The results of the survey reveal that the majority of the respondents state they are motivated to acquire new competencies. The data analyzed explicitly identifies the need to define and implement tools to motivate and encourage students to acquire new knowledge and digital and soft skills to make them more employable.

## 5. ACKNOWLEDGEMENT

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