

Conference Paper

Russian Freshmen Future Profession Choice in the Conditions of Digitalization: New Challenges of Labour Markets

Elena Grunt¹, Sabina Lissitsa², and Ekaterina Lebedkina¹¹Ural Federal University named after the first President of Russia B. N. Yeltsin, Yekaterinburg, Russian Federation²Ariel University, Ariel, Israel

Abstract

The prestige and values of higher education are traditionally high in Russia and overseas countries. For several generations, there has been a youth orientation towards higher education. Higher education and diplomas are perceived by a person primarily as a means of social mobility. Profession sets a certain “social background” for people’s life. At the same time, however, over the past few decades the assessment of the prestige associated with certain professions and specialties has dramatically changed and the labor market has changed, too. The the desire for higher education among young people continues to grow in Russia. Today’s students, future specialists, face new challenges of the labor market: firstly, availability of desired and demanded professions acquisition on the labor market; secondly, disappearance of old and the emergence of new professions; thirdly, digitalization of the labor market; fourthly, the formation of specialist competencies that are in demand both on the local and global labor markets. The major research objectives were to study the issues of students’ profession choice and their opinion on the demanded / non-demanded professions on modern labor market. The research methodology combines both quantitative and qualitative approaches. The primary data was collected using questionnaires and in-depth-interviews. 250 freshmen of the Ural Federal University and 250 freshmen of Saint-Petersburg State University were questioned on the basis of quota sampling. In depth-interviews (15) were organized for the educators engaged in the system of higher education.

The study has revealed the issue of inequality in access to higher education as well as of inequality in access to getting prestigious and demanded professions on labor market. The majority of the respondents look for occupation suited to abilities and to their own interests. For young people the main thing is that the profession should not only make profit, but also a career progress and give new professional knowledge. The research has fixed that the majority of the students believe that they have made the right choice of specialty and they are well aware of how their future professional activity will be. About 30.0% of young people do not often choose those professions that they would like to be trained at the university, but those that are possible due to their “accessibility”. The students’ professional choice does not correspond to their ideas about their future profession and their psychological characteristics.

Keywords: Higher education, students, freshmen, Russia, labor market, future profession choice, digitalization.

Corresponding Author:

Elena Grunt

helengrunt2002@yandex.ru

Published: 21 January 2021

Publishing services provided by
Knowledge E

© Elena Grunt et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the XXIII International Conference Conference Committee.



1. Introduction

In recent decades due to globalization, digitalization and organizational shifts, the requirements of modern labor markets have changed significantly. Globalizing and digitalizing the production of goods and services requires profound changes in the workplace such as flatter management structures, decentralized decision making, information sharing and task teams, cross-organizational networking, flexible work arrangements, restructuring of the production system and the alteration of different professions. Information and communication technologies (ICTs) are at the core of this fast-changing production [8, 13]. These changes in the workplace and on the local and global labor markets require highly skilled specialists faced with increasingly complex and interactive tasks. Such specialists are expected to efficiently select knowledge from the amount of available information and effectively apply such knowledge, both in their professional and personal lives. Today, the majority of young people enter the labor market at the age of 22–25 years. Thus, new participants in the production process must satisfy not only the current needs of the labor market, but also the future needs of the 2020s, moreover, the 2040s [11].

The role of higher education and learning becomes much more important. In the conditions of digitalization the fast pace of new technological developments, shortened ICT skill lifecycles and the demand for continuous learning for people in different carrier stages, have emerged [4].

This requirement has changed the nature of work skills. Future university graduates not only need excellent technical training; they also need sufficient skills to adapt to changing job requirements [3]. 21st century skills include collaboration, communication, digital literacy, problem solving, critical thinking, creativity, and productivity [14]. The reason for this is in the fact that local and global labor markets expect higher education to train students who are able to cope with the new digital society in the future, thereby contributing to a successful and balanced career.

By the end of the twentieth century a new situation has appeared in the highly skilled labor market. The modern employer prefers such universities' graduates who are able to actively master the latest achievements of science and technology, constantly engaged in self-development, self-education in the sphere of his\ her labor activity [2]. The solution of this problem is largely determined by the way higher educational institutions carry out the restructuring of the educational process, training specialists capable of constantly updating their knowledge and skills [1].

The prestige and values of higher education are traditionally high in Russia and overseas countries. For several generations, there has been a youth orientation towards higher education. Higher education and diplomas are perceived by a person primarily as a means of social mobility [5, 6, 16]. However, the “massification” of higher education has induced a vivid public debate in recent years, pointing out the need to assess the quality of the ever more accessible tertiary education. This phenomenon has had many consequences. Among others, it reduced the labor market advantage of higher education graduates. Higher education ceased to guarantee a good labor market position. The labor market outcomes failed to satisfy the raised aspirations of many young people leaving higher education institutions [7].

Person’s future career depends on the correct and timely choice of a profession by a person. A society is always in the status system [12], that is why people choose professions not because of their usefulness for a society, but according to what benefits will be gained by obtaining a specialty, what status will be obtained with a diploma.

Profession sets a certain “social background” of people’s life. Despite the fact that over the past few decades the assessment of certain professions and specialties prestige has dramatically changed and the labor market has changed, too. However, the desire for higher education among young people has a tendency of stable growth in Russia.

Today’s students, future specialists face new challenges of the labor market: firstly, availability of desired and demanded professions acquisition on the labor market; secondly, disappearance of old and the emergence of new professions; thirdly, digitalization of the labor market; fourthly, the formation of specialist competencies that are in demand both on the local and global labor markets. This is largely due to distortions in the higher education system. In modern Russia, there is “overproduction” of people with a liberal education. Meanwhile, “in the modern world the competitive struggle between different countries has intensified in the field of creation and effective use of modern technologies that provide an opportunity to conquer new markets, to successfully solve the tasks of ensuring an independent foreign policy, and to enhance the population quality of life. To meet these challenges in Russia, it is necessary to create conditions for the sustainable innovation development of various industrial sectors. One of the key conditions is the technical training of young specialists [9, 15]. The solution of this issue requires a change in the system of general education”. It should be noted that this issue is relevant not only for Russia but also for the majority of overseas countries. In Canada, a significant number of schoolchildren face

difficulties in implementing their professional choices. They need information about their profession content and about what kind of work they have in accordance with their individual propensities [16]. In some countries, such as Serbia, “school leavers, engaged in certain labor activity, first of all, attempt to reveal their predisposition to it, and then to get the required professional education “[10, p. 308–309]. Therefore, the young generation’s profession choice is not only a personal, but also a social issue.

Although the issues related to higher education and labor market in modern Russia are rather broadly explored, there remains a lack of understanding as to how students choose their professions and to how they consider the demanded professions on labor market. Our study seeks to fill this gap.

2. Methods and Methodology

The major research objectives were to study the issues of students’ profession choice and their opinion on the demanded / non-demanded professions on modern labor market. The research methodology was a combination of qualitative and quantitative methods. Primary data was obtained using questionnaires and in-depth interviews. Respondents were 500 students (250 freshmen of the Saint — Petersburg State University and 250 freshmen of the Ural Federal University) at the age of and above 17. The respondents were questioned using the purposive sampling approach. This research was conducted at 2 large universities — the Ural Federal University and the Saint-Petersburg State University, — in Russian megalopolises, Yekaterinburg, the Urals, and Saint-Petersburg, the second capital of the country, Russia in 2019. All the students obtain humanitarian (liberal) or social specialties (political scientists, philosophers, historians, journalists, etc.). Among the respondents there are 45.7% government-subsidized students and 54.3% contract-based students. 65.0% women and 35.0% men correspond to the gender ratio of freshmen training at chosen faculties of the universities.

The following methodological conceptions were used in the research model: studying at top universities for the majority of students is “demonstrative and prestigious” consumption [12]; people choose professions not because of their usefulness for a society, but according to what benefits will be gained by obtaining a specialty, what status will be obtained with a diploma.

2.1. Procedure

2.1.1. Qualitative research: Depth interviews

An exploratory pilot study with informants (fifteen 90-minute depth-interviews) was conducted. Faculty staff (n= 15) of two Russian universities was defined as informants. The respondents were asked questions relevant to the aim of the study in order to determine the main issues of the students' future profession choice. Interviews were taken at jobs places of respondents in their spare time.

2.1.2. Quantitative research: Questionnaire survey

The aim of the questionnaire survey was to analyze the students' profession choice and their awareness of prestigious and non- prestigious professions on the labor market. The quantitative stage was conducted using the questionnaire survey. The questionnaire used in the study was formulated as a result of the in-depth interviews with 15 informants described above. The survey questionnaire included 52 questions. After the pilot research, two questions were reformulated to make them more understandable for the respondents: "To what extent, in your opinion, can these professions be considered as demanded on the labor market?" and "In your opinion, how easily do you get prestigious profession at your university?"

The questionnaire was performed at training places of the respondents. The average for filling in the questionnaire was 30 minutes.

The document analysis, statistics and secondary data analysis were carried out.

The results were processed with SPSS — specialized software for processing sociological and marketing information.

3. Results and Discussions

In the study, we were interested in the question of the students' motives to choose the universities. The survey has not fixed territorial differences referring to students' motives of choosing the university. Students of the Ural Federal University (URFU) and the students of the St. Petersburg State University (SPSU) equally put on the first positions: reputation of the university (47.5% of respondents), quality of education (every third of the respondents), good teaching staff (25.0% of respondents), possibility of quick

employment and a career progress after graduation university (30.0% of respondents) and variety of faculties for obtaining a profession (30.0%). This situation can be explained by the fact that the Ural Federal University is one of the best and the most prestigious universities in the Ural region, and the St. Petersburg State University is one of the best universities in the country.

The study has shown that the majority of respondents choose a profession that satisfies their abilities and their own interests (65%). For young people, the main thing is that the profession should not only bring profit (55.0%), but also career progress and provide new professional knowledge (70%) (Table 1).

TABLE 1: Motives for choosing a profession by respondents (in% of the number of respondents)

Students' Motives	SPBGU	URFU
abilities and their own interests	68.0%	64.3
The prestige of the future profession in a society	51.0%	54.3
bring profit	55.0%	57.0%
career progress	68.0%	72.0%
The threshold of patency of your ball according to the results of the unified national exam	42.0%	47.1%
Demanded profession in the labor market	35.0%	40.0%
Tuition fees	25.0%	23.6%

The amount exceeds 100.0%, because respondents had the opportunity to make several choices

Meanwhile, only 40% of the Ural Federal University’s freshmen and 52.0% of the St. Petersburg State University’s freshmen believe that they have made the right choice for their future profession, and they know well what their future professional activity will be. Our informants confirmed the data of the questionnaire survey: “The majority of the students who enter the university have a vague idea of the future profession. They are often attracted by a beautiful name: marketing analyst, political scientist, etc. They do not go deep into what they will do after graduation” (O. G., associate professor of the Ural Federal University); “Our university is often chosen by students because of its prestige” (K. V., Associate Professor, St. Petersburg State University).

Meanwhile, when choosing a profession, about 30.0% of young people do not chose those professions that they would like to get at the university, but those that are possible because of their “accessibility”. The reasons for this are: lack of points of the unified state exam (EG) for admission to the desired profession (60.0%); easier training when acquiring a profession (45.0%); lower tuition charge (38.0%) and getting any profession

at a prestigious university (30.0%). Thus, the country's top universities are now becoming the subject of "demonstrative consumption," because they open up future graduates access to high status, useful social contacts, or a prestigious profession. Questionnaire survey data were confirmed by our informants: "Today, the majority of the students choose universities and professions without thinking about their future. For the most of them, studying on a budget and at a prestigious university are the main choice criteria. In addition, the cost of training affects their profession choice. For example, tuition charge at our faculty is lower than the same nanotechnological department" (I. A., Associate Professor, the Ural Federal University). In turn, it can be assumed that students, having made the wrong choice of profession today, will not work in the future in their chosen specialty. Thus, the state suffers large losses due to the fact that the students' interests determining their profession choice do not coincide with the needs of the labor market. In the future, these students will face labor market challenges.

In the study, we were interested in the question of students' knowledge of the professions in demand on the labour market in the 20s-40s of the 21st century. The respondents named the following demanded professions on the labour market: programmer, specialist in robotics and artificial intelligence, information security specialist, cyber security specialist, nanotechnology specialist, genetic engineer, etc. At the same time, respondents noted that such professions as accountant, economist, lawyer, linguist, historian, etc. are not professions of the future. Meanwhile, all the respondents acquire professions and specialties related to the humanitarian and social sphere. There are some reasons for students' choosing undermanned professions in the society: the stereotype that has developed in the society about professions in demand (40.0%) on the labor market; it is difficult both to enter and study in a demanded specialty (60.0%); high tuition charge (45.0%), etc. Indeed, at the end of the 90s, of the twentieth century stereotype of the demanded professions of lawyer, accountant, economist, financier, linguist, etc., has been developed in Russia. These professions were also in demand on the Russian labour market. It was exactly at that time that the majority of today's freshmen parents went through their professional socialization. Meanwhile, today, as noted above, the labor market, requirements for the profession and training of specialists have changed. Nevertheless, the stereotypes about "demanded" professions still remained in Russian society. The study has fixed that the parents of every second respondent had a significant influence on their profession choice. This indicates that parents, guided by old stereotypes, contribute to the children undermanned profession choice in modern society, which today requires further retraining of the child to face the

modern labor market challenges. It should be noted that our informants believe that “Today, the labor market is overcrowded with lawyers, economists, and accountants. The modern labor market, especially in the context of digitalization, does not need as many of these specialists as graduate universities. In the future, it will be difficult for students to find work” (V. V..., Professor, St. Petersburg State University). The survey has shown that only 12.0% of respondents noted the importance of their future profession for the society, therefore, both for the modern and future labor markets. Thus, there is a contradiction between the respondents’ knowledge of the demanded professions in the 21st century and those that they acquire at the university.

4. Conclusions

The study has fixed that the country’s top universities are now becoming the subject of students’ “demonstrative consumption”, because they open up future graduates access to high status, useful social contacts or a prestigious profession.

The survey has revealed a number of contradictions in the choice of a future profession by freshmen: between the respondents’ knowledge of the demanded professions on the labor market in the 21st century and those that they acquire at the university; between the desire to acquire a sought-after profession and the possibility of its acquisition; between students’ interest in a future profession and the interests and needs of the modern labor market.

A significant number of young people who attempt to get profession have no a clear vision about its content.

In Russia, there is an old stereotype about demanded and non-demanded professions, which prevents school graduates from choosing the professions that will be in demand on the labor market after they graduate from the university.

The study has elucidated that in modern Russia there is a need to create an effective system of interaction between universities and employers. This is due to the fact that future specialists in the training process should acquire those professions, competencies and knowledge that are in demand both by the labor market and the innovative economy.

Based on these findings and on the current findings, future research could examine students’ ’profession choice top and regional universities of Russia.

Our findings concerning the students' profession choice are important for policy makers dealing with general and higher education, employers, business community and faculty staff.

Acknowledgments

The research is carried out with the support of the Ural Federal University named after the First President of Russia B. N. Yeltsin and the Saint-Petersburg State University.

References

- [1] American Institutes for Research. (2013). *How Career and Technical Education Can Help Students Be College and Career Ready: A Primer*. Washington: College & Career & Readiness & Success Center.
- [2] Brewer, E. (2010). The History of Career and Technical Education. In V. C. X. Wang (Ed.), *Definitive Readings in the History, Philosophy, Practice and Theories of Career and Technical Education*. USA, Chicago; IGI Global and Zhejiang University Press, pp. 1-14.
- [3] Carnevale, A. P., Smith, N. and Strohl, J. (2013). Recovery: Job Growth and Education Requirements through 2020. *Georgetown University Center on Education and the Workforce*, Washington DC.
- [4] CEPIS. (2006). ICT Skills Certification in Europe, Brussels.
- [5] Grunt, E., Merenkov, A. and Antonova, N. (2017). Factors Affecting the Choice of Future Work by Russian Universities' Graduates 2017. Presented at 10th *International Conference of Education, Research and Innovation (ICERI 2017)*, Spain, Valencia. In L.G. Chova, A. Martinez and I. C. Torres (Eds.), *IATED-INT ASSOC Technology and Development*, pp. 3430- 3435.
- [6] Gurban, I and Tarasyev, A. (2016) Global trends in Education: Russia Case Study. *IFAC-Papers OnLine*, vol. 49, issue 6, pp. 186-193.
- [7] Jasiński, M., et al. (2017). Who Gets a Job after Graduation? Factors Affecting the Early Career Employment Chances of Higher Education Graduates in Poland. *EDUKACJA Quarterly*, vol. 143, issue 4, pp. 287-299.
- [8] Lissitsa, S. (2015). Digital Use as a Mechanism to Accrue Economic Capital: A Bourdieusian Perspective. *Innovation: The European Journal of Social Science Research*, vol. 28, issue 4, pp. 464-482.

- [9] Merenkov, A., Grunt, E. and Antonova, N. (2018). Role of youth's orientations to technical education in sustainable development of Russian Industry. Presented at *EDU WORLD 2018 The 8th International Conference*, Spain, Valencia. The European Proceedings of Social & Behavioural Sciences EpSBSISSN, pp. 2357-1330, <https://doi.org/10.15405/epsbs.2019.08.03.211>.
- [10] Mojić, D. (2012). Means of Getting ahead in Post Socialist Serbia: Perceptions and Preferences of Young People. *Sociologija*, vol. 54, pp. 303–314, **doi:10.2298/SOC1202303M**.
- [11] Nemeskeri, Z., *et al.* (2016). Digital Competencies and Career Orientation in the 21st Century: Hungarian Labor Market Approach. *Romanian Statistical Review Supplement*, vol. 64, issue 12, pp. 117-131.
- [12] Veblen, T. (1984). *The Theory of the Leisure Class*. Moscow: Progress
- [13] Van Laar, E., *et al.* (2017). The Relation between 21st-Century Skills and Digital Skills: A Systematic Literature Review. *Computers in Human Behavior*, vol. 72, pp. 577-588.
- [14] Voogt, J. and Roblin, N. P. (2012). A Comparative Analysis of International Frameworks for 21st Century Competences: Implications for National Curriculum Policies. *Journal of curriculum studies*, vol. 44, pp. 299-321.
- [15] Vorontsova, E. (2015) Innovative Education in Russia: The Basic Tendencies Analysis. *Social and Behavioral Sciences*, vol. 2, 14, pp. 1147-1155.
- [16] Witko, K. (2005). Senior High School Career Planning: What Students Want. *Journal of educational Enquiry*, vol. 6, issue 1, pp. 34-49.