

EDUCATION, SCIENCE AND CULTURE IN A DIGITAL SOCIETY

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THE INFORMATION TECHNOLOGIES AND THE FEATURES OF INFORMATION CULTURE OF MASTER'S STUDENTS IN RUSSIA AND THE UK: A COMPARATIVE ANALYSIS

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Abstract. Studying the phenomenon of information culture as the active principle of information society started in the second half of the 20th century due to increasing importance of information and information technology. The new type of culture in its content and structure includes not only the culture of the industrial society in the form of luxury, folk and popular culture but also various subcultures and information culture with its elements, such as screen culture, computer culture, and Internet culture. The cultures of virtual reality in the material sphere germinate most clearly. This is due to the phenomenon of automation, mechatronics, robotics, information technology (especially computers). All these technical features affect the skills of working with information, which is especially important in the process of training, education and future profession.

The influence of the information society on the characteristics of information culture today is often the subject of research. However, it is first of all necessary to understand whether there are differences in the characteristics of its formation and manifestation at the level of mature persons studying at the second level of higher education. Basic information skills for students acquire different levels of education. The master's level is the level of the formation of research skills and competencies, he consciously makes a responsible choice of the older category of young people and not only.

Basic information skills for students acquire different levels of education. We believe that masters, as well as those who are at the second, a higher level of higher education, information culture in terms of performance and information processing, must necessarily be formed at a high level. This master's level is the level of the formation of research skills and competencies, he consciously makes a responsible choice of the older category of young people and not only.

The purpose of the study is to determine the type, the general and highlight the particular in the level and characteristics of the information culture of graduate students in Russia and the UK.

Methodology. The concept of the information society is used as a methodological base. Methods of research were the analysis of documents and a case study in the form of a survey, conducted in 2018. The sample size was 215 graduate students in Russia and the UK.

Findings. The type of information culture was studied in accordance with the typology proposed by Choo: Russian students are more focused on common rules, while groups of students from the UK tend to results and teamwork.

Conclusions about the influence of the existing rules and traditions of universities of the two countries on the attitudes of the students in the field of scientific ethics, methods, and frequency of using various sources of information, etc. were made. For example, British students are more than Russian focused on traditional paper forms of information sources. Students in the UK are less likely to write written works, so their main problems are the choice and appropriateness of the format of work, it's structuring, and presentation of their thoughts. For Russians, the main problem is the rules of formatting the work. Russian masters chose extreme options for working with primary sources - they either read everything and rewrite everything in their own words or simply copy the information, while their British colleagues do not read everything and paraphrase only a part.

British students know more clearly what scientific ethics and copyrights are, they know how to quote borrowed materials. At the same time, the overwhelming majority consider plagiarism as a variant of unwanted unethical behavior. For Russian students, the term "plagiarism" is more familiar, in contrast to the rules of ethics and citation, while borrowing someone else's material for them is a variant of ethical behavior.

Keywords: Attitudes of information work, information culture, higher education, master's degree, plagiarism, technics of information work, types of information sources

Introduction

Studying the phenomenon of information culture as the active principle of information society started in the second half of the 20th century due to increasing importance of information and information technology. «The old concept of culture is based on continuity, modern - on the manifold; a tradition was an old value, modern ideal is syncretism» (Bell D., 1999: 264). A completely new type of culture, which directly depends on the level of development of the information society is formed, takes the form. A new type of culture by its content and structure includes not only the culture of industrial society in the form of luxury, folk and popular culture, but also the various subcultures and information culture with its elements such as a screen culture, a computer culture and the culture of the Internet. Most clearly sprouts of the culture of virtual reality can be seen in the material sphere. This is due to the phenomenon of automation, mechatronics, robotics, information technology (especially computers). M. Castells writes that «we are experiencing one of those rare moments. This moment is characterized by the transformation of our "material culture" through the work of the new technological paradigm built around the information technology» (Castells M. 2000: 490).

M. Castells devoted to the description of features of the information age and the new models of culture in networked society his work - *The Rise of the Network Society: The Information Age: Economy, Society, and Culture* (Castells M., 2011).

Information Culture as a criterion for the efficiency of the organizations was studied by Ginman, Choo, Bergeron, De Groote and others (Choo Cw., Bergeron P., Heaton L., 2008). In an early study on the subject, Ginman defined information culture as the culture in which «the transformation of intellectual resources is maintained alongside the transformation of material resources. The primary resources for this type of transformation are varying kinds of knowledge and information. The output achieved is a processed intellectual product which is necessary for the material activities to function and develop positively» (Ginman M., 1988: 93). Choo proposed a typology of information culture in an organization or a temporary team (which may well be a student group), based on how a common goal is set and understood, how information processes take place, etc. There are 4 information cultures in its typology: results-based, rule-based, relationship-based, and risk-based information culture. In the study, we will determine to what types of information culture is the one that is owned by the students (Choo Cw., 2013).

About the use of the Internet in education of Master's level says study by researchers from the University of Barcelona conducted in 2011-2012.

(Vlachopoulos, D., 2012). A comparative study of information management skills, taking into account with socio-demographic characteristics of Polish and German students was conducted by Swigon (Swigon M., 2014). Terms and citation practices, borrowing and plagiarism was studied by Woelert in 2013 (Woelert P., 2013). In 2017, a similar study was conducted among students in South Africa, in general, its results confirmed the blurring of the boundaries of legal and illegal in the use of materials by other authors in students' educational practice (Czerniewicz L., 2017).

Plants, strategies and values of young people in online communities and networking practices was regarded by the research of the team J. Ahn, M. Subramaniam, K. Fleischmann, A. Waugh, G. Walsh, A. Druin.

Essential skills to work with the information for the students acquire different levels of education. The master level - is the level of formation of research skills and competencies, it deliberately to make a responsible choice of the older category of young people and not only. But today we lose the ability to sift information, cast and judge – the basic information skills (Brabazon T., 2016). So, let us consider the Information culture as the degree of mastery by a person or social group of information, body of knowledge, norms and values to ensure effective cooperation in the information environment, contributing to the development of cultural identity (Bannykh G., Kostina S., 2016: 95).

Objectives / Purpose of the study

The purpose of the study is to determine the type, general and highlight the particular in the level and characteristics of the information culture of master's students in the Russia and the UK. The main research question is how uneven is the culture of the information society, manifested in the information culture? What factors does it depend on and how are the differences manifested?

Methodology

Students and university students - this is perhaps the only category of the population, which has got the attention of the researchers of this phenomenon. Much of the research is devoted to studying of competence in working with information technology, especially if the direction of preparation involves the use of information - archival science, library science, computer science, etc.

Methods. In order to identify the characteristics of information culture of students the second stage of higher education institutions of Russia and the UK, we conducted a survey using questionnaires, including online, in 2018. There were selected two major university - Ural Federal University and Cranfield University in Milton Keynes. Information culture measured through dedicated contact indicators of various aspects of the students with

the information and information technology in the educational process. The survey covered 215 students of the second stage of higher education: 100 of Cranfield University and 115 from Ural Federal University by quota sampling.

Results / Findings

The first measurement unit of information culture - the use of different sources and media. The study revealed a high level of student's readiness to work with the various sources of information. It was allocated two groups - primarily - 75.8 % of respondents, who feel the need to handle a variety of sources on a daily basis; the second group included the rest of the students who apply to the sources no more than twice a week.

Comparative analysis showed that the Russian master's student's need to obtain information from various sources and in various media is expressed more intensely than students at Cranfield University: Russians use different sources, at least 2-3 times a week, the British - more rarely.

In the study we analyzed the preferences of students in the form of the sources - on paper or in electronic form. Comparative analysis allowed to identify two groups of respondents - "traditionalists", which focused mainly on the work with paper and "innovators", for which the electronic form is the only source. British students are more than the Russian ones, focused on traditional paper forms of information sources - 58.3% of respondents. The situation among the Russian students is significantly different in the opposite direction - the majority (64.3% of respondents) are the "innovators".

Let us consider in more detail types of sources that are used by students in the learning process in the preparation of the course, as well as the writing of written work. Among British students 66.7% use manuals, 62.5% - dictionaries and encyclopedias, 62.5% - articles and abstracts of articles, much more less monographs and textbooks are used. The same situation is observed among the Russian students - reference books and dictionaries are used by 71.4% of respondents, 64.3% of students use manuals and law documents, 42.9% use the monographs.

The Russian master's hierarchy of printed sources looks different: in the first place with a significant margin appeared textbooks and manuals - for 78.6% of the respondents, in second place - for exactly half of the respondents - monographs, while the British Masters do not actually use the printed monographs version (it is noted as a source of only 1 respondent).

The next block of information culture of students study analyzes the students' work on the preparation of written work. Firstly, we studied the frequency of the preparation of written work in the educational process. A third of British students (37.5%) indicated that they have to write the written

work 1 time in two weeks. Another fifth of respondents writing work 2-3 times a week or more than 1 time per month.

Russian students have to take the written work often - 2-3 times a week do 28.6% of respondents, 1 time per week is right for 21.4% of respondents, on a daily basis their written work do even 14.3% of the students. Thus, for Russian undergraduates written work - a more familiar type of work with the information that should imprint on their skills to work with information. Most of the respondents among the Russian and British students do not usually have problems with the writing of written work (70%). The rest say that they have them from time to time. This suggests a fairly high level of skills to work with information the students of the second stage of higher education. For British Masters the most common problem is the search and selection of necessary information (25%), followed by analysis of information (20.8%) and the presentation of their own thoughts (12.5%). For Russian students more significant problem is the designing of work - this was indicated by 30.8% of the students, the next most important issue they called – the search of information and the presentation of their thoughts - 23.1% of respondents.

We also asked respondents to rate their lack of the very skills that can cause the above problems in the preparation of written work. A third of British undergraduates believe they are not able to provide information in the right format, 29.2% of them do not cope with the expression of their thoughts, 25% of respondents chose information search and its selection, the designing the work.

Ranking of opinions regarding the lack of skills of Russian masters went in a slightly different way - so, in the first place they put the lack of skills of designing the work, which at the British Masters in third place. Second place was shared between a lack of skills to find information and to express their thoughts. And in third place for the Russian masters is the lack of skills of analysis and presentation of information that is for British students the number 1.

An important aspect in analyzing the characteristics of information culture of students is their technique of working with information during the preparation of written work. We asked respondents to choose the most suitable sentence to describe their technology adoption.

41.7% of the British Masters read the material and partially rewrite the information in their own words, 29.2% of them more carefully read all the material and choose the suitable parts.

Russian students have different practice - 28.6% of respondents read a material completely and rewrite in their own words, that is, carried out a full analysis of the text, or read the material partially and select suitable pieces

of text that is completely minimize their costs for data analysis. These are two extreme options of working with information technology, while the British students have chosen two middle options.

The last set of questions was dedicated to the scientific and ethical issues of plagiarism in research. The vast majority (91.7%) of British undergraduates said they know what plagiarism is in common, while only 70.8% exactly sure that they know the rules of citation, borrowing other people's thoughts and ideas, familiar with basic research and scientific ethics.

Among the Russian undergraduates confident about their knowledge of the notion of plagiarism are only 71.4% of respondents. At the same time well acquainted with the rules of scientific ethics, borrowing and citation only 57.1% of respondents that overall on 20% less than the result of British students.

Overall Cranfield University students more aware of scientific ethics and plagiarism. Accordingly, 58.3% of British students consider the plagiarism as a deviation, type of unethical behavior. 25% of respondents believe that today it is impossible to avoid borrowing, and that all depends on the situation - the norm for 12.5% of the students. For Russian students situational principle is more common, agreed with him 14.3% of respondents, the same as indicated on the inevitability of borrowing in the information society. But as unethical way and deviant behavior plagiarism consider a vast majority - 71.4% of Russian students.

Established traditions and rules can also be explained by the prevalence of plagiarism among students. Only 3.3% of UK undergraduates have witnessed plagiarism. The Russian students who observed cases of plagiarism among students is much greater - 53.8% of respondents.

By type, British students revealed an informational culture of relationships and signs of a culture based on results. This is explained by the heterogeneity of the students themselves: they are representatives of different nationalities and states, and also have specific business goals. Russian students have developed a culture based on following the rules: do as it is accepted, as they did before you. These results correlate with the data obtained by a group of researchers in 2015 when studying the information culture of employees of organizations (Thais Elaine, Vick Marcelo, Seido Nagano & Silvio Popadiuk, 2015).

Discussion

Modern high school faces global challenges of time: technologies change, culture adapts to them, people's priorities, interests and skills change, instability turns into a permanent property of open systems (Bannykh G., 2017: 4474).

Information culture becomes an essential part of the modern period as a professional culture, which is formed in the course of training in high school, and a necessary condition for successful learning activities of students. The study showed that this phenomenon is characteristic for both the British and Russian higher education. Features information culture of Russian and British undergraduates largely due to the prevailing rules and traditions of the university, for example, in ways of working with literature, preparation of written work rules, existing ethical standards. It is possible to note the similarities of information culture of graduates of the two countries - the high level of formation of the needs of students to work with various information sources, frequency of use of different sources.

Comparative analysis allowed to identify the essential features of information culture of the British and Russian masters. So, for British students and European universities as a whole is characterized by established tradition of strict checks on the presence of illegitimate debt and the corresponding system of punishments for the Russian universities and students is quite a new perspective.

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