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# FORMING ICT COMPETENCES OF INTERNATIONAL RELATIONS STUDENTS

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**Abstract**. The information flood we face today is constantly increasing. The total amount of information is now far beyond what a human being can acquire for the whole life. So, the ability to pick up the relevant information, estimate its reliability and analyze them, is getting more and more important. Therefore, it is not surprising that Information and Communications Technologies (ICT) competences are among the key ones for every educated person nowadays. Specialists in the sphere of International Relations (IR) are not an exclusion being supposed to cope with the increasing flood of information steadily. The goal of this research is to define the most effective way of forming ICT competences of IR students. To reach the goal we consider the structure of ICT competences focusing on their components. Based on the Russian Federation State Standards we analyze the needs of IR specialists in terms of information competences and develop questionnaires to analyze ICT competences development of IR students. The analysis of the obtained data results with some recommendations aimed at enhancing the efficiency of ICT forming competences.

Key words: information competence, ICT competences, digital literacy, computer literacy, IR students

## 1. INTRODUCTION

Nowadays the intensification of economic, political and socio-cultural processes is happening together with broadening and deepening of international cooperation, the fact that is changing educational standards of international relations (IR) students significantly. The labour market is increasingly demanding specialists who are not only equipped with necessary specific knowledge and skills but also with the so called 'horizontal skills' that let them find jobs and start working efficiently without a long period of adaptation to the real specific situation avoiding a stage of so called apprenticeship.

In 2006 the Official Journal of the European Union published the issue on Key Competences for Lifelong Learning. These include communication in the mother tongue, communication in foreign languages, mathematical competences and basic competences in science and technology, digital competences, learning to learn, social and civic competences, sense of initiative and entrepreneurship, cultural awareness and expression. The way we access information continues to change. As Jan Figel states "we need new competences to master a whole new digital world, not only by acquiring technical skills, but also by gaining a deeper understanding of the opportunities, challenges and even ethical questions posed by

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new technologies" (Figel 2006). For IR specialists digital competences, along with the ability to communicate in foreign languages come to the forefront. It means universities are supposed to form a certain set of professional competences stipulated by the Federal Standard (Federal Standard 2007). The State Standard in the field of International Relations provides two sets of IR competences: universal competences and professional ones, with the latter divided into the universal competences, while the ability to use digital technologies to meet professional challenges is referred to as general professional ones that are in the focus of our attention. The document claims specialists in the field of IR can understand major international problems in details, express their thoughts logically using the correct language orally and on paper, participate in discussions of professional issues and find administrative decisions. They are aimed at carrying out the duties of an abstracter, expert, consultant in the IR field, a translator (research-translator), and interpreter (executive assistant-interpreter) using one or more foreign languages. The document clearly reveals the ability to deal with information in native and foreign languages as a key one for IR specialists.

This article is devoted to the information competence, i.e., the ability to cope with the increasing flood of information using modern digital technologies. Our goal is to research the process of the development of the ability at the School of International Relations of Saint Petersburg State University. To reach the goal we have analyzed the types of the tasks and activities IR students face during their education and used some questionnaires to find out whether they are able to do it successfully.

#### 2. TERMINOLOGY ISSUES

We believe it advisable to start with the terminology issues, as reading papers and searching the Internet we come across the terms that are quite difficult to distinguish, e.g. information competence, computer competence, digital competence, etc. That is why we start with the historical development of such terminology. We would like to start with the term information literacy. It should be mentioned that the USA and Europe have their own ways of terminology development. First of all, the term 'information literacy' deserves our attention. The American Library Association defines 'information literacy' as a set of abilities requiring individuals to 'recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information' (American Library Association 2000). In 1999 the National Research Council promoted the concept of 'fluency' with information technology and several distinctions defined, among those being information literacy, computer literacy, and broader technological competence. So, while information literacy is concerned mostly with information, computer literacy deals with learning of specific hardware and software applications, and technological competence focuses on understanding the underlying concepts of technology and applying problem-solving and critical thinking to using technology. There are some differences between information technology fluency and information literacy. Information literacy is focused on content, communication, analysis, information searching, and evaluation, while information technology fluency focuses on a deep understanding of technology and graduated, increasingly skilled use of it. Information competency is as the ability to find, evaluate, use, and communicate information in all its various formats. It combines aspects of library literacy, research methods and technological literacy. Information competency includes consideration of the ethical and legal implications of information and requires the application of both critical thinking and communication skills.

### Forming ICT Competences

The European Council Recommendations defining key competences for lifelong learning deal with the term 'digital competence'. It is defined as the confident and critical use of Information Society Technologies (IST) for work, leisure and communication, while basic skills in ICT are the following: the use of the computer to retrieve, assess, store, produce, present and participate in collaborative networks via the Internet. According to the European Union Recommendations, digital competence should be approached in its five aspects: cultural competence, information and knowledge retrieval and assessment competence, active digital participation competence, fair and rightful digital citizenship competence, competence in using right IT tools for rights purposes. Cultural competence refers to being able to navigate and work in the digital environments, information and knowledge retrieval and assessment competence deals with the ability to find, critically assess and use the digital content, active digital participation competence implies producing, validating, editing, enriching and updating digital content, fair and rightful digital citizenship competence covers the rightful way to use copyrighted content and to provide one's own content for the use of others (e.g. by cc-licenses), competence in using right IT tools for rights purposes means using the various tools provided (e.g. mobile phones, tablets, etc.) and understanding their potential and limitations. So, digital competence means deep understanding of the nature, role and opportunities of ICT in everyday life. This includes main computer applications such as word processing, information storage and management, as well as understanding of the opportunities and potential risks of the Internet and communication via electronic media (email, network tools) for work, leisure and research.

Information and communication technology specific terminology is constantly growing and changing. The term 'information and communications technology' has been used by academic researchers since the 1980s (Silverstone 1991), and the abbreviation ICT became popular at the very end of the twenties century. It is an extended term for information technology (IT) pointing out the role of unified communications and the integration of telecommunications, computers, as well as needed software, storage, and audio-visual systems, which enable users to access, store, transmit, and manipulate information (Murray 2011).

However, in the numerous research papers concerning the issue, as T. Newman points out, terms 'information competence' and 'digital literacy' often come as synonyms (Newman, 2008). At present, the term international communication technology competence has become the most often used one all over the world. Thus, in this article we speak about ICT competence (information competence for short), defining it as the ability to use information and communication technologies confidently and critically for work and leisure.

# 3. ICT COMPETENCE STRUCTURE

Our research is based on the results of questionnaires offered to students. To develop relevant questionnaires it is necessary to examine the structure of ICT competence, to reveal relevant skills specific for IR students. Understanding the structure of the competence lets us to estimate the level of the students' competence much more precisely, as well as design the way to enhance it significantly. The structure of ICT competence has attracted the attention of many researchers. However, with almost all of them there are cognitive and instrumental aspects. Cognitive level implies the knowledge necessary to solve creative tasks, instrumental level refers to new technologies used. Some scholars also define

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personal and axiological levels, with the former referring to some individual qualities defining the needs of the individual, and the latter stands for the ability of an individual to follow the most vital values (Kopylovskaya 2013).

Taking into consideration the goal of our research, we define three level of ICT competence: cognitive level, professional level, instrumental level. We have added to the levels mentioned above the professional level which refers to some specific skills and activities relevant for IR students. IR students are supposed to be able to do the following at the corresponding level of ICT competence:

- at the cognitive level: to find information, to extract information, to evaluate information, to analyze information, to store information, to communicate information;
- at the professional level: to fulfill a term paper, to create a PowerPoint Presentations for regular English classes;
- at the instrumental level: to use the corresponding computer software and services
  - to search information: Google, Yandex, Wikipedia; e-library, Google Scholar, Scopus; YouScan, BrandSpotter, Wobot,
  - to store information: Google disk, Yandex disk, drop box, etc.,
  - to present information: Microsoft Office: Word, Excel, PowerPoint,
  - to communicate information: e-mail, FB, Vk, WhatsApp, Viber, Instagram, Telegram, etc.

As a result, we have developed some questionnaires with three blocks of questions: information issues, processing skills (WordProcessor), PowerPoint Presentation skills.

## 4. RESEARCH RESULTS

We have carried out the survey with more than 150 respondents, students of the first, second and third years. The IR Bachelor Program curriculum includes four years. Students of the first two years have English language classes twice a week. The first foreign language is only English. Third year students have English classes three times a week, they focus on the topics related to IR, such as diplomatic documents and diplomatic correspondence, political discourse language (papers, radio news, video programs (BBC HardTalk program, political debates). We offered the same questionnaires to first-, second- and third-year students, with third-year students offered some additional questions concerning their processing skills being first-year students.

To find the ability to deal with information, students were offered questions concerning the number of references of different types in their term papers, concerning the problems with information searching, storing and validating. The survey shows that at the cognitive level, students' ITC competence is definitely developing as the number of internet references is steadily increasing from year to year. The survey also reveals that for IR students it is not a problem to find the necessary information, to extract it, to share, to store, which means that the level of ITC competence is getting higher and higher. Although there were 5 students out of almost 150 who had lost the information as a result of force majeure circumstances, with all of them being first-year students not using any web storage. At the cognitive level IR students are quite competent. The result is not surprising as all our respondents belong to the generation of the so called 'digital-natives'. We would like to find out IR students' skills at creating presentations. As digitalnatives, even first-year students have no problems to create a PowerPoint presentation for their regular English classes. For example, in the frameworks of the topic 'health', first-year students are asked to take the country of their interest and prepare the presentation about the health care system in the country. It should be mentioned that as a rule, students are quite enthusiastic and creative fulfilling the task. In comparison with first-year students, secondand third-year students use more complex skills of the software demonstrating the development of their ICT competence at the professional level.

The most controversial results the survey shows are at the instrumental level. To search information, most students of all years use Google and Yandex, 30% use Wikipedia, with this number getting lower for third-year students. Only 10% of third-year students use e-library and Scopus, which corresponds with the statistics date concerning the number of graduates who would like to continue their education taking post-graduate courses. Students have no problems with communicating information, being digital natives they use all ways of communicating including e-mail, FB, Vk, WhatsApp, Viber, Instagram, Telegram, etc.

However, students showed the lack of skills at word processing. In general, all of them use less than a half of the WordProcessor opportunities. Moreover, the level of mastering WordProcessor is not developing with the years at university. Although they are supposed to complete a 25-35 page term paper twice an academic year, they do not learn new functions of the WordProcessor. Third-year students were asked about their word processing skills at the beginning of their education at university. The survey shows that those who were limited in their word processing skills being a first-year students spend more time preparing their presentations and completing term papers.

# 5. CONCLUSION

In the era of the internet and digital technology any success in many spheres of human activities depends greatly on the skill to use the opportunities of the world web effectively. It is the sphere of higher education, where students are supposed to look for relevant information, write critical summaries, deliver presentations, write term papers and produce final qualification papers, that information competence becomes the general focus of attention.

The research is based on the survey of more than 150 students of the School of International Relations of Saint Petersburg State University. The questionnaires are developed taking into account three-level structure of ICT competence (information competence). The results show that at the cognitive and professional levels ICT competence is developing quite successfully with the years at university. At the instrumental level students are able to find, evaluate, use, and communicate information in all its various formats. They can present the information, but they are not developing their word processing skills spending a lot of time for text typing and formatting completing their term papers. The problem needs resolving. As a result of the research we are planning to suggest introducing a Word Processor Module to improve the situation.

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