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12TH INTERNATIONAL CONFERENCE
ON EDUCATION AND NEW LEARNING
TECHNOLOGIES



CONFERENCE
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A CONCEPTUAL EDUCATIONAL MODEL FOR ENHANCING INFORMATION LITERACY IN AN UNIVERSITY INFORMATION ENVIRONMENT: PROJECT FRAMEWORK

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Abstract

Introduction: The role and place of creativity and innovation for modern societies has been repeatedly reaffirmed in various strategic documents, including the Europe 2020 Strategy for smart, sustainable and inclusive growth (COM (2010) 2020 final) and the European Commission Green Paper "Unlocking the Potential of the cultural and creative industries ", which, on the other hand, placed on a strong, competitive and diversified industrial basis with a view to building a society and knowledge economy, creativity and innovation are a common goal European Union, which implies a differentiated approach, reflecting the social, economic, cultural and educational differences between Member States. The future of the culture of society implies the development of new forms and policies that will change the current ones. The achievement of such a state of the culture of society requires the support of strategically important initiatives such as: preservation and promotion of cultural diversity, creative mobility, protection of intellectual property, enhancing intellectual literacy of society, and creation of conditions for development of quality education in the field of the cultural, information and creative industries.

The paper aims to present a project, which is entirely in line with both the above-mentioned strategic documents and the National Research Strategy 2017-2030. The paper aims to present the conception and core activities of the project of University of Library Studies and Information Technologies "A Conceptual Educational Model for Enhancing Information Literacy in an University Information Environment" (2019-2021), financed by National Science Fund of the Bulgarian Ministry of Education and Science, Contract № KP – 06 – H35 / 10 from 18.12.2019, led by Prof. DSc Stoyan Denchev.

Presentation: The project's aim is to study the state of information Literacy, with a special focus of intellectual property literacy in an university information environment among learners and trainers by challenging a civil debate on raising culture on issues of intellectual literacy among academics, which is extremely timely and necessary. A short overview of Information Literacy (IL) and Intellectual Property (IP) definitions is made. The project concept with its theoretical and practical aspect is presented in details. Conducting research related to the creation of a conceptual educational model for raising information literacy, in particular intellectual legal literacy in a university information environment, is conditioned by a number of prerequisites: limited number of in-depth independent studies focusing on the relationship between IP and IL in a national perspective; the need to explore existing models and best practices for IP training for non-specialist lawyers in Europe and the world; to analyse the educational content offered and the curricula relevant to this spectrum of knowledge; to examine the foreign experience of existing networks in raising awareness of IP issues; to examine the level of awareness of human rights and social sciences in the humanities and social sciences, both among trainees and university educators.

Conclusion: After all, it has to be concluded that the issue of the positioning of IP in the context of the broader framework of IL is relevant, timely and necessary. The problem under consideration is extremely relevant, partly concerned with various aspects by other authors, but has not been fully disclosed so far.

Keywords: information literacy, intellectual property, copyright awareness, educational model.

1 INTRODUCTION

With the rapid development of new technologies, when information becomes one of the most valuable resources, effective information literacy plays a leading role, both in the personal development of scientists and in their ability to pursue basic scientific research. In today's information and knowledge based society, we are witnessing the expansive development of information and communication technologies (ICTs), which has led to the globalization of information and a new "revolutionary wave",

the so-called information wave or wave of knowledge. Some authors call this turning point "the second Gutenberg advent." The amount of electronic information flow is growing exponentially and is reaching the so-called information boom. As Alvin Tofler points out, the creation and dissemination of information has become a major activity and source of power for humanity.

According to some authors, the increase in the growth of electronic information flow is due to the advancement in the field of printing, the multiplication of traditional sources of information and their dissemination on the Internet with the use of web technologies.

Information literacy (IL) has become a concept in recent years and is embedded in many international projects, programs and initiatives, with the main task not only to promote information literacy, but also to promote it as one of the possible solutions to overcome the "digital divide" ". IG is one of the key competences that builds the fundamental knowledge of modern society. Her upbringing was the initial step in the ability and ability to seek and use the huge information flow.

The achievement of information literacy, which not only corresponds to the contemporary social practice, but also to advance its development, is based on adequate educational models. At the heart of each modern educational model are values, standards, methods and requirements, with the research process based on them being the main approach to training in the context of transdisciplinary topics. In line with this principle, the structure of educational models typically incorporates a specific research program, which includes innovative training, in order to achieve both its educational and scientific objectives [1].

Intellectual property (IP) reaches the everyday life of each and every one of us, as a part of information literacy in a university information environment. Therefore, awareness of the importance and understanding of intellectual property is essential for today's students, who are the future information specialists, engineers, researchers, lawyers, politicians, and managers of tomorrow.

In the university information environment students have to master the important IP related matter and its application in their upcoming career development. Students and universities have to know how to utilize and benefit from the unparalleled richness of the technical and commercial information, found in IP-related documentation. It is necessary for universities to make efforts to raise awareness of IP issues in the academic community, to research IP right, by engaging in a transfer of technology to industrial partners to create value and benefit for society. Last but not least, students and universities have to be aware with the consequences of the lack of knowledge and the inability to protect their intangible assets under the form of IP, including from risks such as misuse of foreign intangible assets, industrial espionage, etc.

The new information environment imposes new requirements on the competences and knowledge of the young modern professionals, graduating from higher education. Basic IP knowledge are of particular relevance to the fields of information and social sciences, as currently they are the most dynamically developing. The main areas of realization of specialists in the fields of information and social sciences are: regional and national media; government and non-government organizations and administrations; cultural, archival, and educational institutions. The specifics of the work in these areas are related to the use of a wide range of information resources and products, which is the basis of professional activity and condition for a successful realization. Here, however, the question of awareness and preparedness of IP professionals comes to the agenda. Their competence in the main aspects of IP, in particular the protection of copyright, related rights and industrial property, is an essential part of their complex information literacy, especially in regards to using IP objects on the Internet and the lawful use of digital content. It is here where the actuality of the researched problem is determined as the main goal of IP integration as part of the information literacy in the university information environment is to create a culture of respect towards IP among the academic fields and to increase the competitiveness of future specialists [1, 2].

2 CURRENT STATE OF THE PROJECT'S TOPIC

Information literacy (IL) is defined as the set of knowledge and skills needed to discover, analyze, retain and use particular information. IL is the ability to naturally select in the age of information. Information literate people know how to find, evaluate, and use information effectively to solve a particular problem or to decide, regardless of whether the information comes from a computer, book, news agency, film or any other additional resources [10].

In its almost 40-year history, the concept of IL and its significance in the educational process and in the context of the concept of lifelong learning has been the subject of a number of discussions, analysis, research and international forums, acting as the roots of their final views.

The leading international organizations, (including the American Library Association, UNESCO, the Information Literacy Committee, the Association of College and Research Libraries, etc.) engaged in this issue, give their wording of IL, all of which put information first as means of achieving objectives of various nature. It is here time to put the issue of IP rights on the agenda.

The ever more rapid development of information technologies and the Internet put IP rights in front of a serious test. It is a set of legal norms for regulating public relations in relation to the creation, acknowledgement, legal protection, and use of intellectual results and other intangible assets – objects of IP. Thus, extremely subjective IP rights arise to influence and control, including the copying and distribution of the creations of people. In the information community, the Internet functions precisely thanks to the possibility of the repeated reproduction and transmission of information and is based on the free use of intellectual results [3, 4].

IP connects directly to the information held by its objects, or in other words IP is the ownership of the information that intellectual products contain, with their creators having exclusive rights over them. The right to IP as a system of legal norms regulates public relations in relation to the creation, acknowledgment, publishing, distribution, inheritance and legal protection of IP objects, including objects of copyright and related rights. In the knowledge-based economy, experts such as library and information professionals, journalist, etc., that can interpret IP-related issues, have an important place. It is they that bear the responsibility to create a policy to encourage the understanding and resolving the legal disputes and conflicts that are unique to this aspect of the information society. One way to achieve this is through the educational impact of information literacy programs that include IP issues as part of the curriculum.

IP can be seen as an element of IL in the university information environment. In order for students to successfully develop in the university and in life, they must learn to efficiently and effectively use wide array of information and communication technologies to search, find, organize, analyze and evaluate information they need. In addition, they need to understand the ethics of using said information, including the breach of subjective IP rights such as plagiarism – the use of literature, art, science, patented inventions, designations (markings, geographical indications, domain names, businesses) without the authorization of their creator. Finally, they must be able to systematize all this knowledge together in order to create an effective end product. This requires them to assemble the whole set of basic skills for scientific research, technological skills, critical thinking and evaluation [8, 9].

A set of standards on IL in higher education was created in 2000 and were updated in 2016. There are five standards and are developed by the Association of College and Research Libraries and include indicators that measure performance and results, showing how well the relevant standard has been accepted. These standards are developed specifically for higher education and have been adopted by a number of colleges and universities around the globe. Standard Five is directly connected to IP and is part of IL in a university environment. It identifies the information literate person who is economically, legally, and socially literate, realizes these aspects of the product he wants to create, and uses the information ethically and legally [5, 6, 7].

By sticking to the three indicators of Standard Five of IL in higher education, it is necessary to emphasize that intellectual-legal literacy is an extremely important element of IL of the students in a university information environment. In order to be as precise as possible in their practice, they should possess broader, more specialized knowledge of the theory and practice of the essence of the objects of IP, as well as their legal protection and defense. Until recently, the positioning of IP as part of IL of students in a university information environment was distant and out of reach, but the expansion of students' competencies from all educational levels has been the subject of analysis of the past 15-20 years in research by leading experts dealing with quality of educational process, accreditation of educational establishments, as well as some educational, library and scientific organizations. Various tools are being developed to assess the level of information literacy to highlight "bottlenecks" and propose adequate training methods to overcome them. There is an expansion of the spectrum of questions for the already presented Standard Five for IL, which is evident by the formulated topics of the European IL conference for the 2013-2018 period [9, 10, 11].

Carrying out research on IP issues as part of information literacy in the modern university environment is conditioned by a number of prerequisites. First of all, there are limited number of in-depth independent studies focusing on the relation of IP and IL on a national level; secondly, the need to

study existing models and good practices for training in the field of IP for non-specialist lawyers in Europe and worldwide; thirdly, to analyze the offered educational content and curriculums responsible for this spectrum of knowledge; fourthly, it is necessary to study the foreign experience of the existing IP-awareness networks; fifthly, the need to investigate the level of awareness of intellectual-legal issues in humanitarian and social sciences, as well as both among learners and students in a university environment. After everything said so far, we have to conclude that the issue of the positioning IP in the context of the wide IL framework is relevant, timely, and necessary. The issue in question is extremely up-to-date, partly looked at from various angles by other authors, but so far never fully disclosed. Worldwide, well-known researches dealing with the essence of information literacy, including copyright law literacy, are: S. Kurbanogly, J. Bustani, S. Spiranets, K. Basili, T. Makkij, M. Isenberg, P. Zyrkovski, etc. At the national level, more known developments in this field are: T. Todorova, S. Stancheva, D. Stojkova, M. Encheva, etc. The Bulgarian authors who deal with the study of intellectual property issues as a complex concept are: B. Borisov, V. Borisova, G. Sarakinov, M. Lazarova, B. Nedelcheva, A. Manchev, V. Tsakova, M. Markova, etc. Interdisciplinary issues, related to IP training for non-specialist lawyers in the humanitarian and social sciences are interpreted by authors from various scientific fields, such as: T. Trencheva, T. Todorova, G. Dimitrov, Pl. Popova, etc. The overview of the examined problem shows that the issue of the challenges and problems related to the integration of IP as part of IL, in a university setting are as familiar as they are unknown, corresponding to the dynamic in the changes of the new digital environment. This makes the issue meaningful and gives reason to formulate the goal and the research tasks and hypotheses stemming from it [6, 7, 8, 9, 15, 16].

The Republic of Bulgaria is a Member State of the European Union and European Union Law is integrated into the Bulgarian legal system. IL assumes the acquisition of knowledge and mastery of skills for legal defense and use of IP objects under the supranational legislation, including on the Internet. Under a Commission of the European Union resolution, universities and public organizations have to manage the IP created in their activities and during the provision of knowledge, especially to businesses. Curriculums in relation to IP training should include the assimilation of knowledge aimed at forming IL in the university environment.

3 PROJECT OBJECTIVES, HYPOTHESES AND APPROACHES.

IP education has become increasingly widespread and influential in the past two decades. Although IP training programs have become increasingly widespread and important, so far they have not attracted much scientific attention from researchers in this field who are interested in global policy and practice in the researched area. Despite this void, the activities of some organizations working in this area, notably the World Intellectual Property Organization, the European Patent Academy, the IP Awareness Network, have attracted considerable criticism, whether justified or not. The actual or perceived deviations and deficiencies in IP training programs, along with many other things, have contributed to the incentives for reform in the field of IP training for non-specialist lawyers.

3.1 Project objectives and hypotheses

The main objective of the project is to systematically and purposefully explore issues related to the integration of intellectual literacy in the university information environment in the humanitarian and social sciences, both among trainers and trainees in Bulgaria, by creating and asking for an innovative model for an examination of the intellectual legal competence, which will solve the identified gaps during the study. The inclusion of scientists from the Old Continent and Australia enables the study of the problem to reach international scale. The main goal of the project consists of several specific objectives: **1st specific objective:** Accumulate research material that will be used to update existing study programs related to the study of intellectual property and its direct application in the educational process. Results: monography, teaching aid, translations of WIPO teaching materials, EPA and others; **2nd specific objective:** Conduct surveys among learners and trainers in a university information environment that aim to outline a clearer picture of the intellectual property awareness issues in a university environment. The resulting data will be processed with correlation and variance analysis to outline the main trends and timelines. Results: accumulation of empirical material on the studied problem, possibility of comparison with existing empirical material from a previous period and conclusion on trends; **3rd specific objective:** A goal of sustainability of project results in the future is the creation of a project website and an indexed e-journal - platforms for future development and stimulation of international collaboration with colleagues from the country and abroad. Results: website and electronic magazines; **4th specific objective:** To develop a model for non-formal (PhD

student workshops, master classes and public lectures of foreign scientists, a scientific seminar devoted to World Intellectual Property Day - April 26, etc.) and formal academic IP training in a university creation environment (development and testing of new curriculum content in the form of lecture courses). Results: scientific growth of young scientists and availability of teaching materials; **5th specific objective:** Establishing a university network to raise awareness and understanding of intellectual property issues in Bulgaria based on the "training for trainers" method. Results: Enhancing the Intellectual-legal Competence of Students in Bulgarian Universities; **6th specific objective:** Implementing international research and methodological interaction in the form of labor research visits to universities in Europe and beyond; meetings with academic groups, master classes, workshops and international seminars dedicated to World Intellectual Property Day (26 April) [10, 13, 15,16].

The goal of this project is to begin filling the gaps in research in the field of the integrative connection of IP and IL in the modern university environment by exploring different practices in developed and developing countries related to raising IP issues awareness. The focus is on the World Intellectual Property Organization (WIPO) for its key role in human resource development and international capacity creation, although the work of other relevant organizations and institutions is not neglected. The goal of our study is to trace the problems and create a framework for strategic discussion and further action to achieve the principles and recommendations.

3.2 Approaches for accomplishment of the research goals including interdisciplinarity of the project

The subject of the project proposal is interdisciplinary and covers current issues in the fields of social and humanitarian sciences, law, formal and non-formal education, pedagogy, sociology and others, considered in the context of the contemporary information society. The project puts purposefully linked research tasks at three levels: **The first level is** of a theoretical nature and is related to the accumulation of factual information in the form of bibliographical references on the subject of the project, in order to prepare an overview of the studied issue. Study of models and good practices for integrating IP education into a university environment in the social and humanitarian sciences, on a national, European and international scale. Development of a questionnaire and conducting research that aims to establish, systematize, summarize and analyze the factual information on the studied complex problem in the project on the basis of an empirical study and a theoretical analysis. The survey will be conducted in Bulgaria, Italy, and Australia. Performing comparative analyzes compared to other questionnaires related to the project concept. This level sets out purely analytical tasks, without neglecting the possibility that some of the results achieved will have a research character.

The second level is of a practice-applied nature and the main task at this level is to create a common and comprehensive methodology to raise awareness of intellectual property issues in the university information environment, disseminate intellectual property knowledge and promote the objectives, activities and results of the project. An important stage of this level is the creation of a dedicated website of the project that will become a platform for its future development. Translation and publication of IP teaching materials of EPA and WIPO. Another key task with a practical implementation is to organize and conduct a scientific seminar with international participation dedicated to the International Intellectual Property Day (26 April), where the progress of the project will be presented.

The third level is of a study-methodological and informational nature, and the basis of this level is the development of a model for formal and non-formal intellectual property education. The creation of new study content aimed at students in the social and humanitarian sciences, as well as the creation of training courses for lecturers in a university environment. Promotion of the innovative model for the integration of intellectual literacy in a university information environment. Performing a series of master classes, workshops and public lectures aimed at both students, PhD students and young scientists in the team.

In order to achieve the research goals, the project is based on the use of interdisciplinary and applied approaches and aims to realize the scientific and applied goals and objectives of the project through the use of knowledge and skills of highly qualified and highly profiled specialists.

The goals set in the project are a guarantee that it can have no other direction than fundamental research. Fundamental research, in turn, is the starting point for innovative processes that stimulate research in the various fields of social and human sciences, while facilitating the transfer and accumulation of new knowledge and know-how. This type of research is a necessary basis for the development of more qualified scientific staff in various fields of science.

The project complies with the requirements for conducting research in Bulgaria and fulfills the condition of being fundamental. By applying modern approaches to basic research, it will create the necessary favorable environment for enhancing scientific communication and for delivering fruitful work on the project. On the basis of the basic research, factual material will be accumulated, which will allow comparison of the individual constructs, which will be described with their current state and published in open access monographs. The practical application of the research is towards the generation and accumulation of new knowledge and hypotheses, as well as their popularization among a wide range of users. The results of the project will be made available for public use to local, regional and national scientific, educational, cultural, research and other institutions directly involved in the project.

4 PROJECT'S SCIENTIFIC TEAM.

The research team of the project consists of leading Bulgarian scientists and the interdisciplinary problem of the project is covered by researchers with corresponding scientific interests, achievements and international reputation in the field of theory and practice of intellectual legal issues, which is visible from the scientific publications mentioned in their biographies, lecture courses and participation in expert groups, committees and projects. The capacity of the scientific team is complemented by a core of prominent international specialists in the studied subject.

All of the team members have a significant contribution to several actively developing areas of intellectual property, in particular: IP training for non-specialist lawyers, copyright law literacy, copyright and related rights in audiovisual, traditional knowledge, information literacy and media law literacy, all of which have the necessary experience and competence to meet the objectives set in the project's scientific program. The team meets the stated requirements for interdisciplinary, for scientific capacity and experience in the relevant fields of science, as evidenced both by the participation of pronounced internationally recognized scientists and researchers and by the participation of postdoctoral students, PhD students and young scientists in the research process. The role of the individual participants in the implementation of the project will be related to the specifics of their scientific training and the accumulated experience and knowledge. The project team covers all levels of the research process. There are scientists with proven organizational experience, which is of exclusive importance for the logistics of work.

According to the needs of the project, additional external experts will be recruited and used to conduct the survey, processing and analyzing the data. The PhD students included in the work group will be actively involved in the studies conducted in order to include their results in the scope and scientific issues of their dissertations. In addition to the PhD students, the students will also be invited to participate in the research activities and as technical staff in scientific forums, conferences, colloquiums, etc.

5 CONCLUSIONS

The role and place of creativity and innovation for modern societies has been repeatedly reaffirmed in various strategic documents, including the Europe 2020 Strategy for smart, sustainable and inclusive growth (COM (2010) 2020 final) and the European Commission Green Paper "Unlocking the Potential of the cultural and creative industries ", which, on the other hand, placed on a strong, competitive and diversified industrial basis with a view to building a society and knowledge economy, creativity and innovation are a common goal European Union, which implies a differentiated approach, reflecting the social, economic, cultural and educational differences between Member States. The future of the culture of society implies the development of new forms and policies that will change the current ones. The achievement of such a state of the culture of society requires the support of strategically important initiatives such as: preservation and promotion of cultural diversity, creative mobility, protection of intellectual property, enhancing intellectual literacy of society, and creation of conditions for development of quality education in the field of the cultural, information and creative industries.

The project "Conceptual educational model for increasing the information competence in the university information environment", implemented under Contract № KP-06- H35 / 10 of 18.12.2019, funded by the National Scientific Fund (NSF) at the Ministry of Education and Science, in a competition for funding of basic research - 2019, headed by Prof. DSc. Stoyan Denchev and implemented by ULSIT is fully in tune with both the already mentioned strategic documents and the National Research Strategy 2017-2030, as it aims to: to study the current state of information literacy, in particular

intellectual literacy in the university information environment among students and learners, sparking a civil debate related to raising the culture of intellectual literacy among academics.

As can be seen from the date of signing the contract, the project is in the initial phase, given that the period of its implementation is 18.12.2019 - 18.12.2022 (36 months). At the moment we could not present concrete results of the project, but we marked the main goals, tasks, methods and team to emphasize the stability of UniBIT in the integration of IP in the university environment.

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