## LEARN<sub>21</sub>

13TH INTERNATIONAL CONFERENCE ON EDUCATION AND NEW LEARNING TECHNOLOGIES



# CONFERENCE PROCEEDINGS



## EDULEARN<sub>21</sub>

13TH INTERNATIONAL CONFERENCE ON EDUCATION AND NEW LEARNING TECHNOLOGIES

# CONFERENCE PROCEEDINGS

**Published by** IATED Academy iated.org

#### **EDULEARN21 Proceedings**

13th International Conference on Education and New Learning Technologies July 5th-6th, 2021

#### **Edited by**

L. Gómez Chova, A. López Martínez, I. Candel Torres IATED Academy

ISBN: 978-84-09-31267-2

ISSN: 2340-1117 DL: V-1707-2021

Book cover designed by J.L. Bernat

All rights reserved. Copyright © 2021, IATED Academy

The papers published in these proceedings reflect the views only of the authors. The publisher cannot be held responsible for the validity or use of the information therein contained.

#### **EDULEARN21 COMMITTEE AND ADVISORY BOARD**

Alexander MikroyannidisUNITED KINGDOMJose Luis BernatSPAINAline Grunewald NicheleBRAZILKathleen O'SullivanIRELANDAmparo GirósSPAINLaura ZizkaSWITZERLANDAna LucasPORTUGALLeonor Silva de MattosUNITED KINGDOMAna Paula LopesPORTUGALLorena LópezSPAINAna TomásSPAINLouise RobsonUNITED KINGDOMAnamarija ŠtefićCROATIALuis Gómez ChovaSPAINAndrew YoudeUNITED KINGDOMMª Jesús SuestaSPAINAnemona PeresPOLANDManuel GericotaPORTUGALAntonio GarcíaSPAINMaria Luisa SpreaficoITALY
Amparo GirósSPAINLaura ZizkaSWITZERLANDAna LucasPORTUGALLeonor Silva de MattosUNITED KINGDOMAna Paula LopesPORTUGALLorena LópezSPAINAna TomásSPAINLouise RobsonUNITED KINGDOMAnamarija ŠtefićCROATIALuis Gómez ChovaSPAINAndrew YoudeUNITED KINGDOMMª Jesús SuestaSPAINAnemona PeresPOLANDManuel GericotaPORTUGAL
Ana LucasPORTUGALLeonor Silva de MattosUNITED KINGDOMAna Paula LopesPORTUGALLorena LópezSPAINAna TomásSPAINLouise RobsonUNITED KINGDOMAnamarija ŠtefićCROATIALuis Gómez ChovaSPAINAndrew YoudeUNITED KINGDOMMª Jesús SuestaSPAINAnemona PeresPOLANDManuel GericotaPORTUGAL
Ana Paula LopesPORTUGALLorena LópezSPAINAna TomásSPAINLouise RobsonUNITED KINGDOMAnamarija ŠtefićCROATIALuis Gómez ChovaSPAINAndrew YoudeUNITED KINGDOMMª Jesús SuestaSPAINAnemona PeresPOLANDManuel GericotaPORTUGAL
Ana TomásSPAINLouise RobsonUNITED KINGDOMAnamarija ŠtefićCROATIALuis Gómez ChovaSPAINAndrew YoudeUNITED KINGDOMMª Jesús SuestaSPAINAnemona PeresPOLANDManuel GericotaPORTUGAL
Anamarija ŠtefićCROATIALuis Gómez ChovaSPAINAndrew YoudeUNITED KINGDOMMª Jesús SuestaSPAINAnemona PeresPOLANDManuel GericotaPORTUGAL
Andrew YoudeUNITED KINGDOMMª Jesús SuestaSPAINAnemona PeresPOLANDManuel GericotaPORTUGAL
Anemona Peres POLAND Manuel Gericota PORTUGAL
Antonio García SPAIN Maria Luisa Spreafico ITALY
Asako Ohno JAPAN Maria Porcel SPAIN
Bob Barrett UNITED STATES Maria Susy Rogers UNITED KINGDOM
Boza Tasic CANADA Marion Milton AUSTRALIA
Bozena Mannova CZECH REPUBLIC Martina Bode UNITED STATES
Chang-Tik Chan MALAYSIA Michelle Flood IRELAND
Chelo GonzálezSPAIN Miguel PeiróSPAIN
Chiew Hong Ng SINGAPORE Monika Jakubiak POLAND
David MartíSPAINNathalie WessselingNETHERLANDS
Eladio Duque SPAIN Norma Barrachina SPAIN
Elena Savova BULGARIA Polona Gradišek SLOVENIA
Eulalia TramunsSPAINRebecca AllenUNITED STATES
Fausto Brevi ITALY Sandra Gomes PORTUGAL
Filomena Soares PORTUGAL Sean Lancastle UNITED KINGDOM
Hanna-Riitta Kymäläinen FINLAND Sergio Pérez SPAIN
Helen Reddy UNITED KINGDOM Siobhan O'Sullivan UNITED ARAB EMIRATES
Ignacio Ballester SPAIN Suzy Connor JAPAN
Ignacio Candel SPAIN Teemu Patala FINLAND
Iolie NicolaidouCYPRUSTeresa CardosoPORTUGAL
Iván Martínez SPAIN Thomas Rachfall GERMANY
Jacqueline BaxterUNITED KINGDOMTunde SzecsiUNITED STATES
Jana BérešováSLOVAKIA Victor FesterNEW ZEALAND
Jane Davies MALAYSIA Victoria Brennan UNITED KINGDOM
Javier DomenechSPAINWayne BaileyUNITED KINGDOM
Javier MartíSPAINWendy GortonUNITED STATES
Joanna Lees FRANCE Xavier Lefranc FRANCE

#### **CONFERENCE TRACKS & SESSIONS**

#### DIGITAL TRANSFORMATION OF EDUCATION

Data Science & AI in Education Learning Analytics & Educational Data Mining Digital Transformation Digital Technologies and Resources for Learning under Lockdown 21st Century Skills Educational Programming & Robotics

#### **DIGITAL & DISTANCE LEARNING**

Distance Education in COVID-19 Times Challenges and Practices during the Pandemic Blended & Mobile Learning MOOCs & Open Educational Resources Learning Management Systems & Virtual Learning Environments

#### INNOVATIVE EDUCATIONAL TECHNOLOGIES

AI, Chatbots & Robots Virtual & Augmented Reality Social Media in Education Technology Enhanced Learning

#### **TEACHER TRAINING & ED. MANAGEMENT**

ICT & Digital Skills Professional Development of Teachers Educational Management

#### **ACTIVE & STUDENT-CENTERED LEARNING**

Gamification & Game-based Learning Experiential Learning Problem & Project-Based Learning Soft Skills Development Pedagogical Innovations Non-Formal Learning

#### ASSESSMENT, MENTORING & STUDENT SUPPORT

Assessment & Evaluation Rethinking Assessment in COVID-19 Times Feedback for Learning Tutoring & Coaching Student Support & Motivation

#### **EDUCATIONAL STAGES & LIFE-LONG LEARNING**

From Pre-school to Secondary Education Vocational Training Transition to the Job Market Developing Entrepreneurship in Education Life-Long & Workplace Learning

#### **QUALITY & IMPACT OF EDUCATION**

Quality in Education
Experiences and Challenges in Curriculum Design
Sustainability & Social Impact of Education
Education and Research
University-Industry Collaboration
Mobility & International Projects

#### **MULTICULTURALITY & INCLUSION**

Multicultural Education Diversity Issues Special Educational Needs Inclusion in Education

#### STEM EDUCATION

Maths & Statistics Engineering Education STEM Experiences

#### LANGUAGE LEARNING AND TEACHING

Foreign Languages Language Learning & Translation Studies Teaching Foreign Languages during the Lockdown

#### **DISCIPLINE-ORIENTED SESSIONS**

Architecture & Interior Design Health Sciences Education Computer Science Business & Tourism Education

#### **ABOUT EDULEARN21 Proceedings**

#### HTML Interface: Navigating with the Web browser

This USB Flash drive includes all presented papers at EDULEARN21 conference. It has been formatted similarly to the conference Web site in order to keep a familiar environment and to provide access to the papers trough your default Web browser (open the file named "EDULEARN21\_Proceedings.html").

An Author Index, a Session Index, and the Technical Program are included in HTML format to aid you in finding conference papers. Using these HTML files as a starting point, you can access other useful information related to the conference.

The links in the Session List jump to the corresponding location in the Technical Program. The links in the Technical Program and the Author Index open the selected paper in a new window. These links are located on the titles of the papers and the Technical Program or Author Index window remains open.

#### Full Text Search: Searching EDULEARN21 index file of cataloged PDFs

If you have Adobe Acrobat Reader version 6 or later (www.adobe.com), you can perform a full-text search for terms found in EDULEARN21 proceedings papers.

*Important:* To search the PDF index, you must open Acrobat as a stand-alone application, not within your web browser, i.e. you should open directly the file "EDULEARN21\_FrontMatter.pdf" with your Adobe Acrobat or Acrobat Reader application.

This PDF file is attached to an Adobe PDF index that allows text search in all PDF papers by using the Acrobat search tool (not the same as the find tool). The full-text index is an alphabetized list of all the words used in the collection of conference papers. Searching an index is much faster than searching all the text in the documents.

To search the EDULEARN21 Proceedings index:

- 1. Open the Search PDF pane through the menu "Edit > Advanced Search" or click in the PDF bookmark titled "SEARCH PAPERS CONTENT".
- 2. The "EDULEARN21\_index.pdx" should be the currently selected index in the Search window (if the index is not listed, click Add, locate the index file .pdx, and then click Open).
- 3. Type the search text, click Search button, and then proceed with your query.

#### For Acrobat 9 and later:

- 1. In the "Edit" menu, choose "Search". You may receive a message from Acrobat asking if it is safe to load the Catalog Index. Click "Load".
- 2. A new window will appear with search options. Enter your search terms and proceed with your search as usual.

#### For Acrobat 8:

- 1. Open the Search window, type the words you want to find, and then click Use Advanced Search Options (near the bottom of the window).
- 2. For Look In, choose Select Index.
- 3. In the Index Selection dialog box, select an index, if the one you want to search is available, or click Add and then locate and select the index to be searched, and click Open. Repeat as needed until all the indexes you want to search are selected.
- 4. Click OK to close the Index Selection dialog box, and then choose Currently Selected Indexes on the Look In pop-up menu.
- 5. Proceed with your search as usual, selecting other options you want to apply, and click Search.

#### For Acrobat 7 and earlier:

- 1. In the "Edit" menu, choose "Full Text Search".
- 2. A new window will appear with search options. Enter your search terms and proceed with your search as usual.

## INTELLECTUAL PROPERTY AS PART OF INFORMATION LITERACY AT THE UNIVERSITY: PROJECT CONCEPT AND SURVEY METHODOLOGY

#### Tereza Trencheva<sup>1</sup>, Stoyan Denchev<sup>1</sup>, Mariyana Lazarova<sup>2</sup>

<sup>1</sup>University of Library Studies and Information Technologies (BULGARIA)
<sup>2</sup>National Academy for Theatre and Film Arts (BULGARIA)

#### **Abstract**

Introduction: Intellectual property (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 them 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.

The paper aims: Firstly to present the concept of a project at the University of Library Studies and Information Technologies "A Conceptual Educational Model for Enhancing IL in an University Information Environment" and secondly to describe the methodology of the project survey, which aims to establish, systematize, summarize and analyse the current level of awareness about IP issues at university environment among trainees and trainers.

Presentation: The main objective of the project is to systematically and purposefully explore issues related to the integration of IP 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 methodology for achieving the main objective of the study and solving the set research tasks include the following specific methods: content analysis, comparative analysis, and synthesis of the obtained information, relevant to the topic of the paper.

Results: Carrying out research on IP issues as part of IL 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 and international 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.

Conclusion: After all, it has to be concluded that the IP is a special element of IL in university information environment, as to develop good skills, students must learn how to use effectively the wide variety of information products and services. The problem under consideration is extremely relevant, partly concerned with various aspects by other authors, but has not been fully disclosed so far as in this study.

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

#### 1 INTRODUCTION AND THEORITICAL FRAMEWORK

**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].

Intellectual property (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].

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 IPawareness 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 concluded 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, which is another important feature that highlights the scientific and application significance of the project "A Conceptual Educational Model for Enhancing Information Literacy in an University Information Environment", financed by National Science Fund of the Ministry of Education and Science of the republic of Bulgaria with Contract № KP – 06 – H35 / 10 ot 18.12.2019, led by Prof. DSc Stoyan Denchev.

### 2 A CONCEPTUAL EDUCATIONAL MODEL FOR ENHANCING INFORMATION LITERACY IN AN UNIVERSITY INFORMATION ENVIRONMENT: A BRIEF PROJECT DESCRIPTION

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.

#### 2.1 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 an 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.

### 2.2 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.

During the implementation of the project an information and advertising campaign aimed at presenting the activities, objectives, tasks, and expected results of the project to representatives of educational and research centers will be held, as well as all stakeholders involved in the problems of intellectual property in a university environment. For this purpose, the following scientific and cultural events will be organized:

- Three scientific seminars with international participation, dedicated to (one for each year of the project) on World Intellectual Property Day (April 26), on a previously announced slogan from the World Intellectual Property Organization, to be attended by prominent scientists in the field of intellectual property, civil law, information literacy, etc.;
- Two Master classes and one workshops for young scientists, postgraduates and students on pre-specified topics with guest lecturers, representatives of universities, international organizations and research institutions;

#### 2.3 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.

### 3 FIRST STAGE PROJECT REALIZATION IN THE PERIOD 18.12.2019 – 01.05.2021: A SHORT OVERVIEW OF THE WORKING PACKAGES

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 стартира през м. декември 2019 г. Its implementation in this period is characterized by excellent coordination, motivation and variety of activities.

In order to achieve the highest quality and good realization of the project work program aiming at the successful fulfillment of the set objectives and tasks, six interconnected working packages (PA) have been developed, which contain the following: period of implementation of the package; work package manager; participants in the implementation of work package activities; planned activities; expected results and results on which project implementation is assessed. **The first working package** is related to the organization and management of project activities is essential in its development and implementation. For the more effective management of the project, a specific system of criteria for monitoring and evaluating the implementation of each of the project stages were set up. On the basis of this set of criteria, monitoring and evaluation of the achievements at individual stages was carried out periodically. This ongoing evaluation was shaped as a periodic report every three months after a regular team meeting was held. **Results till the present moment**: Purchased tangible fixed assets for the successful implementation of activities related to the overall implementation of the objectives and deadlines of the project. Available equipment for the successful operation of the project. Payment of team members' fees.

The second working package is related to the development of a methodological approach to the information provision of the project, having full interconnection with the research tasks at the first level, more precisely the accumulation of factual information by organizing bibliographic studies and establishing the level of development of the studied problem. Identification, research and analysis of models and good practices for raising information literacy in a university information environment, in particular integrating intellectual literacy at universities at National, European and International level. Based on the accumulated bibliographic massif and an array of good practices and models, an innovative model for research and integration of intellectual literacy in a university information

environment will be made on the second stage of the project. **Results till the present moment:** Organizing a bibliographic study and establishing the level of elaboration of the researched problem and forthcoming preparation of a bibliographic index on the topic. Identification, research and analysis of models and good practices for improving information literacy, in particular intellectual literacy in universities at national, European and international level. The results of this package will be reported at this conference.

The third working package is related to the development of author's methodology and questionnaire tools, which are part of the preparatory phase of conducting an empirical study devoted to the contemporary tendencies of intellectual literacy in a university information environment. The development of a methodology includes a number of actions as follows: selection of research regions and universities falling within them; studying, analyzing and systemizing curriculum at specific nests-universities; specifying the percentage stratification of respondents from each nest-university; creating questionnaire tools (2 questionnaires - one for trainees and one for trainers); preparing and sending notification letters about the forthcoming empirical study; pre-organization and coordination by the project manager with nest-universities management to specify who will act as coordinators in conducting the survey at each of the universities. **Results till the present moment**: A methodology of the survey has been developed and 2 questionnaires have been compiled - one designed for learners and one designed for learners in a university information environment, which will also be reported on this forum.

The fourth working package is related to the main organizational tasks of conducting a survey including development of methodology for conducting the survey, activation of the electronic form of the surveys for trainees and trainers, creation of an organization for dissemination and completion of the surveys, collection, processing and analysis of the received results. For the main method for collecting data is chosen conduction of the survey by activating an electronic survey in the Google Survey. The electronic poll is preferred because of the speed and convenience of the participants and facilitated analysis of the results. **Results till the present moment:** Coordination was performed with the nests of the survey. Notification letters were sent to specify coordinators at the locations of the survey. The survey was prepared in the survey toolkit in an electronic version in Google Survey and the survey is currently underway. It will be open for 2 months, ie. in the period 19.04.2021 - 19.06.2021.

The fifth working package is interconnected to the second and third level research tasks, providing for the following planned activities: participation in international and national scientific forums for the members of the scientific team; publishing reports and articles in scientific editions with an impact factor; implementation of international cooperation and scientific cooperation; ensuring the possibility of carrying out independent scientific researches and scientific specializations in the country and abroad of the members of the scientific team; preparation for printing of scientific monographs, teaching aids and repertories. Results till the present moment: Total number of publications is 22 – 2 collections and 6 publications in Bulgarian; 1 scientific study and 13 publication indexed in WoS.

The sixth working package is linked to a number of activities, objectivizing the achieved results of the project including: creation of a specialized website on the issues of the project, which will be also a platform for its future development; ongoing publication of information to promote the results achieved in the project in traditional and electronic media; organizing and conducting 3 national scientific seminars with international participation; publishing of 6 books - three collections, one scientific monograph, one textbook and one thematic bibliography repertory for the first and second stage of the project. **Results till the present moment:** The sustainability of the project results is guaranteed by the already developed and operating project website. It contains complete information about the project, the activities, as well as the articles and reports of the project participants, the films visualizing the conducted seminars and master classes, etc. The project website is available at www.ipl.unibit.bg.

All publications within the project will be open-access and up-to-date with research requirements in the European Union context for the European Cloud for Open Science.

### 4 CURRENT STATE OF INTELLECTUAL LEGAL LITERACY IN THE UNIVERSITY ENVIRONMENT (SURVEY AMONG TRAINEES AND TRAINERS): SURVEY METHODOLOGY DESCRIPTION

One of the main tasks of the mentioned research project and as part of the working packages 3 and 4 was preparation and realization of the empirical study on "Current state of intellectual legal literacy in the university environment", which is conducting in the period 19<sup>th</sup> April – 19<sup>th</sup> June 2021 among trainees and trainers in nine Bulgarian universities, accredited in professional field "Public Communications and

Information Science", regarding their knowledge, awareness levels and attitude of intellectual property issues. Because of the national scope, during the development of the questionnaire, national legislation and WIPO guidelines were primarily used.

The questionnaire for trainees consists of 6 panels with questions. It includes closed and half-open (through applying 5-degree scale of Likert). The first panel aims to gather the demographic information and information about the educational and citizenship of the respondents in 7 questions. The second panel aims to gather information about the creativity of the respondents in 2 multiple questions. The third panel in 5 questions aims to establish the level of awareness of the respondents on intellectual property issues. The fourth panel covers different scenarios about intellectual property, and aims to test the level of awareness. They refer to individual cases from the practice and protection of intellectual property and how would respondents act in individual situations. This panel is presented in 10 questions. The fifth panel covers questions about the intellectual property knowledge of the respondents. It covers 4 questions about IP education of the respondents. The sixth panel aims to establish the attitude to specific situations related to intellectual property and it consist of 10 questions.

Table 1 10 percent stratification of the students studing in Professional Field "Public Communications and Information Science" in Bulgaria

	University	Number of respondents
1	University of Library Studies and Information technologies	189
2	South-West University «Neofit Rilski»	35
3	Veliko Turnovo University «St. St. Ciril and Metodius»	49
4	American University in Bulgaria	10
5	Shumen University «Bishop Konstantin Preslavski»	28
6	Sofia University «St. Kliment Ohridski»	194
7	New Bulgarian University	58
8	University of National and World Economy	58
9	Burgas Free University	82
	Total Number of the respondents:	703

As mentioned earlier, survey was conducted in nine universities in Bulgaria, accredited to carry out training in the professional field "Public Communications and Information Science". To achieve maximum accuracy in the study of general aggregate, with a view of specificity obtained from the survey data, there is a limit, which relates only to students in degree "Bachelor" and "Master". The study was done on the principle of systematic random selection with stratification to 10% of the students in the professional field "Public communication and information sciences". Data collection is carrying out by Google survey.

It is necessary to clarify that the survey among trainees covers respondents from five town of the country (Sofia, Blagoevgrad, Veliko Turnovo, Shumen and Burgas), and there were invited 703 respondets of the students to take part in the survey. Till the 5th of May 2021 the general aggregation consists of 393 effectively surveyed adult Bulgarian citizens (students in above mentioned profecional field), which makes the survey representative for the country.

The questionnaire for trainers consists of 3 panels with questions. It includes closed and half-open (through applying 5-degree scale of Likert). The first panel aims to gather the demographic information and information about the educational and professional background of the respondents in 7 questions. The second panel aims in 8 questions to establish the level of awareness of the respondents for the intellectual property policy pursued by their institution. The third panel aims to establish the attitude to specific situations related to intellectual property and it consist of 5 questions.



Fig. 1 Title page of the questionnaire of trainees

Fig. 2 Title page of the questionnaire of trainers

It is necessary to clarify that the survey among trainers covers respondents from the above mentioned five town of the country (Sofia, Blagoevgrad, Veliko Turnovo, Shumen and Burgas), and there were invited 703 respondets of the students to take part in the survey. Till the 5th of May 2021 the general aggregation consists of 393 effectively surveyed adult Bulgarian citizens (students in above mentioned profecional field), which makes the survey representative for the country. The questionnaire survey for trainers is opened at the same universitites and will ne sent to the all member of the academic staff at these universities.

After the closing the on-line survey on the 19<sup>th</sup> June 2021, the survey data will be subjected to the logical inspection and control and after that the data is processed by the statistical package SPSS (Statistical Package for the Social Sciences) for Windows 21.0. For clarifying the psychometric characteristics of the methods and test the hypotheses will be applied the following methods of statistical treatment: descriptive statistic, Student's t-distribution, correlation analysis; regression analysis; cluster analysis; factor analysis; analysis of variance (ANOVA).

#### 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.

#### **ACKNOWLEDGEMENTS**

This research would not have been possible without the financial assistance of the following project: "A Conceptual Educational Model for Enhancing Information Literacy in an University Information Environment", financed by National Science Fund of the Ministry of Education and Science of the republic of Bulgaria with Contract NP KP - 06 - H35 / 10 or 18.12.2019, led by Prof. DSc Stoyan Denchev.

#### REFERENCES

- [1] Denchev, S. & Trencheva, T. "Intellectual Property as a Basic Part of the University's Information Literacy", Proceedings of ICEMS 2016 Conference, 28-29th May, DEStech Publications, Beijing/China, 2016, pp. 74-78.
- [2] E. Zdravkova. Media literacy as a key competency for the safe and effective use of media, In Conference Proceedings: 12th International Conference on Education, Research and Innovation, Seville, Spain, 2019, pp. 7467-7473
- [3] K. Planska-Simeonova. Copyright Protection of Photographic Information in Compliance with the New Regulations Of The European Union, 11th annual International Conference on Education and New Learning Technologies Palma de Mallorca, Spain, 2019, pp. 5040-504
- [4] Titu, M., Oprean, C., Stan, S. & Titu, S. "The Place and Role of Intellectual Property Policies in an Advanced Scientific Research and Education University", International Conference Knowledge-Based Organization, 2017, vol. 23, no. 1, pp. 479-488.
- [5] Yordanova, D. "Development of Complex' Measures for Copyright Protection in Universities", Proceedings of 5th National Seminar with International Participation "Intellectual Property, Innovations and Science in a Global Environment, Sofia, "Za bukvite O Pismeneh", 2017, pp. 55-62.
- [6] S. Dimitrova. E-content intellectual property aspects // 11th International Conference on education and new learning technologies, EDULEARN19 Proceedings, Palma, Mallorca, Spain, Vol. 11, 2019, pp. 6061-6065.
- [7] M. Traykov, M. Trencheva, R. Mavrevski, A. Stoilov, I. Trenchev, Using Partial Differential Equations for Pricing of Goods and Services // Scientific Annals of Economics and Business, vol., 63(2), 2016, pp. 291-298.
- [8] A. Kanev, "Desire or derision from "common" identity". European Information Society Strategies as an Instrument for Identity Building and Local Realities: The Situation in Bulgaria" in *Academic Portal in the Social and Human Sciences*: 2008. Accessed on 28.04.2019: Retrieved from http://gate.cas.bg/publication.php?id=112
- [9] T. Todorova, I. Peteva. Information Literacy Competency of LIS students in SULSIT with a Special Focus on Intellectual Property. In Worldwide Commonalites and Challenges in Information Literacy Research and Practice: ECIL 2013. Istanbul, Springer International Publishing Switzerland, pp. 610 617, XXIV, 2013.
- [10] M. Traykov, M. Trencheva, R. Mavrevski, A. Stoilov, I. Trenchev, "Using Partial Differential Equations for Pricing of Goods and Services, Scientific Annals of Economics and Business", vol. 63, no. 2, pp. 291-298, 2016.
- [11] E. Tsvetkova, I. Peteva, I. Pavlova, "Attitude of Bulgarian Library Specialists Towards Use of Library Resources for Mobile Learning", in *Proceedings of ICERI2018 Conference 12-14th November 2018*, pp. 838-842, Sevilla/Spain, 2018,.
- [12] D. Stoyanova, E. Savova, I. Peteva, R. Yotova, "Academic Research Projects for Students Support and Motivation in University Information Environment", in *Proceedings of ICERI2018 Conference* 12-14th November 2018, Sevilla/Spain, 2018, pp. 9706-9709.

- [13] T. Todorova, T. Trencheva, S. Kurbanoğlu, G. Doğan, A. Horvat, J. Boustany. A Multinational Study on Copyright Literacy Competencies of LIS Professionals, In Worldwide Commonalites and Challenges in Information Literacy Research and Practice: ECIL 2014. Dubrovnik, Croatia Springer International Publishing Switzerland, Vol. 492, pp. 138-148, 2014.
- [14] T. Trencheva, S. Denchev. Intellectual Property Education in University Environment in Bulgaria. In Conference Proceedings: International Conference: The Future of Education, Florence, Italy, Simonelli Ed., Vol. 3, Libreriauniversitaria, Italy, pp. 743-746, 2013.
- [15] T. Trencheva, S. Denchev. Intellectual Property Awareness of SULSIT's Students: Survey Results and Curricula Reflection, In Conference Proceedings: 14th International Conference of E-Society, Vilamoura, Algarve, Portugal, IADIS Press, Portugal, pp. 79-86, 2016.
- [16] T. Kiryakova-Dineva, V. Kyurova, and Y. Chankova. Soft Skills for Sustainable Development in Tourism: The Bulgarian Experience. European Journal of Sustainable Development, Vol. 8 Issue: 2 pp. 57-68, 2019