

International Conference  
The Future of Education  
**Virtual Edition**  
18 - 19 June 2020

# Conference Proceedings

**Edited by Pixel**



filo  
diritto  
editore

DAL 2008





# CONFERENCE PROCEEDINGS

## 10<sup>th</sup> International Conference The Future of Education *Virtual Edition*

(Florence, Italy, 18-19 June 2020)



Log in to find out all the titles of our catalogue

Follow Filodiritto Publisher on Facebook to learn about our new products

ISBN 978-88-85813-87-8

ISSN 2384-9509

DOI: 10.26352/E618\_2384-9509

First Edition June 2020

© Copyright 2020 Filodiritto Publisher

*filodirittoeditore.com*

inFOROmatica srl, Via Castiglione, 81, 40124 Bologna (Italy)

*inforomatica.it*

tel. 051 9843125 - Fax 051 9843529 - [commerciale@filodiritto.com](mailto:commerciale@filodiritto.com)

*Translation, total or partial adaptation, reproduction by any means (including films, microfilms, photocopies), as well as electronic storage, are reserved for all the countries. Photocopies for personal use of the reader can be made in the 15% limits for each volume upon payment to SIAE of the expected compensation as per the Art. 68, commi 4 and 5, of the law 22 April 1941 n. 633. Photocopies used for purposes of professional, economic or commercial nature, or however for different needs from personal ones, can be carried out only after express authorization issued by CLEA Redi, Centro Licenze e Autorizzazione per le Riproduzioni Editoriali, Corso di Porta Romana, 108 - 20122 Milano.*

*e-mail: [autorizzazioni@clearedi.org](mailto:autorizzazioni@clearedi.org), sito web: [www.clearedi.org](http://www.clearedi.org)*

# Publication Ethics and Malpractice Statement

The Future of Education Proceedings, edited by Pixel and published by Filodiritto Editore, is a collection of international peer reviewed Conference Proceedings committed to upholding the highest standards of publication ethics. In order to provide readers with Proceedings of highest quality we state the following principles of Publication Ethics and Malpractice Statement.

## 1) Editorial Board

Pixel, the Chief Editor, coordinates the Editorial Board whose members are recognized experts in the field of innovation in education. The Editorial Board members are the experts involved in The Future of Education Conference Scientific Committee. The full names and affiliations of the members of the Editorial Board/Scientific Committee are provided in the related section of the Conference Web Site. The Editorial Office is based at Pixel, Via Luigi Lanzi 12, I-50134 Firenze, Italy. Email: foe@pixel-online.net

## 2) Authors and Authors responsibilities

Authors are obliged to participate in the papers' peer review process, responding to the reviewers' feedback and making the requested corrections, retractions, modifications and/or integrations.

All authors must have significantly contributed to the research work for the paper's production providing real and authentic data.

Authors must have written original papers and are aware that it is forbidden to republish the same paper.

Authors must provide the list of references and disclose all sources of financial support.

Fees required for manuscript processing and publishing are stated on the Conference Registration page.

## 3) Peer-review process

Pixel, as the Chief Editor, ensures a fair double peer-review of the submitted papers for publication.

Peer-review is defined as obtaining advice on individual papers from reviewers' expert in the field.

Papers submitted to The Future of Education Proceedings go through, first of all, an internal review and if they meet the basic requirements, they are sent out for review by experts in the field, who are members of The Future of Education Conference Scientific Committee. The Peer reviewers evaluate and give advice on the papers.

The paper review process is clearly described below.

The reviewers evaluate the submitted papers objectively and present their opinions on the works in the Review Form. Reviewers evaluate papers based on content without regard to ethnic origin, gender, sexual orientation, citizenship, religious belief or political philosophy of the authors. A reviewer who feels unqualified to review the research reported in a manuscript notify the Editor and excludes herself/himself from the review process.

The Chief Editor strives to prevent any potential conflict of interests between the author and the reviewers.

Reviewers should identify relevant published work that has not been cited by the authors. If a reviewer finds any substantial similarity or overlap between the submitted

manuscript and any other published works, she/he should inform the Chief Editor.

Private information or ideas obtained through reviewing the paper must be kept confidential by the reviewers and not used for personal advantage. Papers received for review must be treated as confidential documents. Without any authorization by the Chief Editor, the information of the submitted paper must not be shown to, or discussed with, others.

#### **4) Publication ethics**

The Reviewers must report to the Chief Editor any identified plagiarism, research fabrication, falsification and improper use of humans or animals in research. The Chief Editor strives not to allow any misconduct.

In the event that there is documented misconduct the following sanctions will be applied:

- Immediate rejection of the infringing paper.
- Immediate rejection of every other paper submitted to The Future of Education Proceedings by any of the authors of the infringing paper.
- Prohibition against all of the authors for any new submissions to The Future of Education Proceedings, either individually or in combination with other authors of the infringing manuscript, as well as in combination with any other authors. This prohibition will be imposed for a minimum of three years.
- Prohibition against all of the authors from serving on the Editorial Board (Scientific Committee) of The Future of Education Proceedings.

In cases where the violations of the above policies are found to be particularly outrageous, the Chief Editor reserves the right to impose additional sanctions beyond those described above.

Guidelines for retracting articles are the following:

- Retracting article will be considered if there is clear evidence that the findings are unreliable, either as a result of misconduct, honest error, plagiarism, or if the paper reports unethical research.
- The main purpose of retractions is to correct the literature and ensure its integrity.
- Notices of retraction will be promptly published on the online version of the Proceedings available on The Future of Education Conference website and linked to the retracted article, accurately stating the information of the retracted article and the reason(s) for retraction.
- Articles may be retracted by their author(s) or by the Chief Editor (Pixel). The Chief Editor has the final decision about retracting articles. The Chief Editor will retract publications even if all or some of the authors refuse to retract the publication themselves in case of unethical behaviours.

Authors who wish to enquire about publication of a correction for their article, or who have serious concern that they believe may warrant retraction, should contact the Chief Editor.

#### **5) Copyright and Access**

Copyright and licensing information is clearly described in The Future of Education website at Release for Publication.

The electronic version of the Conference Proceedings will be shared to all the registered participants who paid the registration fee.

**6) Archiving**

The Future of Education Proceedings books are digitally archived on **Google Scholar** and **Academia.edu**

**7) Ownership and management**

The Future of Education Proceedings are managed and edited by Pixel and published by Filodiritto Editore.

**8) Website**

The Future of Education Conference website demonstrates that care has been taken to ensure high ethical and professional standards. It does not contain any misleading information, including any attempt to mimic another journal/publisher's site.

**9) Publishing schedule**

The Future of Education Conference Proceedings are published yearly.

**10) Name of journal**

The proceedings' name Future of Education is unique and cannot be easily confused with another journal. These proceedings have ISSN code from CNR.





## INDEX

<b>Adult Education</b>	<b>17</b>
Changing Occupational Status of VET Teachers and Trainers: The Case of Lithuania <i>Aušra Rutkienė, Genutė Gedvilienė, Vidmantas Tūtlys</i>	18
Restorative Learning: A Theory, an Application, and a Powerful Effect <i>Christine A. Johnston, Gabriella B. Klein</i>	24
The Adult Cultural Awareness Competencies Development through the Theatre Art <i>Genutė Gedvilienė, Egidijus Stancikas</i>	29
The Importance of Using Technology in Education <i>Ekaterina Petrovna Rusakova, Edgar Young</i>	34
The SMILE Project – A Systemic Approach to Creating an Inclusive Educational Environment <i>Anca Colibaba, Irina Gheorghiu, Cintia Colibaba, Ramona Cirsari, Carmen Antonita</i>	38
<b>Art Education</b>	<b>44</b>
A Dictionary for the Collaboration between Schools and Arts Centres <i>Edwin van Meerkerk</i>	45
Active Pedagogy in Art and Design Education – Case Study on the Heritage and Semantics of the Portuguese Graphic Tradition of 'Azulejos' <i>Jorge Brandão Pereira, Heitor Alvelos, Abhishek Chatterjee</i>	49
Exploring Formative Routes, Opportunities, and Events in Music Education <i>Sandrina Milhano</i>	55
<b>Blended Learning</b>	<b>60</b>
Dynamic Framework for Project-Based Learning: Interrelate Students, Faculty and Industry, towards 21 <sup>st</sup> Century Job Market <i>Hesham El Marsafawy, Nahed Matarid, Sherif Badran</i>	61
Research-Based Learning in Digital Teams <i>Tobias Schmohl, Anja Iseke</i>	68
<b>Curriculum Development</b>	<b>73</b>
Content (Linguistic) Knowledge in Language Learning in High School <i>Gayane Markosyan</i>	74

From Learners to Educators – Development of Online Courses by Students for Students <i>Gergana Vladova, Sylvio Rüdian</i>	79
Inter-Curricular Cybersecurity ABET Assessment Perspectives <i>Suzanna E. Schmeelk, Denise Dragos, Joan E. DeBello</i>	85
Teachers' Beliefs about Formative Assessment in the Pupil-Centered Curriculum <i>Petra Pejić Papak, Renata Čepić</i>	90
The Future as a Return to the Past – A Look at the Concept of Energy and its Importance in Education <i>Terezia Jindrova, Matúš Sitkey</i>	97
<b>Education and Healthcare</b>	<b>104</b>
Challenges and Opportunities for Social and Emotional Capacity Building: Suggestions for Educational Contexts from PSSmile Erasmus+ Project <i>Lea Ferrari, Teresa Maria Sgaramella, Vida Drăsuté</i>	105
Coping with Occupational Stressors. Cross-sectional Study in Three Kindergartens <i>Dorin-Gheorghe Triff, Anișoara Pop, Mușata Bocoș</i>	110
Correlations of Emotional Burnout with Self-Efficacy, Quality of Life, and Work Ability in Pre-University Employees <i>Dorin-Gheorghe Triff, Anișoara Pop, Mușata Bocoș</i>	115
Education on Prevention of Burn Injuries <i>Anushka Dimitrova, Petya Trendafilova</i>	120
Nurses' Professional Behaviour in Aggression by the Patient <i>Galina Tchaneva, Petya Trendafilova</i>	127
Psychological Mechanisms of Development of Addictive Behaviour <i>Kakhi Kopaliani, Elene Chomakhidze, Maria Arkania</i>	134
Required Competencies of Managers for Effective Healthcare Management <i>Kamelia Bogdanova, Petya Trendafilova</i>	140
<b>Games and Media in Education</b>	<b>146</b>
(Co)creation & Interaction at the Crossroad of Art, Technology & Special Education. Experimental Workshop with the @postasis Real-Time Multiuser Collaboration Platform <i>Anastasia-Zoi Souliotou, Stavroula Zoi, Manthos Santorineos</i>	147

A Virtual Reality Journey to the University of the Future: What Kind of Impact Could Artificial Intelligence and Learning Analytics Have on Universities? <i>Alice Watanabe, Nadine Fröhlich</i>	153
CySecEscape – Escape Room Technique to Raise Cybersecurity Awareness in SMEs <i>Bettina Schneider, Trupti Zanwar</i>	157
Eco-CEO™: Understand the Circular Economy by Playing <i>Emilia Benvenuti, Lorenzo Forini, Armida Torreggiani, Alberto Zanelli</i>	162
How Artificial Intelligence Can Improve the Academic Writing of Students <i>Tobias Schmohl, Alice Watanabe, Nadine Fröhlich, Dominikus Herzberg</i>	168
Teaching Vocabulary through Games in the EFL Classroom: A Case Study <i>Zhanar Baimbetova</i>	172
<b>Higher Education</b>	<b>179</b>
Attitudes Towards Multiple Choice Questions among Business Students <i>Leiv Opstad</i>	180
COVID-19 Outbreak: A Critical Reflection on Teaching <i>Jowati Juhary</i>	186
Data Loss Prevention in Higher Education <i>Petya Biolcheva, Miglena Molhova</i>	193
Development of Interpersonal Skills to Benefit Interaction and Teamwork in University Students: A Means and Aim in the Learning Process <i>Inés María Muñoz-Galiano</i>	200
Distance Learning: A New Perspective to the Future <i>Irina Gronik</i>	203
Educational Models for IP Protection of Business Identifiers <i>Silviya Todorova</i>	208
Emotional Intelligence versus Intelligence Quotient in Higher Education as a Possible Predictor of Academic and Professional Successful Performance <i>Julia Huisman</i>	213
Generative Model for Cyber Ethical Issues in Education <i>Stoyan Denchev, Tereza Trencheva, Mariyana Nikolova, Svetoslava Dimitrova</i>	217

Impact of Entrepreneurs' Management Qualification on the Competitive Performance of their Businesses <i>Maria Vasilska</i>	222
Impressions on Accreditation as a Tool for Quality Assurance of the Internationalization in Higher Education: Gains and Challenges <i>Sehkar Fayda-Kinik</i>	226
Inventions in IP Education <i>Vladislava Petrova</i>	232
Media Literacy and Higher Education in Epidemical Aspect: A Short Overview <i>Evelina Zdravkova, Tereza Trencheva</i>	239
One Province, Two Education Models: Employers Views of Graduates Produced by Both Conventional and Chinese-Foreign Universities in Guangdong Province, China <i>Wong Wei Chin, Wang Xun, Jing Yanan</i>	243
Practical Guide to Tutor an End-of-Degree Project <i>María D. Odriozola, Elisa Baraibar-Diez, Ignacio Llorente</i>	250
Significance of Entrepreneurs' Education for Competitive Performance in International Business Environment <i>Silviya Georgieva</i>	256
Teaching Model in Economics Education, Based on the Interactive Connection 'Science – Education – Business' <i>Maria Markova</i>	260
Teaching Television Business. Binding Theory to Practice and Practice to Theory <i>Dimitrina Papagalska</i>	267
The Creativity of Tourism Undergraduates as Future Creative Tourism Experts <i>Norbert Beták, Zuzana Sándorová</i>	271
The Necessity of Learning Litigation Procedure in the High School <i>Ekaterina Petrovna Rusakova, Ocaqli Ulvi</i>	276
The Online Campus. Higher Education Institutions in Time of Pandemics <i>Dumitrița Iftode</i>	280
The University Course "Protection of Intellectual Rights" in the Training of a Corporate Lawyer <i>Ekaterina Kupchina</i>	285

Usage of Mathematical Models for Cybersecurity Analysis <i>Alexey Stefanov, Iliyan Ivanov, Ivan Trenchev, Radoslav Stoev, Miglena Trencheva</i>	290
<b>ICT in Education</b>	<b>296</b>
An ICT Based Approach for Italian as L2 in Multicultural Classes <i>Emanuela Leto</i>	297
Analysing Learner Motivation <i>Ana Gimeno</i>	303
Conceptual Design of an AI-Based Learning Assistant <i>Tobias Schmohl, Susanne Schwickert, Oliver Glahn</i>	309
Create 3D Models by Explicitly Describing and Moving the Virtual Camera Using EEG Signals <i>Ivan Trenchev, Dinko Stoykov, Metodi Traykov, Alexey Stefanov, Miglena Trencheva, Iliyan Ivanov</i>	314
Design of a Sensemaking Assistant to Support Learning <i>Dagobert Soergel, Pengyi Zhang</i>	320
Developing Tools for the e-Learning Platform MathE <i>Ana I. Pereira, Florbela P. Fernandes, M. Fátima Pacheco, Paula M. Barros, Flora Silva, Edite Cordeiro, Carla A. S. Geraldés, Clara B. Vaz, Elisa Barros, Inês Barbedo, João P. Almeida, Cristina Martins, Manuel V. Pires</i>	327
Information Communication Technologies and Legal Education Correlation in Russian Federation and European Union <i>Mikhail Nikolayevich Kuznetsov, Ocaqli Ulvi</i>	333
On Robotic Process Automation and its Integration in Higher Education <i>Cornel Turcu, Cristina Turcu</i>	337
Privacy Challenges when Implementing New Technologies in Education <i>Martin Zahariev</i>	343
Redefining Education during a Global Pandemic <i>Diane Boothe</i>	348
Sharing is Caring: A Proposal for the Development of Shared, Semi-Autonomous, Mobile FabLabs to Overcome Obstacles in STEAM Education <i>Thorsten Lomker, Katharina Richter</i>	353
Telementoring: Taking Learning Global <i>Deborah Scigliano</i>	359

The Level of Interactivity in a Virtual Reality Learning Environment: A Design Key Factor	363
<i>Jamil Extremera, Diego Vergara, Manuel P. Rubio, Ana I. Gómez, Pablo Fernández-Arias</i>	
The Promotion of Self-Reflection in Students in Online Education: The Use of Exam Wrapper	369
<i>Maria de Fátima Goulão</i>	
Virtual Reality to Solve Spatial Vision Problems: An Experience in High School	375
<i>Diego Vergara, Pablo Fernández-Arias, María Sánchez, Ana I. Gómez, Jamil Extremera, Manuel P. Rubio</i>	
When the Google Generation Meets Academia: Digital Skills of Tomorrow's Students	380
<i>Siw Olsen Fjørtoft</i>	
<b>Multiculturalism and Social Inclusion</b>	<b>387</b>
Building the Religious Field in School within the Migration Contexts: The Case of Spain	388
<i>Mónica Ortiz-Cobo, Rosella Bianco</i>	
Digital Scaffolding for Non-Traditional Students: Framing Social Interactions in Educational Online-Settings at Universities of Applied Sciences	392
<i>Tobias Schmohl, Tobias Jenert, Katharina Thies, Dennis Schäffer, Kirsten Meyer</i>	
How much is your School Inclusive? Ideas from the Multinlude Project	397
<i>Eleonora Pantò, Enrica Bricchetto</i>	
Intergenerational Education: A Proposal for the Recognition of Diversity and Social Inclusion	403
<i>Inés María Muñoz-Galiano</i>	
<b>Science Education</b>	<b>408</b>
Advances in the Use of the Model of Flipped Classroom with Collaborative Learning as a Helpful Tool to Study Metabolism	409
<i>Miguel Ángel Medina Torres, Ángel Luis García-Ponce, Ángel Blanco-López, Ana M<sup>a</sup> Rodríguez Quesada, María Fernanda Suárez, Francisco J. Alonso Carrión</i>	
Classification Systems of Visual Representations Included in Biology Textbooks	416
<i>Kalliopi Papatheodosiou, Katerina Salta, Dionysios Koulougliotis</i>	
Development and Manufacturing of an Interactive Three-Dimensional Phase Diagram of Carbon Dioxide for Teaching Sessions in Thermodynamics	421
<i>Lina Schulze-Buxloh, Rolf Groß, Kevin Toni Cheng</i>	

Geoethics and New Medias: Sharing Knowledge and Values <i>Vida Drąsutė, Stefano Corradi, Silvia Peppoloni, Giuseppe Di Capua</i>	426
Learning Circular Bio-Economy by Hands-on Science Experiments <i>Giovanna Sotgiu, Armida Torreggiani, Gioacchino Schifino, Annalisa Aluigi, Aleix Barrera-Corominas</i>	431
New Learning Models and Modern Educational Trends for the Future of Education <i>Irena Peteva, Diana Stoyanova, Todor Valchev</i>	437
Subatomic Physics: A Key Component to Secondary Education <i>Jasmine Penney, Svetlana Barkanova</i>	442
RM@Schools: Fostering Students' Interest in Raw Materials and a Sustainable Society <i>Armida Torreggiani, Alberto Zanelli, Marica Canino, Giovanna Sotgiu, Emilia Benvenuti, Lorenzo Forini, Annalisa Aluigi, Eleonora Polo, Renata Lapinska-Viola, Alessandra Degli Esposti</i>	446
<b>Special Needs</b>	<b>453</b>
Paving Educational Pathways towards Sanitation Awareness and Resilience in Afghanistan <i>David Th. Ausserhuber</i>	454
Promoting Diversity: Heterogeneity-Sensitive Teaching of Scientific Writing <i>Tobias Schmohl, Louise Hoffmann</i>	458
Students with a Migrant Background and Special Educational Needs: Discrimination and Specificities <i>Rosella Bianco, Mónica Ortiz-Cobo</i>	463
<b>Students' Assessment</b>	<b>468</b>
St. John's University's New York State Registered Master of Science Degree in Cyber and Information Security <i>Denise Dragos, Suzanna Schmeelk, Joan E. DeBello</i>	469
<b>Studies on Education</b>	<b>474</b>
Can Moral Psychology Inform Moral Education? Some Critical Perspectives <i>Mimmi Norgren Hansson, Niclas Lindström</i>	475
Constructivist Learning Conversations in Writing Centers: Feedback and Reflection as Integrated Tools <i>Saziye Yaman</i>	481

Controversial Issues and Their Role in RE <i>Niclas Lindström</i>	489
Educator Diversity and Student Accomplishment <i>Hardin L.K. Coleman, Katherine C. Griffith, Aaron K.G. Coleman</i>	494
Generation Z is Going to Work. What Are its Expectations? <i>Alexandra Hutanu, Patricea-Elena Berteau, Dumitrița Iftode</i>	502
Preconceptions of Gifted and Ungifted Pupils of Younger School Age on the Selected Phenomenon “Learning” <i>Rebeka Stefania Kolenakova, Jana Duchovicova</i>	507
Research Practice Partnerships and School Improvement <i>Hardin L.K. Coleman, Lynsey Gibbons, Ariel Tichnor-Wagner</i>	514
Sites of Relevance: Popular Culture and Transformative Education <i>Martin Laba</i>	520
Spontaneous Cooperation between Children in Automata Construction Workshops <i>Graça Bidarra, Anália Santos, Piedade Vaz-Rebello, Oliver Thiel, Carlos Barreira, Valentim Alferes, Joana Almeida, Inês Machado, Corinna Bartoletti, Francesca Ferrini, Signe Hanssen, Rolv Lundheim, Jørgen Moe, Joel Josephson, Veneta Velkova, Nelly Kostova</i>	524
<b>Studies on Language Learning</b>	<b>529</b>
Challenges and Opportunities of Croatian EFL Teachers’ Continuous Professional Development for Intercultural Dialogue <i>Matea Butković, Renata Čepić</i>	530
Creation of Relevant Edutainment Scenarios for Language Performance through Learning Games <i>Lizandro Becerra Valderrama</i>	537
Digital Language Learning Challenges in the Context of Inclusion <i>Saule Juzeleniene, Rita Barauskiene</i>	542
Drama-Linguistics Based Story Narration for Young Learners <i>Dönercan Dönük</i>	547
Family Language Policy: Interdisciplinary Components of an Emerging Research Field in regard to Childhood Bilingualism <i>Maria Andritsou, Konstantinos Chatzidimou</i>	551
Impact of Intercultural Communication Apprehension upon Students’ Plurilingual and Pluricultural Competence Development <i>Nemira Macianskiene</i>	557



# Media Literacy and Higher Education in Epidemical Aspect: A Short Overview

Evelina Zdravkova<sup>1</sup>, Tereza Trencheva<sup>2</sup>

University of Library Studies and Information Technologies (ULSIT),  
Sofia, Bulgaria<sup>1,2</sup>

## Abstract

**Introduction:** The modern world has entered a new phase of development, where it has had to form a new type of society in a difficult time - previously referred to as a future challenge. More than 300 million students worldwide are having their education disrupted by Covid-19. Universities haven't faced such level of disruption in generations. However, unlike any point in the past, now we have the ability to continue education even when universities physically close. New questions about how remote-learning can be delivered and improved are raised. An urgent one is the quality of the educational process in isolation and how to preserve the basic teaching principle. **Presentation:** The essence of this approach was not clear in terms of parameters, but it was known that it would be the result of the construction of **a new social phenomenon – education in isolation during a pandemic**. Real-time information sharing and cultural communication is already a fact. The challenge higher education systems face is improving the organization of the learning process and integrating traditional bases into new platforms. They need to be more operational and dynamic, allowing the capacity of huge volumes of data, but also be open to complement and correction. This can be achieved through the collaboration of all teachers from different fields so as to create a dynamic software product that will allow the creation of a system of different aspects of higher education. **The paper aims** to make a short overview of the diversity of forms of learning as a positive in work and how the creative atmosphere at the university motivates students for a meaningful learning process. Another aspect that has been addressed is the fact that, in social isolation, people should not be divided. **Conclusion:** The huge role of media is to educate and bring up individuals. It is the bridge between ruling and vigilant people who complain but also ask questions, verify facts and worry, but also offer solutions. This is why **media literacy** for learners is crucial, especially in times of crisis.

*Keywords: media, Covid-19, higher education, online training, distance learning, social isolation*

## 1. Introduction

The world shut down at home and opened up to a new kind of culture based on socialization through Internet. University education has entered the electronic environment with a flying start and is already a fact. Just as the spirit cannot be quarantined, nor can the thirst for knowledge. Life has moved in a new direction and raises new questions about the way of learning in the future and the opportunities for its improvement. An urgent question is the quality of the learning process. Another one is related to workload – staring at the screen for hours on is exhausting. Lack of direct contact with colleagues and teachers raises the level of anxiety, creates a feeling of insecurity, and leads to disorders.

## 2. Education During a Crisis

The basic principle of remote-teaching is to preserve the interest in the discipline and to develop knowledge in an online environment, which does not contradict the strategic goals of higher education. As Bill Gates said back in 1999: "...the era of personal computers has caused a real revolution that has affected millions of people. It took us where we could not have imagined. ... Today we are embarking on a new great journey.

No one can predict where we will end up on this path, but I am confident that this revolution will touch even more people and move society far forward. Radical changes will occur primarily in communication between people" [1], that change has taken place.

Now the challenge is to improve the system for online-learning. This can be achieved through the joint work of teachers from different fields to create a dynamic software product aimed at research work in universities and education itself.

## 3. Positives and Negatives in Online Education. Advantages and Problems

The variety of educational forms turned out to be a positive. Something more: The right decisions are made based on experience and not just knowledge. [2] Through analysis and case studies, students draw conclusions and make concrete decisions. This is done purposefully so they can reveal their strengths, be active, diverse, and apply what is learned. This example is another new application of the theory of the American philosopher John Dewey [3], where the interaction of students with practical matter makes them more adaptable and more professionally literate. In other words, students placed in a situation with real life problems, guided by the teacher, solve the case, and gain new knowledge.

## 4. Sustainable Survival

Media today are more than ever rushing to create an information environment – dynamic and often noisier than useful. One of the most pressing issues is saving economies, but at a time when we are learning to live with the crisis caused by Covid-19, it is extremely important to have a rational conversation about social distance in terms of education, culture, intellectual capacity. At a distance, we cannot afford to stand divided. And here comes the huge role of the media, whose function is to educate and discipline. It is the bridge between rulers and complainers. But it is also there to ask questions, check facts, offer solutions. This way wandering between the themes of freedom, elections, the pandemic, Covid-19, students are involved in the adventure of information literacy, in particular copyright literacy in the media in the modern world.

The project "Model for research and increase copyright literacy at the media in the university environment", funded by the National Science Fund of the Ministry of Education and Science of the Republic of Bulgaria, considers intellectual property as a law, discipline and science, provokes discussions on the issue with the emphasis on copyright literacy and media literacy of students learning in specialties such as journalism, media, public relations, communications, or more generally in the professional field 3.5 "Social Communications and Information Sciences". Observations show that this competence is not at the required level, there is a real need for additional knowledge and training.

Within the project, the research examines the educational content and programs offered by higher education on the topic, as well as the formation of copyright literacy in the media of students learning in similar specialties in different universities. The accumulated factual information outlines the trend of awareness, level of knowledge and

practical orientation of skills in future professionals.

The results such as creative thinking and copyright competence in the field of media in a university environment will contribute to higher competitiveness of students in the labour market and to the establishment of an active civil society, and this is a prerequisite for advanced problem-oriented education of students, which in turn is a step towards changes in the legal infrastructure of culture in our country.

The significance of the project is due to the growing influence of the media in the international aspect, especially social and online media. In the 21<sup>st</sup> century there is an organized unification of various media industries – newspapers, radio, television, communication networks, in whole media complexes of a new model, that today carry out all the media activities, and soon are about to become a major market of the future.

We are witnessing a new type of mass culture, a new type of organization and management of society through information knowledge and products. The scientific interest in the problems and the current trends in the media industry in terms of copyright literacy in the media in the university environment is provoked by the need to fill some gaps in research in the media industry, as well as the fragmentary nature of research related to copyright aspects of media in a university environment.

We can summarize that the current project is interdisciplinary in its nature because it includes different areas of knowledge and helps to increase the media literacy and to solve digital divide problems. It also has a direct application in education at various levels and especially in the university environment. The current state of the studied issues shows that the problem of the media industry from the point of the legal framework in the field of copyright and related rights has not been studied. In recent years, the need to address it has been recognized, but there have been no concrete results.

## **5. Results**

Human behaviour is different and research among our students shows that the lack of a system for copyright protection of journalists and their authors' materials raises the need to develop an information campaign and training courses to ensure information comfort for authors and trust for authenticity among users of such information. There is a need for the media to pay more attention to the new conditions faced by intellectual property in the media, to start preparation and consultations for the creation of a sustainable and effective strategy for improving the intellectual property protection/competence of their employees. Intellectual legal aspects in the media will become a part of new discipline that would train current and future journalists on intellectual property and copyright issues.

## **6. Conclusion**

The media work around the clock to meet society's expectations. It is the history that will tell how successful they are. A report by the EBU [4], released a few days ago, found that the escalation of the Covid-19 situation around the world is increasingly directing the majority of the audience to the public media in order to receive reliable news and information based on verified facts. According to Liz Corbin, Deputy Director Media and Head of News at the European Broadcasting Union: "In times of national or international crisis, millions of people turn to public service television, radio... In the current crisis situation, public media journalists give their best they are able, in order to provide true, accurate and complete information as quickly as possible". Therefore, the work of these people must be respected, and the knowledge of this must be part of the learning process of students.

### **Acknowledgement**

This research would not have been possible without the financial assistance of the following project: “Model for research and increase copyright literacy at the media in the university environment”, financed by National Science Fund of the Ministry of Education and Science of the republic of Bulgaria with Contract № KP-06-M35/1 from 18.12.2019, led by Eng. Evelina Lyubomirova Zdravkova-Velichkova, PhD.

### **REFERENCES**

- [1] Gatlin J. 1999 Bill Gates: The Path to the Future. Avon Books, Inc., New York 1999. p. 189.
- [2] Kastels M. 2004. The rise up of the network society. Sofia, LiK, 2004, p. 82.
- [3] John Dewey on Education: “Impact & Theory”. Study.com. March 23, 2018. Retrieved 10.04.2020. <https://study.com/academy/lesson/john-dewey-on-education-impact-theory.html>
- [4] Rainford, Claire. Coronavirus crisis – EBU calls on governments to uphold independence of Public Service Media. <https://www.ebu.ch/news/2020/04/coronavirus-crisis---ebu-calls-on-governments-to-uphold-independence-of-public-service-media>
- [5] Mavrevski, Radoslav, Traykov, Metodi, Trenchev, Ivan. Multitasking in Embedded System Designs. International journal of online and biomedical engineering, Volume 15, Issue 9, pp. 44-57. Published 2019.
- [6] Peteva, I., S. Denchev, I. Trenchev (2019) Mixed reality as new opportunity in the preservation and promotion of the cultural and historical heritage, EDULEARN19 Proceedings, pp. 2451-2456.
- [7] Dimitrova, Svetoslava. E-content – intellectual property aspects // 11<sup>th</sup> International Conference on education and new learning technologies, EDULEARN19 Proceedings, Palma, Mallorca, Spain, Vol. 11, 2019, pp. 6061-6065.
- [8] Trencheva, Ivan, R. Mavrevski, M. Traykov, D. Stoykov. (2019) Mathematical approaches for creation of complex 3d models and their application in education. In: Conference Proceedings ICERI 2019, pp 4909-4914.
- [9] Toleva-Stoimenova, S., D. Christozov, K. Rasheva-Yordanova. Introduction of Emerging Technology into Higher Education Curriculum: The Case of Blockchain Technology as Part of Data Science Master Program. In: Conference Proceedings of the 9<sup>th</sup> International Conference on Future of Education, Florence, Italy, 2019 pp. 186-190.
- [10] Rasheva-Yordanova, K., S. Toleva-Stoimenova, B. Nikolova, I. Kostadinova. Informing and Digital Literacy in Conditions of Digital Divide. In: Conference Proceedings of 10<sup>th</sup> Annual International Conference of Education, Research and Innovation (ICERI), Seville, Spain, 2017, pp. 6827-6832.

## Authors

### A

Aaron K.G. Coleman 494  
 Abhishek Chatterjee 49  
 Alberto Zanelli 162, 446  
 Aleix Barrera-Corominas 431  
 Alessandra Degli Esposti 446  
 Alexandra Hutanu 502  
 Alexey Stefanov 290, 314  
 Alice Watanabe 153, 168  
 Alison Larkin Koushki 564  
 Ana Gimeno 303  
 Ana I. Gómez 363, 375  
 Ana I. Pereira 327  
 Ana M<sup>a</sup> Rodríguez Quesada 409  
 Anália Santos 524  
 Anastasia-Zoi Souliotou 147  
 Anca Colibaba 38  
 Ángel Blanco-López 409  
 Ángel Luis García-Ponce 409  
 Angelika Neudecker 614  
 Anișoara Pop 110, 115  
 Anja Iseke 68  
 Annalisa Aluigi 431, 446  
 Anushka Dimitrova 120  
 Ariel Tichnor-Wagner 514  
 Armida Torreggiani 162, 431, 446  
 Aušra Rutkienė

### B

Bettina Schneider 157  
 Borbála Samu 602

### C

Carla A. S. Geraldès 327  
 Carlos Barreira 524  
 Carmen Antonita 38  
 Christine A. Johnston 24  
 Cintia Colibaba 38  
 Clara B. Vaz 327  
 Corinna Bartoletti 524  
 Cornel Turcu 337  
 Cristina Martins 327  
 Cristina Turcu 337

### D

Dagobert Soergel 320  
 David Th. Ausserhuber 454  
 Deb L. Marciano 585  
 Deborah Scigliano 359  
 Denise Dragos 85, 469  
 Dennis Schäffer 392  
 Diana Stoyanova 437  
 Diane Boothe 348  
 Diego Vergara 363, 375  
 Dimitrina Papagalska 267  
 Dinko Stoykov 314  
 Dionysios Koulougliotis 416  
 Dominikus Herzberg 168  
 Dönercan Dönük 547  
 Dorin-Gheorghe Triff 110, 115  
 Dritan Gerbeti 619  
 Dumitrița Iftode 280, 502

### E

Edgar Young 34  
 Edite Cordeiro 327  
 Edwin van Meerkerk 45  
 Ekaterina Kupchina 285  
 Ekaterina Petrovna Rusakova 34, 276  
 Elene Chomakhidze 134  
 Eleonora Pantò 397  
 Eleonora Polo 446  
 Elisa Baraibar-Diez 250  
 Elisa Barros 327  
 Emanuela Leto 297  
 Emilia Benvenuti 162, 446  
 Enrica Bricchetto 397  
 Evelina Zdravkova 239

### F

Fabian Brod 614  
 Flora Silva 327  
 Florbela P. Fernandes 327  
 Francesca Ferrini 524  
 Francisco J. Alonso Carrión 409

### G

Gabriella B. Klein 24  
 Galina Tchaneva 127  
 Gayane Markosyan 74  
 Genutė Gedvilienė 18, 29, 609

Gergana Vladova 79  
 Gioacchino Schifino 431  
 Giovanna Sotgiu 431, 446  
 Giuseppe Di Capua 426  
 Graça Bidarra 524

## H

Hardin L.K. Coleman 494, 514  
 Heitor Alvelos 49  
 Hesham El Marsafwy 61

## I

Ignacio Llorente 250  
 Iliyan Ivanov 290, 314  
 Inês Barbedo 327  
 Inês Machado 524  
 Inés María Muñoz-Galiano 200, 403  
 Irena Peteva 437  
 Irina Gheorghiu 38  
 Irina Gronik 203  
 Ivan Trenchev 290, 314

## J

Jamil Extremiera 363, 375  
 Jana Duchovicova 507, 575  
 Jasmine Penney 442  
 Jing Yanan 243  
 Joan E. DeBello 85, 469  
 Joana Almeida 524  
 João P. Almeida 327  
 Joel Josephson 524  
 Jorge Brandão Pereira 49  
 Jørgen Moe 524  
 Jowati Juhary 186  
 Julia Huisman 213

## K

Kakhi Kopaliani 134  
 Kalliopi Papatheodosiou 416  
 Kamelia Bogdanova 140  
 Katerina Salta 416  
 Katharina Richter 353  
 Katharina Thies 392  
 Katherine C. Griffith 494  
 Kevin Toni Cheng 421  
 Kirsten Meyer 392  
 Konstantinos Chatzidimou 551

## L

Lea Ferrari 105, 571  
 Leiv Opstad 180  
 Lekë Pepkolaj 619  
 Lina Schulze-Buxloh 421  
 Lizandro Becerra Valderrama 537  
 Lorenzo Forini 162, 446  
 Louise Hoffmann 458  
 Lynsey Gibbons 514

## M

M. Fátima Pacheco 327  
 Manthos Santorineos 147  
 Manuel P. Rubio 363, 375  
 Manuel V. Pires 327  
 Maria Andritsou 551  
 Maria Arkania 134  
 María D. Odriozola 250  
 Maria de Fátima Goulão 369  
 María Fernanda Suárez 409  
 Maria Markova 260  
 María Sánchez 375  
 Maria Vasilska 222  
 Marica Canino 446  
 Mariia Fedotenko 581  
 Mariyana Nikolov 217  
 Martin Laba 520  
 Martin Zahariev 343  
 Matea Butković 530  
 Matúš Sitkey 97  
 Metodi Traykov 314  
 Miglena Molhova 193  
 Miglena Trencheva 290, 314  
 Miguel Ángel Medina Torres 409  
 Mikhail Nikolayevich Kuznetsov 333  
 Mimmi Norgren Hansson 475  
 Mónica Ortiz-Cobo 388, 463  
 Muşata Bocoş 110, 115

## N

Nadine Fröhlich 153, 168  
 Nahed Matarid 61  
 Nelly Kostova 524  
 Nemira Macianskiene 557  
 Niclas Lindström 475, 489  
 Nikolai Rohmann 614  
 Norbert Beták 271

**O**

Ocaqli Ulvi 276, 333  
 Oliver Glahn 309  
 Oliver Thiel 524

**P**

Pablo Fernández-Arias 363, 375  
 Patricea-Elena Berteia 502  
 Paula M. Barros 327  
 Pengyi Zhang 320  
 Petra Pejić Papak 90  
 Petya Biolcheva 193  
 Petya Trendafilova 120, 127, 140  
 Piedade Vaz-Rebello 524

**R**

Rachel Sage 624  
 Radoslav Stoev 290  
 Ramona Cirmsari 38  
 Rasa Didžiulienė 609  
 Rebeka Stefania Kolenakova 507, 575  
 Renata Čepić 90, 530  
 Renata Lapinska-Viola 446  
 Rita Baranauskiene 524  
 Rolf Groß 421  
 Rolv Lundheim 524  
 Rosella Bianco 388, 463

**S**

Sandrina Milhano 55  
 Saule Juzeleniene 542  
 Saziye Yaman 481  
 Scott Solberg 571  
 Sehkar Fayda-Kinik 226  
 Shannon Parks 564  
 Sherif Badran 61  
 Sidiť Duraj 619  
 Signe Hanssen 524  
 Silvia Peppoloni 426  
 Silviya Georgieva 256  
 Silviya Todorova 208  
 Siw Olsen Fjørtoft 380, 595  
 Sofia Cramerotti 590  
 Stancikas Egidijus 29  
 Stavroula Zoi 147  
 Stefano Corradi 426  
 Stoyan Denchev 217

Susanne Schwickert 309  
 Suzanna E. Schmeelk 85  
 Svetlana Barkanova 442  
 Svetoslava Dimitrova 217  
 Sylvio Rüdian 79

**T**

Teresa Maria Sgaramella 105  
 Tereza Trencheva 217, 239  
 Terezia Jindrova 97  
 Thorsten Lomker 353  
 Tobias Jenert 392  
 Tobias Schmohl 68, 168, 309, 392, 458  
 Trupti Zanwar 157  
 Todor Valchev 437

**V**

Valentim Alferes 524  
 Veneta Velkova 524  
 Vida Drąsutė 105  
 Vidmantas Tūtlys 18  
 Vladislava Petrova 232

**W**


























Wang Xun 243  
 Wong Wei Chin 243

**Z**

Zhanar Baimbetova 172  
 Zuzana Sándorová 271



# The scientific committee of the Tenth Edition of the International Conference **The Future of Education:**

-  Robert Pucher - University of Applied Sciences Technikum Wien (Austria)
-  Maria Markova - University of National and World Economy (Bulgaria)
-  Martin Laba - Simon Fraser University (Canada)
-  Don Kiraly – University of Mainz (Germany)
-  Emer Ring - University of Limerick (Ireland)
-  Ida Cortoni - Sapienza University (Italy)
-  Silvia Dell'Acqua - European University Institute (Italy)
-  Elisabetta Delle Donne - Pixel (Italy)
-  Luisa Panichi - University of Pisa (Italy)
-  Alberto Parola - University of Turin (Italy)
-  Maria Ranieri - University of Florence (Italy)
-  Nahed Emaish - University of Jordan (Jordan)
-  Vida Drasute - Kaunas University of Technology (Lithuania)
-  Anca Colibaba - GR.T. Popa University / EuroED Foundation (Romania)
-  Stefan Colibaba - Al.I. Cuza University (Romania)
-  Tatiana Sidorenko - Tomsk Polytechnic University (Russian Federation)
-  Karine Chiknaverovala - MGIMO University (Russian Federation)
-  Tatiana Kharitonova - The State Hermitage Museum (Russian Federation)
-  Martin Dvorak - Södertörns University (Sweden)
-  Julia Huisman - Stenden University of Applied Sciences (The Netherlands)
-  Vildan Özdemir - Mersin University (Turkey)
-  Dönercan Dönük - Mersin University (Turkey)
-  Joseph Vancell - University of Hull (United Kingdom)
-  Perry Binder - Georgia State University (United States)
-  Diane Boothe - Boise State University (United States)
-  Michael D. Santonino III - Embry-Riddle Aeronautical University (United States)
-  Michael Searcy - Somerset Community College (United States)
-  Haohsiang Liao - Massachusetts Institute of Technology (United States)
-  Hardin L. K. Coleman - Boston University / Wheelock College of Education and Human Development (United States)
-  Deb L. Marciano - Valdosta State University (United States)



CONFERENCE SECRETARIAT:

PIXEL

Via Luigi Lanzi, 12 - 50134 Firenze (Italy)

Tel. +39-055-48 97 00

Fax. +39-055-46 288 73

E-mail: [foe@pixel-online.net](mailto:foe@pixel-online.net)

web site: <http://www.pixel-online.net>

*Conference Web Site:*

**<http://conference.pixel-online.net/FOE/>**

ISSN 2384-9509