A Report from the International Scientific Conference “Theoretical and Practical Aspects of Distance learning” DLCC2020 (www.dlcc.us.edu.pl) entitled “Innovative Educational Technologies, Tools and Methods for E-learning”, held at the University of Silesia online, Poland, October 12th and 13th, 2020

The 12th edition of the International Scientific Conference, “Theoretical and Practical Aspects of Distance learning” DLCC2020 (www.dlcc.us.edu.pl) was held under the theme “Innovative Educational Technologies, Tools and Methods for E-learning” and reported results of the FITPED project and MOOC for Educational Sciences. The conference was held on October 12th and 13th, 2020, at the University of Silesia online. It was organised by the Faculty of Arts and Educational Sciences in Cieszyn, the Faculty of Computer Science and Materials Sciences in Sosnowiec and the University of Silesia in Katowice (Poland). Since the conference took place during the COVID-19 pandemic, and was held online using Adobe Connect and virtual rooms.

The Conference was organized under the auspices of the Rector of the University of Silesia in Katowice – Prof. dr hab. Andrzej Kowalczyk, Dean of the Faculty of Social Sciences – Prof. dr hab. Zenon Gajdzica, Dean of the Faculty of Arts and Educational Sciences – Prof. dr hab. Krzysztof Bąk, Head of the Institute of Pedagogy – Prof. dr hab. Ewa Jarosz, Dean of the Faculty of Computer Science and Materials Science – Prof. dr hab. Danuta Stróż, and Chair of the Institute of Computer Science – Prof. dr hab. inż. Piotr Porwolik.
The co-organisers were the University of Ostrava (Czech Republic), the Silesian University in Opava (Czech Republic), the Constantine Philosopher University in Nitra (Slovakia), the Twente University (the Netherlands), the University of Extremadura (Spain), the Curtin University in Perth (Australia), the Borys Grinchenko Kiev University (Ukraine), the Herzen State Pedagogical University of Russia (Russia), the Dniprodzerzhinsk State Technical University (Ukraine), the Ministry of Science and Higher Education (Poland), the Polish Pedagogical Association (Branch in Cieszyn, Poland), the Polish Scientific Association of Internet Education, IADIS – International Association for the Development of the Information Society, and SEA – the Polish Academic E-Learning Association.

The conference topics comprised the following thematic sections:

**Innovative Educational Technologies, Tools and Methods for E-learning**
- Educational Technologies for e-learning;
- Modern ICT Tools for e-learning – review, implementation, opportunities for effectiveness learning and teaching;
- Innovative Methods for e-learning – theoretical and practical aspects;
- MOOCs – the methodology of design, conducting, implementation and evaluation;
- Artificial intelligence (AI), augmented reality (AR), virtual reality (VR);
- Selected Web 2.0 and Web 3.0 technologies;
- LMS, CMS, VSCR, SSA, and CSA;
- Cloud computing environment, social media, multimedia resources;
- (video)tutorial design;
- Simulations, models in e-learning and distance learning;
- Networking, distance learning systems;
- M-learning.

**E-learning and Internationalisation in higher education**
- E-environment and Cyberspace;
- Contemporary trends in world education – globalization, internationalization, mobility;
- The legal, social, human, scientific and technical aspects of distance learning and e-learning in different countries;
- European and national standards of e-learning’s quality evaluation;
- The psychological and ethical aspects of distance learning and e-learning in different countries;
- Collaborative learning in e-learning;
- The E-environment of the University;
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- SMART Universities and SMART Technology in education;
- E-learning in a sustainable society;
- Comparative approaches.

**E-learning and STEM Education**

- Robots and Coding in education;
- Immersive learning environments. Blockchain. Bots;
- The Internet of things. 3D printing;
- STEM education – contemporary trends and challenges;
- Successful examples of e-learning;
- Distance learning in the humanities and science;
- The quality of teaching and training;
- The evaluation of synchronous and asynchronous teaching and learning; methodology and good examples.

**Development of Key and Soft Competences in E-learning**

- The effective development of teachers’ digital skills;
- Key competences and soft skills in the digital society;
- The use of e-learning in improving the level of students’ digital competences;
- E-learning for the humanities;
- E-learning for science and technologies;
- E-Learning and Lifelong Learning;
- Self-learning based on Internet technology.

DLCC conferences are traditionally organised as a part of international projects and this one was an opportunity for the presentation of research results, in particular of *E-learning as a road to communicating in the multicultural environment*, supported by the International Visegrad Fund (IVF) in 2009. The conferences held from 2014 to 2018 were the essential events to summarise the results of the 4-year-long project entitled IRNet “International Research Network for the Study and Development of New Tools and Methods for Advanced Pedagogical Science in the Field of ICT Instruments, E-Learning and Intercultural Competences” (www.irnet.us.edu.pl). The project has been carried out within the 7th Framework Program and financed by the European Commission and the Polish Ministry of Science and Higher Education. The start of the new international project “FITPED – Work-based Learning in Future IT Professionals’ Education” (www.fitped.eu), involving Constantine the Philosopher University in Nitra, Slovakia (coordinator), the University of Silesia in Katowice, Poland, the Pedagogical University of Cracow, Poland, Mendel University in Brno, Czech
Republic, University of Las Palmas de Gran Canaria, Spain, Helix5, Netherlands, and Teacher.sk, Slovakia, was determined by the digitization of the society and the automation of many processes which provide new opportunities and types of jobs. The number of employees employed in the IT sector is continually growing. Employers in the European Union thus state that there is an increasing lack of IT specialists, mainly in the field of software development, data analysis and data science.

Experts from 10 countries, namely Australia, Bulgaria, Czechia, Poland, Portugal, Russia, Slovakia, Spain, Ukraine, and Turkey, reflected on innovative educational technologies, tools and methods for e-learning, as they presented their research results, contemporary trends and scientific, as well as an educational projects devoted to MOOCs, Artificial intelligence (AI), augmented reality (AR), virtual reality (VR), Selected Web 2.0 and Web 3.0 technology, LMS, CMS, STEM, and other topics related to mobile learning.

The speakers from the Universidade Lusia de Lisboa (Portugal), the Comenius University in Bratislava (Slovakia), Plovdiv University “Païsii Hilendarski” (Bulgaria), Borys Grinchenco Kyiv University (Ukraine), Gdansk University of Technology (Poland), Herzen State Pedagogical University of Russia, St. Petersburg (Russia), Jagiellonian University (Poland), Warsaw University (Poland), Silesian University in Opava (Czech Republic), University of Silesia in Katowice (Poland), Lisbone Lusiada University, Lisbone (Portugal), K.D. Ushynskyi South Ukrainian National Pedagogical University (Ukraine), Mykhailo Drahomanov National Pedagogical University, Kyiv, (Ukraine), Dniprovsk State Technical University (Ukraine), University of Ostrava (Czech Republic), Pedagogical University of Krakow (Poland), University of Social Sciences and Humanities in Warsaw (Poland), Instituto Superior de Tecnologias Avançads (Portugal), Makarenko Sumy State Pedagogical University (Ukraine), Ternopil University (Ukraine), Kherson State University (Ukraine), Izmail State University of Humanities (Ukraine), and other educational institutions delivered lectures providing insights into interesting studies, presented their recent research results and discussed their further scientific work (Smyrnova-Trybulska, 2020, pp. 11–12).

The guests and conference members were welcomed by the Dean of the Faculty of Social Sciences Prof. dr hab. Zenon Gajdzica, Vice-Dean of the Faculty of Arts and Sciences of Education on Cooperation, Barbara Głyda, PhD, Head of the Institute of Computer Science Prof. dr hab. inż. Piotr Porwoli.

The programme comprised two plenary lectures, two conference sessions and a round table debate. Keynote speakers of the conference were well-known experts and scientists. Pedro Isaias (Australia) entitled his lecture “Just Blend It! Design Framework For Blended Learning In Higher Education”; Antonio dos Reis (Por-
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tugal) presented the lecture: “How Can You Make An Unforgettable Presentation” (Photo 1); Nataliia Morze (Ukraine) presented the report on “Providing Quality Education During Times of The Pandemic” (Photo 2); Tomayess Issa (Australia) delivered a presentation “Reflective Journal Assessment To Enhance Students’ Personal And Professional Skills”.

Pedro Isaias, PhD, is an associate professor at the Information Systems and Technology Management School of The University of New South Wales (UNSW – Sydney), Australia. Previously, he was an associate professor at the University of Queensland, Brisbane, Australia. Before moving to Australia, he worked at the Universidade Aberta (Portuguese Open University) in Lisbon, Portugal, where he was responsible for several courses and served as the head of the master degree program in Management/MBA. Pedro Isaias was the head of the master’s degree program in Electronic Commerce and Internet for 10 years. He holds a PhD in Information Management (in information and decision systems) from the NOVA University of Lisbon. He is also the author of several books, book chapters, papers, and research reports, all in the field of information systems. He headed several conferences and workshops within the aforementioned research field. He has also been responsible for the scientific coordination of several EU-funded research projects. Moreover, he is a member of the editorial board of several journals and program committee member of several conferences and workshops. Currently, he conducts research activity related to MIS in general and, more specifically, to learning technologies, data analytics, business intelligence, digital transformation, e-business, and WWW related areas. He is the President of the International Association for Development of the Information Society (IADIS) since 2001. At the International Association for Development of the Information Society: President of the association with more than 2,000 associate members and 11 staff members; of global management and strategic planning activities; responsible for the Scientific Advisory Board; Co-ordinator of ISRLab (Information Society Research Lab); responsible for EU project coordination, elaboration and proposals. He is member of the Australian Computer Society and ASCILITE; Senior Fellow of the Higher Education Academy (HEA) in the UK (April 2018); and supervisor of more than 60 doctoral and master theses and dissertations. He is member of over 30 International Conferences and Workshops Program Committees; member or keynote/invited speaker for over 20 conferences and workshops; member of journal review and editorial boards of 5 high-scoring journals, and a lot of Conference Proceedings indexed in WoS and Scopus.

Nataliia Morze, Professor, dr hab., Vice Rector on IT, Chief of the Department of Computer Science at the Borys Grinchenko Kyiv University, Ukraine.
State expert of the National ICT Program in Education, Elaboration of the National System of In-Service Teacher Training and School Heads Training in accordance with the ICT. Trainer of the Microsoft program “Cooperation learning”. She is responsible for the Elaboration of the Teachers Technological Standards on National Level, Senior Trainer of the Word Intel program “Teach for the Future”; elaboration of distance learning courses for teachers and students; elaboration of the State programme of computer science for professionals, high schools and universities; introduction and implementation of computer science in education of Ukraine. She is also teachers’ trainer in computer science. Furthermore, she is the author of more than 300 publications, articles and monographs (70 books on e-learning, critical thinking, interactive methods, and IT-teaching). The title of her keynote lecture was “Big data in Education”.

Antonio dos Reis, PhD, retired professor. The Graal Institute’s Head and scientific coordinator, teacher and consulting adviser in e-learning multimedia projects. Coordinator of the research project Teacher’s skills for the school of the future. Consulting adviser of the university for the implementation of virtual classrooms; consulting adviser of WeZupport, Sweden, for the e-Campus global project; consulting adviser of the Move Nations Course concerned with 3D environments in education. Coordinator of the post-graduation course Pedagogic and didactic skills in e-learning and multimedia (2008/09); Coordinator of the post-graduation course in Pedagogic and didactic skills in e-learning, teacher at Azores University (2007/08); Coordinating trainer of teacher trainers in the Portuguese Ministry of Education. Distance learning platform, Webmaster and multimedia coordinator in 2006 ISEG UTL (Technical University Lisbon). Scientific Coordinator of the pilot project The school of the future – Today. International conferences key speaker and conference chair at Azores – Online learning conference and Workshop 2008/2009. Education website coordinator at: www.thegraal.net. More than 500 videos of conferences and pedagogic contents, e-round tables and debates. YouTube Contents channel: www.youtube.com/user/antonodreis. Moodle platform administrator: http://thegraal.ccems.pt/. The title of his keynote lecture was “500 Years around the world in the road of digital society”.

Among the speakers of the Conference Session, “Innovative Educational Technologies, Tools and Methods for E-learning” (Moderated by Magdalena Roszak and Mariusz Marczak) which was held on October 12th, 2020 (Monday) (online in Adobe Connect) were Anna Ślósarz (Poland) with a presentation on “The Moodle Community Platform Versus The Microsoft Teams Corporate Application”; Mariusz Boryczka, Małgorzata Przybyla-Kasperek, Iwona Polak, Arkadiusz Nowakowski, Eugenia Smyrnova-Trybulska, Katarzyna Trynda, Beata Zielosko, and Krzysztof Żabiński (Poland) with a presentation “FITPED – Project
Progressing And Some First Results”; Tomas Barot, Lilla Korenova, Radek Krpec, and Renata Vagova (Slovakia) with a presentation on “The Utilization Of Mathematical Software In Favor Of Tutoring Processes; Mariusz Marczak (Poland) with a presentation “Using Linguistic Analysis To Funnel Student Translators’ Post-Online-Exchange Reflections Towards Selected Aspects Of Translator Competence”; David Buchtel and Dana Vynikarová (Czechia) with a presentation on “The Connection Between Ontouml And Knowledge Representation Model Of Student Activities”, Todorka Glushkova, Stanimir Stoyanov, Veneta Tabakova-Komsalova, Maria Grancharova-Hristova, and Irina Krasteva (Bulgaria) with a presentation on “An Approach To Teaching Artificial Intelligence In School”.

An E-round table debate on “The Tools to Be a Good Teacher and a Good Student in the Digital Age” was held during the second day of the Conference. It was chaired by Antonio dos Reis and Eugenia Smyrnova-Trybulska (Photo 3). The topics of the E-round table debate were conducted online in Adobe Connect and these were as follows:

1) Challenges of Online Learning and Teaching in the Covid-19 Pandemic Time. Or Could We Ensure the Quality of Education?
2) E-Learning as an Interdisciplinary Science; Methodical, Scientific, and Legal Aspects – International Experience;
3) New Competences and New Specialization in the Digital Age and in the Global World;
4) Active Learning Methods in Online Education.

Participants:
Xabier Basogain (Spain)
Tomayess Issa (Australia)
Nataliia Morze (Ukraine)
Olga Yakovleva (Russia)
Paulo Pinto (Portugal)

A short discussion was held after each lecture and every speaker responded to 1–2 question from the audience (Photo 4). The moderators mentioned some conclusions at the end of the sessions.

The second day of the conference, October 13th, 2020 (Tuesday), also comprised: a plenary and conference session, as per the Conference Programme.

The speakers during the second day of the conference were Iwona Mokwa-Tarnowska (Poland) “High-Quality Online Language Teaching During The Pandemic – The Gdansk University of Technology Experience”; Nuno Silva, Izabel Alvarez, Paulo Pinto (Portugal) “E-Learning Implementation – From Action To Equity In An International Higher Education Institution”; Pedro Ramos Brandao
Eugenia Smyrnova-Trybulska (Portugal) “Digital Transformation Of The Learning Environment In The University”; Eugenia Smyrnova-Trybulska (Poland), Nataliia Morze (Ukraine), and Iryna Sekret (Turkey) “MOOCs As Contemporary Tools Of Learning And Teaching Online: Conception Of The MOOCs ‘Contemporary ICT-Tools And Method For Creative Education’”; Svetlana Kulikova and Olga Yakovleva (Russian Federation) “Individualised Paths Of Mastering An Electronic Course Content”; Tomasz Kopczyński (Poland) “Chooses Aspects Of Moocs ‘Introduction To The Computational Thinking’”; Eugenia Smyrna-Trybulska, Jolanta Szulc, and Renata Frączek (Poland) “Moocs – The Sources Of Scientific Information In The Internet – Conception And Main Assumption”.


At the end of the conference, Eugenia Smyrnova-Trybulska presented conclusions and invited everyone to participate in the next edition of the conference DLCC2021.
Photo 1. Pedro Isaias (Australia) delivered the lecture “Just Blend It!: Design Framework for Blended Learning In Higher Education”, online video in Adobe Connect
Source: Copy Screen from Adobe Connect conference session’s virtual room

Photo 2. Nataliia Morze (Ukraine) presented the report “Providing Quality Education During a Pandemic”
Source: Copy Screen from Adobe Connect conference session’s virtual room
Photo 3. Participants of the E-round table debate on the tools required of a good teacher and a good student in the digital age, moderated by Antonio dos Reis (Portugal) (second left) and Eugenia Smyrnova-Trybulska (Poland) (the first left). The participants were experts from different countries: Paulo Pinto (Portugal) (third left), Olga Yakovleva (Russia) (fourth left), Tomayess Issa (Australia) (fifth left), who participated in person and in the remote mode.

Source: Copy Screen from Adobe Connect conference session.
Photo 4. Participants of the E-round table debate on the tools to be a good teacher and a good student in the digital age, moderated by Antonio dos Reis (Portugal) (third left) and Eugenia Smyrnova-Trybulska (Poland) (the first left). The participants were experts and scientists from different countries: Iwona Mokwa-Tarnowska (Poland) (second left, the first line), Paulo Pinto (Portugal) (fourth left), Olga Yakovleva (Russia) (the first left, the second line), Tomayess Issa (Australia) (second left), Nataliia Morze (Ukraine) (third left), and Xabier Basogain (Spain) (fourth left), who participated in remote mode.

Source: Copy Screen from Adobe Connect conference session
Photo 5. DLCC2020 conference poster
Author of the poster: Ireneusz Olsza