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Internationalisation of Education and Competences Approach in the Digital World – Experts' Opinions (A Round Table Debate Hosted by IRNet Project Researchers)

Abstract

The article focuses on the internationalisation of education and competences approach in the digital world as viewed by experts from different countries: the Netherlands, Poland, Turkey, Russia, and Ukraine. The article aims to provide opinions, views, and reflections on important topics addressed by the IRNet project and *DLCC2017* Conference participants.

K e y w o r d s: internationalisation, competences, higher education, experts, digital world

Introduction

Digital technologies provide innovative openings to partnerships and exchanges, and pose a number of challenges, which are addressed in the 2030 Agenda for Sustainable Development. To unleash their full potential, these technologies need to be open – aiming to reduce the differences and inequalities instead of reinforcing them – and must help preserve "respect for human rights and dignity." Thus, the development of digital literacy has become crucial for educators (Working Group on Education, 2017).

The European Union provides funding, and has launched several policy initiatives and interventions on the digitalisation of education, outlined, e.g. in "Europe 2020 Strategy," "Digital Agenda for Europe," "Agenda for New Skills and Jobs," "Innovation Union," "Opening up Education: Innovative Teaching and Learning for All through New Technologies and Open Educational Resources," "DigComp 2.0: The Digital Competence Framework for Citizens," "A European Framework for Digitally Competent Educational Organisations," "A Digital Single Market Strategy for Europe," "A New Skills Agenda for Europe: Working Together to Strengthen Human Capital, Employability and Competitiveness," the Digital Skills and Jobs Coalition, and "Strategic Framework – Education and Training 2020." Moreover, European Digital Skills Awards for outstanding projects contributing to digital skills development have been launched.

"Digital Agenda for Europe" contains over one hundred actions to be taken, 23 of which are the responsibility of Member States, and the rest – of the EU. The Actions fall under 7 pillars: 1) Digital Single Market; 2) Interoperability and Standards; 3) Trust and Security; 4) Very Fast Internet; 5) Research and Innovation; 6) Enhancing E-skills; 7) ICT for Social Challenges, and are reviewed on a regular basis. Different pillars contribute to the digitalisation of education, for instance:

- Action 16 – developing a code of EU online rights – pillar 1;
- Action 24 – adoption of European interoperability strategy and framework – pillar 2;
- Action 46 – obliging Member States to develop and make operational national broadband plans – pillar 4;
- Action 53 – financial support to joint ICT research infrastructures and innovation clusters – pillar 5;
- Action 54 – developing a new generation of web-based applications and services – pillar 5;
- Action 66 – compelling Member States to promote long-term e-skills and digital literacy policies – pillar 6;
- Action 68 – mainstreaming e-learning into national policies of Member States – pillar 6;

- Action 79 – developing a sustainable model for financing Europeana (European Cultural Platform for All) – pillar 7; and
- Actions 28–41 – dealing with cybersecurity – pillar 3.

"Agenda for New Skills and Jobs" promotes lifelong learning, online education, development of ICT competences, investments in education infrastructure, and support to specific teacher-training programmes.

"Opening up Education: Innovative Teaching and Learning for All through New Technologies and Open Educational Resources" proposes various actions at EU and national levels: helping institutions, teachers, and learners to acquire digital skills and upgrade learning methods; supporting development and availability of open educational resources; connecting classrooms to the Internet; and mobilising all stakeholders (teachers, learners, families, economic and social partners) to change the role of digital technologies at education institutions.

The following initiatives to promote effective digital learning have been undertaken:
- "DigComp 2.0: The Digital Competence Framework for Citizens," launched in 2013 and upgraded in 2016; and
- "A European Framework for Digitally-competent Educational Organisations," developed in 2015.

Drawing from the above measures, a broad set of initiatives was adopted in 2015 by "A Digital Single Market Strategy for Europe," addressed to businesses and individuals. These initiatives aim at: building an innovation-friendly society; providing fair, open, and secure digital environment; tackling cyber security challenges; adopting new legislation for Digital Single Market, European Data Economy, online marketplace; and developing digital skills and opportunities for all.

"A New Skills Agenda for Europe: Working Together to Strengthen Human Capital, Employability and Competitiveness" augments existing initiatives and puts a noticeable focus on digital skills. It foresees increasing learning opportunities, validation of non-formal and informal learning, as well as stresses support to teachers and trainers, innovation in pedagogy, institutional collaboration, mobility, and business-education partnerships.

The Digital Skills and Jobs Coalition initiative brings together member states, companies, social partners, non-profit organisations, and education providers, who pledge to tackle the lack of digital skills in Europe and share best practices. All organisations involved in boosting digital skills in Europe can become members of the coalition by endorsing its objectives and principles laid out in the members Charter. Actions range from training unemployed people and giving MOOCs for teachers to giving coding classes to children and cutting edge training for ICT specialists. Moreover, European Digital Skills Awards for outstanding projects contributing to digital skills development have been launched. Several other initiatives in digital teaching and learning unfold under "Strategic Framework – Education and Training 2020."

The European project IRNet aimed to study innovative forms and effective methods of education, ICT techniques, e-learning methodology, teaching competences, and effective strategies of implementing innovative educational tools in the context of globalisation of education. The objectives of the project were:

- to explore indicators of educational effectiveness in the EU and third countries involved in the project;
- to exchange experiences, to analyse and evaluate teaching competences in the use of innovative forms of education, and to suggest effective strategies of implementing innovative ICT tools in the education activity;
- to analyse and evaluate social, economic, legal, and ethical conditions, as well as methodologies and models of e-learning techniques being developed in the European and third countries involved in the project;
- to evaluate the effectiveness of the existing models/methodologies designed to provide e-learning and enhance intercultural awareness;
- to develop a new model based on the current existing models/methodologies and literature review;
- to evaluate and present new models/methodologies for effective remote collaborative work and to improve information technologies in education science in the EU and third countries;
- to actively transfer knowledge with a view to generating strategic impacts in the thematic research area; and
- to promote scientific discussion about the integrity of systems of education and work focusing on competence issues in the context of globalisation of higher education (Kommers, Smyrnova-Trybulska, Morze, Issa Tomayess, Issa Theodora, 2015).

The realisation of the research programme and the transfer of knowledge were implemented through staff exchanges between institutions in Europe (the Czech Republic, the Netherlands, Poland, Portugal, Slovakia, Spain) and third countries (Ukraine, Russia, and Australia). They have strengthened existing collaborative research and have expanded scientific contacts.

The scientific activities were divided into seven interconnected work packages, of which one WP focused on the dissemination of the results (WP7), one WP concentrated on project management (WP1), and five WPs were based on the joint research of all the partners.

The successful completion of the IRNet project provided several major outputs:

- highest quality competence in research in advanced pedagogical science in the area of e-learning, ICT, and intercultural competences with a significant influence on the development of the HEIs staff and open information, and an educational environment of a different region/country;
- ERA as an internationally-renowned partner of AU and the initiator of cooperation projects in the next Erasmus+, Cost, IVF, H2020 with an international

cooperation dimension focused on the participation of companies and development of close cooperation with outstanding EU and AU partners;
- synergy of the research, requiring an innovative education approach, and strengthening the cooperation between the EU and non-EU HEIs in the framework of an open educational electronic environment and development of SMART universities.

During the international scientific conference *Theoretical and Practical Aspects of Distance Learning: Effective Development of Teachers' Skills in the Area of ICT and E-learning* (*DLCC2017*), held at the University of Silesia in Katowice, Cieszyn–Katowice, Poland on 16–17 October 2017, a round table debate with participation of the IRNet project researchers and outside experts was conducted. Experts from different countries shared their opinions on the internationalisation of education and competences approach in the digital world. The main part of the article contains some views and reflections on a number of important topics explored by the project team and the conference participants.

Teachers' and Learners' Digital Skills in Different Countries – Formal Regulations and Informal Approaches, Teachers' Skills and ICT Competencies in E-learning: Recommendations

The experts participating in the round table debate agree that their countries vary in the degree of formalisation of ITC competences. The differences lie also in the variety of the applied technologies as well as in the methods of using them. According to prof. dr Iryna Sekret, such a situation is caused by factors ranging from national global educational policies to the users' personal beliefs on the place of technologies in life and in learning. Thus, international collaboration via research projects, training programmes, staff exchanges, and other forms of teaching and learning cooperation can facilitate a dialogue in this area and experience exchange. Prof. Piet Kommers stresses that according to the report "Integrating Digital Education in Adult Literacy," one out of four adults in Europe lacks the necessary digital skills. In his opinion, literacy skills impact not only people's personal opportunities in education, employment, and community, but also the society and economy at large. The objectives are:
- to provide guidance and training for adult educators across Europe on how to use ICT tools and digital methods to deliver basic skills education;
- to explore skills needed in different contexts;
- to develop teachers' competencies;

- to share materials and teaching activities through online toolkits, workshops, and seminars; and
- to create an active European network of adult education.

There are several national regulations which aim to ensure uniform application and understanding of ICT competences. Prof. dr hab. Nataliia Morze points to the importance of the project "Digital Agenda – 2020, Conceptual Basis, Priority Areas, Initiatives, Projects of the 'Digitization' of Ukraine until 2020." It emphasises the urgency of the development of citizens' digital competence, digital citizenship, digital creativity, and digital business. A number of challenges are also tackled in the Strategy for Non-formal Education (Commercial Operators) and the Formal Education Strategy, in the Law on Education from 2017, as well as in a new educational policy, "New Ukrainian School."

These focus on: analysis of the situation; development of lists of digital skills and competencies for individual industries; development of qualitative educational content; development and popularisation of public online and offline courses on digital literacy; measurement and certification of digital skills; harmonisation of the normative base (including the certification of teachers' digital skills); introduction of compulsory digital competencies; and popularisation of the importance of digital literacy among citizens. According to prof. Tatiana Pavlova, the main normative acts on the use of distance education technologies and e-learning in educational programmes in Russia are: the Law on Education in the Russian Federation, Article 16; Realisation of educational programmes with the use of e-learning and distance educational technologies; Educational standards in the Russian Federation; and Professional Standard of the Teacher in the Russian Federation. They stress:

- the ability to use the means of information and communication technologies to solve cognitive, communicative, and organisational problems in compliance with the requirements of ergonomics, safety, hygiene, resource storing, legal and ethical standards, information security standards;
- skills to work with geoinformation systems;
- impact of information technology on human life in society; understanding of social, economic, political, cultural, legal, natural, ergonomic, medical, and physiological contexts of information technologies;
- ethical aspects, responsibility involved in the creation and use of information systems and dissemination of information; and
- opportunities for continuous self-education with ICT, for acquisition and integration of knowledge, communication and cooperation, effective solution of problems, self-organisation and self-regulation based on the conscious use of ICT.

In dr Iwona Mokwa-Tarnowska's view, the Ministry of Science and Higher Education in Poland supports distance education, the only major restrictions being the limitation of its use in the curriculum of undergraduate programmes to 60% of the total number of teaching hours and the limitation of its applicability to lectures.

She also stresses that in Poland there are no formal regulations concerning ICT or pedagogic skills that tutors who want to run online courses should have. However, Polish universities provide different forms of training for their staff and students, and Association of Academic E-learning in Poland certifies the skills required of e-tutors and holds examinations on passing of which the candidate becomes AAE Certified in Online Learning Design and Development. Nevertheless, the successful completion of the examinations is not a prerequisite of being allowed to work as an online tutor.

The Quality of E-learning and Teachers' ICT Competences – Ways of Increasing Effectiveness

All the experts agree with prof. Sekret that quality should be considered an urgent issue requiring attention. In her opinion, it is impacted by such factors as: the time the institution needs to join the mainstream of e-learning service providers, technological supplies, digital competences of the education stakeholders, pedagogical methodologies, and expectations and beliefs of teachers/learners. In view of these factors, the quality of e-learning should be addressed, and different approaches to evaluate the impact of e-learning on the learning outcomes should be developed. The level of the teachers' ICT competences very often reflects the demands and expectations of institutions and learners. To facilitate the development of teachers' ICT competences, institutions may take up systematic actions, e.g. intensive training programmes, motivational acts, staff exchanges, regulations, and instruction procedures. Prof. Morze enumerates additional tasks to enhance the quality of e-learning:

- development of students', teachers', and educational leaders' digital competences through development and implementation of the standard of digital competence, and development of networks for best practice exchange; and
- certification programmes for heads of educational institutions.

She also thinks that the traditional role of the teacher (broadcasting and reproduction of training materials) has been replaced by a number of new roles that involve selecting and using electronic resources, organising cooperation and communication between the participants of the educational process, designing electronic resources and electronic educational environments, facilitating the process of learning, assisting students by taking into account their needs, characteristics, and cognitive learning styles, as well as providing new services and tools for effective collaboration and communication. The new roles qualitatively change the educational environment of the modern university. Prof. Pavlova draws

attention to the ability to solve basic pedagogical tasks in an e-learning environment that teachers should have, such as:

- to "see" the students in the educational process,
- to build continuous network interactions,
- to organise interactions with other participants, and
- to design and implement professional self-education.

Dr Mokwa-Tarnowska suggests that even if university authorities recognise self-education as a sufficient way of developing knowledge and skills, and if training completion is not a prerequisite for running e-learning courses, educational programmes that will address a wide range of issues including learning design and copyright law should be made available to the staff. She stresses that inexperienced or untrained teachers can face different problems that might hinder teaching and as a result discourage them from taking on new challenges. Therefore, there should be versatile training options offered by educators and ICT specialists which will allow tutors and developers of web-enhanced, blended, and e-learning courses to see the synergy that can be gained through such education. They should specifically target the pedagogy behind teaching online as many academics tend not to understand that good teaching skills will be required to help online students develop and succeed. Prof. Kommers rounds up the discussion by raising the question of sociological aspects. In his opinion, a comparison between public and private schools will be very interesting, because most private schools permit students to bring gadgets to school, so the teaching and learning processes take place with the use of ICT. In his opinion, it will be exciting to see the findings about the effectiveness of ICT integration in public and private schools. Researchers and political agendas should be alerted to keep international education free from socio-economic stratification of today's students' parents; otherwise, the same gap will appear as with ICT in the schools earlier (Ghavifekr & Rosdy, 2015).

Innovative Specialisations and MA Programmes
at Your University in the Years 2014–2017

The experts enumerate a number of specialisms and MA courses targeting innovation in various areas:

- Information Technologies in Education; Internet of Things; Management of E-learning in the Intercultural Environment; and Development of Educational, Scientific Collaboration and Project Management with ICT Tools, an advanced training programme for university staff (Borys Grinchenko Kiyv University);

- Information Technologies in Education, Social Media, and New Education Practices, and Design and Organisation of Educational Process in the High School E-environment, an advanced training programme for university staff (Herzen State Pedagogical University of Russia).

All the educators agree that innovative ways of teaching are of utmost importance and point to their universities' achievements in this area. They also understand that there can appear different obstacles. Prof. Sekret considers Abant Izzet Baysal University to be one of the few universities in Turkey which has introduced distance learning as a constant form of education. Therefore, the university and the teaching staff prove to be open for innovations, international collaboration, and new experience. At the same time, the introduction of full international training programmes is complicated due to the differences between the educational policies among countries-partners, changing policies and regulations within the country, or a lack of knowledge about formal procedures together with considerable teacher workload. She stresses that the university academics and administration have been looking for ways to maintain international collaboration with a hope to make it as fruitful and beneficial for all stakeholders as possible. In dr Mokwa-Tarnowska's opinion, Gdańsk University of Technology also recognises the value of distant education, and although it has not introduced online degrees yet, over the past three years it has developed a wide range of specialisms, e.g. in structural engineering, sanitary engineering, waste-water plants and waste disposal, geotechnics, power engineering, green technologies, applications and Internet services, with online modules to enhance the learning experience.

Internationalisation of Higher Education – Present Situation and Future Plans at Your University

The participants of the round-table debate regard internationalisation of higher education as an extremely significant process opening up new possibilities of achieving academic excellence and improved collaboration through disciplines. Prof. Kommers accentuates that Utrecht University has always encouraged international education and helps pursue learning and career opportunities. Prof. Morze emphasises her university's active cooperation with famous international organisations such as the UN, The World Bank, British Council, Alliance USETI, Research Centre "Ryan," and with such companies as Intel and Microsoft, as well as participation in a number of international projects supported by the European Commission. In prof. Sekret's view, internalisation of the education has been reinforced by Erasmus exchange programmes for students and teaching staff, and

international research projects that enable academics to develop in a number of ways. She points to an increase in the number of foreign students willing to study at her university, which in her opinion proves the growing popularity of Turkey as the country offering quality education, compatible with education in other European countries and in the USA. She also thinks that MOOCs, which her university is planning to launch, are of great potential for enhancing the internationalisation of education. They can broaden the learning community through reaching students from other distant countries. Dr Mokwa-Tarnowska looks at web-enhanced education and web-based services from another angle. In her opinion, they can help international students ease the transition to a new environment. She draws attention to the latest addition to her university's MLE called MOST (Multidisciplinary Open System Transferring Knowledge), which aims to integrate the university's VLE and the staff members' research activity, allowing free access to information about their papers, university projects, inventions, and other staff records. She stresses that now the VLE houses four compulsory online courses for all Polish and foreign students, preparing them to study at the university, and in the future its tools will be used to deliver content in both Polish and English, with a great emphasis on modules and courses that will open up education to English-speaking students.

From Traditional University to Open and Smart University: Suggestions and Recommendations

The experts agree that technological advances have created a wide variety of opportunities for universities to look across borders and become more productive in offering quality education. Prof. Kommers approves the vision outlined in the Navitas Ventures report, "Digital Transformation in Higher Education." He agrees that "digitally led change is clearly underway in higher education. This initial snapshot of feedback from those involved in digital transformation is just the beginning. An ongoing program of research will provide insights to the higher education community and the edtech ecosystem. Outputs from this program of research could be used by higher education leaders as a mechanism for benchmarking objectives, approaches and progress of digital transformation efforts and as an opportunity for collaboration with peers globally. Equally, it may be helpful to edtech founders and the edtech industry to better understand the digital needs and priorities of higher education institutions and to gain further insights into the 'problems to be solved'" (2017). Prof. Pavlova points to a new Russian project called "Open Education." It is an educational platform offering online courses (MOOC) for basic disciplines studied at Russian universities, which was

created by the National Platform for Open Education association, established by leading universities. The regulatory and legal framework for the use of e-courses, obtaining credits, and taking exams is now being developed ("Order of the Ministry of Education and Science of Russia…," 2017).

The participants of the debate also focus on how to handle the move. In prof. Morze's view, a transition from traditional university to open and smart university should involve:

- use of relevant information to solve educational problems (the speed and volume of the flow of information in education and any professional activity are growing rapidly; existing training materials need to be supplemented with information coming in real time to prepare students to solve practical problems, to work in a real situation and not on training examples and models);
- organisation of independent cognitive research and students' design activity (this principle is the key to prepare specialists to search for solutions to creative professional problems, independent information, and research activities);
- implementation of the educational process in a distributed learning environment (an educational environment is not limited to the campus, and it is not outside the distance learning system (LMS); training should be continuous);
- students' interaction with the professional community (a professional is seen not only as a customer in training, but also as an active participant in the learning process; ICTs provide new opportunities for students to participate in the work of professional societies);
- flexible educational trajectory and individualised instruction (the education sector is expanding significantly by bringing working citizens into the education system, by a frequent change of professional activity, and the intensive development of technology; the university should provide educational services in accordance with students' needs and capabilities.);
- educational activities (a variety of educational activities require the provision of opportunities for students to study and use tools in the learning process in accordance with their abilities, material conditions, and social conditions); and
- improvement of openness in the education process (the concept of openness refers to an ongoing analytics process that encompasses diversity at all four dimensions of the learning analytics reference model (Chatti, Schroeder, & Jarke, 2012)).

A smart-environment modern university must perform various functions and provide the following services:
- structuring and systematising information;
- e-learning and m-learning tools;
- diagnosis, evaluation, and monitoring of educational resources;
- self-learning management;
- virtual social network;
- media environment in classrooms;

- campus network;
- integration with scientometric databases; and
- project services, project management, development of start-ups.

According to prof. Sekret, the only prerequisite on the way of transformation is the determination of the institution to join this mainstream and to open its doors for the innovations in pedagogies, attitudes, and methods of teaching. Under the current conditions of growing competition among educational establishments and with an aim to reach the fame of the world's most reputable and recognised institutions, it is an inevitable demand to be in pace with the transformations within the current pedagogical paradigm and methods of delivering knowledge. Dr Mokwa-Tarnowska agrees with the other experts and identifies the areas to focus on to make universities smarter:

- open, flexible, and accessible quality education;
- new ways to customise the learning experience and to deliver student-centred learning;
- the Internet of Things as an opportunity to explore deeper and experiment further; and
- across university collaboration in research and educational practice supported by web technologies.

She concludes by stating that our goal should be to raise teachers' awareness of how they can benefit from web technologies that facilitate interactive information sharing and collaboration. It may result in them being more willing to make a move towards innovative web-enhanced education.

Conclusion

"A key defining feature of current digital technologies is their networked nature. The idea of everything being connected to everything else to permit the transfer of data has introduced a 'networking logic' into most contemporary forms of digital technology. This logic assumes that users will be connected to other people, objects, organizations and information regardless of space, place or time. As a result, many contemporary digital technologies are built around 'interactive' rather than 'broadcast' forms of exchange, with content shared between 'many-to-many' rather than transmitted from 'one-to-many'" (Jensen, 2015).

Acknowledgements

References

A digital single market strategy for Europe. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 6 May 2015. Accessed 9 March 2018. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52015DC0192&from=EN.

A new skills agenda for Europe. Working together to strengthen human capital, employability and competitiveness. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 10 June 2016. Accessed 09 March 2018. Retrieved from https://ec.europa.eu/transparency/regdoc/rep/1/2016/EN/1-2016-381-EN-F1-1.PDF.

A strategy for smart, sustainable and inclusive growth. Communication from the Commission Europe 2020. Brussels, 3 March 2010. Accessed 9 March 2018. Retrieved from http://ec.europa.eu/eu2020/pdf/COMPLET%20EN%20BARROSO%20%20%20007%20-%20Europe%202020%20-%20EN%20version.pdf.

An Agenda for new skills and jobs: A European contribution towards full employment. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Strasburg, 23 November 2010. Accessed 9 March 2018. Retrieved from http://eur-lex.europa.eu/resource.html?uri=cellar:776df18f-542f-48b8-9627-88aac6d3ede0.0003.03/DOC_1&format=PDF.

Chatti, M. A., Schroeder, U., & Jarke, M. (2012). LaaN: Convergence of knowledge management and technology-enhanced learning. *IEEE Transactions on Learning Technologies*, *5*(2), 177–189. Accessed 3 March 2019. Retrieved from https://ieeexplore.ieee.org/abstract/document/6095503.

Digital agenda for Europe: Key publications. Accessed 9 March 2018. Retrieved from https://ec.europa.eu/digital-single-market/en/digital-agenda-europe-key-publications.

European Commission / Eurostat / Europe 2020 Indicators / Europe 2020 strategy. Accessed 9 March 2018. Retrieved from http://ec.europa.eu/eurostat/web/europe-2020-indicators.

Ghavifekr, S. & Rosdy, W. A. W. (2015). Teaching and learning with technology: Effectiveness of ICT integration in schools. *International Journal of Research in Education and Science*, *1*(2), 175–191.

Jensen, K. B. (2015). What's social about social media? *Social Media + Society*, *1*(1). Accessed 9 March 2015. Retrieved from http://sms.sagepub.com/content/1/1/2056305115578874.full.

Kampylis, P. Punie, Y., & Devine, J. (2015). Promoting effective digital-age learning. A European framework for digitally-competent educational organisations. Accessed 9 March 2018. Retrieved from https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/promoting-effective-digital-age-learning-european-framework-digitally-competent-educational.

Kommers, P., Smyrnova-Trybulska, E., Morze, N., Issa, Tomayess, & Issa Theodora. (2015). Conceptual aspects: Analyses of the legal, ethical, human, technical, social factors of the development of ICT, e-learning and intercultural development in different countries setting out the previous new theoretical model and preliminary findings. *International Journal of Continuing Engineering Education and Life-long Learning*, *25*(4), 365–393.

Navitas Ventures report. Digital transformation in higher education. Accessed 28 January 2018. Retrieved from https://www.navitasventures.com/insights/digital-transformation-higher-education/.

Opening up education: Innovative teaching and learning for all through new technologies and open educational resources. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions. Brussels, 25 September 2013. Accessed 9 March 2018. Retrieved from http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013DC0654&from=EN.

Order of the Ministry of Education and Science of Russia, 23 August 2017, No. 816. Accessed 28 January 2018. Retrieved from https://minjust.consultant.ru/documents/36757?items=1&page=1.

Professional standard of the teacher in Russian Federation. Accessed 28 January 2018. Retrieved from http://fgosvo.ru/docs/101/69/2/1.

Strategic framework for European cooperation in education and training ("ET 2020"). Accessed 9 March 2018. Retrieved from http://ec.europa.eu/education/policy/strategic-framework_en.

The Digital Skills and Jobs Coalition. Accessed 9 March 2018. Retrieved from https://ec.europa.eu/digital-single-market/en/digital-skills-jobs-coalition.

The Law on Education in Russian Federation. Accessed 28 January 2018. Retrieved from http://zakon-ob-obrazovanii.ru/.

Vuorikari, R., Punie, Y., Carretero, S., & Brande L. Van den. DigComp 2.0: The digital competence framework for citizens. Update phase 1: The conceptual reference mode. Accessed 9 March 2018. Retrieved from http://publications.jrc.ec.europa.eu/repository/bitstream/JRC101254/jrc101254_digcomp%202.0%20the%20digital%20competence%20framework%20for%20citizens.%20update%20phase%201.pdf.

Working Group on Education. (2017). Digital skills for life and work. UNESCO. September 2017. Accessed 28 January 2018. Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000259013.

Eugenia Smyrnova-Trybulska, Piet A. M. Kommers, Nataliia Morze, Iryna Sekret, Tatiana Pavlova, Iwona Mokwa-Tarnowska

Umiędzynarodowienie podejścia nastawionego na kształtowanie kompetencji w edukacji w świecie cyfrowym – opinie ekspertów (Debata prowadzona przez badaczy projektu IRNet)

S t r e s z c z e n i e

Autorzy artykułu koncentrują się na umiędzynarodowieniu edukacji oraz podejściu opartym na kształtowaniu kompetencji w edukacji w świecie cyfrowym. Omówione zostają różne spojrzenia na problem zaprezentowany przez ekspertów z Holandii, Polski, Turcji, Rosji oraz Ukrainy. Celem artykułu jest przedstawienie poglądów, opinii oraz refleksji na ważne tematy, do których odnieśli się uczestnicy projektu IRNet oraz konferencji *DLCC 2017*.

S ł o w a   k l u c z o w e: umiędzynarodowienie, kompetencje, szkolnictwo wyższe, eksperci, świat cyfrowy

Eugenia Smyrnova-Trybulska, Piet A. M. Kommers, Nataliia Morze, Iryna Sekret, Tatiana Pavlova, Iwona Mokwa-Tarnowska

**Интернационализация образования и компетентностный подход
в цифровом мире - мнения экспертов
(дискуссии за круглым столом, проведенным исследователями проекта IRNet)**

А н н о т а ц и я

В статье основное внимание уделяется интернационализации и компетентностному подходу в области образования в цифровом мире, в соответствии с мнениями экспертов из разных стран: Нидерландов, Польши, Турции, России и Украины. Целью статьи является предоставление мнений и размышлений по важным темам, рассматриваемым проектом IRNet и участниками конференции DLCC2017.

К л ю ч е в ы е   с л о в а: Интернационализация, Компетенции, Высшее образование, Эксперты, Цифровой мир

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**El enfoque de la internacionalización de la educación
y las competencias en el mundo digital: opiniones de expertos
(debate en mesa redonda organizado por investigadores del proyecto IRNet)**

R e s u m e n

Este artículo se centra en la internacionalización de la educación y la enseñanza por competencias en el mundo digital según expertos de diferentes países: los Países Bajos, Polonia, Turquía, Rusia y Ucrania. El objetivo del artículo es proporcionar opiniones, puntos de vista y reflexiones sobre temas significativos abordados por el proyecto IRNet y los participantes de la conferencia DLCC2017.

P a l a b r a s   c l a v e: internacionalización, competencias, educación superior, expertos, mundo digital