**Eugenia Smyrnova-Trybulska, Ewa Ogrodzka-Mazur, Anna Szafrańska-Gajdzica, Ewelina Doluk**
Poland

**Piet Kommersthe**
Netherlands

**Nataliia Morze**
Ukraine

**Tatiana Noskova, Tatiana Pavlova, Olga Yakovleva**
Russia

**Paulo Pinto**
Portugal

**Juan Arias Masa, Sixto Cubo Delgado, Gemma Delicado Puerto**
Spain

**Martin Drlik**
Slovakia

**Josef Malach**
Czech Republic

**Tomayess Issa**
Australia

**Maryna Romanyukha**
Ukraine

# Report on the Implementation of WorkPackage 2 "Analyses of Legal, Ethical, Human, Technical and Social Factors of ICT and E-Learning Development and Intercultural Competences State in Every Partner Country" in the Framework of the IRNet Project

# Abstract

This article, prepared by an international team of researchers from different scientific areas, connected with ICT, e-learning, pedagogy, and other related disciplines, focuses on the objectives and some results of the international project IRNet. In particular, the article describes research tools, methods, and a procedure of the WP2, that is, analyses of legal, ethical, human, technical, and social factors of ICT and e-learning development, and the state of intercultural competences in partner countries: objectives, tasks, deliverables, and implementation of research trips. Researchers from Poland, the Netherlands, Spain, Slovakia, Portugal, Czech Republic, Australia, Ukraine, and Russia analyzed the results of WP2 in the context of the next stages and Work packages of IRNet project – International Research Network.

K e y w o r d s: International Research Network IRNet, ICT, e-learning, intercultural competences

# Introduction

**Research Problem**

Nowadays, we can observe a rapid transition of the knowledge society to the "society of global competences," in which both the global economy and the education systems are undergoing significant changes. It is evident that without an active implementation of innovations into education these objectives cannot be successfully achieved. At the same time, we should identify the existing problem – the fact that e-learning methodology is not yet fully developed and specified, both within and outside the EU.

Development and implementation of the systems designed to enhance ICT competences of the modern specialist, in particular future teachers, in-service teachers, and educational managers, based on the systematic use of Internet technologies (LCMS systems, Massive Open Online Courses, "virtual classroom" technology, social media, other selected Web 2.0 and Web 3.0 technology) will positively contribute to the development of skills in the area of ICT and intercultural competences.

One of the providers of meeting challenges of the digital society will be the international scientific project IRNet. The project has been financed by the European Commission under the 7th Framework Programme, within the Marie Curie Actions International Research Staff Exchange Scheme (Grant Agreement No:

PIRSES-GA-2013-612536. Duration of the project is 48 months: 1/01/2014 until 31/12/2017).

The IRNet project aims to set up a thematic multidisciplinary joint exchange programme dedicated to research and development of new tools for advanced pedagogical science in the field of ICT instruments, distance learning, and inter-cultural competences in the chosen EU countries (i.e., Poland, Netherlands, Spain, Portugal, Slovakia, Czech Republic) and countries outside the EU – third countries (i.e., Australia, Russia, Ukraine). The programme will strengthen the existing collaboration and establish new scientific contacts through mutually conducted research and secondments of the researchers. The main objectives of the project are: (1) to exchange expertise and knowledge in the field of the innovative technologies of education between the EU and third countries and suggest effective strategies of implementing new tools in their profession; (2) to analyze and evaluate social, economic, legal conditions, as well as methodologies and e-learning technologies developed in the European and third countries involved in the project.

# General Progress of the Project

Qualitative indicators of progress and success in line with work plan and milestones (description of progress towards milestones and deliverables). The activities of the project are in line with the expected outcomes as far as the mile-stones and the deliverables, expected during this mid-term reporting period (first 8 months).

WP1: "Project and consortium management"
During the period the following deliverables were achieved for the WP1:
D1.1. The project website was set up in February 2014 at www.irnet.us.edu.pl.
D1.2. Consortium meetings: monthly Steering Committee meetings were held by videoconferences.
D1.3. Reports on the project progress to the EC: 1 mid-term report submitted to the EC.

During the period considered in the present report the main research objectives were related to the WP2 "Analyses of legal, ethical, human, technical and social factors of ICT and e-learning development and the state of intercultural compe-tences in every partner country" and the WP3 "Analyses and evaluation of the ICT level, e-learning and intercultural development in every participating country." The details of the progress towards the achievement of deliverables and milestones are given in detail for these Work Packages below.

**Research Focus**

WP2: Analyses of legal, ethical, human, technical and social factors of ICT and e-learning development and the state of intercultural competences in every partner country.

**Objectives**

The overall goal of the WP2 is to anticipate the coming years when universities will face the need to work together, both in terms of student exchange and in terms of technological and infrastructural procedures for exchanging staff members and open online courseware material. The recent attention for MOOCs (*Massive Open Online Courses*) is only a small part of the solution. Much more vital are the compatibility of institutional policies, benchmarks for effectiveness and the mutual recognition of assessment characteristics.

Building on the leading work of the team the participants will engage in a critical review of the existing literature, legal documents, web sources, etc., drawing on contributions from a range of relevant disciplines (education, computer science, intercultural education, sociology, anthropology, political science) and analyze legal, ethical, human, technical, social factors of ICT development, e-learning and intercultural development in partner's countries. They will add new perspectives on the problem of understanding higher education and developing some key competences – globalization nexus in different regional and national contexts. This WP2 will be coordinated by UT (Netherlands), exploiting their particular expertise in some key competences and education. It will advance existing knowledge by creating a synergy between UT's expertise with US, BGKU, DSTU expertise on legal, ethical, and human factors of ICT development, as well as psychological accomplishment of face-to-face and e-learning and teaching and sharing the latest blending teaching methods via technology in CU (Australia) and expertise of other universities.

**Task 2.1**

The following terms for the common glossary were studied and defined: globalization, key competences, intercultural competence, PLE (personal learning environment). A questionnaire for students (different language versions) as well as a questionnaire for academic teachers was elaborated by the project research team.

**Task 2.2**

The main documents on international cooperation, including international agreements of the universities and the legislation concerning the development of a knowledge society (with the aid of e-learning as a means to build competences) and the role played by higher education institutions was studied. An analysis of the education system beneficiaries and partner countries was made.

**Task 2.3**

A matrix of guidelines for research on the new forms of the international cooperation, and student exchange programs were developed. The administrative structure of the university responsible for the evaluation of teaching quality and teacher training was analyzed. The university's activity in international research programs was studied.

**Task 2.4**

Didactic principles of the ICT competences as well as the competences in the field of e-learning and teaching, the mechanisms of improving education, methodological background of the competence approach to the University Students' Training and psychological assumptions of enhancing students' creativity within their professional competence at higher education institutions were studied.

**Task 2.5**

Both the national systems of quality assessment of teaching and the international quality assessment system, functioning in accordance with the former one, have been explored. The project participants took part in roundtables in partner universities (the list of the most important events is given in section 2. "Transfer of knowledge and training activities (workshops)."

**Task 2.6**

A table including all main factors and indicators of ICT and e-learning competences was worked out. The international (Polish, Russian, Spanish, Slovak, Czech, Portuguese, Australian, Dutch, Ukrainian) legislation concerning the ICT, e-learning and intercultural competences was explored. Researchers worked within the virtual University Campus, which serves all university centers, promoting the cultural adaptation of students and the development of the cultural competences. Questionnaires for students and academic teachers were improved.

**Task 2.7**

During secondments the researchers took part in various conferences/workshops/meetings. The list of project events is presented in section 2, that is, "Transfer of knowledge and training activities" and "Dissemination of results (conferences)."

**Task 2.8**

A meeting for all project participants in Spain, videoconferences and roundtable debates were conducted. The researchers from Ukrainian, Russian, and Spanish work groups took part in 2 videoconferences, 5 debates, 6 roundtables, as well as discussions during their secondment to UEx, Spain. Polish, Australian, Portugal, Slovak, Czech work groups participated in the meeting in remote mode (24/03/2014).

**Task 2.9**

The researchers from Polish, Russian, Dutch, and Spanish work groups took part in 8 meetings, 2 videoconferences, 2 workshops, 7 debates, 5 roundtables, as well as discussions during their secondment to HSPU, Sankt-Petersburg, Russia.

**Task 2.10**

The International Scientific Conference DIVAI 2014 "Distance learning in applied informatics" was organized by UKF, Nitra, Slovakia and held on May 5–7, 2014 in Sturovo, Slovakia. The conference was dedicated to the questions of the use of computer simulation, the possibility of distance learning and the use of ICT technologies in the evaluation of knowledge and students' independent work. Several presentations were presented during conference sessions. As a result of the activities at the DIVAI 2014 a series of scientific articles was elaborated and published in the Conference Proceedings. In addition, a project meeting was held with participation of researchers from Slovakia, Russia, Ukraine, Poland, and Czech Republic (7/05/2014).

**Task 2.11**

The conference "Innovations in higher education" was conducted with dissemination of the initial results of the research (DSTU, Ukraine). The conference was dedicated to the legal framework of the development of distance and e-learning in IRNet participants' countries. The results of the participation in the conference are 9 scientific articles in the Conference Proceedings, 8 presentations presented during conference sessions in presence and remote mode (videoconference form using Adobe Connect Technology). The project participants from Ukraine, Poland, the Netherlands, Portugal, and Spain were among the lecturers. The report "The general conception of analyses and implementation the legal, ethical, human, technical, and social factors of ICT and e-learning development in several European countries – International Research Network" was prepared and presented during the conference.

**Deliverables**

During the period the following deliverables were achieved for the WP2:

D 2.1. "DIVAI 2014 Conference Proceedings" were published.

D 2.2. Working paper "Conceptual aspects: Analyses of legal, ethical, human, technical, social factors of development of ICT, e-learning and intercultural development in deferent countries" was submitted for publishing in the Special Issue of the *International Journal of Continuing Engineering Education and Lifelong Learning* (ERIH).

D 2.3. "Innovations in higher education" Conference Proceedings were submitted for publishing ("Innovations in higher education and dissemination of the initial results of the research on the legal, ethical, human, technical, social factors of

information-communication technology, e-learning and intercultural developments in different countries, June 25, 2014," International conference proceedings. Collection of scholarly papers of Dniprodzerzhynsk State Technical University, Technical Sciences, section Education, Ch. Editor A. P. Ogurtsov. Dniprodzerzhynsk: DSTU. 2014. No 1 (24). Supplement. 97p.).

D 2.4. Conceptual framework for a joint research project based on lasting collaboration with the project participants was elaborated.

D 2.5. The report "First outcomes of the WP2 activities and research carried out within the framework of the IRNet project" was published on the project website.

**Milestones**

The milestone foreseen for the period (M1.1 – decision on clarification on next research activities directly based on evaluation of analyses law, ethical, human, technical, social factors of the development of ICT, e-learning, and intercultural development in every partner country) were attained.

# Project Achievements

**Scientific Highlights and Research Achievements**

During the analysis of legal documents of 9 IRNet countries and 10 universities in the framework of the WP2 implementation a comparison of legal factors of ICT and e-learning development in the countries from West, Central, East Europe, and Australia was made and identical, similar, overlapping data and differences in state policies, and university regulations in different project partners were found. It was identified that in the West European universities the potential of MOOCs is adopted in a such way that stimulates the further use of other ICT tools and e-learning for flexible learning and teaching and for internationalization of education. In Central European universities and in Australia, blended learning is implemented on the basis of the Regulation of the Minister of Science and Higher Education (e.g., in Poland the number of hours in the remote mode does not exceed 60% of the total number of hours of classes).

In Russia and Ukraine also a Regulation of the Minister of Science and Higher Education has been issued defining the distance form similar to the remote form; however, the Regulation does not specify the time, which can be used by teachers of the university to conduct the classes on-line. It can be observed that due to the extensive use of technology in the practice of e-learning in Russia, more and more legislative activities are being undertaken in order to ensure a flexible legal framework for the implementation of these technologies in the educational institutions of different levels. The main prerequisites for organizing this type of

the educational interaction are determined by the Federal Law on Education (2012), the concept of a unified information educational environment in Russia (2013), and the Order of Ministry of Education and Science, which prescribes the manner in which e-learning and distance learning technologies should be used (2014).

# Research Methodology

### Instrument and Procedures

The algorithm of joint research actions was developed. Firstly, groups of factors influencing the development of key competencies were stated; time horizons were defined influencing the following factors: legislative and technical – the short term, the social – medium term, ethical and humanitarian – a long-term perspective.

Secondly, a scope of influencing these factors was determined: global, state (in the countries – participants of the project), institutional (among educational institutions – participants of the project), personal (individual student in an educational institution environment, and through it – the state and global).

Thirdly, common approaches were identified to determination of personal key competencies structure. A set of interests, positions, attitudes of a personality correlates with the scale of factors influence (legislative, technical) on the individual. At the international level (European) those interests relate to the unified European educational space (in line with the Bologna process), between cultural interaction (mutual enrichment of cultures), increasing academic mobility of teachers and students. At the state level, interests relate to the development of the information educational environment; accessibility and openness of e-learning technology; compatibility of content and devices, integration to the European space and protection of the national identity of national minorities. At the institutional level, interests relate to the development of corporate interests, changing labor market demands, academic mobility of teachers and students. At the personal level, interests relate to the ability to select and implement learning experiences, educational path, format, inclusive education; competitiveness in the labor market, competence of the 21st century.

To achieve the aims of the project the research group has developed a questionnaire which is aimed to gain the data on the students' views and attitudes towards various educational processes in their educational environments, entailing modes of the use of the ICT, intercultural and professional competences. The diagnostic research instrument of more than 60 questions was translated in students' native languages (Czech, English, Dutch, Polish, Portuguese, Russian, Slovak, Spanish, Ukrainian) and presented on-line by the university survey system LimeSurvey and by Google Drive.

The characteristics of the survey data were as follows:

1. Sociological data (country, nationality, sex, age, name of the university, field of study, specialization, year of study, level of studies (Bachelor's degree, Master's degree)).
2. Questions concerning the intercultural competences.
3. Questions concerning the ICT competences, use of social media for extracurricular activities.
4. Questions which are reflective in nature, revealing students' opinions about the courses and their assessment in terms of substantive, methodological, technological, organizational aspects, and e-learning as a technology, method and form of obtaining education.

There are more than 100 valid responses collected from HSPU (Russia), more than 100 valid responses collected from US (Poland), more than 100 valid responses collected from DSTU (Ukraine), BGKU (Ukraine), OU (Czech Republic), more than 100 valid responses collected from DSTU (Ukraine), BGKU (Ukraine), UKF (Slovakia). The partners from LU, UT, and CU continue to conduct the research.

The preliminary results of the survey were published in different articles/papers and presented during the conferences, meetings, and seminars.

Moreover, a research survey for academic teachers was prepared and realized. The survey contained 89 questions in several categories:

1. Juridical support for ICT. Documents, law concerning ICT.
2. Monitoring of teaching.
3. Creating electronic resources database.
4. Assessing the quality of teaching.
5. Security of the information.
6. University infrastructure.
7. Management of the educational process (managing the university).
8. Analysis of social factors and intercultural development in each partner country.

**Transfer of Knowledge and Training Activities (Workshops)**

The secondments provided the IRNet research teams with the opportunity to develop and transfer best practices related to the development of new tools and methods of work in the field of ICT instruments, e-learning, and intercultural competences; in particular, they provided the following support and knowledge to the project and future research possibilities:

- to analyze the methodological background and main approaches of conducting international investigations on ICT, e-learning and intercultural competences in order to work out a system of measuring instruments appropriate for the research at the international level;
- to analyze and evaluate the level of ICT, e-learning, and intercultural developments in every participating country applying the system of measuring instruments approved;

- to compare the results obtained and to draw the conclusion about the existing barriers in ICT, e-learning and intercultural competences, taking into consideration descriptions of the national specifics of legal, human, social, ethical, and technological factors of their implementation.

Detailed description of the transfer of knowledge and training activities during secondments is given below:

**Secondment of DSTU, BGKU, HSPU to UEx (March 2014)**

The transfer of knowledge activities during the secondment focused on the new technologies implemented in the UEx campuses, principally in aspects related to the implications of the Information and Communication Technologies in the Teaching and Research quality (Institutional Web, Virtual CampusRedUEx, Virtual Shared Campus G9, and Video Conferences).

Workshops:
1. Workshop and meeting with the Director of SOFD (Service of Orientation and Teacher Training): "To get to know the Service of Orientation and Teacher Training Activities."
2. Conference and workshop "University, Education and Learning in Russia and Ukraine" – a lecture about the education systems in Russia and Ukraine (26/03/2014).

**Secondment US, UEX, UT to HSPU (April 2014)**

The transfer of knowledge activities during the secondment focused on the mapping and developing an account of factors involved in the process of globalization and regionalization in the development of the key competences, including their interests, scales of influence, and temporal horizons concerning higher education systems of the IRNet participating institutions, the identification of the role of key higher education institutions in policy developing of key competences and in new forms of international cooperation, the analysis of the legal, ethical, human, social factors of the development of the ICT, e-learning and intercultural development in every partner countrie. In particular, it was possible to discuss the analysis of processes of the development of the competences (e.g., processes operating simultaneously on different scales, contemporary trends and previous research).

Workshops:
1. "Best pedagogical minds and their impact on the integration of past, present and future of Europe," HSPU, St. Petersburg (16/04/2014).
2. "IT-Specialist of the Herzen State Pedagogical University of Russia," St. Petersburg, Presentations: "System of education in Poland," "Higher education in the Netherlands" (10/04/2014).
3. "E-learning," organized by the Department of Information and Communication Technology, conducted by Dr. Ilya Gosudariev, HSPU, St. Petersburg (18/04/2014).

4. "Information technology in the university preparation of teachers," HSPU, St. Petersburg (24/04/2014).

**Secondment of HSPU, DSTU, BGKU to UKF (May–June 2014)**

The transfer of knowledge activities during the secondment were focused on the main methodological aspects of the previous research of the chair of informatization of education of UKF, HSPU, BGKU, DSTU: technological, environmental, psycho-didactic approach for the educational environment modeling, basic concepts of modeling, algorithmization of network communication, models of network communication, extracurricular activities for students, professional competence of teachers in the information environment, pedagogy in network environment, examples of network teaching methods, module of International Master Training Program "ICT for professional development of teachers," implementation of the motivation to e-learning.

During the secondment, researchers carried out a study of UKF information and educational environment (recourses, communication, library data bases). They were prepared for a meeting with students: they worked out the plan of presentations, summarized the main questions to discuss with students (their professional interests, attitude to e-learning and ICT use in educational and extracurricular activities).

Workshops:

1. During this secondment, the international scientific conferences "High-Tech Educational Environment" and DIVAI 2014, "Distance Learning in Applied Informatics" were organized by the UKF in Sturovo, Slovakia (5–7/05/2014).
2. Discussion and roundtable debate during International Scientific Conference DIVAI 2014 "Distance Learning in Applied Informatics," organized by the UKF in Sturovo, Slovakia (5–7/05/2014).

# Research Results

**Dissemination of Results (Conferences, Publications)**

From the very beginning of the project the partnership used various dissemination tools to better exploit and improve the project objectives, results, and the transfer of knowledge. National and international conferences as well as publications constituted an important opportunity to share the project initial results and achievements with experts in the field. However, it must be emphasized that these means are not fully exhaustive: the dissemination of the results obtained in the framework of the project work was the subject of many other activities, meetings, workshops, and presentations during visits in the host organizations.

## Conferences

The partnership of the network organized and hosted 6 important conferences being in line with the project objectives. All of these events were attended not only by the network researchers, but also by external participants.

1. International scientific-practical conference "High-tech information educational environment," organized by HSPU, Sankt Petersburg, Russia (15/04/2014). The conference was a perspective of the educational environment, in which information and communication processes are deployed in both traditional and virtual (electronic) formats, causing qualitative changes in the scientific, educational, social and cultural fields. The conference was dedicated to the innovation in terms of the informatization of the educational activities, IT in scientific research, socio-cultural effects of informatization. More than 50 participants from different countries attended the conference.

2. DIVAI 2014 ("Distance learning in applied informatics," International Scientific Conference), organized by UKF, Nitra, in Sturovo, Slovakia (5–7/05/2014). The conference was dedicated to the questions of the use of computer simulation, the possibility of distance learning, as well as the use of the ICT technologies in the evaluation of knowledge and students' independent work. The conference was attended by more than 40 participants from different countries.

3. International Scientific Conference "Innovations in higher education," organized by DSTU, Dniprodzerzhynsk, Ukraine (25/06/2014).
   The conference was dedicated to the legal framework of the development of distance and e-learning, ethical, human techniques, social factors of the development of the ICT, e-learning and intercultural development, technological and informational methods of distance and e-learning in the IRNet partner-countries. The conference was attended by more than 30 participants from different countries.

## Publications

19 papers were published or submitted by members of the network, about 30% of those papers involve researchers from at least two different participating organizations (EU and third countries). All publications are the outcome of research network and a result of an active exchange programme.

DIVAI 2014 Conference Proceedings, Editors: Milan Turčáni, Martin Drlík, Jozef Kapusta, Peter Švec. Constantine the Philosopher University in Nitra, Faculty of Natural Sciences, Department of Informatics, Editors Nitra, ISBN 978-80-8094-691-3 (printed).

1. Kommers, P., Smyrnova-Trybulska, E., Morze, N., Noskova, T., Pavlova, T., & Yakovleva, O. *First outcomes of WP2 research carried out within the framework of the IRNet project – International Research Network.*

2. Sekret, I., & Kommers, P. *Conceptual issues of the digital competence development in the framework of the Council of the European Union.*

3. Zavgorodnyi, V., Yalova, K., Yashina, K., Sadovoy, O., & Romaniukha, M. *Uniform information and educational space for distance learning of Ukrainian IT students*.

4. Drlik, M., Svec, P., & Skalka, J. *Comparison of approaches to the data analysis in the virtual learning environments*.

5. Cápay, M. *Online learning systems in various forms of studies*.

"Innovations in higher education and dissemination of the initial results of the research on the law, ethical, human, technical, social factors of information-communication technology, e-learning and intercultural developments in different countries – June 25, 2014," International conference proceedings. Collection of scholarly papers of Dniprodzerzhynsk State Technical University: Technical Sciences, section Education, Editor-in-Chief A. P. Ogurtsov. DSTU. No. 1 (24) – 2014, 81p. (printed).

1. Smyrnova-Trybulska, E., Cubo, S. D., Pinto, P., & Malach, J. (2014). *The general concept of analyses and implementation of the legal, ethical, human, technical and social factors of ICT and e-learning development in several European countries – International Research Network*.

2. Zavgorodnii, V., Yalova, K., Romaniukha, M., Drlik, M., & Capay, M. *Comparative analysis of e-learning environments at UKF and DSTU*.

3. Shumeiko, O. *Secure format of electronic data for distance learning*.

4. Grybuyk, O. *The process of deployment of cloud environment of an educational institution: Network security*.

5. Sadovoy, O., Yashina, K., Il'chenko, L., & Isskandarova, N. *A visualization system of methods of splitting cubic, cylindrical and spherical bodies into elementary volumes*.

6. Sorokina, L., Bohomaz, K., & Shelomovska, O. *The analysis of the legislation concerning distance learning in Ukraine*.

7. Nakaznyi, M. *Psychological support of students in the process of e-learning and distance learning in technical educational institution*.

8. Morze, N. *The conditions of creation and implementation of corporate standard of masters ICT competence*.

Six articles were submitted to Special Issue of IJCEELL (*International Journal of Continuing Engineering Education and Life-long Learning*). ISBN 1560-4624. Devoted to the IRNet Project.

Six papers were printed in the *International Journal of Continuing Engineering Education and Life-long Learning*, 25 (4). ISBN 1560-4624.

1. Kommers, P., Smyrnova-Trybulska, E., Morze, N., Issa, Tomayess, & Issa, Theodora. *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*, pp. 365–393.

2. Noskova, T., Yakovleva, O., Pavlova, T., & Smyrnova-Trybulska, E. *Students in the information environment: A study of educational and extracurricular activities*, pp. 394–410.
3. Morze, N., Smyrnova-Trybulska, E., & Umryk, M. *Designing an e-university environment based on the needs of Net-generation students*, pp. 466–486.
4. Ogrodzka-Mazur, E., & Gajdzica, A. *New professionalism of the teacher and education towards interculturalism*, pp. 487–497.
5. Noskova T., Pavlova T., Yakovleva O., Morze, N., & Drlik, M. *Quality features of university information environment in its external indicators*.
6. Yalova, K., Zavgorodnii, V., Romaniukha, M., & Sorokina, L. *Challenges and prospects in development of e-learning system for IT-students* (in print).

# Project Management

Overview of the activities carried out by the partnership; identification of problems encountered and corrective action taken.

**Overview of the Activities Carried Out by the Partnership**

The main objective of this period was to assure a successful start of the network. As first activity, the kick-off meeting was held on October 30, 2013, before the start of the project, organized by the Coordinator (US) via a videoconference (Adobe Connect support). During this meeting the goals of the project and the objectives of each work package were pointed out, the plan of secondments was discussed and the rules of participating in the IRSES project were reminded.

In February 2014 the website of the project was started at www.irnet.us.edu.pl, which includes the most important information about the IRNet project. The website featuring branched structure, personification and interactive services such as forum was created by the Coordinator (US). The website is regularly updated with new content and constitutes an access point for all project documentation, meeting minutes and contains a photo gallery providing the participants with the opportunity to demonstrate their secondments and research activities. It also has a forum and a secure area for circulation of papers, etc. between project participants. The logo of the network was designed by a graphic designer.

In the period concerned 38 secondments were realized: 25 secondments (involving 13 researchers) from the third countries to the UE countries organizations and 13 secondments (involving 10 researchers) from the UE countries to the third countries organizations.

18 papers were published or submitted by members of the network and 3 important conferences were organized. The researchers also took part in numerous training events, such as workshops, seminars, and roundtables.

**Discussion and Conclusions**

In this paper the authors presented the objectives of the international project IRNet – International Research Network for study and development of new tools and methods for advanced pedagogical science in the field of ICT instruments, e-learning and intercultural competences, as well as WP 2: *Analyses of legal, ethical, human, technical and social factors of ICT and e-learning development and the state of intercultural competences in partner countries: Objectives, tasks, deliverables*. The international team of researchers from the University of Silesia in Katowice (US, Poland, Beneficiary 1 (Coordinator)), the University of Twente (UT, the Netherlands), the University of Extremadura (UEx, Spain), Constantine the Philosopher University in Nitra (UKF, Slovakia), Lisbon Lusíada University (LU, Portugal), University of Ostrava (OU, Czech Republic), Curtin University in Perth (CU, Australia), the Borys Grinchenko Kyiv University (BGKU, Ukraine), Dniprodzerzhinsk State Technical University (DSTU, Ukraine), the Herzen State Pedagogical University of Russia, St. Petersburg (HSPU, Russia) continuing the study and research according the Project Documentation, the project scheduler, and in near future, they will publish subsequent papers and manuscripts in the conference proceeding as well as in the scientific journal and monograph.

# Acknowledgments

# References

IRNet Project Web-site. Retrieved from http://www.irnet.us.edu.pl. Accessed October 10, 2015.

Kommers, P., Smyrnova-Trybulska, E., Morze, N., Noskova, T., Pavlova, T., & Yakovleva, O. (2014). First Outcomes of WP2 Research Carried Out Within the Framework of the IRNet Project – International Research Network. In DIVAI 2014 – Distance Learning in Applied Informatics. Conference Proceedings, 5–7 May 2014. Editors: M. Turčáni, M. Drlík, J. Kapusta, & P. Švec. Constantine the Philosopher University in Nitra, Faculty of Natural Sciences, Department of Informatics, Editors Nitra, 357–372.

Kommers, P., Smyrnova-Trybulska, E., Morze, N., Noskova, T., Yakovleva, O., Pavlova, T., Drlík, M., Malach, J., Cubo Delgado, S., Pinto, P., Issa, Tomayess, & Issa, Theodora (2014). Contrastive

Analyses and Evaluation of the ICT and E-Learning Competences in Australia, Czech Republic, the Netherlands, Poland, Portugal, Russia, Slovakia, Spain, and Ukraine Within the Framework of the IRNet International Research Network Project. In *E-learning and intercultural competences development in different countries* (pp. 13–30). Monograph Sc. Editor Eugenia Smyrnova-Trybulska, University of Silesia, STUDIO NOA. Katowice–Cieszyn, 484p.

Morze, N., Spivak, S., & Smyrnova-Trybulska, E. (2014). Personalized educational environment as one of the trends of modern education. In *Information and communication technology in education* (ICTE-2014), (pp. 158–166). Conference Proceedings, Ed. J. Kapounova, & K. Kostolanyova. University of Ostrava, Roznov-pod-Rodnoste.

Smyrnova-Trybulska, E., Ogrodzka-Mazur, E., Gajdzica, A., Noskova, T., Pavlova, T., Yakovleva, O., Morze, N., Kommers, P., & Sekret, I. (2014). Research instrument to study students' beliefs about e-learning, ICT, and intercultural development in their educational environment in the framework of the IRNet project. In *Information and communication technology in education* (ICTE-2014), (pp. 254–263). Conference Proceedings, Ed. K. Kostolanyova & J. Kapounova, University of Ostrava, Roznov-pod-Rodnostem. https://konference.osu.cz/icte/dokumenty/2014/proceedingsICTE2014.pdf.

Smyrnova-Trybulska, E., Cubo Delgado, S., Pinto, P., & Malach, J. (2014). The general concept of analyses and implementation of the legal, ethical, human, technical and social factors of ICT and e-learning development in several European countries – International research network. In *Innovations in higher education and dissemination of the initial results of the research on the law, ethical, human, technical, social factors of information-communication technology, e-learning and intercultural developments in deferent countries.* June 25, 2014. (pp. 3–14). International Conference Proceedings. Collection of scholarly papers of Dniprodzerzhynsk State Technical University: Technical Sciences, section Education, Ch. Editor A. P. Ogurtsov. DSTU, no. 24.

Eugenia Smyrnova-Trybulska, Ewa Ogrodzka-Mazur, Anna Szafrańska-Gajdzica, Ewelina Doluk, Piet Kommersthe, Nataliia Morze, Tatiana Noskova, Tatiana Pavlova, Olga Yakovleva, Paulo Pinto, Juan Arias Masa, Sixto Cubo Delgado, Gemma Delicado Puerto, Martin Drlik, Josef Malach, Tomayess Issa, Maryna Romanyukha

## Raport z wdrożenia WP2 „Analiza prawnych, etycznych, ludzkich, technicznych i socjalnych czynników rozwoju ICT i e-learningu oraz kompetencji interkulturalnych w każdym partnerskim kraju" – w ramach projektu IRNet

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

Artykuł, przygotowany przez międzynarodowy zespół badaczy reprezentujących różne dziedziny nauki, związanych z TIK, e-learningiem, pedagogiką oraz dyscyplinami pokrewnymi, koncentruje się na celach i wynikach międzynarodowego projektu IRNet (International Research Network for study and development of new tools and methods for advanced pedagogical science in the field of ICT instruments, e-learning and intercultural competences). W artykule przede wszystkim zostały opisane narzędzia badawcze, metody i przebieg Pakietu Prac 2, w ramach którego dokonano: analizy prawnych, ludzkich, technicznych i społecznych czynników rozwoju TIK i e-learningu oraz stanu kompetencji międzykulturowych w krajach partnerskich. Analizie poddano również: cele, zadania, rezultaty i realizację wyjazdów naukowych. Badacze z Polski, Holandii, Hiszpanii, Słowacji, Portugalii, Czech, Australii, Ukrainy i Rosji poddali wyniki Pakietu Prac 2 analizie w kontekście kolejnych etapów i pakietów prac projektu IRNet.

Евгения Смирнова-Трибульская, Эва Огродска-Мазур, Анна Шафраньска-Гайдица, Эвелина Долюк, Пет Коммерше, Наталия Морзе, Татьяна Носкова, Татьяна Павлова, Ольга Яковлева, Пауло Пинто, Хуан Ариас Маса, Сиксто Кубо Дельгадо, Джемма Деликадо Пуэрто, Мартин Дрлик, Иозеф Малах, Томайесс Исса, Марина Романюка

## Отчет о реализации рабочего пакета 2 (WP2) "Анализ правовых, этических, человеческих, технических и социальных Факторов ИКТ, а также развития электронного обучения и межкультурной компетенции в каждой из стран-партнеров" в рамках проекта IRNet

Р е з ю м е

Настоящая статья подготовлена международной группой авторов-исследователей, представляющих различные научные области, связанные с ИКТ, электронным обучением, педагогикой и другими дисциплинами. В работе представлены цели и основные результаты проекта IRNet. В частности, в статье описаны исследовательские инструменты, методы и процедуры второго рабочего пакета: анализ правовых, этических, человеческих, социальных факторов, влияющих на развитие ИКТ и электронного обучения, анализ межкультурной компетенции в странах-партнерах. Описаны цели, задачи, показатели результативности, данные о выполнении выездных исследований. Исследователи из Польши, Нидерландов, Испании, Словакии, Португалии, Чешской Республики, Австралии, Украины и России проанализировали результаты, полученные в результате выполнения WP2 в контексте следующих этапов проека IRNet – Международная исследовательская сеть.

Eugenia Smyrnova-Trybulska, Ewa Ogrodzka-Mazur, Anna Szafrańska-Gajdzica, Ewelina Doluk, Piet Kommersthe, Nataliia Morze, Tatiana Noskova, Tatiana Pavlova, Olga Yakovleva, Paulo Pinto, Juan Arias Masa, Sixto Cubo Delgado, Gemma Delicado Puerto, Martin Drlik, Josef Malach, Tomayess Issa, Maryna Romanyukha

## Informe sobre la aplicación del WP2 „análisis de factores legales, éticos, humanos, técnicos y sociales en las nuevas tecnologías y e-learning y el estado de las competencias interculturales en cada país miembro" en el marco del proyecto IRNet

R e s u m e n

Este artículo ha sido elaborado por un equipo internacional de autores; investigadores de diferentes áreas científicas, relacionadas con las TIC, el e-learning, la pedagogía y otras disciplinas

relacionadas , se centra en los objetivos y algunos resultados del proyecto de investigación IRNet. En particular, el artículo describe las herramientas de investigación, métodos y procedimientos del WP2: los análisis de los factores legales, éticos, humanos, técnicos y sociales de las TIC y el desarrollo del e-learning. Además, se describe el estado de las competencias interculturales en los países socios: objetivos, tareas, entregables y el resultado de los encuentros de investigadores. Expertos de Polonia, los Países Bajos, España, Eslovaquia, Portugal, República Checa, Australia, Ucrania y Rusia analizaron resultados del WP2 en el contexto de las próximas etapas y paquetes de trabajo del proyecto IRNet (Red de Investigación Internacional).

P a l a b r a s   c l a v e: IRNet, Red de Investigación Internacional, TIC, competencias interculturales