

Eugenia Smyrnova-Trybulska,

*Associate Professor, Dr Hab
Head of the Department of Humanistic Education and
Sciences of Pedagogy Support
Faculty of Ethnology and Educational Sciences
University of Silesia
Katowice, Poland
esmyrnova@us.edu.pl*

Peter Švec,

*PaedDr. PhD, Assistant Professor at the Department
of Computer Science
Faculty of Natural Sciences
Constantine the Philosopher University in Nitra
Nitra, Slovakia
psvec@ukf.sk*

Júlia Tomanová,

*Mgr. PhD, Assistant Professor at the Department
of Computer Science
Faculty of Natural Sciences
Constantine the Philosopher University in Nitra
Nitra, Slovakia*

Martin Drlík,

*Mgr. PhD
Assistant Professor at the Department of Computer
Science
Faculty of Natural Sciences
Constantine the Philosopher University in Nitra
Nitra, Slovakia*

Martin Cápaj,

*Mgr. PhD, Assistant Professor at the Department
of Computer Science
Faculty of Natural Sciences
Constantine the Philosopher University in Nitra
Nitra, Slovakia*

Josef Malach,*PhDr. PhD**Head of the Department of Education and Adult Education**Pedagogical Faculty**University of Ostrava**Ostrava, Slovakia**josef.malach@osu.cz***Kateřina Kostolányová,***Ing. PhD, Head of the Department of Information and Communication Technologies**Pedagogical Faculty**University of Ostrava**Ostrava, Slovakia***Milan Chmura,***Mgr. PhD, Assistant Professor at the Department of Education and Adult Education**Pedagogical Faculty**University of Ostrava**Ostrava, Slovakia***OPEN EDUCATIONAL E-ENVIRONMENT AS
FACTOR OF EXPANDING EDUCATIONAL OFFER
AND INCREASING QUALITY OF EDUCATION**

This article presents examples of good practice in the creation of an information and educational environment and comprehensive, systematic and effective use of the Internet services offered by The Faculty of Ethnology and Sciences of Education in Cieszyn (University of Silesia), Faculty of Science, Constantine the Philosopher University in Nitra and Pedagogical faculty of University of Ostrava: its official web-site, distance learning platform, project sites, conference sites as well as the distance learning platform, based on the LMS Moodle system is intended several important didactic and scientific aims and tasks. The article also describes some results of research, conducted within

the framework of IRNet Project (www.irnet.us.edu.pl) and Work Package 3 "Analyses and evaluation of the ICT level, e-learning and intercultural developments in every participating countries" at the University of Silesia and at the Faculty of Ethnology and Sciences of Education, Constantine the Philosopher University in Nitra, Pedagogical faculty of University of Ostrava: project of educational institution.

Key words: *information and educational environment, distance learning platform, LCMS Moodle, University IT services, legal regulation, survey for students and teachers.*

Introduction

The rapid development of telecommunications and information technology, and the changes in the education system being brought about by this development are forcing universities, schools and other educational institutions not only to continuously improve their skills and tools but also to further improve their educational offering. The best way to enhance the image of universities and individual departments is to adequately build their own information space, which, thanks to technological advances can take a variety of forms. The authors of this article have attempted to systematize the analysis of the concepts associated with contemporary trends in the development of information and communication environment on the Internet, using as an example the Faculty of Ethnology and Sciences of Education, whose activity will be instrumental, inter alia, to the success of teacher training and the prosperity of future generations of young people living in the era of high technology, telecommunications, MTV, virtual space, the iPhone, the iPod, digital communications links based on information technology.

In this article, the authors attempt to construct an information model, including all components and entities that are part of the operation of a specimen Faculty of Ethnology and Sciences of Education at the University of Silesia, Faculty of Natural Sciences, Constantine the Philosopher University in Nitra. The expansion of information technology is comparable to the invention of writing. However, after

more than half a century after building the first computer and after ten years of the expansion of communication networks, there has not been a significant breakthrough in education attributable to new technologies.

The overall structure of the information and educational environment on the example of schools is quite accurately described in the author's articles (Morze et al. 2014, 2015), (Noskova, Pavlova, 2011). Although the structure of the information and educational environment of the university and of individual faculties is similar to that of schools it has its own specific characteristics. Other important aspects of information and educational environment of the university — the relation between students and teacher in the virtual learning environment was described in detail in the papers (Morze et al. 2014, 2015), (Noskova 2011), (Noskova, Pavlova, 2011), (Rudenko, Makarova, 2012)

The Faculty's internet services, which are part of the university internet services, should meet at the same time the needs of the structural unity that is the faculty. The Faculty of Ethnology and Sciences of Education has the following internet services which are interconnected between each other and constitute a common information and educational environment of the faculty on the Internet:

1. The official faculty website: www.weinoe.us.edu.pl.
2. The distance learning platform (<http://el.us.edu.pl/weinoe>) which forms part of the e-learning platforms of the University of Silesia's individual faculties;
3. Projects and conferences websites (<http://weinoe.us.edu.pl/projekt-miedzynarodowy-e-learning-droga-do-porozumiewania-sie-w-srodowisku-wielokulturowym>), (<http://www.dlcc.us.edu.pl>), (<http://www.irnet.us.edu.pl>).

1. FACULTY WEBSITE: THE CONCEPT, STRUCTURE AND SERVICES

The official website of the Faculty of Ethnology and Sciences of Education: www.weinoe.us.edu.pl is based on the CMS Drupal system and is compatible with the website of the University of Silesia: www.us.edu.pl.

The service www.us.edu.pl contains all important, necessary information for university lecturers, students, prospective students, members of the local community and other visitors to the site. Through

using the CMS Drupal it was possible to develop the university website as a hierarchical structure that is easy to navigate. The following components are used: University, Studies, Science, Cooperation, Media and Culture, Contact and others. In the top section of the page there are links: *network | mail | site map | English | Русский* and *to connect with social media portals such as Facebook, Twitter, Instagram, Isuu, Google+, YouTube, US-TV*. The map of site is clear and rich in substance.

The service www.weinoe.us.edu.pl contains all important, necessary information for faculty lecturers, students, prospective students, members of the local community and other visitors to the site. Through using the CMS Drupal it was possible to develop the Faculty's website as a hierarchical structure easy to navigate. The following components are used such as

Main Page of the WEiNoE: Educational Offer, About the Faculty, Faculty Authorities, Quality of the Education, Direction of Studies, Study regulations, Programme of Education, Science of WEiNoE, LLP-Erasmus, Scientific Circles, Students Organisations, Photo Reports, Contact.

Institute of Sciences of Education: Educational Offer, About Institute, Cieszyn's pedagogical traditions, Studies of 1st Degree, Studies of 2nd Degree, Postgraduate studies, Schedules, Practices, Sample Duly Filled Student's Grade Book, Departments, Office Hours, E-learning, Photo Reports, Contact.

Institute of Ethnology and Cultural Anthropology: Educational Offer, Cultural Ecology, About Institute, IECA Studies, Schedules and Practices, Employers, Office Hours, Publishing House, Conferences, Photo Reports, Contact.

Faculty members, representatives of the Institutes and Departments have permission to edit pages on an on-going basis, putting new content and posting the latest and most important news. A number of people have administrator authority. Technical support is provided by the Information Technology Section the University of Silesia in Katowice.

This article describes only a part of research conducted at the University of Silesia in Katowice within the framework of IRNet project (WP3). The students from different faculties and specializations participated in this research. The University of Silesia conducted a survey at the Faculty of Ethnology and Sciences of Education, among students of the humanistic specialization: Integrated Primary Education and Kindergarten Education, Kindergarten Education with Child's

Development Early Support, Social-Cultural Animation with Cultural tourism, Integrated Primary Education and Pedagogical Therapy; in total 100 students took part in the survey. Generally, within the IRNet Project, more than 1000 students from partner universities (<http://www.irnet.us.edu.pl/partners>) are scheduled to take part.

The website of the Faculty of Natural Sciences is based on the CMS Joomla. It is interconnected with the website of the university. It contains all necessary information for three main target groups of visitors — students, future students and employees of the university. Target group of potential future students is considered the most important part of the website, because these visitors should find all information about the faculty in easy way. The website often serves as the main entrance to other university information systems for students and teachers at the same time.

The website is focused on the three fields of interest. It provides information about the study programmes realised at the faculty, about the main research areas and events, which take place at the faculty or in which the faculty staff participates. The website is closely linked to the university profiles in social networks like Facebook or LinkedIn.

The CMS Joomla provides an easy way to manage and publish the articles as well as announcements of the already realised or planned events.

Www.osu.cz is the official website of the University of Ostrava

The University of Ostrava consists of six faculties — Pedagogical Faculty, Faculty of Science, Faculty of Arts, Faculty of Social Studies, Faculty of Medicine and Faculty of Fine Arts. The official website is divided into three sections:

- the left section contains the structure of the university (faculties, institutions and other parts of the UO);
 - the middle section contains information for the incoming students and the official notice board;
 - the right section contains news and information about conferences.
- Websites of all faculties have the identical structure.

Each faculty is headed by a dean and vice-deans. The faculties are divided into departments. The Pedagogical Faculty consists of 13 departments and 2 centers — the Center of Foreign Language Education and the Center of Further Studies. The Pedagogical Faculty

has accredited Bachelor's, Follow-up master's, Master's and PhD study programs. The research activity of the Faculty takes place in four research centers. The main research center is the Center of Pedagogical Research. The remaining centers are: the Human Motion Diagnostic Center, the Center of Studies of Regional Musical Culture and the Center for European Identity Research.

The following social media are used at the OU for publicity and communication: Facebook, Twitter, Google+, YouTube and Instagram. The Center of Information Technologies provides the technical support in the area of information and communication technologies.

2. PROJECTS AND CONFERENCES WEB-SITES

2.1. Projects and conferences web-site WEiNoE University of Silesia in Katowice

The University of Silesia in Katowice (US) was established in 1968 and now, with 12 faculties and several interdisciplinary schools and centres, over 35 000 students, educated at Bachelor, Master and Doctoral levels and over 2000 academic staff is one of the largest in Poland. The university, within the framework of its own activity in the area of study, research, science, innovation, cooperation, has launched national and international projects and various initiatives in the use of E-learning for lifelong learning. These initiatives include:

– *Distance Learning Centre of the University of Silesia (US)*. The aims, concept as well as the methodology of e-learning implementation at the University of Silesia as well as the activity of Distance Learning Centre of US is described in depth in the article (Widła, Mrocheń, Póltorak 2009). The University of Silesia Distance Learning Centre provides technical support, course administration and training for teaching staff and students. Most recent data regarding the results of activity of the Distance Learning Centre (DLC) are as follows: The University of Silesia e-learning platforms, supported by DLC, offer students more than 8000 hours of effective work on the 12 faculty platforms as well as other specific e-learning platforms. (Promotion Video, prepared by DLC for DLCC2013, 2013).

– Project “*University as a Partner of the Knowledge Economy*” UPGOW (Smyrnova-Trybulska et al. 2009, 2010). The general goal of the project is

the spreading of education within society at every stage of learning as well as increasing the quality of educational services and their stronger linking to the requirements of the modern economy. The project includes more than 40 reviewed open e-courses on various topics in different fields of study.

– *University Television* (TV-UŚ, <http://telewizja.us.edu.pl/>). TV UŚ broadcasts and publishes a range of materials covering University news and events, provides promotion and information, current issues and campaigns. TV UŚ and DLC UŚ also run online broadcasts (Promotion Video, prepared by DLC for DLCC2013, 2013) (Smyrnova-Trybilska et al 2014);

– The international scientific conference “Theoretical and Practical Aspects of Distance Learning” (DLCC) web-site (www.dlcc.us.edu.pl), which was held from 2009 and devoted a research on e-learning and organizing with support a lot of IRNet partners universities from West, Central as well as East Europe and Australia.

IRNet project web-site (www.irnet.us.edu.pl)

The website www.irnet.us.edu.pl with branched structure, with personification and interactive services such as Forum was created by the Coordinator, University of Silesia, Poland and was started on the in February 2014. The website includes 9 menu (sub-page).

The site 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 website is intended to provide a basic resource for project participants and a source of knowledge for anyone seeking information on the project topic. It will also become a significant dissemination tool.

USOS system (University System of Students Services) — IT system to manage the course of study in high school (https://usosweb.us.edu.pl/kontroler.php?_action=actionx:news/default%28%29). The main areas of application of USOS (http://pl.wikipedia.org/wiki/Uniwersytecki_System_Obs%C5%82ugi_Studi%C3%B3w):

– offer educational institution (defining objects, activities, programs, dates, activities, etc.);

- support each student’s course of study (courses, evaluation, protocols, resumption of studies, etc.);
- matriculation students;
- Print and Electronic Support Student Identification Card;
- Student administration;
- Applications for social assistance;
- Employee salary;
- Work and diploma exams;
- Scholarships;
- Registrations for classes;
- Payments for educational services;
- Reporting;
- Export data to the POL-one; an integrated platform MNiSW;
- Inter university (including international) student exchange;
- survey:
 - US Facebook profile (<https://pl-pl.facebook.com/UniwersytetSlaski>)
 - Others services.

2.2. Projects and conferences websites at the Faculty of Natural Science UKF

There have been developed two specialised information systems, which provide all necessary services related to the registration and promoting the projects and conferences.

The information system (www.projekty.ukf.sk) collects information about all projects, which are realised at the university. It also provides options for viewing different statistics and creating several reports about the structure of the projects from different perspectives. It summarises information about the project researchers and the financial facets of the project. Moreover, each project can be promoted in the form of the sole website, which is managed by the project team. It provides all information related to the project’s objectives.

The conference information system is based on the open source solution OCS. It helps organisers to manage all tasks, which are related to the all phases of the conference. It provides standard way for publishing Call for papers, information for authors. It supports all stages of review process and the possibility to share the list of participants, manage the review process and create scheduled conferences is considered the most interesting feature of the system.

2.3. Projects and conferences web-site at the Pedagogical Faculty University of Ostrava

The University of Ostrava, founded in 1991, holds the DS Label and ECTS Label (2012). 10,000 students are studying at the University of Ostrava, nearly 3,500 of which are studying at the Pedagogical Faculty. The LMS Moodle has been the OU's main electronic educational environment for the last 10 years. It is primarily used in the combined study but it also supports the daily attendance study.

The ICTE (Information and Communication Technologies in Education) conference is annually held at the Pedagogical Faculty, which is aimed at the following thematic areas: Integration of ICT into education, The eLearning phenomenon, Software and hardware used in education, Educational projects, Personalized learning and 21st Century Educational Technologies. Another conference held every two years since 1993 is an international conference Pedagogical Diagnostics and Evaluation, which is aimed at the following thematic areas:

- Evaluation of key competencies in school education.
- Pedagogical diagnostics in the profession of teacher.
- National testing and international researches of the results of education.
- Diagnostics and evaluation in education of adults.
- Diagnostics and evaluation in social pedagogy.

The Pedagogical Faculty edits the ICTE Journal and its academic scholars are co-editors of the international scientific journal The New Education Review, which is published four times a year (in English) by the Adam Marszałek publishing house in Toruń, Poland.

3. RESEARCH RESULTS ANALYSIS

3.1. Results of students survey

Some results of research, conducted in frame IRNet Project (www.irnet.us.edu.pl) and Work Package 2 at the University of Silesia and at the Faculty of Ethnology and Sciences of Education allow for the development of a picture of today's student in the context of educational inquiry, network activities as well as in the framework of intercultural competences development. The analysis of the data obtained at the US shows that contemporary students are active Internet users.

The first group of questions was focused on students' attitude to scientific and educational relations, cooperation and their understanding the role of ICT in maintaining these activities. The sample questions and answers are given in *Tables 1–3*.

The analysis of data obtained at US, the Faculty of Ethnology of Education, similarly shows that students understand that cooperation and collaboration competences are needed to be successful in life. Simultaneously young people are generally not only active in network communities for using new information, they do transfer their everyday skills and activities from “entertainment” sphere to the educational, learning and professional sphere. For example, on the 3rd question near 24 % students check variants “Demonstrating own personal experience, knowledge, achievements” and “Organizing own events” and 16 % — “Finding new friends.” Maybe it is yet not enough, but relatively it is not a bad result.

Students of UKF agree that group and teamwork competencies are needed to be successful in life, but just a half of students say that teachers offer and require this form of work. Most of UKF students use social networks (almost 90 %) but just 40 % of teachers offer this type of communication. We are surprised that almost half of students say that social networks help them with studies. We think that students use social networks mainly for knowledge sharing and communication in their study group without the participation of the teacher. Students do not create content demonstrating own personal experience, knowledge, and achievements but they think that creating this kind of content can be beneficial when searching for employment as we can see in the second group of questions.

UKF students use social networks for sharing knowledge, asking for help more frequently in comparison with SU. This finding is in line with the previous answer, where more than 40 % of students stated, that the teachers give tasks when such social cooperation is necessary.

The University of Ostrava (Uo) students consider students' cooperation in solving problems to be important, and 40 % of them agree with the claim that group work and teamwork are essential to be successful in life. One fifth (22 %) of them think that the degree of cooperation should not be determined by the teacher and the same number of them state that teachers assign tasks that require cooperation of students. When cooperation is required, 67 % of students use social

Table 1

Evaluation of the students' need for cooperation in solving educational problems (group work and teamwork, etc.)

	US	UKF	OU
These objectives are not set by the teachers	16 %	17.4 %	22 %
Teachers offer tasks that require cooperation for successful solving	33 %	50.6 %	22 %
I strive to cooperate and ask teachers to offer such tasks	18 %	21.5 %	8 %
Such competences are needed to be successful in life	22 %	60.9 %	40 %
Without such competences it is impossible to be successful in business, for example, when creating start-ups	11 %	13.5 %	8 %

Table 2

The use of social services, such as social networks, for students' collaboration and teamwork (single choice)

	US	UKF	OU
No, I prefer face-to-face contact	41 %	10.6%	22%
No, teachers do not give tasks, oriented at mediated interaction	12%	59.4%	2%
Yes, it is a fast, convenient and modern way	42%	89.4%	67%
Yes, teachers give tasks when such cooperation is necessary	5%	40.6%	9%

Sig. of Chi-Test = 0,000

Table 3

**Specification of the main reason for the students' participation
in virtual communities of students (scientific, artistic, sports ones, etc.),
in social networks or other Internet services (single choice)**

	US	UKF	OU
Getting additional cultural knowledge (learning about events, broadening outlook, adopting cultural experience)	31 %	27.1 %	36 %
Helping with studies (sharing knowledge, asking for help)	18 %	51.5 %	40 %
Finding new friends	16 %	3.2 %	2 %
Demonstrating own personal experi- ence, knowledge, achievements	14 %	4.1 %	2 %
Organizing own events	10 %	3.2 %	0 %
I do not participate in such communities	11 %	10.9 %	20 %

Sig. of Chi-Test = 0,000

services such as social networks and only 22 % state that they prefer face-to-face contact. Students' questionnaire answers also show that the main reasons for their participation in virtual communities are "helping with studies" (40 % of students) and "acquiring additional cultural knowledge" (39 % of students). What is interesting is the number of students who do not participate in such communities. Overall, one fifth of students do not participate in such communities — 37.7 % of the combine study (CS) students do not use social networks. On the other hand, only 10.4 % of the daily attendance (DA) students do not use social networks.

The *second group* of questions was focused on the empowerment of self-realization in educational and professional activities, support of initiatives. The sample questions and answers are given in *Tables 4–5*.

Table 4

Choosing the reasons motivating to demonstrate in the university electronic environment the results of the students' academic, artistic, sporting activities (on the university web site, in social networks, etc.)

	US	UKF	OU
Opportunity to present myself and my achievements to others	26 %	18.5 %	23 %
Opportunity to be noticed by a potential employer	18 %	40.6 %	13 %
Prerequisite of studying a particular discipline	8 %	2.4 %	3 %
General interest	19 %	19.1 %	14 %
Own status upgrade	4 %	2.4 %	9 %
Opportunity to make new friends	7 %	1.8 %	9 %
I do not want to show myself and my achievements to others, because I have nothing to show	3 %	5.3 %	5 %
I do not want to show myself and my achievements to others, because I am not interested in it	15 %	10 %	24 %

Table 5

Choice of informational resources the students use most often when doing assignments, research or preparing reports, etc

	US	UKF	OU
Search engines (Google, Yandex, etc.) — Search by keywords	45 %	90 %	36 %
Printed publications (books, journals, guidelines, etc.)	16 %	51.5 %	28 %

	US	UKF	OU
Electronic scientific databases from your university library subscription (databases of electronic journals, full-text electronic resources, etc.)	14 %	31.2 %	11 %
Digital libraries in the Internet	10 %	44.1 %	6 %
Open storages of electronic educational resources (institutional repository, WIKI)	5 %	35.3 %	10 %
Video channels (YouTube)		40 %	6 %
File sharing, torrents		15.6 %	2 %
Webinars, podcasts		4.7 %	1 %

The US students' answers on the single choice questions and generally their declaration of approach to the empowerment of self-realization in educational and professional activities, support of initiatives are similarly relatively high but not a well- organized, coordinated and consciously structured and targeted. At the same time, nearly 18 % students on the 1st questions choose "Opportunity to be noticed by a potential employer". Probably this is a result of good activities of the Office of Careers University of Silesia in the area of students training and a lot of action concerning personal promotion of young people, in particular by Internet for finding a potential employer and increasing of competitiveness.

Students at UKF also do not want to share their activities although they use social networks like a usual part of their life. However, there are some students (40 %) that understand that sharing the portfolio of their own work can help them to find a job after they finish studies. Some students use social networks, as it is a prerequisite for studying a particular discipline. This percentage is too low, and these results confirm the low attitude of teachers to requiring and using this way of communication with students. All students at UKF use common search engines to find relevant information to prepare their assignments

and research. They do not focus just on information on the net, but half of students also use printed publication maybe as the more trusted source. The results show that the services of the University Library (access to scientific full-text databases, electronic resources, etc.) are well used at UKF.

Only a small portion of the UO students (24 %) are not interested in demonstrating the results of their academic, artistic, sporting activities in the university electronic environment (on the university website, on social networks, etc.). Out of the remaining 76 % of students, 23 % of them are interested in the possibility to present themselves and their achievements to others on social networks — 14 % of them out of interest and 13 % of them because they see it as an opportunity to be noticed by a potential employer. The DA students are more interested in being noticed by a potential employer, acquiring a scholarship or upgrading their own status.

The *third group* of questions was focused on the educational activities strategies that students prefer and their understanding the role of ICT in time and education activities management. The example is given in *Tables 6–7*.

Table 6

**Selection of educational activities strategy that students prefer
(single choice)**

	US	UKF	OU
I prefer that teachers monitor (remind, set deadlines, etc.) my work and its results.	28 %	52.6 %	38 %
I study independently and systematically, regularly perform tasks, plan my own time	67 %	40.9 %	58 %
I take the example of classmates — I follow the way they learn	5 %	6.5 %	4 %

Sig. of Chi-Test = 0,005

Table 7

**If the information technology instruments
(electronic diaries, organizers, calendars, reminders, etc.)
will help the students in the planning their own educational and
extracurricular activities (single choice)**

	US	UKF	OU
No, they will not make a significant effect	25 %	28.2 %	35 %
Yes, they will help greatly in organizing	59 %	54.1 %	45 %
My learning activities are already coordinated by teachers and administration	8%	12.6 %	11 %
I already use these instruments, but I find them hard to understand it	8%	5 %	9 %

Sig. of Chi-Test = 0,415

At US we received generally similar results regarding the aspect of education strategies in opinion of students, which is very interesting, especially in the context of lifelong learning. Simultaneously most students — 2/3 (67 %) prefer “Study independently and systematically, regularly perform tasks, plan my own time”. On the question “Will the information technology instruments (electronic diaries, organizers, calendars, reminders, etc.) help you in the planning your own educational and extracurricular activities? (Single choice question)” — 59 % of young respondents’ answers were “Yes, they will help greatly in organizing”. It is possible that one of the reasons for such approach and opinion also is the introduction of an Information Technology course, which students have during their first year in the university (30 hours) as at HSPU.

In contrast, students at UKF do not work so independently and individually. More than half of students need a teacher to control the process of study. Only 40 % of students can work systematically and plan their own time. There is no such course as at the US at the UKF during the first year at the university. It is common that students tend to keep the study system the used at high school. It is interesting that

almost 55 % of students say that calendars and reminders help them to the plan educational and extracurricular activities but in fact, they do not plan and work systematically. Maybe they use those tools just to keep deadlines set by teachers.

58 % of the sample of 171 UO students state that they prefer to study independently and systematically, regularly perform tasks, plan their own time. A relatively large portion of students (38 %) chose the answer that they prefer the teachers to monitor (remind, set deadlines, etc.) their work and its results.

Nearly half of the students (45 %) think that the EIE instruments will help them in the planning of their educational and extracurricular activities. The CS students are more sceptical — every fourth CS student believes that the EIE instruments will not help them with time management. The fact that they have already chosen other possibilities such as classic recorders, diaries, etc. and do not intend to change their habits may be one of the reasons. Every tenth female student is not using the instruments yet, but 46.8 % of them are contemplating using them (more than male students).

The questions help to see the level of students' understanding of the opportunities and role of self-guided work, which has become very important for lifelong learning. In addition, we see the use of ICT in learning and in self-development, self-realization, research, scientific activities. It is obvious that students possess partly the motivation and skills for collaboration and cooperation; however, they still need to see and realize all the possible opportunities of cooperation in the university e-learning environment.

Within the framework of the international project IRNet a questionnaire for academic teachers has been developed, which is conducted at the US as well as in other partner universities for developing a complementary study and comprehensive conclusions concerning students' and teachers' IT competences, their expectation regarding an quality education offer and capabilities, prospects of competitiveness on the labour market and the successful functioning in society of global competence.

3.2. Research survey for academic teachers

Also a research survey for academic teachers was prepared and carried out. The survey contained 17 questions in several categories:

- Teaching, educational work.

- Research.
- In-service training, professional development.
- Understanding the role of ICT in education, knowledge of information tools.

It is presented the following results of survey concerning teaching, educational work (*Tables 8–17*).

Table 8

Results of answers on the question “You are a (choose one option)”

	US	UKF	OU
Teacher	30.43 %	50 %	73 %
Professor	39.13 %	8.7 %	25 %
Associate Professor	8,70 %	30.4 %	2 %
Head of a structural unit of the University	21,74 %	0 %	0 %
Other	0 %	11 %	0 %

Table 9

The use of information and communication technologies in teaching (%) (evaluation on a scale from 1 to 5)

US	1	2	3	4	5
fragmentary use of information instruments in teaching subjects (presentation of information in the classroom, computer tests, the exchange of information by e-mail, etc.)	0	9	9	30	52
creating e-learning courses, using information technologies in the system	26	4	4	30	35

US	1	2	3	4	5
creating and supporting open educational resources (conducting mass open courses, have personal open educational resource (e-portfolio))	30	4	21	17	26

UKF	1	2	3	4	5
fragmentary use of information instruments in teaching subjects (presentation of information in the classroom, computer tests, the exchange of information by e-mail, etc.)	2.2	6.5	4.3	32.6	54.3
creating e-learning courses, using information technologies in the system	30.4	13	19.6	13	23.9
creating and supporting open educational resources (conducting mass open courses, have personal open educational resource (e-portfolio))	56.5	17.4	6.5	6.5	13

OU	1	2	3	4	5
fragmentary use of information instruments in teaching subjects (presentation of information in the classroom, computer tests, the exchange of information by e-mail, etc.)	12	5	20	15	48

OU	1	2	3	4	5
creating e-learning courses, using information technologies in the system	47	8	17	20	8
creating and supporting open educational resources (conducting mass open courses, have personal open educational resource (e-portfolio))	86	2	8	2	2

	Sig. Chi-test
fragmentary use of information instruments in teaching subjects (presentation of information in the classroom, computer tests, the exchange of information by e-mail, etc.)	0,000
creating e-learning courses, using information technologies in the system	0,000
creating and supporting open educational resources (conducting mass open courses, have personal open educational resource (e-portfolio))	0,000

The teachers at the UKF use ICT in teaching similarly like at the US. Creating of open educational resources represents the most significant difference between the universities. The possible explanation of this difference can be found in the overall strategy of the university. The management of the UKF focused partially on the development of e-learning courses and teachers' support. As we can see, there is still a room for improvement, because more than 30 % of teachers do not consider e-learning useful in teaching.

As far as 40 OU academic scholars are concerned, the following data have been acquired. Out of three possible answers, the majority of teachers (63 %) chose that they use information instruments

in teaching (presentation in class, computer tests, exchange of information via email, etc.) often or very often. 28 % of teachers often or very often create e-learning courses for their students and only one teacher has experience in creating and supporting open educational resources (conducting mass open courses, having personal open educational resource (e-portfolio)). Using the five-point scale (1 means low degree of use and 5 means high degree of use), the results can be interpreted as follows: The “first level” of the application of ICT was evaluated as above average (3.8). The degree of the “second level” of the use of ICT was significantly lower (2.3). The application in the form of massive open online courses or open educational resources was rare (1.4).

Table 10

**The use of resources of e-learning environment in teaching activities
(multiple choice)**

	US	UKF	OU
self-developed digital content in conducting classes (presentations, demonstration materials)	87 %	82.6 %	88 %
self-developed digital educational materials for student's self-study hours (digital textbooks, assignments, tests)	65 %	65.2 %	43 %
virtual laboratories (computer models for solving problems and studying the objects of study)	0 %	13 %	2 %
e-learning books (university library, public library) as the main recommended sources	30 %	23.9 %	12 %
e-learning books (university library, public library) as the additional recommended sources	48 %	30.4 %	20 %

	US	UKF	OU
updated annotated lists of the current sources of educational information in the field taught (including lists supported in collaboration with the students)	22 %	13 %	2 %
thematic websites	57 %	45.7 %	40 %
training programs	43 %	21.7 %	17 %
digital multimedia learning objects from the available collections	39 %	37 %	10 %
fragments of films, TV or radio programs, etc	52 %	50 %	45 %
self-developed e-courses (using the LMS, for example Moodle)	52 %	39.1 %	17 %
resources from scientific databases subscribed to by the university	26 %	28.3 %	25 %
electronic resources as a result of the students' project activities	60 %	30.4 %	28 %
institutional repository (repository of electronic resources of the university)	26 %	17.4 %	0 %
others (please specify)		4.3 %	0 %

We can see many similarities between the universities. The use of training programs, self-developed e-learning courses and electronic resources created as a result of the students' projects belong to the most interesting differences.

Table 11

Evaluation of the importance purpose of using electronic educational resources in teaching activities (%) (evaluation on a scale from 1 to 5)

US	1	2	3	4	5
to organize students' self-study hours (individual tasks)	4	13	13	43	35
to provide necessary training materials	4	22	22	13	52
to organize group, collective or independent work of students	4	22	22	30	39
for control, self-control and reflection	4	26	26	22	43
to provide educational services in the distance form	22	13	13	13	43
to increase students' interest in the field taught (additional materials, professional, scientific information)	0	35	35	17	48

UKF	1	2	3	4	5
to organize students' self-study hours (individual tasks)	17.4	8.7	21.7	30.4	21.7
to provide necessary training materials	10.9	6.5	10.9	23.9	47.8
to organize group, collective or independent work of students	19.6	13	21.7	28.3	17.4
for control, self-control and reflection	21.7	10.9	32.6	17.4	17.4

UKF	1	2	3	4	5
to provide educational services in the distance form	26.1	17.4	21.7	17.4	17.4
to increase students' interest in the field taught (additional materials, professional, scientific information)	8.7	15.2	30.4	21.7	23.9

OU	1	2	3	4	5
to organize students' self-study hours (individual tasks)	15	7	30	25	23
to provide necessary training materials	10	7	23	27	33
to organize group, collective or independent work of students	15	10	35	33	7
for control, self-control and reflection	20	15	30	30	5
to provide educational services in the distance form	23	7	12	35	23
to increase students' interest in the field taught (additional materials, professional, scientific information)	15	12	33	25	15

	Sig. Chi-test
to organize students' self-study hours (individual tasks)	0,003
to provide necessary training materials	0,000

	Sig. Chi-test
to organize group, collective or independent work of students	0,000
for control, self-control and reflection	0,000
to provide educational services in the distance form	0,000
to increase students' interest in the field taught (additional materials, professional, scientific information)	0,000

We can see that the use of electronic educational resources in teaching activities depends closely on the teachers' attitude to the e-learning and ICT in general. Teachers mostly agree that e-learning course provides easy way for sharing necessary training materials. They also partially agree that this environment can be helpful for control, assessment and can increase students' interest in given subject.

Table 12

Choice of the instruments the teachers use to control changes in the trajectory of a student's learning activity (multiple choice)

	US	UKF	OU
electronic journal	61 %	19.6 %	5 %
student's individualized educational portfolio within the subject	57 %	37 %	30 %
student's individualized educational portfolio within the educational program	22 %	19.6 %	10 %
student's individualized educational portfolio reflecting his or her scientific and social activities, interests	35 %	17.4 %	12 %

	US	UKF	OU
do not use	17 %	41.3 %	63 %
others (please specify)	0 %	2.2 %	2 %

Results of this survey probably is caused a global use of USOS system (University System of Students Services) by the University of Silesia — IT system to manage the course of study in high school, which is offered in educational institution (defining objects, activities, programs, dates, activities, etc.); supports each student's course of study (courses, evaluation, protocols, resumption of studies, etc. Also the students of US actively participating in a lot of distance courses in Moodle system, which includes, offers and ensures a different electronic services, take account in this survey.

UKF teachers do not use very often an electronic personal portfolio. The first reason is that such system is not implemented at the UKF. Moreover, as it was mentioned before, the students do not like to share their results in public. However, they consider their study results and successes can be interesting for potential employers.

Data collected at three universities show that at the US the use of electronic tools for the control of the changes in the trajectory of students' learning activity (electronic journals) is more significant. The UO teachers are not yet familiar with the ELE possibilities and use students' course portfolios to influence their learning activities.

Table 13

**Software that the teachers use in teaching activities (%)
(evaluation on a scale from 1 to 5)**

US	1	2	3	4	5
programs of office suites, e-mail, search engines, etc.	4	0	4	26	65
programs for management the learning process and the electronic content	17	4	17	26	35

specialized computer programs in the field taught	35	4	4	21	35
new modern gadgets and services (network, mobile, etc.)	35	9	22	4	30

UKF	1	2	3	4	5
programs of office suites, e-mail, search engines, etc.	8.7	2.2	4.3	8.7	76.1
programs for management the learning process and the electronic content	39.1	4.3%	17.4	26.1	13
specialized computer programs in the field taught	50	8.7	2.2	6.5	32.6
new modern gadgets and services (network, mobile, etc.)	43.5	17.4	15.2	13	10.9

OU	1	2	3	4	5
programs of office suites, e-mail, search engines, etc.	10	4	20	8	58
programs for management the learning process and the electronic content	58	15	17	8	2
specialized computer programs in the field taught	58	7	15	13	7
new modern gadgets and services (network, mobile, etc.)	17	10	17	20	36

	Sig. Chi-test
programs of office suites, e-mail, search engines, etc.	0,000
programs for management the learning process and the electronic content	0,000
specialized computer programs in the field taught	0,000
new modern gadgets and services (network, mobile, etc.)	0,000

Table 14

Communication networks that the teachers use in the learning process (multiple choice)

	US	UKF	OU
messaging (e-mail, instant messaging LMS, etc.)	96 %	93.5 %	85 %
network discussions (blog, forum)	57 %	21.7 %	13 %
teleconference	43 %	4.3 %	2 %
media channel (publication of audio and video files, comments)	43 %	23.9 %	20 %
collective work on documents (wiki, collective smart cards)	39 %	26.1 %	8 %
social networks	30 %	23.9 %	10 %
do not use	0 %	6.5 %	13 %
others (please specify)	0 %	4.3 %	2 %

Table 15

**Choice of the purposes of using the network communications
in teaching activities (multiple choice)**

	US	UKF	OU
to consult students	78 %	93.5 %	68 %
to discuss educational problems, online discussions	52 %	34.8 %	40 %
to evaluate and comment the completed tasks	57 %	47.8 %	60 %
to organize telecommunication projects	48 %	2.2 %	0 %
to create educational, scientific community network	35 %	13 %	8 %
to organize students peer-assessment	39 %	17.4 %	15 %
do not use	4 %	4.3 %	13 %
others (please specify)	0 %	0 %	5 %

The table shows that the organisation of telecommunication projects, students' peer-assessment activities and creating of community networks are not widely supported at the UKF. These activities are partially integrated and used in VLE Moodle.

At the UO, the most frequently used tools for communication between teachers and students are emails or the LMS (used by 85 % of teachers). The most frequent reason for the use of network communication is the need of consultation with students (68 % of teachers). 60 % of teachers think that they could be used in the evaluation and feedback of students' tasks and homework and 40 % of them would like to use them in the discussions over study problems, preferably in the online mode.

Table 16

Choice of the preferred option for providing every student with the electronic resources (multiple choice)

	US	UKF	OU
the same set of electronic resources for all students	61 %	76.1 %	55 %
electronic resources to align knowledge and skills	78 %	26.1 %	50 %
electronic resources for advanced students	39 %	15.2 %	2 %
electronic resources with regard for the styles of learning activities	39 %	19.6 %	30 %
electronic resources to help students in orienting and choosing resources in wide information environment	43 %	41.3 %	18 %
others (please specify)	0 %	0 %	8 %

This results will be additionally a analysing and interpreted, but previous conclusion show that teachers from Faculty of Ethnology and science of Education US more actively use and preferred option for providing every student with the electronic resources. This is perhaps that is conditioned by the nature and specificity of the faculty and fields of study, pedagogical area and sciences, what determines the specific consideration of learning styles and provide individualized teaching and learning activities.

A slight majority of OU teachers (55 %) consider providing all students with the identical set of tools to be the best way to ensure that electronic resources are useful for all students. Half of the teachers think that the best way of providing students with electronic resources is the way that takes their knowledge and skills into account (the question is whether this option is realistic or theoretical as both the adaptive and personalized systems of online education are only in the phase of theoretical solutions being transferred to practical applications).

Nearly one third of teachers (30%) stated that it would be best if electronic resources could take students' learning styles into account. The abovementioned commentary is also applicable for this variant. The answers show that the university teachers of the researched area reflect current principles of the particular educational policy and can imagine their application in the researched area.

Table 17

Choice of the preferred option for network communication with a student in the learning process (multiple choice)

	US	UKF	OU
unified communication tools for all students	56 %	67.4 %	63 %
various means of network communication with the teacher, in the group (student can choose)	56 %	10.9 %	25 %
consideration of proposals and preferences of the students concerning the ways of network communications	34 %	10.9 %	10 %
do not use network communication	0 %	15.2 %	13 %

The students and teachers of the UKF use standard communication tools. E-mail communication is the most proffered way and it is also defined in internal regulations of the university. Therefore, the use of other tools is evaluated so low. The use of integrated communication channels and services in the VLE Moodle also belongs to this category of tools.

Similarly to the other two universities, the majority of OU teachers (63 %) prefer using unified communication tools for all students and only one fourth of them would rather use tools that the students themselves would choose. Every tenth teacher prefers a way of communication that is based on the students' preferences.

Conclusion

After a preliminary analysis initial conclusions can be drawn — that there is a contradiction between students' expectations in the field of using ICT and e-learning for support of education in formal activities as well as in informal extracurricular activities and the approach of academic staff regarding global and comprehensive knowledge and use of contemporary digital tools and methods in their didactic and scientific work. And that is why these results are consistent with the defined and described aims of the project, such as in particular: to analyse and evaluate social, economic, legal and ethical conditions, aims focused on methodologies and models of e-learning techniques being developed in the European and third countries involved into the project, to evaluate the effectiveness of the existing models / methodologies designed to provide e-learning. After a more detailed analysis these could be used for improving the quality of education, based on innovative methods and techniques as ICT and e-learning as well as for developing friendly and functional IT infrastructure and educational and informational environment of the university.

Summing up all issues mentioned above, one should highlight the value and multipurpose character of the internet services of the Faculty of Ethnology and Sciences of Education and some Internet services of the Faculty of Science, Constantine the Philosopher University in Nitra and Pedagogical faculty of University of Ostrava, which help to identify right solutions for different educational, academic, scientific and social issues that have proved to be difficult or impossible to solve in a conventional manner.

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