

# IT tools - Good Practice of Effective Use in Education



University of Silesia in Katowice,  
Faculty of Ethnology and Sciences  
of Education in Cieszyn

# **IT tools - Good Practice of Effective Use in Education**

**Monograph**

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## TABLE OF CONTENTS

<b>Introduction</b> .....	9
<b>Chapter I. IT Tools – Good Practice of Effective Use in Education:</b> .....	13
Kazimierz Wenta (Poland) <b>INNOVATION AND CREATIVITY IN E-LEARNING</b> .....	13
Tatiana Noskova, Tatiana Pavlova, Olga Yakovleva (Russian Federation), Natalia Morze (Ukraine), Eugenia Smyrnova-Trybulska (Poland), Peter Švec, Júlia Tomanová, Martin Drlík, Martin Cápaj (Slovakia) <b>IT TOOLS IN A UNIVERSITY – E-LEARNING ENVIRONMENT: STUDENTS’ OPINION SURVEY</b> .....	27
Nataliia Morze, Oksana Buinytska, Bohdan Hrytseliak (Ukraine) <b>IMPLEMENTATION OF CORPORATE STANDARDS OF ICT COMPETENCE – GUARANTEE QUALITATIVE OPEN ELECTRONIC ENVIRONMENT OF THE UNIVERSITY</b> .....	41
Barbara Kołodziejczak, Magdalena Roszak, Anna Ren-Kurc, Wojciech Kowalewski, Wiesław Półjanowicz (Poland) <b>COMMUNICATION TOOLS IN E-LEARNING PORTALS</b> .....	61
Iwona Mokwa-Tarnowska (Poland) <b>HOW TO ENGAGE STUDENTS IN ONLINE LEARNING – WEB-ENHANCED AND BLENDED ESP CLASSES</b> .....	79
Przemysław Żebrok, Eugenia Smyrnova-Trybulska (Poland) <b>ELECTRONIC REGISTERS IN THE SCHOOL AND DETERMINANTS OF THEIR EFFECTIVE IMPLEMENTATION</b> ....	87
<b>Chapter II. E-learning and Intercultural Competences Development in Different Countries:</b> .....	105
Curaoğlu, O., Yavuzalp, N., Gürer, M. D., Durmuş, S., Akayoğlu, S., Bahar, M., Kiliç, F., Tekinarslan, E., and Demirel, M. (Turkey) <b>ICT EDUCATION IN TURKEY: NATIONAL ICT CURRICULUM TO IMPROVE TEACHING AND LEARNING</b> .....	105

Milena Janakova (Czech Republic) <b>INFORMATION TECHNOLOGY AND EDUCATION: DOES EDUCATION NEED EXAMPLES OF PRACTICE WITH POSITIVE AND NEGATIVE EFFECTS?</b> .....	115
Ewa Ogrodzka-Mazur, Anna Szafrńska-Gajdzica (Poland) <b>EDUCATIONAL POLITICS AND INTERCULTURAL EDUCATION – POLISH PERSPECTIVE</b> .....	121
Jerzy Kuck, Danuta Kaźmierczak (Poland) <b>BUSINESS PROCESS MANAGEMENT AS A SUPPORT FOR E- LEARNING DEVELOPMENT IN POLAND</b> .....	133
Josef Malach, Kateřina Kostolányová, Milan Chmura (Czech Republic) <b>ACADEMIC SCHOLARS‘ VIEW ON THE CONTRIBUTION OF ICT TO THE ENHANCEMENT OF DISTANCE LEARNING ELEMENTS OF UNIVERSITY STUDIES</b> .....	153
Irena Pulak (Poland) <b>PREPARING STUDENTS FOR THE USE OF E-LEARNING IN HIGHER EDUCATION</b> .....	181
Aldona Molesztak, Anna Pawiak (Poland) <b>INFORMATION SOCIETY AND THE NECESSARY DIGITAL SKILLS</b> .....	193
Gürer, M. D., Yavuzalp, N., Curaoğlu, O., Durmuş, S. , Akayoğlu,S., Bahar, M., Kiliç, F., Tekinarslan, E., and Demirel, M. (Turkey) <b>ONE YEAR EXPERIENCE OF DISTANCE EDUCATION AT ABANT IZZET BAYSAL UNIVERSITY</b> .....	203
<b>Chapter III. Theoretical, methodological and practical aspects of distance learning</b> .....	221
Morze Nataliia, Barna Olha, Kuzminska Olena, Vember Viktoriia (Ukraine) <b>FORMATION OF ICT COMPETENCES THROUGH THE SYSTEM OF COMPETENCY TASKS: FROM IDEA TO PRACTICAL IMPLEMENTATION</b> .....	221
Magdalena Roszak, Barbara Kołodziejczak, Andrzej Bręborowicz,	

Wiesław Póljanowicz (Poland) <b>MEDICAL DISTANCE EDUCATION - GOOD PRACTICES.....</b>	237
Halina Widła, Aleksandra Serwotka (Poland) <b>TEACHING FRENCH AS THE THIRD LANGUAGE: THEORETICAL ASPECTS AND A WEB-BASED COURSE REDUCING THE NEGATIVE TRANSFER OF SELECTED VERBAL CONSTRUCTIONS FROM ENGLISH TO FRENCH.....</b>	249
Sorokina Lyudmyla, Karimov Ivan, Karimov Gennadiy, Zayarna Iryna (Ukraine) <b>BASIC ASPECTS OF FORMING ICT-COMPETENCES OF SOCIOLOGISTS.....</b>	263
Anna Ślósarz (Poland) <b>MODELS OF SELF-PRESENTATION AS SUPPLIED BY UNIVERSITY STUDENTS IN REMOTE LECTURES.....</b>	273
<b>Chapter IV. Distance learning and lifelong learning.....</b>	287
Roman Šperka (Czech Republic) <b>BUSINESS PROCESS MANAGEMENT SOFTWARE APPLICATION FOR ENHANCING COMPANIES' KEY PERFORMANCE INDICATORS: EDUCATION APPROACH.....</b>	287
Agnieszka Gadomska, Jarosław Krajka (Poland) <b>PEDAGOGICAL SOLUTIONS IN E-TEACHER TRAINING – TOWARDS EFFECTIVE TECHNOLOGY ADOPTION BY TEACHERS.....</b>	299
Pavel Kapoun (Czech Republic) <b>TAILORED COURSES FOR PROFESSIONAL LIFE.....</b>	315
Nadiya Balyk, Galina Shmyger (Ukraine) <b>PROFESSIONAL TRAINING TEACHERS UNIVERSITY IN E- LEARNING.....</b>	325
Piotr Jagodziński, Robert Wolski (Poland) <b>REMOTE SYSTEM LEARNING IN PREPARING STUDENTS TO BECOME TEACHERS.....</b>	337
Iryna Vorotnykova (Ukraine) <b>NETWORK COMMUNITIES FOR PROFESSIONAL</b>	

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<b>DEVELOPMENT OF TEACHERS.....</b>	<b>347</b>
<b>Chapter V. Methods, forms and techniques in distance learning:</b>	<b>353</b>
Małgorzata Bartoszewicz (Poland) <b>E-LEARNING IN HIGHER EDUCATION IN PRACTICE.....</b>	<b>353</b>
Tatiana Prextová (Czech Republic) <b>ADAPTIVITY OF TESTING IN EDUCATION PROCESS.....</b>	<b>359</b>
Wojciech Malec (Poland) <b>FOSTERING AUTONOMOUS LEARNING WITH THE AID OF ONLINE TECHNOLOGY.....</b>	<b>369</b>
Miroslav Hrubý (Czech Republic) <b>THE IMPORTANCE OF STUDENTS' ALGORITHMIC THINKING SKILL IMPROVEMENT.....</b>	<b>381</b>
Adam Adamski (Poland) <b>SENSUAL PERCEPTION AND MENTAL PROCESSES ARE MANAGED BIOCOMPUTER.....</b>	<b>389</b>



## INTRODUCTION

“Information technology (IT) tools in education have been primarily intended to serve two distinct goals, first expanding access to educational opportunities for learners who would not otherwise have them and second, improving the quality and effectiveness of teaching and learning for all. The Digital Planet 2006 report from the World Information Technology and services Alliance (<http://www.witsa.org>) states as follows: Indeed, despite the expected peaks and valleys, countries around the globe are finding ICT the indispensable technology for increasing productivity, raising the standard of living, delivering greater educational opportunities, improving healthcare and human services and eliminating barriers to greater participation in world market” (Evaluation of the design and Development of IT Tools in Education, Thomas C. Reeves, Chapter International Handbook of Information Technology in Primary and Secondary Education Volume 20 of the series Springer International Handbook of Information Technology in Primary and Secondary Education pp 1037-1051)

As a response to these challenges a monograph has been prepared and the IRNet project has been launched ([www.irnet.us.edu.pl](http://www.irnet.us.edu.pl)) with participating thirty researchers from ten countries. In the framework of Work Package 4 there was conducted research in the scope of selecting and testing new IT tools: social media, selected Web 2.0 and Web 3.0 Massive Open Online Courses, etc.; evaluating synchronous and asynchronous tools, methodologies and good practices; comparing and evaluating LMS (learning management systems), CMS (Contents Management Systems), VSCR (Virtual Synchronous Classrooms), SSA (Screen Share Applications), CSA (Contents Sharing Application), Cloud Computing Environment; identifying and defining profiles of virtual campus, virtual learning environment and virtual synchronous classroom; reviewing and comparing virtual classrooms (VCR) based on hardware equipment against the ones based on PCs; identifying VCRs which better serve the teacher’s or student’s activities; comparing from the technological point of view the best known VCR (PC based) available in the market; analyzing the technological profile that virtual classrooms should have to ensure a good pedagogic result; characterizing methodological and technological aspects of multimodal didactic communication; identifying the general methodological aspects of VCR with a special focus on online tutoring, continuous online evaluation and good practices; testing IT tools in concern with effective developing ICT and e-learning competences as well as in design of intercultural competences.

The monograph “IT tools - Good Practice of Effective Use in Education” includes the best papers, prepared and presented by authors from seven European countries and from more than twenty universities during the scientific conference entitled “*Theoretical and Practical Aspects of Distance Learning*”, subtitled: “*IT tools - Good Practice of Effective Use in Education*”, which was held between 12-13 October 2015 at the Faculty of Ethnology and Sciences of Education in Cieszyn, University of Silesia in Katowice, Poland.

The speakers were from the University of Ostrava (Czech Republic), Extremadura University (Spain), UCL Institute of Education in London (United Kingdom), Graal Institute (Portugal), Constantine the Philosopher University in Nitra (Slovakia), The Lisbon University (LU) (Portugal), Borys Grinchenko Kyiv University (BGKU), (Ukraine), Gdańsk Technical University (Poland), Abant İzzet Baysal University, Bolu, (Turkey), Herzen State Pedagogical University of Russia, St. Petersburg, (Russian Federation), Dniprodzerzhinsk State Technical University (DSTU), (Ukraine), Jagiellonian University (Poland), Warsaw University (Poland), Silesian University in Opava (Czech Republic), University of Silesia in Katowice (Poland), University of Defence in Brno (Czech Republic), Maria Curie-Skłodowska University in Lublin (Poland), Lublin University of Technology (Poland), Kazimierz Wielki University in Bydgoszcz (Poland), Cracow Pedagogical University (Poland), Lisbon Open University (Portugal), Centre for Innovation, Fryderyk Chopin University of Music in Warsaw (Poland), University of the Basque Country (Spain), Higher School of Economics in Katowice (Poland), Cardinal Stefan Wyszyński University (Poland), Leaneus University (Sweden), University of Social Sciences and Humanities in Warsaw (Poland), Poznań University of Medical Sciences (Poland), Adam Mickiewicz University in Poznań, (Poland), University of Social Sciences and Humanities in Warsaw (Poland), University College of Social Sciences, Częstochowa, (Poland), Jesuit University of Philosophy and Education "Ignatianum" in Cracow (Poland) and other educational institutions.

The authors include well-known scholars, young researchers, highly trained academic lecturers with long experience in the field of e-learning, PhD students, distance course developers, authors of multimedia teaching materials, designers of web-sites and educational sites.

I am convinced that the monograph will be an interesting and valuable publication, describing the theoretical, methodological and practical issues in the field of the use of e-learning for societal needs, offering proposals of solutions to certain important problems and showing the road to further work in this field, allowing for exchange of experiences of scholars from various universities from many European countries and other countries of the world.

This book includes a sequence of responses to numerous questions that have not been answered yet. The papers of the authors included in the monograph are an attempt at providing such answers. The aspects and problems discussed in the materials include the following:

- analyzing and comparing IT-tools for education,
- contrastive analyses and evaluation of ICT and e-learning competences in different countries,
- e-learning methodology which is not yet fully developed and specified, both within the EU and in third countries,
- information and educational environment of blended learning: aspects of teaching and quality

- intercultural aspects of higher education in the globalised world
- e-learning as an innovation of methods and techniques in the different education system
- the legal, ethical, human, technical and social factors of ICT and e-learning development and the state of intercultural competences in different countries
- effectiveness and quality of e-learning in various areas of science and education
- ICT competence in modern school and university
- Formal, non-formal and informal distance education and LLL
- A new role and possibilities of using e-learning for lifelong learning (LLL);
- Teachers' and learners' competences in distance learning and computer science;
- A relation between building an information educational environment of the university (school) and forming lecturers' (teachers') ICT competences
- efficient use of e-learning in improving the level of students' key competences;
- pedagogical and methodological aspects of cloud computing;
- mobile technologies – effectiveness of online technologies used in real education
- distance learning of humanities as well as science and mathematics – a differentiated approach;
- how to successfully use e-learning in the training of professionals in the knowledge society
- psychological, cultural and social aspects of distance learning;
- e-learning and social media for the disabled; the use of Internet technology and social media for people with limited abilities and special needs – theoretical and practical aspects of their use;
- appropriate, efficient methods, forms and techniques in distance learning;
- educational strategies to enhance learners' motivation in e-learning, etc.

Publishing this monograph is a good example of expanding and strengthening international cooperation. I am very grateful for valuable remarks and suggestions which contributed to the quality of the publication. Here I especially want to thank Andrzej Szczurek for his assistance in editing this publication. Also, I would like to say 'thank you' to the authors for the preparation and permission to publish their articles. I wish all readers a pleasant read. Thank you.

Eugenia Smyrnova-Trybulska