

United Nations Educational, Scientific and Cultural Organization





UNESCO Institute for Information Technologies in Education
ACTIVITY REPORT
2012-2013

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#### **Foreword**

I am delighted to introduce the IITE Activity Report for 2012-2013 on behalf of the Governing Board, which includes 11 experts of international repute. The Governing Board meets annually to review IITE activities and approve the agenda for the forthcoming year. Governing Board members have firsthand evidence of IITE activities and highly rank the level of its achievements in promoting ICT use in education.

ICTs expand access to education, ensure equity in education and the delivery of quality learning and teaching, support teachers' professional development and improve education management, governance and administration. IITE is a unique institution whose expertise in ICT in education is offered to all UNESCO Member States. As UNESCO's specialized resource centre and provider of technical support and expertise in the use of ICT in education, IITE supports bridging the digital divide in education and building inclusive knowledge societies by reinforcing national capacities in promoting e-environments for increasing access to education and lifelong learning, facilitating policy dialogue, and initiating the development of national strategies on the application of ICTs in education.

Through its activities, IITE contributes to the achievement of internationally agreed Education for All goals (Dakar 2000) and United Nations Millennium Development Goals (MDGs), implementation of the Plan of Action for the United Nations Literacy Decade (2003-2012), International Implementation Scheme for the United Nations Decade of Education for Sustainable Development (2005-2014), the UN Global Education First Initiative (2012), as well as other international commitments such as Bonn Declaration - World Conference on Education for Sustainable Development (2009), the Communiqué of the 2009 World Conference on Higher Education, Moscow Framework for Action and Cooperation – the World Conference on Early Childhood Care and Education (2010), UNESCO Paris Declaration on Open Educational Resources (2012) and the Moscow Declaration on Media and Information Literacy (2012).

In 2012-2013, the Institute continued the transitional arrangements initiated during the previous biennium. In accordance



with the recommendations of the Internal Oversight Service, IITE revised its 2013 programme and focused it on fewer activities, in which IITE has considerable advantage, with the intention to get a greater impact. To support programme priorities, the Institute reformed its organizational structure. Being mindful of the limitations of its size and budget, IITE has positioned itself to contribute in the most strategic way to the promotion of ICT in education through ICT in teacher development, Open Educational Resources and digital pedagogy. I am confident that IITE will be consistent in improving its programme delivery and operating environment and continue its valuable contributions in the programme focus domains during the coming years.

I would like to take this opportunity to convey my congratulations to Dendev Badarch and all IITE staff on the intense work they have been doing despite the current difficulties and budget cuts and express appreciation to my Governing Board colleagues for their support during the last four years.

> Bernard Cornu Chairman of IITE Governing Board

#### Introduction

The mission of the UNESCO Institute for Information Technologies in Education is to serve as a centre of excellence and provider of technical support and expertise in the ICT usage in education in order to contribute to the design and implementation of the programmes of the Organization in this field. The IITE Statutes assigns the following functions for the Institute:

- (a) to promote collection, analysis, dissemination and exchange of information on the use of information and communication technologies in education;
- (b) to provide at the request of Member States advisory services and promote studies in Member States on the application of information and communication technologies in education;
- (c) to offer technical assistance based on research findings in the design of curricula and courses on the use of information and communication technologies in education;
- (d) to organize pre- and in-service training, including open and distance education, for educational personnel on the use of information and communication technologies in education, giving priority to developing countries and countries in transition;
- (e) to foster the development of UNESCO regional programmes on the application of information and communication technologies in education in all Member States.

In line with the UNESCO Medium-Term Strategy for 2008-2013 and the priorities of the UNESCO Education Sector oriented towards the scaling up of equity, inclusion and quality in education and lifelong learning, in 2012-2013 IITE built its efforts upon the progress achieved in 2010-2011 and focused its activities on the achievement of the following strategic objectives:

(1) Capacity enhancement of Member States on ICTs in education through evidence-based policies, teacher professional development and equity access for vulnerable groups.

(2) Fostering ICT-enhanced learning through knowledge sharing, Open Educational Resources (OER), networking and cooperation.

Particularly with regard to policy advocacy, capacity development and knowledge sharing in the field of ICTs in education the Institute acted through:

- (a) evidence-based policy research, analytical studies and the collection and dissemination of best practices on the use of ICTs in education;
- (b) provision of technical assistance and training for the capacity development of Member States on the application of ICTs in education, with particular emphasis on teachers.

The priority areas of IITE work included:

- (1) strengthening the knowledge and skills of policy-makers and educational professionals on ICTs in education through policy dialogue, high-level policy advice, improving access and exchange of information on ICTs in education;
- (2) developing and implementing advanced online/offline training courses and programmes for educators on ICT in Education, including an International Advanced Training Programme (at master level) on ICT use in teachers' professional development;
- (3) fostering ICT-enhanced learning through knowledge sharing and Open Educational Resources; and
- (4) reinforcing and updating UNESCO Chairs' network operating in the field of ICTs in education and innovation pedagogy, as well as the network of UNESCO Associated Schools working in this field.

The IITE's programmes and activities covered relevant issues of ICT application at all stages and in all forms of education – from early childhood to higher education. The Institute developed policy briefs, analytical surveys and training materials for educators and top educational managers. It supported Member States in using ICTs for inclusive education, with the aim of expanding the learning opportunities to excluded groups of children. Acting as a clearinghouse, the IITE continued publication activities and

prepared and disseminated educational materials, handbooks and toolkits in the field of open educational resources, teacher training, and research in the field of new ICT-enhanced learning methodologies.

In 2012, IITE was evaluated by the Internal Oversight Services, which provided a number of valuable recommendations. As a follow-up of the recommendations and in line with the Institute Improvement Plan IITE has started conscious efforts to optimize its activities aimed to:

- Secure a minimum core of human and financial resources
- Refocus IITE's work programme
- Clarify UNESCO's strategy and house-wide division of labour in ICTs in education
- Scale up efforts at fundraising and partnership-building
- Improve overall operating environment

In compliance with its mandate and the Improvement Plan, to streamline programme delivery, foster synergies and enhance teamwork across Institute units, it was restructured in two programme sections: a) Teacher Professional Development and Networking and b) Digital Pedagogy and Learning Materials.

The first area covers the promotion of the use of ICT in teacher professional development in different sectors and at different levels of education through targeted initiatives and partnership with UNESCO global and regional networks as well as partners from public and private sectors. The main objective is assistance to Member States in developing standards for ICT compentency in education and appropriate tools for its development and improvement, coordination and support to UNESCO global and regional network activities, as well as expanding of partnership with public and private sectors.

The section of Digital Pedagogy and Learning Materials deals with the promotion of ICTs to expand access to education and to enhance the quality of education through the use of open educational resources and open educational practices. This envisages targeted initiatives in the Member States to promote OER and Media and Information Literacy. Advancement of digi-

tal pedagogy covers innovative pedagogical technologies, novel engineering approaches to the design of learning objectives, content and assessment in order to improve the efficiency of ICT use in education.

Policy advocacy, technical assistance to Member States in the formulation and implementation of their national strategies and policies for ICT in education, as well as UNESCO's Priorities "Africa" and "Gender Equality" acquired transversal dimension within the programme activities.

In the years to come, the Institute will continue implementing the Improvement Plan. It will strengthen results-based programming, monitoring and reporting, and continue expanding its cooperation with UNESCO offices and institutes worldwide, divisions and sections in the UNESCO Secretariat.

I would like to express gratitude to the Government of the Russian Federation for its financial contribution and for providing the premises for IITE, to the Member States and organizations that have supported the Institute's activities intellectually and financially. I would also like to thank all those whose support was immensely important for IITE: colleagues at UNESCO Headguarters and in the field, in particular the Director-General Irina Bokova, the Assistant Director-General for Education Qian Tang and the Assistant Director-General for Communication and Information Janis Karklins. We are profoundly grateful for the cooperation and support of private and public sector partners whose contributions expanded the UNESCO allocation to the IITE budget. Finally, I would like to express my deep appreciation to all IITE Governing Board members and to Mr. Bernard Cornu, who had been with IITE and served as Chairperson of the Governing Board since 2009.

I am pleased to invite you to read IITE Activity Report for 2012-2013.

Dendev Badarch Director a.i.

# POLICY ADVOCACY AND TECHNICAL ASSISTANCE

With the aim of advocating the strategies, policies and best practices of ICT application in education the Institute organized a next in the series of IITE international conferences - IITE-2012 - "ICTs in Education: Pedagogy, Educational Resources and Quality Assurance" in Moscow, Russia to provide a floor for deliberations on the development and implementation of innovative teaching and learning methodologies for achieving Education for All (EFA) goals in the Member States. The Conference became the platform for constructive dialogue on recent trends and innovative approaches in efficient use of ICT in education among policy-makers, academic community, representatives of the private sector and potential donors. In the framework of the Conference, the concept of "new pedagogy", that envisages technologies as a significant tool and accelerator of the process aimed at updating and enriching knowledge and skills of those who take part in the educational





process, was discussed. 148 participants from 40 Member States debated over the potential of ICT and analysed the existing experience on information resources and education technologies applications to ensure accessible education for all, including disabled people, as well as women and girls. In addition to the main topics of the Conference, inclusive education, outreach and the issues of gender equality in education were discussed.

Within the Conference IITE organized the Ministerial Round Table on ICT in Education. This high-level event brought together senior officials from ministries of education, authorities, rectors of teacher training universities from the CIS, the Baltic States and several other countries. Totally 20 policy makers from 12 countries (Armenia, Azerbaijan, Belarus, Iran, Latvia, Lithuania, Mongolia, Moldova, Oman, Russia, Slovenia, Uzbekistan) took part in this event. During the meeting the issues of state policy-making in the field of ICT usage in education, including the elaboration of the national standards of teachers ICT competency, as well as application of open educational resources were discussed.

The Conference proceedings are published and uploaded to the IITE website.

By the request of the UNESCO Education Sector and the International Task Force on Teachers for EFA, IITE participated in the International Task Force Policy Dialogue Forum (Windkhoek, Namibia, November 2012). In the framework of the Forum Group "Inclusion In Teacher Policies and Practices" IITE delivered a speech and a joint presentation with the Republican Institute for Education Development and Teacher Training (Sakha (Yakutya), Russian Federation) based on the results of the "Teachers of the Arctic" project and several proposals appropriated to issues discussed, which later were included into the final recommendations of Group 3 and final documents of the Forum.

Based on the generalization of the results of IITE research and examination of best practices in ICT use in education in UNESCO Member States during the last four years, IITE has released a comprehensive publication on modern ICTs in education. The Publication consists of seven chapters devoted to different aspects of application of ICT in education and teacher professional development – from policy to practice. This monograph will enable the Russian-speaking educational and research community of the CIS to get an overview of the experience of the development of national educational policies and the most advanced tendencies in the use of ICT in education. It will contribute to the formation of a joint information and educational environment for the CIS countries with a higher extent of openness, wider access and communication.

IITE policy briefs have become a successful policy advocacy instrument. Following the recommendations of the Governing Board, IITE continued publishing policy briefs and uploading them to the IITE web portal. The policy briefs cover current trends in ICTs use for education and implications for educational planning and policy making. 2012-2013 policy brief issues highlight the following topics: "Technology-Enhanced Assessment in Education", "ICTs in Global Learning/Teaching/Training", "Personalized Learning: A New ICT-Enabled Education Approach", "Alternative Models of Education Delivery", "ICTs for Curriculum Change", "ICT and General Administration in Educational Institutions", "How Technology Can Change Assessment", "Learning Analytics", "Quality Management and Assurance in ICT-Integrated Pedagogy", "ICTs in Early Childhood Care and Education", "Massive Open Online Courses". The collection of IITE policy briefs is a basis of a network advocacy centre for the cutting-edge issues of ICT in education.

IITE representatives participated at the expert workshops and meetings on technical assistance to UNESCO Member States related with national ICT competency standards setting based on UNESCO ICT-CFT (December 2012) and implementation of the Paris OER Declaration Project (March 2013) organized by HQ in Paris.

In order to provide necessary support to the UNESCO Member States at the policy level the Recommendations and Guidelines on ICT use in primary education were developed and published by IITE. The publication is a result of the three-year project; it contains description, clear instructions and recommendations on the development of ICT-based learning environment in primary schools. The publication is planned to be out of press at the end of 2013.









In the Russian Federation, IITE is represented in the Scientific-Expert Council to the Chairman of the Council of the Federation of the Federal Assembly of the Russian Federation and in the Working Group on ICT in Education of the Temporary Commission on Information Society Development, and has been participating in discussions on the topical issues of policy in the field of ICT in education and teachers professional development as well as on discussion of the Concept for development of a Unified Information-Educational Environment of the Russian Federation.

In January 2013, IITE took part in the Republican meeting of educators "Modern Technologies – New Opportunities for Quality Education" organized by the Ministry of Education of the Republic of Sakha (Yakutiya), Russian Federation. In the framework of this meeting IITE organized project seminar "Innovative Pedagogy and Professional Development: Standards, Methods, Technologies" and round table "Providing an Accessibility of Inclusive Education for Students with Special Needs By Means of ICTs". Participants of the events discussed the issues of the integration of ICTs in inclusive education to improve its quality. The meeting was attended by about 50

policy makers from regional and municipal authorities. It was agreed to develop and launch (upon receiving of the funding from the Government of the Republic of Sakha (Yakutiya)) the extrabudgetary project "Distance education development for inclusive education of the school students with disabilities in the remote areas". A project proposal was developed by IITE and submitted to the Ministry of Education of Republic.

The Institute was involved in the organization of the Central Asia Symposium on ICT in Education (CASIE) held in January 2013 in Almaty by the UNESCO Asia and Pacific Regional Bureau for Education (UNESCO Bangkok). The Symposium brought together policy makers from Kazakhstan, Kyrgyzstan, Uzbekistan, Tajikistan, Turkmenistan, and Mongolia, as well as experts from Japan and Malaysia. The Symposium was aimed at discussing policies and initiatives to promote lifelong learning through ICT, the use of ICT for planning and managing lifelong learning policies and open and distance learning through various ICT-supported modalities. CASIE final report was prepared jointly by the UNESCO Bangkok and IITE.

A high-level expert meeting on UNESCO ICT-CFT deployment, national standards settings and the use of OER for representatives of ministries of education from Central Asia Member States and Azerbaijan is being prepared by IITE jointly with the National Commission for UNESCO of the Republic of Azerbaijan to be held in November-December 2013.

The joint extrabudgetary project with the Intergovernmental Foundation for Educational, Scientific and Cultural Cooperation (IFESCCO) "Promotion of the Use of ICTs in Technical and Vocational Education and Training (TVET) in CIS Countries and Ukraine" completed in August 2012 resulted in an analytical paper on the current situation and main tendencies of ICTs use in TVET in these countries. Ten UNESCO Member States, including Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, the Republic of Moldova, the Russian Federation, Tajikistan, Uzbekistan and Ukraine participated in the survey. The report was published in Russian and English.

The section "Analytical Tool: ICTs in Education" for the General Quality Assurance Framework (GEQAF) was elaborated by the request of UNESCO HQ and became IITE input to a draft concept paper for the UN Secretary-General's Global Initiative on Education.

# TEACHER PROFESSIONAL DEVELOPMENT

IITE developed a methodology for localization of the UNESCO ICT Competency Framework for Teachers (ICT-CFT) and presented it at the Ministerial Round Table on ICT in Education within the IITE-2012 International Conference. The methodology was translated into Russian and improved according to the recommendations of international expert community in the framework of preparation of Guidelines on UNESCO ICT-CFT adaptation, which were published in English and Russian and uploaded to the IITE web portal.

To promote and deploy the UNESCO ICT-CFT at national and regional levels and support the development of the national standards for teachers ICT competency, by the request of the Ministry of Education, Culture and Science of Mongolia IITE provided technical assistance for localization of the UNESCO ICT-CFT and setting of Mongolian national standard for teacher ICT competency, which included translation of UNESCO ICT-CFT into the Mongolian language and development of a draft standard. In the framework of IITE "Teachers of Arctic" project a republican standard for teacher's ICT Competency of the Sakha (Yakutyia) Republic is being developed under the coordination of IITE. Further activities in promotion of ICT-CFT are planned in the close cooperation with the CI Sector and the UNESCO Beijing Office.

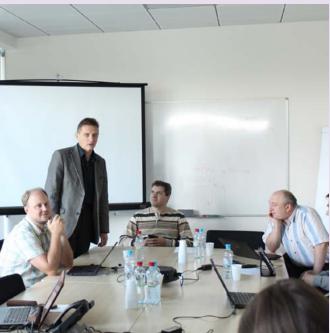
In order to identify the gaps in the existing teacher training programmes provided by training institutions and IT vendors, the comparative analysis of training courses and educational programmes available in the Russian Federation in compliance with UNESCO ICT-CFT has been conducted by IITE. The results of this exercise were published in English and Russian and uploaded to the IITE web portal.

In the framework of "Teachers of the Arctic" Project implemented under the Memorandum of Understanding between IITE and the Ministry of Education of the Republic of Sakha (Yakutiya), a series of lectures, seminars, webinars and master classes on practical issues of ICT in education and innovation pedagogy were provided for school teachers and administra-









tors. These events were intended to improve pedagogical, ICT, social and professional competencies of educators. More than 700 teachers and administrators from Arctic schools of the Republic attended the events. The information-educational portal of the "Teachers of the Arctic" Project was developed and launched. The total number of registered users of the portal is above 18 000. A publication of project materials related to the project is currently under development.

IITE developed and adapted a Master-level curriculum in ICT in education. The Russian-language curriculum of the IITE International Master Programme "ICTs in Teacher Professional Development" was developed, published and uploaded to the IITE web portal. The Master Programme curriculum and syllabus were discussed and approved by the Network of UNESCO Chairs on ICTs in education and innovative pedagogy. A model curriculum and syllabus of the Programme adapted according to the requirements of the national educational standards of the Russian Federation and the Republic of Kazakhstan, have been implemented by UNESCO Chairs of the Herzen State Pedagogical University of Russia, Russian Psychology and Pedagogy University and Kazakhstan National Pedagogical University named after Abai. Several universities use selected modules of the IITE Master Programme for teacher training. The first group of master students of the Herzen State Pedagogical University of Russia completed a training module "Social Media and Flexible Internet Learning" of the Master Programme.

IITE in close cooperation with Cisco Systems has organized a training course on basic skills of ICT application in education for teachers of the UNESCO Associated schools of Moscow and Kazan: 106 teachers (78 female and 28 male) from 45 schools have been trained.

# OPEN EDUCATIONAL RESOURCES

In 2012-2013, the Institute continued the implementation of its project on Open Educational Resources in non-English-speaking countries. The case studies "Educational Portals and Open Educational Resources in the Russian Federation" and "Open Educational Resources in Poland" have been prepared for publication in the series of surveys on OER best practices. The country case study on OER in France will be completed and published in 2013. The IITE publication on OER in Brazil was translated into the Portuguese language. The findings of studies conducted by IITE were reported at a number of international events, and proved that these findings are common for many countries and important for further promotion of Open Educational Resources: EDEN Conference (May 2012, Porto) and the Annual Conference of the Asian Association of the Open Universities (October 2012, Tokyo).

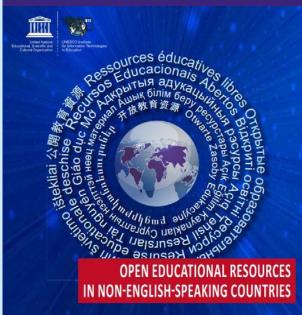
An important milestone in the implementation of the IITE project on Open Educational Resources in non-English-speaking countries has been its contribution to the organization of the World Open Educational Resources Congress (June 2012, Paris) through holding a special session and chairing one of the ministerial meetings. As a follow-up of the Congress, the Institute translated the Paris OER Declaration and Guidelines for Open Educational Resources in Higher Education into the Russian language to promote OER in CIS.

As a way of promoting OER, IITE contributed to the UNESCO/Commonwealth of Learning monograph "Open Educational Resources and Change in Higher Education: Reflections from Practice" (Chapter 2 "Introducing the opportunities and challenges of OER: the case of the CIS and the Baltic States").

IITE contributes to the OER Advocacy Project implemented jointly with the UNESCO Secretariat in cooperation with the Commonwealth of Learning (COL), the Hewlett Foundation and several UNESCO field offices. The project includes two components: (1) OER Advocacy and Policy Development: to design and implement a series of activities that will achieve the following results by the end of 2014: national OER policies drafted and approved and (2) Teacher Development using the ICT-CFT. Target countries of the project: Kenya, Senegal, Indonesia, Oman and Colombia (UNESCO Paris); Grenada, St. Vincent & Grenadines, Dominica and Jamaica (UNESCO Kingston and COL); Azerbaijan (UNESCO Moscow and UNESCO IITE).

IITE experts developed an open online course "Open Educational Resources" which was uploaded to the IITE web portal and then repurposed and delivered as











a massive open online course (MOOCs) by the Moscow University for Economics, Statistics and Informatics. Other electronic IITE courses are provided as MOOCs through the partnership between IITE and INTUIT Open Internet University.

Within an IITE project, the Mongolian University for Science and Technology develops a portal for teachers. The portal will contain the major UNESCO documents promoting OER and ICT-CFT, as well as open educational resources designed by Mongolian teachers.

A project "A Networked System of Open Indigenous Knowledge Resources for Climate Change Mitigation and Adaptation in Polar Regions" is funded by the Emergency Fund through the Intersectoral Platform for Action to Address Climate Change. Within the project IITE develops an open network system containing multimedia resources for each of traditional nature use types and relevant climate change adaptation strategies in the Arctic region. The most part of information used by the project experts is based on the traditional knowledge of indigenous peoples of the Arctic and subarctic regions of the Russian Federation. Published in open access and available to all inhabitants of the Arctic and subarctic regions of the planet, these information resources will contribute to the ICT-enhanced education of indigenous approaches in sustainable development. The database will include an introductory module containing general information on the strategies of adaptation to environmental changes and five specialized modules tailored to the main templates of traditional nature use and adaptation:

- · Taiga hunters and fishermen;
- · Fishermen of large river basins;
- Tundra hunters and reindeer herders;
- Tundra and forest-tundra reindeer herders and hunters:
- Arctic sea hunters.

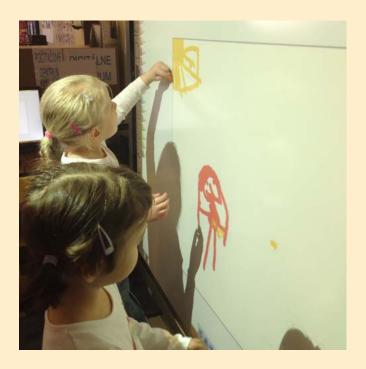
The first expert meeting and project meeting with the local community were organized in the framework of the Regional Reindeer Convent and the International Workshop of EALLIN "Reindeer Herding and Youth" in Yakutsk (March 2013). Approbation of the modules is scheduled for October 2013. Publishing of modules approved by the experts and the local communities is planned for October 2013. The modules will be available at a special platform in the Russian and English languages.

#### **DIGITAL PEDAGOGY**

Considering adequate revision of pedagogical approaches to be a necessary prerequisite for the efficiency of ICT use in education, IITE initiated research of the main concepts of the digital pedagogy: e-didactics and pedagogical engineering. IITE activities in e-pedagogy cover novel approaches to the design of learning objectives, content and assessment. A monograph "Engineering in E-learning" was prepared and published by IITE. The main focus of the book is design, development, implementation, and assessment of e-learning experiences through the use of ICT in various formats at different levels of education.

The analytical survey "Recognizing the Potential of ICTs in Early Childhood Education," developed within the IITE project on ICTs in Early Childhood Care and Education (ECCE), was published in English in 2010. Since then it was translated into Russian and Slovak and published in these languages. In order to promote a policy dialogue IITE organized a session on ICTs for ECCE within the II Annual International Scientific Conference on Early Childhood Care and Education in December 2012.

Considerable achievements were obtained within a three-year UNESCO IITE project "ICTs in Primary Education", which mobilized prominent experts from different regions of the world. As an outcome of the first stage of the project, an analytical report "ICTs in Primary Education: Exploring the Origins, Settings and Initiatives" was published by UNESCO IITE. This study will facilitate the policy dialogue and build the foundation for effective primary education by means of ICTs. In the framework of this project expert meetings were organized in November 2012 in Moscow and in March 2013 in Dubai. The top achievement of the project is recommendations and guidelines on ICT use in primary education, as well as a MOOC developed in cooperation with the University of London at Coursera.





# MEDIA AND INFORMATION LITERACY

UNESCO Media and Information Literacy (MIL) Curriculum for Teachers was translated into Russian and published. The localization of the Curriculum was discussed at the International Media and Informational Literacy Conference organized in Moscow on 25-27 June 2012 by the Russian Committee for UNESCO Information for All Programme (IFAP) and UNESCO IITE under the aegis of the International Federation for Library Associations. The Conference adopted the Moscow Declaration on Media and Information Literacy.

A Handbook "Pedagogies of Media and Information Literacy" has been developed in cooperation with the Finnish Society on Media Education and published by IITE. Electronic version of the publication is accessible at the IITE e-Learning portal. The Handbook has been translated into Russian and the Russian version of the Handbook has been published by IITE.



IITE publication on "Media Literacy and New Humanism" was translated into Spanish and Russian languages and published.

The IITE results in promoting information and media literacy were presented at the All-Russian Research-to-Practice Conference "Media and Information Literacy in the Information Society" (25 April 2013, Moscow) and at the Twentieth Anniversary International Conference Crimea'2013 "Libraries and Information Resources in the Modern World of Science, Culture, Education and Business" (9-13 June 2013, Sudak).

# GENDER EQUITY IN EDUCATION

On April 25, 2013 by invitation of the International Telecommunications Union (ITU) IITE participated in the seminars devoted to the International Girls in ICT Day "A Bright Future in ICTs: Opportunities for a New Generation of Women" held by the ITU Area Office for the CIS in Moscow, Russian Federation. The event was held in a videoconference format. Also the same day IITE organised a participation of Moscow ASPnet schools at the joint IITE and Cisco event "Girls in ICTs". At the IITE conferences in Kazan and St. Petersburg several presentations were dedicated to gender aspects of ICT in education, including a report "ICT as one of the leading methods of girls' education and mindset development in Tajikistan".

## NETWORKING AND PARTNERSHIPS

#### **UNESCO ASPnet**

The IITE and ASPnet Pilot Project "Learning for the Future" (LFF) launched in 2012 that joined 42 UNESCO Associated Schools from 14 Member States and their partners is an effective model for the development of bilateral and multilateral cooperation of UNESCO Global Networks based on ICTs, innovations and creativity both of students and teachers. The LFF Portal provides support to partnership of schools in the implementation of joint projects, their communication, access to training courses and other network resources, participation at contests as well as the development of communities of practice. The LFF participants have been implementing joint projects in the three fields: ICTs in school to improve a quality of education, ICTs in education for sustainable development, and ICTs in education and New Humanism. IITE partners from public and private sectors provided support to LFF developments through donations and in-kind contributions, consultations, training courses and master classes, free access to their courseware, integration with their professional networks and communities of practices. In the framework of LFF pilot project the International Conference of UNESCO IITE, UNESCO Associated Schools, UNITWIN/UNESCO Chairs and UNEVOC Centres "Improving the Mechanisms of Cooperation between UNESCO ASPnet, UNITWIN/UNESCO Chairs and UNEVOC Centres for Sustainable Development: Challenges, Projects, Prospects" was held on 13-14 May 2013 in Kazan, Russian Federation. The Conference devoted to the 60th Anniversary of the UNESCO ASPnet was attended by 183 participants from 18 UNESCO Member States, including high-level officials of the Republic of Tatarstan, General Secretaries and responsible staff members of National Commissions for UNESCO, representatives of UNEVOC, the ministries of education, science, youth and sport, national and regional ASPnet coordinators, national LFF coordinators, directors and teachers of 42 schools-participants of the LFF Pilot Project. At the Conference the intermediate results of the LFF activities were presented and discussed. Also, the effective mechanisms and the ways of improvement of a partnership of UNESCO global



networks and their partners for the achievement of EFA goals as well as for the solution of topical issues of the sustainable development of Inclusive Knowledge Societies were revealed. A new model of cooperation between ASPnet, UNESCO Chairs and UNEVOC Centers was proposed and a proposal for a new pilot project "Professional Skills For the Future" has been elaborated.

## **UNITWIN/UNESCO** Chairs in ICT in Education

The IITE Network of UNITWIN/UNESCO Chairs operating in the field of ICT in education and innovative pedagogy was established in 2011 by the IITE initiative to foster the ideas and approaches to integration of ICT and pedagogy, teacher's ICT competency and the use of OER. The network is coordinated by IITE and currently unites 15 UNITWIN/UNESCO Chairs and 24 Universities from 18 countries. The Network provides an effective mechanism for cooperation in the area of teacher education and professional development based on ICTs. Through this Network IITE fosters an international dialogue on broadened concepts of





a new pedagogy in multicultural environment to improve access of Member States to ongoing perspectives, relevant practices and challenges in the field of ICT in education providing the opportunity to examine and compare the most innovative practices.

IITE in partnership with St. Petersburg State University of Aerospace Instrumentation and it's UNESCO Chair "Distance Education in Engineering" organized two annual International Conferences "UNESCO Chairs Partnership on ICTs Use in Education" (September 2012 and May 2013). More than 100 participants from 15 countries took part at the Conferences to discuss a number of topical issues of ICT in education and innovative pedagogy including adaptation and deployment of UNESCO ICT-CFT, elaboration of effective approaches to the integration of ICTs and pedagogy, wider use of innovative methods of teacher professional development, cooperation with UNESCO ASPnet and UNEVOC centers as well as a partnership with IT companies. One of the results of the Conference is a new IITE and its Network of UNITWIN/UNESCO Chairs pilot project "Knowledge and Innovations for the Future" proposed for development and implementation.

The Fifth Seminar "Intercultural Education and Globalization: Current Practice and Trends" of the annual cycle of the international workshops "Dialogue of Civilizations and Intercultural Cooperation" was organized in December 2012 in Moscow jointly with the UNESCO Chair "International education and the integration of migrant children in school" at the Moscow Institute of Open Education.

## Partnerships with Public and Private Sectors

The Memorandums of Understanding with GlobalLab Project (Skolkovo) and INTUIT Open University regarding the support of IITE initiatives, projects and activities within the main priorities and focus areas of Institute were signed. The MoUs with AutoDesk company (USA), the International Academy of Modern TRIZ (Germany), the Russian Academy of Education and several Russian Universities, including National Research University "MIFI", are under preparation to be signed till the end of 2013.

IITE intensifies its efforts to mobilize cooperation with other UNESCO units. The potential of cooperation with the UNESCO Asia-Pacific Regional Bureau for Education was discussed: in addition to CASIE, the parties considered the opportunities of cooperation in promotion of ICT-CFT and OER, as well as staff exchange.

Memorandum of Understanding (MoU) with the UNESCO Regional Center for Information and Telecommunication Technology (the Kingdom of Bahrain) was prepared for signature.

The Education Technology Innovation Center Project was launched in 2012 jointly by IITE and Microsoft Russia in the framework of MoU. In 2012-2013, the Center supported IITE efforts in professional development of teachers and students of UNESCO Global Networks based on UNESCO ICT-CFT.

The Joint HP & IITE Center for Education and Research has officially opened its doors at St.Petersburg National Research University of Information Technology, Mechanics and Optics in May 2012. The project implemented within the framework of the UNESCO-HP Partnership Agreement and HP Institute of Technology program is aimed at improving the training of world-class IT professionals and giving both students and teaching staff access to the most up-to-date scientific research and technologies.

Coca-Cola Hellenic supported IITE events and activities related to the ASPnet in the framework of the UNESCO Moscow Office Project "Living Volga" and IITE LFF Pilot project.

Cooperation with the regional authorities was implemented within the 5th IT-Forum (June 2013, Khanty-Mansiisk). IITE in collaboration with the Institute for the Information Society organized the session on ICT in education, which became a forum for dialogue with educators and education administrators of the region.





#### **IITE PUBLICATIONS**



## Information and Communication Technologies in Education (In Russian)

UNESCO IITE, Moscow, 2013.

The monograph summarizes the results obtained within UNESCO IITE projects and analytical materials provided by IITE experts. The book covers the best practices of UNESCO Member States in integration of ICT in their

educational systems in the context of development of knowledge society and emergence of new technologies and alternative forms of education delivery. Based on the generalisation and extrapolation of contemporary trends in ICT in education the book presents recommendations for education policy.



#### Pedagogies of Media and Information Literacies

UNESCO IITE, Moscow, 2012.

IITE produced this Handbook in collaboration with the Finnish Society on Media Education. The Handbook published in English and Russian should help teachers to enhance their media and information literacy and encour-

age them to take up media education in the classroom. The main target group is teachers of secondary schools who are either in training or in service.



## IITE-2012 International Conference "ICT in Education: Pedagogy, Educational Resources and Quality Assurance" (Abstracts)

UNESCO IITE, Moscow, 2012.

The Book of Abstracts of the IITE-2012 International Conference (organized by UNESCO IITE and UNESCO Moscow Office in cooperation with the Moscow State University of

Economics, Statistics and Informatics and State Institute of In-

formation Technologies and Telecommunications "Informika" on 13-14 November 2012 in Moscow, Russia) includes keynote speeches and extended abstracts in English or Russian.



### Recognizing the potential of ICT in early childhood education (in Russian)

UNESCO IITE, Moscow, 2012.

The analytical survey published by IITE in 2010 in English has been translated into Russian and published. The survey suggests strategies for the development of ICT capability of ECE centres and recommendations, which should be helpful for educators, parents and school policy decision makers in their efforts

to adapt the child development process to the continuous evolution of the digital universe.



#### Media and Information Literacy: Curriculum for Teachers (in Russian)

UNESCO IITE, Moscow, 2012.

The Institute has translated into Russian and published the UNESCO curriculum for teachers "Media and Information Literacy". Authors: Wilson, Carolyn; Grizzle, Alton; Tuazon, Ramon; Akyempong, Kwame; Cheung,

Chi-Kim. Scientific editors of the Russian version: Prof. Natalia Gendina, Director of the Research Institute of Information Technologies, Kemerovo State University; Prof. Sergey Korkonosenko, Chair of the Department of the Theory of Journalism and Mass Communications, St.Petersburg State University.



#### **ICT** in Primary Education

UNESCO IITE, Moscow, 2012.

The book is the first publication in the framework of the UNESCO IITE three-year project. It explores the origins, settings and initiatives of effective integration of up-to-date innovative technologies in primary school and accumulates the best practices of ICT incorpora-

tion gathered from the project sample primary schools across the globe. The analytical study was elaborated by IITE experts from Chile, Hong Kong, Hungary, Slovak Republic, South Africa, Russia, UAE and UK.



### Educational Portals and Open Educational Resources in the Russian Federation

UNESCO IITE, Moscow, 2012.

The survey "Educational Portals and Open Educational Resources in the Russian Federation" (authors: Alexey Sigalov and Alexey Skuratov, INFORMIKA) provides an up-to-date

survey of the current level of development of educational materials and repositories of educational resources in Russia.



#### Open Educational Resources in Poland: Achievements, Challlenges and Prospects for Development

UNESCO IITE, Moscow, 2013.

IITE published a new case study describing main achievements, challenges and prospects for development of electronic textbooks and Open Educational Resources in

Poland developed by Kamil Śliwowski and Karolina Grodecka (Coalition for Open Education and Akademia Górniczo-Hutnicza im. Stanisława Staszica).



## Engineering of Learning: Conceptualizing e-Didactics

UNESCO IITE, Moscow, 2013.

The book opens the series of UNESCO IITE research in digital pedagogy. The author (Mourat Tschoshanov) summarizes new tendencies in the development of pedagogical research under the rapid introduction of ICTs in education. The main focus of the book is design, de-

velopment, implementation, and assessment of learning experiences through the use of ICT in various formats: face-to-face, blended, and distance education.



## Information and Communication Technologies for Visually Impaired People

UNESCO IITE, Moscow, 2012.

The training course was developed in cooperation with the Institute of Professional Rehabilitation "REHACOMP". The course covers pedagogical, technical and practical aspects of education and training management of visually impaired people through

advanced integration of standard and specialized innovative technologies.



### Analytical Report "Promotion of the Use of ICTs in TVET in CIS Countries"

UNESCO IITE, Moscow, 2012.

The report is prepared by IITE within the framework of the joint project with the Intergovernmental Foundation for Educational, Scientific and Cultural Cooperation of CIS. The publication presents the results of comparative studies on the current situation and major tendencies in ICT use in TVET in the Kyrgyz Republic, Re-

public of Armenia, Republic of Azerbaijan, Republic of Belarus, Republic of Kazakhstan, Republic of Moldova, Republic of Tajikistan, Republic of Uzbekistan, Russian Federation and Ukraine.



#### Multimedia in Education Curriculum

UNESCO IITE, Moscow, 2013.

This is a revised edition of the book prepared by Bent B. Andresen (Danish University of Education, Denmark) and Katja van den Brink (University of Landau, Germany) previously published by IITE in 2001. The curriculum provides a well-structured and systematic explanation of several pedagogical scenarios

for the use of multimedia in education, including the description of the different aspects of performance and portfolio assessment, the role of multimedia end users, multimedia production process, practical use of multimedia in teaching and learning.



## UNESCO IITE International Master Programme "ICT in Teacher Professional Development" (Russian Version)

UNESCO IITE, Moscow, 2013.

This Master Programme Curriculum aims at bringing together key ICT awareness, skills, knowledge and attitudes, and build upon them an efficient strategy. The Russian version of the Master Programme is developed according to

the requirements of the third generation of the Russian Federation Standards and addressed to Russian and CIS universities.



## Guidelines on UNESCO ICT-CFT Adaptation (Methodological Approach to Localization of the UNESCO ICT-CFT)

UNESCO IITE, Moscow, 2013.

The Guidelines contain a description of the methodological approach to localization of the UNESCO ICT-CFT and aim to assist UNESCO Member States developing national

(regional) ICT competency standards for teachers, standard setting being one of the key components of the policy in the field of ICT application and professional development in education.

#### **IITE Policy Briefs**



#### Technology-Enhanced Assessment in Education

UNESCO IITE, Moscow, 2012.

ICTs offer new opportunities for innovation in educational assessment. Technology-enhanced assessment includes strategies for self-assessment and peer assessment emphasizing the next steps needed for further learning. The Policy Brief contains an overview of the state-of-

the-art, major trends, challenges and policy recommendations on design, implementation and monitoring of ICT-based assessment.



#### ICTs in Global Learning / Teaching / Training UNESCO IITE, Moscow, 2012.

The Policy Brief outlines the systematic approach that must be taken for ICTs to fulfill their promise. Schools must focus on training teachers; creating curriculum materials; making organizational arrangements; and creating networks. Higher education must rethink its role for a world where open educational

resources make high quality content abundant and students want to combine work and study seamlessly.



### Personalized Learning: A New ICT-Enabled Education Approach

UNESCO IITE, Moscow, 2012.

Personalized learning becomes increasingly prominent in policy discussions on the future of education. The latest developments in ICT technologies and digital content are revolutionizing education. They make the benefits of personalized learning available for mass adop-

tion in schools, universities and adult training institutions. The Policy Brief highlights the advantages of personalized learning and offers the ways of implementing it in educational institutions.



#### **ICTs for Curriculum Change**

UNESCO IITE, Moscow, 2012.

The emergence of new jobs and the change in existing jobs due to ICTs has an impact on the curriculum of vocational education programs. The potential of ICTs as a medium for teaching and learning is recognized by many, but the implementation is often problematic, as a result relatively few students worldwide are

offered the opportunity to learn with the help of ICTs. To effectively integrate ICTs into educational practices teachers need to develop competencies which will help them to integrate appropriate pedagogy and knowledge about ICTs.



#### ICT and General Administration in Educational Institutions

UNESCO IITE, Moscow, 2012.

This policy brief provides an overview of ICTs that are used to support educational administration. This includes technologies used to support learners from their initial inquiries about courses through to graduation, technologies to support teachers in the de-

sign and delivery of teaching and technologies to support the research lifecycle from bidding through to project management and finally research dissemination.



#### Quality management and assurance in ICTintegrated pedagogy

UNESCO IITE, Moscow, 2012.

'Quality management and assurance' (QA) is the process of ensuring that systems, establishments, practices and resources are 'fit for purpose'. The Policy Brief draws attention to some of the new ICT-linked issues involved that require additional QA criteria. One of the most important issues is the impact on the professional

development of teachers and lecturers. Another is the potential of ICT to enhance education, which requires flexibility.



#### Alternative Models of Education Delivery UNESCO IITE. Moscow. 2012.

The goal of this Policy Brief is to produce a number of alternative models of education delivery in the formal education sector. Five alternative models would sufficiently populate the various subsectors of formal education. The models have to be "archetypal", easy and guick to describe,

memorable, repeatable, and translatable into other languages. They should also be generalisable, scalable, sustainable, deployable, and deliverable in most high-income economies. For each model the features, the advantages and the disadvantages are outlined.



#### **How Technology Can Change Assessment**

UNESCO IITE, Moscow, 2012.

Many discussions of technology-based assessments concentrate on automating current methods of testing to save time and cost. However, technology also changes what educators can assess, how, when and for what purpose. Assessments can be embedded in ICTs, and have the potential

to measure learning processes, in addition to end-of-lesson knowledge. Technology-aided assessments are useful not only in the evaluation of ICTs, but also as part of the design process, leading to iterative improvement.



#### **Learning Analytics**

UNESCO IITE, Moscow, 2012.

Learning Analytics is a rapidly growing research field, with presumably disruptive potential. While educational researchers have for many years used computational techniques to analyze learner data, generate visualizations of learning dynamics, and build predictive models to test theories — for the

first time, these techniques are becoming available to educators, learners and policy makers.



#### ICTs in Early Childhood Care and Education UNESCO IITE, Moscow, 2012.

The Policy Brief outlines the values that ICT offers to early childhood learning; gives different perspectives on the process of implementation of ICTs into ECCE practice, lists most frequent safety concerns and presents general criteria for determining the developmental appropriateness of the ICT tools

to be applied in ECCE. The message is the understanding that the potential of ICT for ECCE can be productively harnessed only if new technologies are integrated into early childhood learning experience alongside many other ordinary everyday activities.



### Introduction to MOOCs: Avalanche, Illusion or Augmentation?

UNESCO IITE, Moscow, 2013.

The New York Times labeled 2012 'The Year of the MOOC'. Less than 24 months after the launch of the first massive open online course (MOOC) at Stanford University and with potentially over 5 million students

around the world now registered with a MOOC platform, massive open online courses appear to be a new and significant force within higher education. This Policy Brief provides a background to the expansion of MOOCs, explain their differences and similarities, identify the types of students using MOOCs, investigate their business models and potential direction, and finally scope the risks and benefits associated with their development.

#### **IITE Website**



To enhance the overall visibility and impact, IITE revamped the structure and content of its website to improve access to policy documents, analytical reports, training materials, collections of OER, information on IITE projects and to provide an effective forum for discussions on ICTs in education and innovative pedagogy.

IITE has developed and uploaded into its web-portal the following on-line courses in 2012-2013:

- Information and Communication Technologies for Visually Impaired People (RUS)
- Creation and use of Open Educational Recourses (RUS)
- Pedagogies of Media and Information Literacies (RUS)
- Cloud Computing in Education (RUS, ENG)
- History of Library Science and Information Literacy (ENG)

In 2012-2013, IITE started a complete overhaul – not only design, but also the technological solution and management interface will follow a portal approach. The new portal will reflect the priorities of the IITE Medium-Term Plan for 2014-2017 and provide new opportunities for sharing information in a more effective way, a greater

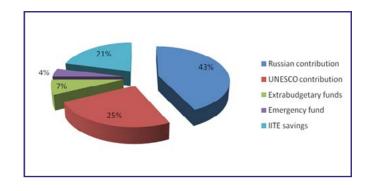
flexibility for distance courses and other online communication tools. Navigation of the site will become clearer, and visitors will search and upload requested materials from the portal easily and fast. Closer interaction with the other UNESCO units dealing with ICT in education will be enabled from a single source. The new management tool will allow for fast updating and better service to UNESCO Member States.

### **IITE Budget**

UNESCO allocation: US\$ 690,000 IITE savings/surplus: US\$ 573,199 Extrabudgetary funds: US\$ 194,224 Emergency fund: US\$ 110,500

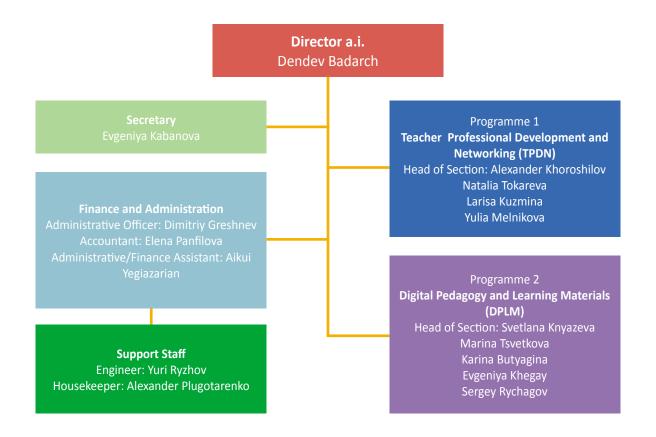
Russian Government contribution: 37,986,200 rubles

(US\$ 1,201,546)



#### **IITE Staff**

The total number of employees is 15, including two fixed-term posts, one service contract and 12 employees on secondment paid by the Russian Federation.



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