



UNESCO INSTITUTE FOR INFORMATION TECHNOLOGIES IN EDUCATION

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EDITORIAL

Dear readers,

The issue offered for your attention begins with the information about the Institute's participation in such significant event as World Summit on the Information Society (WSIS).

Within its framework last December IITE organized on behalf of UNESCO the round table *Education and Knowledge Societies*, where the questions vital for the sustainable development were raised attracting the attention of vast audience. The article of Irina Smirnova, IITE project manager, gives the information about its organization, structure, agenda, participants and the results achieved.

Yury Zaparovanny, coordinator of IITE project *ICTs in Distance Education*, submitted the comprehensive informa-

tion about the training session for the countries of Sub-Saharan Africa, which IITE held in October-December 2003 within the framework of the UNESCO extrabudgetary programme for technical services to Member States *Capacity Building for Education for All (EFA)*. This event is the next step in the long-term IITE activity *ICTs in Distance Education* organized in the form of a training session to develop education personnel skills of ICT application in distance education.

Newsletter materials on the round table *The Development of the Open and Distance Learning Knowledge Base for Higher Education* and the working meeting of the national focal points for cooperation with IITE in the CIS and Baltic states are devoted to the permanent Institute's partnerships with the



Round table discussion *Education and Knowledge Societies*. Geneva, Switzerland

educational institutions of UNESCO Member States.

I hope that the materials enclosed will help receive more information about IITE activities and expand the framework of our cooperation.

Another article presented in the Newsletter by Boris Kotsik is a review on the IITE position paper *Information and Communication Technologies in Secondary Education*. This conceptual IITE document provides an in-depth review of new strategies

and tactics to progress in learning for successful involvement of new generations in Knowledge Society. It answers the questions concerning the role of education for the emerging information society, the role of ICTs for teaching and learning in secondary education and the place of ICTs in the spectrum of modern didactic methods. Finally, the paper discusses the education quality and stresses the UNESCO actions to provide for this quality in education.

Vladimir Kinelev
Director of IITE

IITE ONLINE NEWS

The UNESCO Institute for Information Technologies in Education will hold the training seminar *Retraining of School Educators in the Application of ICTs in Education* from 17 to 20 May 2004, in Yerevan, Armenia, for school administrators, teachers of computer science and other subjects. The seminar will be followed by the workshop *Use of ICTs in the Working*

Environment for the special needs group that will be held on 21 May by IITE in collaboration with the State Institute of Skill Advance in Informatics, the National Focal Point for UNESCO IITE in Armenia, the Union of Blind People (Armenia) and Apple IMC. The events are held with partial financial support of UNESCO Moscow Office.

“EDUCATION AND KNOWLEDGE SOCIETIES” – UNESCO SIDE EVENT AT THE WORLD SUMMIT ON THE INFORMATION SOCIETY

Geneva, Switzerland, 11 December 2003

The United Nations General Assembly authorizes World Summits to be held on the issues essential for humanity, e.g. the World Summit for Social Development (Copenhagen, Denmark, 1995), the World Summit on Sustainable Development (Johannesburg, South Africa, 2002) and others. Recent progress of information and communication technologies (ICTs) has impacted all aspects of human activities: economic and business practices, political affairs, information and knowledge dissemination, social relations, education, health and leisure – and caused the fundamental transformation worldwide leading to the transition of the industrial society to the so-called information society. New challenges, new opportunities and new divides crucial for mankind have appeared, which require a global discussion. On 31 January 2002 the UN General Assembly adopted Resolution 56/183 on the World Summit on the Information Society (WSIS) to be organized in two phases. Government of Switzerland hosted the first phase of the World Summit from 10 to 12 December 2003 in Geneva, which addressed a broad range of themes concerning Information Society and adopted Declaration of Principles and Plan of Action. Government of Tunisia will host its second phase from 16 to 18 November 2005 in Tunis. Development themes will be a key focus of the second phase, which will assess the progress made and adopt a further plan of action.

The Geneva phase was held in the huge exhibition centre Palexpo from 8 to 13 December 2003. It hosted 11,047 participants from 1,486 entities: 4,590 official representatives from 176 states, 225 – from 50 international organizations, 620 – from 37 UN bodies, 347 – from 13 UN agencies, 3,310 – from 481 non-governmental organizations, 514 – from 98 business entities, 970 – from 631 media and 471 guests.

In the margins of official inter-governmental meetings, more than 700 side events took place. These events – panel and round table discussions, presentations and demonstrations – were organized to share experiences and increase prospects of a dialogue among the participants. Only 30 of these events dealt with education issues, and the round table discussion *Education and Knowledge Societies* attracted the most interest and had the profound feedback, in particular, due to the future-oriented questions (from information – to knowledge, from Information Societies – to Knowledge Societies) and remarkable ensemble of main presenters.

On the eve of the event

The UNESCO Institute for Information Technologies in Education (IITE) was in charge of this round table discussion on behalf of UNESCO. IITE started arranging the event in April 2003 and set up the international core group consisting of Prof. Vladimir Kinelev, Director of IITE; Prof. Bernard Cornu (France), Director of La Villa

Media and Vice-Chairman of the IITE Governing Board; Prof. Raymond Morel (Switzerland), Director of Geneva Educational Technology Centre; Prof. Peter Bollerslev (Denmark), Director and Editor-in-Chief at SAXO Publishers; Dr Irina Smirnova, IITE Project Manager.

The core group discussed the key messages of the round table, its content and structure during the talks with the Chairman of the round table Prof. Bernard Cornu (IITE, Moscow, June 2003), at the IFIP open working conference *E-Training Practices for Professional Organizations* (Pori, Finland, July 2003) and the World Information Technology Forum (WITFOR) (Vilnius, Lithuania, August 2003). Preparatory Note was elaborated and circulated in September 2003 among the invited speakers selected by IITE as a basis for the profound and coherent event.

In November 2003 IITE launched the web site <http://wsis-roundtable-ed.iite.ru/> containing the round-table information, support materials and forum field. On the eve of the event the Institute published the round-table flyer, poster and brochure containing the agenda, brief biographies, photos and abstracts of papers of the participants as well as the information about the organizations involved:

- UNESCO Institute for Information Technologies in Education;
- Club of Rome (CoR);
- International Federation

for Information Processing (IFIP);

- International Council for Open and Distance Education (ICDE);
- International Association of Universities (IAU);
- University of Mauritius, Virtual Centre for Innovative Learning Technologies (VCILT) and Lifelong Learning Cluster (LLC);
- Food and Agriculture Organization of the United Nations (FAO);
- NGO-UNESCO Liaison Committee.

During the event

The round table discussion *Education and Knowledge Societies* was held on 11 December 2003, Thursday from 9:30 to 13:00, Geneva Palexpo, Room C.

The issues essential for the sustainable development in the third Millennium were considered during three sessions of the round table:

1. Education FOR Knowledge Societies: Trends, Challenges and Policies.
2. Education IN Knowledge Societies: Strategies, Tools, Teaching and Learning.
3. UNESCO as a Key Actor in the Development of Education for and in Knowledge Societies.

For comprehensive study of these issues IITE invited three moderators (Prof. Bernard Cornu, Prof. Raymond Morel, and Prof. Peter Bollerslev) and 12 speakers – specialists in the field.

Up to 200 WSIS participants were present at it. In addition

tion, the videoconference with Mauritius allowed the attendance of about 300 participants of the International Conference on Open and Online Learning (ICOOL) from 19 countries. The round table was accessible in the Internet through streaming broadcast from the IITE web site. Among others, the participants of the IITE training session *ICTs in Higher Distance Education* held at the same time in Pretoria, South Africa – 50 educators from 14 countries (11 from Sub-Saharan Africa, New Zealand, Russian Federation and USA) – watched the Geneva discussion.

Mr John Daniel, Assistant Director-General for Education, UNESCO, and Mr Vladimir Kinelev, Director, UNESCO Institute for Information Technologies in Education, opened the round table. Each session comprised an introduction of a moderator, three main presentations and 20-minute debate. The following invited speakers made the presentations on the main issues under discussion:

Mr Valdas Adamkus (Lithuania), UNESCO Goodwill Ambassador for the Construction of Knowledge Societies; Former President of the Republic of Lithuania;

Prof. Klaus Brunnstein (Germany), President of the International Federation for Information Processing (IFIP);

Mrs Monique Fouilhoux, President of the NGO-UNESCO Liaison Committee, President of the International NGOs Conference;

Dr Claudine Langlois, Director, International Association of Universities (IAU)/UNESCO Information Centre on Higher Education;

Prof. Bernard Loing (France), Intergovernmental Liaison Officer and General Delegate of the International Council for Open and Distance Education (ICDE) at UNESCO;

Dr Anton Mangstl, Director, Library and Documentation Systems Division, Food and Agriculture Organization of the United Nations (FAO);

Mr Blagovest Sendov (Bulgaria), Ambassador of Bulgaria to Japan; Former President of the Parliament of the Republic of Bulgaria;

Dr Stephen Rudgard, Chief, WAICENT Outreach, Library and Documentation Systems Division, Food and Agriculture Organization of the United Nations (FAO);

Drs. Tom J. van Weert (the Netherlands), Chair *ICT and Higher Education*, Professional University of Utrecht;

Dr Yu Wei (China), Director, Research Center of Learning Sciences, Southeast University; Vice President of China Association of Science and Technology; Former Vice President of All China Women's Federation; Former Vice-Minister of Education of the People's Republic of China;

Prof. Raoul Weiler (Belgium), University of Leuven, Member of the Executive Committee (International) of the Club of Rome (CoR).

Prof. Alain Senteni (Mauritius), Director, Virtual Centre for Innovative Learning Technologies (VCILT), University of Mauritius, and Dr Sally M. Johnstone (USA), Executive Director, Western Cooperative for Educational Telecommunications (WCET), Western Interstate Commission for Higher Education (WICHE) participated in the round table discussion and made their presentations via videoconference with ICOOL organized in the middle of December under UNESCO's sponsorship in Mauritius. The WSIS and ICOOL participants exchanged questions and answers as well.

The round table ended with the general debate and answers to the phone questions from Pretoria received in the course of the round table, as well as the discussion of the final document. The participants acknowledged the UNESCO's approach, according to which global Information Society makes ground for oncoming Knowledge Societies. They agreed that Knowledge Societies to emerge depends on several factors, among which Education is a major one playing a key role of a catalyst for future Knowledge Societies. The participants reaffirmed that UNESCO has a crucial function in the development of Knowledge Societies for All encouraging the Organization to foster its leading and consolidating position in this field.

Closing the round table discussion Mr John Daniel congratulated the participants with the success of the event and highly appreciated the work accomplished by the UNESCO Institute for Information Technologies in Education, Mr Vladimir Kinelev, its Director, and staff members.

Irina Smirnova
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TRAINING SESSION IN SOUTH AFRICA

UNISA, Pretoria, October-December 2003

"We are creating history in South Africa".

Prof. Wayne Mackintosh

IITE has finished the training session for English-speaking participants from countries in Africa *Information and Communication Technologies for Higher Distance Education (HDE) in Sub-Saharan Africa*

(SSA). The training session was run under the name of the project submitted by IITE and approved by UNESCO Headquarters in 2003 within the framework of the UNESCO extrabudgetary programme for

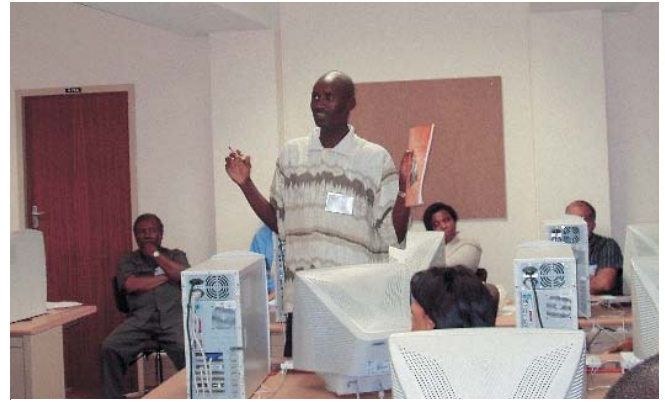
technical services to Member States *Capacity Building for Education for All (EFA)*. The project is the next step in the long-term IITE activity *ICTs in Distance Education* providing the three-stage training session

to develop educational personnel skills of ICT application in distance education (DE):

1. Face-to-face training seminar (5 days) – 14–19 October 2003



The participants of the training session



First training seminar. Computer laboratory

2. Online training session (7 weeks)
3. Face-to-face training seminar (5 days) – 8–14 December 2003

The face-to-face training seminars were held at the Institute for Continuing Education, University of South Africa (UNISA), Pretoria.

Participants of the training session – 25 educators from 14 countries (11 from Sub-Saharan Africa) watched the Geneva discussion at the round table *Education and Knowledge Societies*, one of the UNESCO events at the World Summit on the Information Society (WSIS) organized by IITE. The round table was accessible in the Internet through streaming broadcast from the IITE web site. The participants of the training session stated their questions by phone and received answers through the Internet.

The successful outcomes of the training session were achieved thanks to the joint active collaboration of IITE and leading experts in the field of ICTs for DE – academicians, methodologists, and ICT specialists – from four continents.

The proposed project on ICT usage in HDE in SSA countries has the following objectives:

- to assist UNESCO Member States in SSA countries in integration and application of information and communication technologies in HDE;
- to share relevant information and materials at the disposal of IITE with the SSA countries;
- to elaborate plans on training and retraining of educational personnel on ICT usage in HDE in the SSA countries;
- to develop networking for training and retraining of educational personnel on ICT usage in HDE in the SSA countries;
- to contribute to the reinforcement and multiplication of training capacities in the crucial related areas;
- to provide a pilot training course for future trainers in ICTs for distance education in countries in Africa using the IITE specialized training course *ICTs in Distance Education*.

Main results obtained via the project implementation are the following:

1. Under the guidance of leading experts, namely, Prof. Wayne Mackintosh (New Zealand), Dr Robert Day (South Africa) and Dr Linda Black (USA). IITE has trained 17 highly qualified specialists from 11 SSA countries, namely,

Botswana, Ethiopia, Ghana, Kenya, Mauritius, Namibia, Seychelles, South Africa, Swaziland, Tanzania and Uganda, and two representatives from the UNESCO International Institute for Capacity Building in Africa (IICBA). Among the participants were two Deputy Vice-Chancellors from Kenyatta University (Kenya); Secretary to the Executive Committee of Uganda National Association for Distance and Open Learning (UNADOL) (Uganda); National Coordinator of the Science Resource Centers of the Ghana Education Service (Ghana); Director of the Institute for Education Development and Extension (IEDE) (Ghana); Electronic Database Specialist of the Inter-University Council for East Africa (Uganda); Director of Institute of Educational Technology in the Open University of Tanzania (Tanzania); Assistant Director for Studies of the National Institute of Education (Seychelles) and others.

2. IITE has developed methodological basis for training session:
 - specialized training course *ICTs in Distance Education* elaborated by IITE international team of experts. It was adapted to the needs of SSA countries and transferred to

the format for distance usage. The course covers main problems, issues and teaching principles with special attention to ICT application, system at large, programme and course procedures of ICT usage, special needs of learners and corresponding implications for ICTs in DE and principal aspects of policy-making at institutional and national levels;

- instruction guide and guidelines for trainers of trainers on ICT usage in higher distance education in the SSA countries;
 - CD-ROM *Information and Communication Technologies in Distance Education. Readings*. Readings are the excerpts from publications for deeper comprehension of the specialized IITE training course.
3. IITE has developed the technological basis for the training session and further development of regional and sub-regional network for DE:
 - WWW distance education platform (DEP), operating network for training and retraining of educational personnel on ICT usage in HDE in the SSA countries.
 4. IITE has elaborated the underlying principles for further development of the regional and sub-regional network based on DEP, which could be the ground

for future regional and sub-regional network of DE, to establish an International Virtual Institute with participation of the represented countries and IITE.

5. In the course of the project preparation and implementation IITE encountered several problems. To solve them it was necessary:
 - to select a group of highly qualified representatives of the SSA countries who would be able after the training session to train and retrain specialists in the sphere of ICT usage in DE in their countries;
 - to form the group of international experts and moderators – distinguished specialists of ICT usage in DE in the SSA countries;
 - to adapt the IITE specialized training course *ICTs in Distance Education* to the needs of the DE system in the SSA countries;
 - to prepare necessary methodological and practical guides and materials which would match the outcomes of the project;
 - to elaborate the requirements for analysis, and terms of reference as a basis for the WWW distance education platform. According to the terms of reference it was necessary to provide the evaluation of alternatives. Several existing solutions, such as Learning Space by Lotus Software

IBM Software Group, WebCT by WebCT, Inc., Blackboard by Blackboard Inc., FirstClass by FirstClass Division of Open Text Corp., Hypermethod by HyperMethod Co., Prometheus by Prometheus Co. software packages were analyzed. As a result, the IITE WWW distance education platform was created as the most useful environment to be implemented in the SSA countries;

- to develop and test the software for DEP;
- to adapt the IITE specialized training course for distance form usage;
- to transfer the IITE specialized training course content into the DEP;
- to solve numerous organizational problems concerning the training session on the basis of UNISA to maintain contacts with National Commissions for UNESCO and Ministries of Education of 13 SSA countries and candidates for participation;
- to design and produce the CD-ROM *Information and Communication technologies in Distance Education. Readings*;
- to implement complete technical and contextual support for the DEP to be used at two face-to-face sessions and in online activities, including the stable DEP – Internet connec-

tion via the IITE specialized server;

- to prepare subject outlines and timetables for face-to-face training seminars and home assignments for the interim period.
- The training session pursued its objectives through mastery of the IITE specialized training course *ICTs in DE* in the context of the state-of-the-art distance education and ICT application in SSA countries as well as of the overview of the IITE-elaborated DEP for the training session.

The trainees worked individually and in groups accomplishing the following activities under the guidance of moderators: study of learning materials and articles, exchange of messages on the main issues of distance education, fulfillment of tasks (in the classroom and at home), face-to-face discussions, further discussion of the main issues of the application of ICTs in distance education in open online forums, work with distance information sources in the web-library. Participation in the group and plenary discussions helped the representatives interact and learn from one another.

Main objectives achieved:

- capacity building of the participants from SSA countries and representatives from IICBA has been raised to the level enabling their future work in training of national specialists in the

sphere of ICT application in HDE;

- methodological basis for future training and retraining of educational personnel on ICT usage in HDE in the SSA countries has been created;
- technological basis for further development of networking for training and retraining of educational personnel on ICT usage in HDE in the SSA English-speaking countries on the basis of the IITE WWW distance education platform has been developed;
- national institutional capacities in EFA planning and implementation in such areas as teacher training and appropriate use of ICTs in DE in SSA countries have been strengthened. The representatives of each country prepared the projects (business plans) on ICT implementation in DE in their home countries. The similar projects were prepared for three SSA sub-regions: Central and Eastern SSA countries, South African countries, and Island States.

In conclusion of the training session the participants received IITE and UNISA certificate. The participants (trainees and moderators) highly evaluated the methodological materials, WWW DEP developed by IITE, and the training session as a whole. Most of the trainees



Second training seminar. Work in groups



Second training seminar. Discussion



The presentation of certificates

stressed that the experience of DEP usage essentially improved their skills of online teaching/learning and computing in general. They noted that the DEP reliable operation, its didactical features, embedded communication tools and training resources allowed to shape the virtual learning community of DE professionals in the SSA region.

Here we present assessments of the project participants.

**Dr Habtamu Zewdie
(Ethiopia, IICBA)**



The course *Information and Communication Technologies in Distance Education* organized by IITE and UNISA has given me a wonderful opportunity to reinforce my experience in distance education with theoretical basis.

In particular, I have gained good knowledge of how to implement ICTs in education,

and understanding of the fundamental issues to influence distance education policy in my country.

**Ms Rholene Bok
(Namibia)**



This course has proved that distance education is the education for the future. It keeps up with the global trends in education, and using ICTs in DE is the way to meet the demands of *Education For All* programme to alleviate poverty in the world. I am privileged to be part of such dynamic course and group. The course was structured and presented well, one of the best that I have ever done, and I have done many courses in my life.

Altogether, this course is highly relevant and timely. You know, I have learnt about the DE dynamics, and how to ride on the wave of its changes. The course is a must, especially, for professional DE practi-

tioners to ensure the quality delivery of material in any of the many chosen modes. Thank you, IITE.

**Dr Theophilus Aquinas
Ossei-Anto (Ghana)**



Going through this course has been one of the best things that ever happened to me.

My ideas of the systems, operations, mechanisms, concepts, and generations of DE have been nourished very much.

In addition, I have been exposed to the fundamental principles behind the integration of both existing and emerging ICTs into DE.

I can confidently say that I have acquired new skills, and I am now in a much better and refined position to carry out DE operations in Ghana – irrespective of whether my services are needed locally or nationally.

I have also encountered DE colleagues and experts, who I can either collaborate with or fall upon for advice.

I can hardly thank IITE enough for the unique, wonderful and life-long learning experience.

**Mr Alex Souffe
(Seychelles)**

Honestly, the IITE course has simultaneously enhanced my



knowledge in distance education and computer skills pertaining to online courses, and the potential of digital ICTs in DE. It has also provided me with sufficient technical know-how of compiling a business plan.

Furthermore, it has enabled the establishment of a 'true collegial and supportive group' whom I feel at ease to seek for assistance or advice in any areas of their expertise. It has, undoubtedly, created the means for us to support each other on the African continent. Now it is up to us to keep this network active. Thanks to everyone.

**Mr Geoffrey N. Shakwa
(Namibia)**



The cutting-edge, contemporary, thought-provoking and, yet, very informative course on ICTs and distance education. The most significant parts where I have gained tremendously were the theoretical issues of distance education and the variety of ICTs that are relevant in the delivery of DE. Further, through this course I have established

contacts that, otherwise, would not have been possible with practitioners and researchers alike in Sub-Saharan Africa and the world over, who are passionate about making the access to education a reality to all people on this planet. It has been such a wonderful experience for me!

Prof. Roshun Dhurbarrylall (Mauritius)



The objectives were attained in record time, bearing in mind the amount of material covered.

Online delivery of DE was unknown to me before. I can now appreciate what it is and understand the implications. I have gained a lot from this online experience.

This will assist the MCA (Mauritius College of the Air) to proceed with its online projects.

The facilitators were very accommodating and willing to share their experience and knowledge with us.

We all have benefited.

Mr Sam Siminyu (Uganda)

I started the course with a lot of skepticism over whether it was appropriate to even initiate the discussion of ICTs in DE on a continent like Africa. The course gave me an opportunity to think it all over again. By the



end of the course, I am convinced that if Africa has to forge ahead in development, ICTs are a key, and more so for DE.

The course has afforded me the opportunity to reflect on the experiences of other players in the global field of DE and to build networks, which I believe will prove invaluable in my future contributions, in whatever way, to bridge the learning divide via ICTs. The experience was worthwhile. The course objectives were covered fairly well. The presentation of theoretical content was well done both in the face-to-face mode, on CD-ROM (Readings) and online. If only more time were availed, this is an excellent course design.

Mr Emmanuel Atta Gyamera (Ghana)



The course objectives, I am sure, have been achieved. The course has exposed to me so much as far as the organization of DE programmes is concerned. It includes various definitions of DE, delivery modes,

applications of ICTs in the DE organization or delivery, and the advantages that my country will derive making use of DE compared to the conventional face-to-face delivery.

The problems associated with DE and how to overcome them have been addressed in this workshop. The online approach has exposed a lot of experiences in how to work online. On the whole, it is a very important course, that will help me build DE capacity in my country.

Prof. Satoki T. Mahenge (Tanzania)



At the entry point to this course I had no skills of online learning and scanty understanding of distance education.

However, I thank the course designers, moderators and IITE that at present I have the skills of online teaching/learning and better understanding of DE concept and process of delivery. I will be able to teach others in Tanzania particularly the online learning and wider understanding of DE.

Dr C.W.S. Sukati (Swaziland)

This was a well-planned and organized course, which was run by the facilitators who have passion for ICTs in distance education. A lot of work has gone into the planning and



running of the course, and we are grateful to the facilitators.

The course should continue to be offered to other DE practitioners, so that DE can continue to develop and afford our brothers and sisters an opportunity to access tertiary education. Without providing Education For All, our countries will not develop.

I would, however, suggest that when it is offered next time, the full details on the course should be given to the participants and the organizations they come from, so that they can appraise the time requirements for the course.

Prof. Olive N. Mugenda (Kenya)



This is the most useful course I have undertaken in recent times. It was very informative, well-thought over, well-presented and professionally articulated. The facilitators were very knowledgeable and committed to their work. Having organized the Nairobi workshop where the

course was recommended, it is my personal satisfaction that the recommendation was implemented, and I became one of the beneficiaries.

The course has given me the necessary skills to mount a similar course to my colleagues in my Institute. It has opened up new opportunities for me to undertake online courses with ease. I wish to thank IITE and the facilitators for the wonderful idea/work.

I think the course objectives were met specifically, as they related to the concept of DE and the whole DE system, ICTs and how they can be applied, the teaching principles associated with DE, organizational and management issues and relevant logistics, the application of DE for learners with special needs and the policy-shaping in DE. The facilitators used both the face-to-face and online activities to meet the course objectives. I plan to use the information gained to streamline some areas in the way DE is being handled in my institution.

Prof. S. M. Rajab (Kenya)



The course was extremely informative, I am truly delighted to have made the decision to come to Pretoria. What I learned in this course will definitely help me and my institution improve the quality of delivery of distance education.

The impact the course will have in the delivery of distance education in Africa is guaranteed.

1. The concept of DE, its history and the role of ICTs in this form of education were well articulated both in the course modules and the assignments, which we did. I now have a better understanding of the concepts of distance and open learning.
2. The core functions of teaching and learning in DE and corresponding organizational, social and technological implications were adequately covered.
3. The overall DE system, including programme and course design procedures using ICTs, was covered during the course. However, I believe more time needs to be allocated for this if this course is offered in future.
4. Teaching principles with special attention to ICTs were adequately addressed, and sufficient examples were given.
5. Special needs of learners and corresponding implications for ICTs in DE were covered well, adequate literature was provided. We had the opportunity to visit a facility at UNISA, which handles demands of learners with special needs.
6. Policy issues at institutional and national levels were fully presented.
7. The use of distance education platform for online activities was clearly introduced. I can now confidently surf the IITE platform.
8. We prepared a draft business plan to launch a similar course in our own country. I would like to thank the facilitators most profusely for assisting us in doing this.
9. I strongly believe that more time should have been

availed, and a practical example given to demonstrate web delivery of DE.

Ms Lindiwe Shabala (UNISA)



This is a useful and relevant course for open distance learning (ODL) practitioners.

I particularly see it as very relevant to material developers (instructional designers), tutors and managers and/or leadership in distance education. In that sense I perceive it as an effective staff development tool. It provides with the online distance learner perspectives, which so many of us have yet to experience, although we are working in distance education.

Mr Philip Ouma Ayoo (Uganda)



The course was very heavy, both in content and activities. The two face-to-face sessions were quite demanding not only for the students (who had to attend the forums, post threads on the discussions, submit

assignments and do the readings for the course), but also for the tutors (who had to deliver the content, set exercises and assignments, give evaluations, and guide the learners on the whole course).

This programme has laid a firm foundation in trying to achieve the overall objective of the course: "building capacity in ICTs for DE in countries in Africa", as most participants are very confident in their ability to make the process in their countries.

Generally, the course has achieved its main objectives. The theoretical and practical issues on DE were excellently explained with focused practical assignments to reinforce this; the role of ICTs in DE was revealed and emphasized; the need and feasibility of opening up DE to the marginalized and challenged groups using ICTs were examined; policy issues were studied at both institutional and national levels; and, what is most important, the participants were taken through a practical step-by-step session on how to structure various proposals to enable them implement this course in their respective countries.

Personally, I have enjoyed the training. I have learnt a lot, and am confident that, in spite of the many challenges ahead, the project is implemental.

Mrs Fiona Ernesta-Uranie (Seychelles)

The IITE course has been an eye opener and a journey into the practical realities of distance education in general and use of ICTs in distance education in particular.

It was not easy; in fact, it was very demanding and required



personal commitment and self-discipline to some extent.

However, the formal course content blended with the practical realities of various countries and the input of the facilitators rendered this course commendable. The course is based on the use of ICTs in distance education, and I believe it achieved its overall aim. We learned by actually using various technologies and experiences of the countries. Facilitators have enabled us to avoid many of the pitfalls associated with use of ICTs in our future development of distance education courses and our choice of appropriate technologies. The online component was particularly interesting, and a range of skills was acquired in the process. It has been an enriching experience.

**Mr Benjamin Bussu
(Tanzania)**

The course has been of great importance to me. I have



understood well how to use the distance education platform for the online activities. I got informed on the concept of distance education, its history and the role of ICTs in the form of education, as well as the core functions of teaching and learning in distance education, organizational, social and technological implications.

The overall DE system, including programme and course design procedures using ICTs, has been well presented.

The objectives achieved, I feel very comfortable with how they were delivered and absorbed.

**Mr Eric L. Setabo
(Botswana)**

Though quite demanding for a full-time employee, this course is a necessary tool for any ODL practitioner. It gives a holistic picture of what a successful ODL programme could and



should entail. To start with, there is a lot of theory on ODL, which will benefit the newcomers in the world of ODL.

Then there is a comprehensive hands-on experience on how to work online. It gives the participants the theory of using ICTs in ODL alongside with practical experience on how one of the many ICTs can enhance learning.

It is apparent that time was short for most of practical activities though. But all in all, the course has met all of its objectives.

This course has helped me realize that with critical and proper planning, it is possible for Africa to go into technology-enhanced DE.

**Ms Irine Chadibe
(UNISA)**

It was a very interesting course, indeed. I enjoyed the



face-to-face and group discussions, Forums, mostly. I think I have gained more knowledge about the types of ICTs in relation to different contexts.

**Mr Henok Workye
(IICBA)**



It has been really great. The moderators were very resourceful and cooperative, UNISA was great in hosting the programme. I'd say it was a successful workshop.

Finally, thanks to everyone.

ROUND TABLE "THE DEVELOPMENT OF THE OPEN AND DISTANCE LEARNING KNOWLEDGE BASE FOR HIGHER EDUCATION"

IITE, Moscow, 18 November 2003

The 13th International Congress of the Conferences *Information Technologies in Education* (ITE-2003) took place in Moscow from 16 to 20 November 2003 under the aegis and co-sponsorship of the UNESCO Institute for Information Technologies in Educa-

tion (IITE). In the framework of the Congress IITE organized the round table *The Development of the Open and Distance Learning Knowledge Base for Higher Education*. More than 50 participants, experts in the field of ICTs from the countries, namely, Armenia, Azer-

baijan, Belarus, Kyrgyzstan, Lithuania, Republic of Moldova, Tajikistan, Ukraine, USA and different regions of the Russian Federation took part in this event.

The round table was devoted to the development of the

UNESCO cross-cutting theme project *Higher Education Open and Distance Learning Knowledge Base (ODLKB) for Decision-Makers* for CIS and Baltic states.

The participants, who took part in the discussions, were familiar-

ized with the prototype of Knowledge Base developed at National Technical University (NTU) in Kiev (Ukraine). The discussion showed the timeliness and interest of many participants in creation and usage of ODLKB for their educational activities. The recommendation on adaptation and pilot launching of the NTU-

designed prototype of Knowledge Base were proposed. The participants suggested the prototype should be integrated in the IITE Information System on Information Technologies in Education (ISITE). The mechanisms of filling in the Knowledge Base with the national resources were discussed, and coordina-

tion scheme of this activity were accepted. Moreover, following the request of the Baltic countries the participants agreed that the experience and legislation documents on Open and Distance Learning of the European Union States should be included in ODLKB. They stressed the importance of cooperation with

partners from Africa and Asia-Pacific regions taking part in this UNESCO cross-cutting theme project. Finally, the working plan on the development of the UNESCO cross-cutting theme project *Higher Education ODLKB for Decision-Makers* for CIS and Baltic states was approved for 2004–2005 years.

WORKING MEETING OF THE FOCAL POINTS FOR COOPERATION WITH IITE IN THE CIS AND BALTIC STATES

IITE, Moscow, 18–19 November 2003

The UNESCO Institute for Information Technologies in Education (IITE) in accordance with its Workplan for 2003 held a working meeting of the focal points for cooperation with IITE in the CIS and Baltic states at IITE on 18 and 19 November 2003. The meeting was devoted to the plans of cooperation between IITE and its focal points in the next biennium (2004–2005). The heads of the IITE focal points from the countries, namely, Armenia, Azerbaijan, Belarus, Kyrgyzstan, Lithuania, Republic of Moldova, Tajikistan, Ukraine took part in this event.

The agenda of the meeting included:

- information about the outcomes of the 32nd session of UNESCO's General Conference (Paris, September–October 2003);
- project proposals of the Institute in the framework of the UNESCO pro-

- gramme *Education For All*;
- information about the programme of the Council of the Ministers of Education of the Commonwealth of Independent States on Informatization of Education;
- participation of the IITE focal points in UNESCO cross-cutting theme projects *Higher Education Open and Distance Learning Knowledge Base (ODLKB) for Decision-Makers* and *Methodologies for Digital Libraries*;
- information about the training sessions IITE held in Lithuania and Azerbaijan in 2003, and presentation of the IITE plan of training activities for 2004–2005;
- presentation of the information environment being developed by IITE for focal point interaction within the network.

The sets of documents, including IITE Workplan for 2004, as

well as recent IITE publications were distributed among the participants.

Members of the meeting surveyed the outcomes of the 32nd session of UNESCO's General Conference and endorsed new UNESCO's policy and initiatives in the field of education. Recognizing the necessity and urgency of providing *Education For All*, the participants supported the IITE proposals in the framework of the similar UNESCO programme. Moreover, they pointed out the importance of being the partners in the programme activities.

Discussing the issues of cooperation of the IITE focal points within the framework of the Institute's regular programme for 2004–2005, the participants expressed their interest and willingness to partake in the IITE projects for 2004–2005 as well as in the IITE training activities. In particular, the experiences and

results of the training sessions held by IITE in Lithuania and Azerbaijan were highly assessed. The participants suggested that the same arrangements be organized in their countries.

At the meeting great attention was paid to the structure and functions of the information environment being developed by IITE. Representatives of focal points expressed their aptitude to provide content for the Institute's web site, as well as information materials on their activities within the framework of the IITE projects to be published on the Web on the regular basis using the IITE tools. Furthermore, the representatives of the focal points expressed their wish to participate in presenting the IITE Information System on Information Technologies in Education (ISITE) database with available resources on ICTs in education.

INFORMATION AND COMMUNICATION TECHNOLOGIES IN SECONDARY EDUCATION

Review on the IITE Position Paper

Knowledge and information increasingly determine new patterns of national development and wealth creation.

The use of computers and the WWW is essential for the further progress of education.

Evolution of the information society entails dramatic changes in production and business activities, as well as in a larger social context. Information society is not only about digi-

tized information or electronic networks. The transformation of information society can be understood if we view it in broader context where bits, networks and knowledge have

a social meaning. To understand the results of technological change we have to study the social dimension of information society. Rapid development of the information sphere of society is drastically altering the structure of work and employment, and produces new occupations and jobs. More and more people are being drawn into the information society as learners, workers and consumers.

ICTs have become a critical tool for professional training; the sooner learners know how to use ICTs, the easier they can find their way to capture the newest methods of data acquisition and transformation to knowledge. Scientific and technical progress and the global spread of technologies developed in the most advanced countries of the world constitute one of the main arguments in favour of the leading role of education in the 21st century. The level of technological development is indicative nowadays not only of the economic power and living standards of a particular country, but also of the place and role of this country in the global community and the scope and prospects of its economic and political integration with the rest of the world. At the same time, the level of development and utilization

The global education problem cannot be solved by conventional means like building classrooms and training large numbers of teachers. Building a new society heavily relies on the introduction of ICTs in education.

of modern technologies in different countries is determined not only by their material resources, but, to a large extent, by the degree of society's ability to produce, absorb and apply new knowl-

edge. These achievements, in turn, are tightly linked with the level of education.

The present IITE position paper *Information and Communication Technologies in Secondary Education* is composed by Vladimir Kinelev, Director of IITE, Piet Kommers, Professor of TWENTE University, Boris Kotsik, Chief of IITE Training Unit. The paper provides an in-depth review of the new strategies and tactics that aim to achieve learning progress for successful participation of new generations in the Knowledge Society. It answers questions concerning the role of education for the society development in the information age, the role of ICTs in the development of modern education. It gives an account of the main features of ICT-mediated teaching and learning, the main features of teachers' ICT competence to provide appropriate knowledge and proficiency, the place of ICTs in the overall spectrum of modern didactic methods. Finally, the questions of education quality are discussed, as well as the UNESCO actions to provide this quality of education.

The paper consists of introduction, five main sections, summary, conclusion and references.

In the first section of the paper, *Education for the Emerging Information Society*, the issues of national education policies and society development are reviewed. The main features of

the educational system in the information society are the following: production of knowledge, geographical and temporal independence from knowledge acquisition, pedagogical and structural innovation in teaching-learning process. To provide this the educational policy must ensure:

- up-to-date pedagogical competence in the information society;
- integration of new pedagogic opportunities;
- equal and flexible access to education;
- effective and flexible education structure and organization.

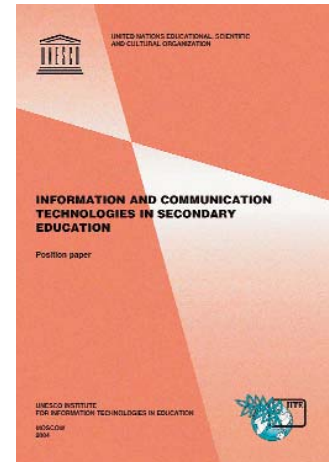
The second part of the section is devoted to the ethical, psychological and legal issues of the ICT application in education.

As the issues of teaching and learning are of central importance to the evolving information society, the second section of the paper *Teaching and Learning for Information Society* is about a fundamentally new approach to education. Humanity must embrace and promote a culture of lifelong learning. Learning can no longer be viewed as a ritual that one engages in during the early part of a human life. ICTs are being used to cross age, time and space barriers to bring lifelong learning to all. People of all ages whatever they are doing, in all places and in all different environmental contexts are learning all the time. Thus, they constitute the learning society.

ICTs are potentially a very powerful dimension to transform the way the young generation prepares for further studying.

Students should invest in learning skills and attitudes, driven by intrinsic motivation.

In the third section the questions of ICT application for teaching and learning in secondary education are considered. With the focus on the role of ICTs in secondary



education, it becomes clear that it cannot be measured with a criterion of learning outcomes to get prepared for national final examination only. The most sensitive phase for attaining learning skills is the years between eleven and sixteen. A clear indication backing up this thesis of developmental psychology and didactics is the new secondary school paradigm. Its underlying message is the fact that students should invest in learning skills and attitudes, driven by intrinsic motivation and curiosity rather than by pressure of covering a large number of subject domains in order to pass a final examination.

The combination of ICT infrastructures and software facilities in schools and the participation in Learning

Networks is expected to be the critical factor in a longer-term sustainable innovation in Education. The first-order effect is the change in teacher roles, once information access becomes widely available. The second feature is new learning environment at school that allows learners to be involved in distributed learning communities. Such synergy will result in an ongoing process where teachers and students work together, partly face-to-face in the same physical location, partly in the virtual learning communities.

The sufficient conditions are coupled with a person's ability to transform the knowledge and skills received into education, i.e. into customized system of ethical, cultural and professional values, and with the ability to apply this system in various areas of intellectual and practical activity. The sufficient conditions of education quality are defined by a person's ability to meet the demands of contemporary society. The unique role of information and communication technologies in improving education quality is based on the fact that they can effectively

of individuals and groups within a society. Nevertheless, the growing digital divide is actually leading to greater inequalities in the development, which exclude entire groups and countries from potential benefits of digital opportunities in the networked societies and lead to a global gap between those who are "online" and those who are

and tactics at the didactic level, in order to achieve learning progress and contribute to the new generation's participation in the Knowledge Society. The most specific effect of new ICT facilities is a catalytic one – not only in the continuous evolution of the innovative teaching/learning in traditional secondary education.

It is a mistake to think that the application of new ICTs automatically raises the quality of education.

In the next section of the position paper the issues of education quality are discussed. Necessary and sufficient conditions can be identified in the process of improving education quality that allows meeting this important final objective of education. The necessary conditions would include such educational components as:

- well-equipped class rooms and lecture halls,
- highly professional administrators in managerial positions at educational institutions,
- highly qualified teaching and technical personnel,
- easy access for students and teachers to quality textbooks and professional literature, as well as to modern teaching aids and supplementary information.

facilitate the fulfillment of both necessary and sufficient conditions to receive quality education. ICTs do not merely enhance intellect; they designate new dimensions of a human mind, produce an orderly system of a new global culture and open up vast and exciting perspectives of their usage in improving the quality of education.

The last part of the Paper indicates the actions undertaken by UNESCO to provide quality ICT usage in education. In the UNESCO Medium-Term Strategy 2002–2007 it was stressed that ICTs play a significant role in the field of competence of UNESCO. ICTs disclose new horizons for progress and exchange of knowledge, education and training to promote creativity and intercultural dialogue. These technologies can help strengthen social cohesion

Decisions about the application of ICTs and their relation with improving quality of education can be considered only in view of overall strategic goals of education development.

"stand-alone". Therefore, the last section of the paper describes bridging of the digital divide between developing and developed countries and within countries, which becomes the prime strategic challenge throughout UNESCO's activities. It leads to the activities that strengthen national capacities and professional attitude of a human to create a new content of education, enlarge access to information, foster scientific research and share scientific knowledge and information through networking, communication media and information systems.

The IITE position paper *Information and Communication Technologies in Secondary Education* is a plea for Educational Policies that promote and sustain the further ICT infrastructures for secondary schools. It signals that school institutions face the need to become "Learning Organizations". This document goes more in-depth to the new strategies

Yet more important are the ICT effects on the contextual factors like the restructuring of classroom-based learning and its complement for home-based learning, vocational training, and the most important are the oncoming Web-based Learning Networks and subsequent Web-based Learning Communities. Most likely is the introduction of Web-based Communities for Teachers. As in many cases teachers are top experts in local school settings, it seems an interesting option to let them refresh and operationalize the content expertise and didactic methods via participation in larger WBTC (Web-based Teacher Communities.) The combination of ICT infrastructures and software facilities in schools and participation in Learning Networks are expected to be the critical factor in a longer-term sustainable innovation in Education.

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