IITE NEWSLETTER

UNESCO INSTITUTE FOR INFORMATION TECHNOLOGIES IN EDUCATION

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EDITORIAL

Dear readers,

On the eve of the 32nd session of the General Conference of UNESCO, we would like to present an overview of the IITE activities during this biennium. For this purpose we publish the Report by the IITE Governing Board on the activities of the Institute for 2002–2003 adopted by the 5th session of the IITE Governing Board held on 27 and 28 June 2003.

I hope this issue will allow you to learn more about the IITE programme activities in three correlated areas: research and project development, training and clearing house.

Vladimir Kinelev
Director of IITE

The fifth session of the IITE Governing Board

IITE ONLINE NEWS

Training seminars for teachers and teacher trainers *Retraining of School Educators on the Application of ICTs in Education* will be held:

☐   6–11 October 2003 in Dushanbe, Tajikistan;

☐   20–25 October 2003 in Baku, Azerbaijan.

The seminars are organized by IITE in cooperation with the Ministries of Education of the Republics. The seminars are a part of IITE regular training activities and ground on the IITE instruction materials *Elementary ICT Curriculum for Teacher Training*.

IITE ACTIVITIES IN 2002–2003
(IITE in figures)

Research and project development	
Under development:	
Long-term projects	14
National pilot projects	7
Sub-regional projects	5
UNESCO cross-cutting theme project	1
Held:	
Expert meetings, research seminars, and workshops	13
International forums with participation of IITE	11
Round tables	4
Working meetings on national and sub-regional projects	6
Working meetings of IITE national focal points on joint programme activities	8
International conferences co-organized and/or co-sponsored by IITE	9

Educational and training activities	
Developed:	
New sets of training and methodological materials	6
Held:	
Training sessions, seminars, and workshops	19
Thematic online seminars	10

Clearing house activities	
WWW Portal:	
Information System on Information Technologies in Education database	> 38,000 items in 11 databases
Web site and tools for research and training	40,000 visitors and users monthly
Publications issued:	
IITE Medium-Term Strategy 2002–2007	1
Analytical surveys	6
Sets of training and methodological materials	6
Education resources (CD-ROM)	3
Other publications	13
IITE Newsletters	8
Dissemination	> 400 addressees

REPORT BY THE GOVERNING BOARD ON THE ACTIVITIES OF THE UNESCO INSTITUTE FOR INFORMATION TECHNOLOGIES IN EDUCATION (2002–2003)

The participants of high level seminar for decision- and policy-makers from Asia and the Pasific *Towards Policies for Integrating Information and Communication Technologies into Education.* Bangkok, Thailand, 2003

I. Introduction

1. The third report of the Governing Board of the UNESCO Institute for Information Technologies in Education (IITE) on the IITE's activities during the biennium of 2002–2003 is submitted to the General Conference of UNESCO at its 32nd session in accordance with Article VI (3) of the IITE Statutes.

II. The IITE Governing Board

2. This biennium the IITE Governing Board met twice, in 2002 and 2003. The mandate of the first IITE Governing Board expired in June 2002 and in accordance with the IITE Statutes, Article III (2), the Director-General of UNESCO in April 2003 appointed 11 Board Members for another four-year term of office: Prof. Dr Saleh Abdulrahman Al-Athel (Saudi Arabia), Prof. Vaino Brazdeikis (Lithuania), Prof. Bernard Cornu (France), Prof. Xingfu Ding (China), Prof. Avram Eskenazi (Bulgaria), Prof. Vladimir Filippov (Russian Federation), Prof. Karel Kveton (Czech Republic), Prof. Diana Laurillard (United Kingdom), Prof. Galym Mutanov (Kazakhstan), Prof. Michael Zgurovsky (Ukraine), and Prof. Alexander Zhuk (Belarus).

3. In accordance with its Rules of Procedure, the new IITE Governing Board at its first session (27–28 June 2003) elected Chairperson and Vice-Chairperson, as well as Executive Committee, which consists of three persons: the Chairperson of the Governing Board, Prof. Dr Saleh Abdulrahman Al-Athel (Saudi Arabia); the Vice-Chairperson, Prof. Bernard Cornu (France); and the third member, Prof. Michael Zgurovsky (Ukraine).

4. At its sessions the Governing Board examined the IITE Programme and Budget for 2002–2003, discussed and approved IITE's Medium-Term Strategy and progress report on the development of IITE's programme activities, which was made by the Director of the Institute. The Board members noted the considerable progress made by the Institute in its development, highly appreciated the efficiency and scale of work accomplished by IITE during the biennium, its fruitfulness and helpfulness to UNESCO Member States, expressed their gratitude to the Director and staff of the Institute, and recommended Headquarters to utilize IITE and its potential more actively.

III. Programme activities

5. Striving to assist UNESCO Member States in meeting the challenges of the information society, IITE has consolidated its efforts around the following strategic sub-objectives of the UNESCO Medium-Term Strategy 2002–2007: *Identifying new trends in educational development and promoting policy dialogue,* and *Harnessing information and communication technologies for education.*

6. Contributing to the achievement of these UNESCO sub-objectives, the Institute has pursued, in its programme activities, the following strategic objective formulated in IITE's Medium-Term Strategy: *Reinforcing national potential in ICT application for the development of education.*

7. Realizing its strategic objective IITE has implemented main UNESCO's functions, namely, to act as a catalyst for international cooperation, a laboratory of ideas, a clearing house, a learning organization, and a capacity-builder in Member States, – and led its programme activities in three correlated domains: research and project development, training and clearing house activities.

8. **Research** on ICT application in education has been regarded as the central IITE activity, laying down the foundation for further project development, elaboration of training and methodological materials, carrying out training activities, processing as a core element of the clearing house, assistance to UNESCO Member States in policy formulation, implementation of national pilot projects and supplying them with information in the field. IITE held 12 international expert meetings, seminars and workshops, 4 round tables, 6 working meetings on national and sub-regional pilot projects and co-organized and/or sponsored 8 international conferences. (See Annex I.)

9. As to the **training activities**, in accordance with the Institute's strategic approach training and retraining of educational personnel in the application of information and communication technologies in education have been a top priority of the IITE activities in 2002–2003.
It allowed for the achievement of the multiplicative effect in the efforts of the Institute to disseminate the available knowledge and best practices on ICT application in education as much as possible among UNESCO Member States. IITE organized 16 training sessions and workshops and 11 thematic online research and training seminars. (See Annex II.)

10. The **main target groups** of the IITE training activities were the following:

- policy- and decision-makers in the educational sphere, heads of national and regional educational systems;

- heads of pre- and in-service teacher training institutions, trainers of trainers for ICTs in education;
- teachers, ICT school coordinators, and other educational personnel.

11. For these purposes the Institute used its own **educational programme**, which consists of a basic course, 5 specialized training courses of a modular character, including *Multimedia in Education* and *ICTs in Distance Education* and sets of support training materials. (See Annex III.)

12. Natural continuation of the Institute's educational programme arises in its ICDL/ECDL project (International/European standard of the computer literacy). Beginning from December 2002, the IITE has started this activity for the representatives of the leading universities from different regions of the Russian Federation and for the administrative employers of the Russian office of the UNDP. In May 2003 IITE held a working meeting with the Board of Directors in both ECDL Russia AS and Datakortet AS on further development of joint cooperation in the Russian Federation and CIS countries.

13. To implement the strategic objective, the Institute has concentrated its resources on attaining real results and focused its efforts in four main programme areas and corresponding themes chosen following the requests by Member States and recommendations of the international expert meetings.

Programme area I: *Supporting National Capacity Building for ICT Application in Educational Systems.*
Themes:
- ICTs in Technical and Vocational Education and Training;
- ICT Usage for the Development of General Education;
- Application of ICTs for Improvement of Teacher Education;
- ICTs in Special Education.

Programme area II: *Forming an Information Environment for Education.*
Themes:
- Information Environment for Education: Design and Usage;
- ICTs in Distance Education;
- Digital Libraries for Education;
- Internet in Education;
- Multimedia in Education.

Programme area III: *Improving the Quality of Education through ICT Usage.*
Themes:
- Ethical, Psychological and Societal Problems of the Application of ICTs in Education;
- Indicators of ICT Application in Education.

Programme area IV: *Promoting ICT Usage in Education for Learning to Live Together.*
Themes:
- ICTs in History Education;
- ICTs in Teaching/Learning Foreign Languages;
- Education, Art and ICTs: Integration for the Development of One's Personality.

14. The IITE activities within the framework of its **Programme area I** was aimed at the *Support of the National Capacity Building for ICT Application* at the level of educational systems through the assistance in policy formulation, analysis and dissemination of knowledge about modern forms, methods and role of ICTs in education, particularly, in special,

secondary, technical, and vocational education as well as teacher training. For this purpose IITE has accomplished a number of studies on above-mentioned themes and held international expert meetings, e.g. on *ICTs in Special Education* (with 14 experts from 8 countries: Armenia, Australia, Belarus, Cyprus, Denmark, Italy, Russian Federation, and United Kingdom) and *ICTs in Technical and Vocational Education and Training* (with 15 experts from 6 countries: Canada, India, Italy, the Netherlands, Norway, and Russian Federation as well as World ORT).

15. The Institute has contributed to the development of national action plans on EFA and their component — using ICTs to attain the EFA goals, e.g. in February-April 2003 IITE held its second high level seminar *Towards Policies for Integrating Information and Communication Technologies into Education* organized in cooperation with UNESCO Bangkok and co-funded by the Japanese Funds-in-Trust. The decision- and policy-makers from 10 Asia-Pacific countries (Afghanistan, Bangladesh, Cambodia, Indonesia, Mongolia, Pakistan, Philippines, Republic of Korea, Thailand, and Viet Nam) guided by the IITE consultants improved the action plans, strategies, and policies on the ICT application in national education systems.

16. IITE has proposed and started the activities within the framework of the sub-regional project *Information and Communication Technologies for the Education Capacity Development Towards the Construction of a Knowledge Society* for South-Eastern Europe (financed by the Japanese-Funds-in-Trust). The project objective was defined as strengthening national educational capacities by harnessing ICTs for education and diversifying their application for training purposes.

17. Following the requests of UNESCO Member States, IITE has launched and monitored national pilot projects *Training and Retraining of Educational Personnel on ICT Application in Education* in the Republic of Moldova and in the Russian Federation and *ICTs in Special Education* in Armenia.

18. IITE has elaborated the position paper *ICT Role in Secondary Education for the Information Society* (in collaboration with the University of TWENTE and UNESCO Division ED/STV). For managers and teacher trainers of vocational education IITE has prepared the analytical survey *ICTs in Technical and Vocational Education and Training* (in collaboration with UNEVOC—Canada). On the basis of its educational programme IITE organized three training sessions *Retraining of School Educators in Application of ICTs in Education* in

Training session *Multimedia in Education*. Vilnius, Lithuania, 2002

Naltchik (Russian Federation), Kishinev (Republic of Moldova), and Vilnius (Lithuania) for about 150 educators from these countries.

19. IITE stimulated the international exchange of research findings, knowledge and information on ICT usage in education. The Institute held two round tables, namely *Towards Policies for Integrating ICTs into Education* (Bangkok, Thailand, December 2001) and *International Experience of ICT Usage in Education* (Moscow, November 2002) and co-organized and co-sponsored eight international conferences (two in Kazakhstan, one in Lithuania, four in the Russian Federation, and one in Thailand). More than 2,500 policy-makers, teachers, teacher trainers, and researchers from nearly 50 countries of Asia, Pacific, Africa, Europe, and North America attended the events.

20. **Programme area II** *Forming Information Environment for Education* comprised research, training, and dissemination of information on such themes as *Information Environment for Education: Design and Usage, ICTs in Distance Education, Digital Libraries for Education, Internet in Education*, and *Multimedia in Education*. During the biennium, IITE held international expert meetings *Distance Higher Education in Africa: Professional and Course Development* (Dar es Salaam, Tanzania) and *Digital Libraries in Education* (IITE, Moscow), seminar for high-level experts on *Policy Formulation and Practical Usage of ICTs for Higher Distance Education in Countries in Africa* (Nairobi, Kenya), workshop *Distance Education: Canadian and Russian Experience* (IITE, Moscow), and round

Seminar for high-level experts on *Policy Formulation and Practical Usage of ICTs for Higher Distance Education in Countries in Africa.* Nairobi, Kenya, 2002

table *Strengthening the Development of Distance Training Networks in Central Asia* (Almaty, Kazakhstan). 74 experts from 23 countries (Botswana, Canada, Cape Verde, Congo, Ethiopia, Ghana, India, Israel, Kazakhstan, Kenya, Kyrgyzstan, Namibia, New Zealand, Nigeria, Russian Federation, Senegal, Republic of Seychelles, South Africa, Tanzania, Uganda, United Kingdom, USA, and Zimbabwe) as well as from BREDA and IICBA participated in the events.

21. The Institute has developed two specialized training courses, namely, *Multimedia in Education* and *ICTs in Distance Education* and on their basis has run its training activities, including workshop *ICTs in Distance Education* (Dar es Salaam, Tanzania), seminar *The Use of Information Technology Across the Curriculum (Multimedia and Internet)* (Nicosia, Cyprus), training session *Multimedia in Education* (Vilnius, Lithuania), and training seminar *Distance Learning in the CIS Countries: Monitoring of Educational Needs and Opportunities* (IITE, Moscow). About 150 educators were trained during the sessions. A series of information, training and methodological materials on all above-mentioned themes were published and disseminated. Research and training activities within Programme area II were accompanied by six online seminars.

22. IITE has launched and monitored the national pilot project *Distance Learning for Rural Schools* in Kazakhstan. Sharing the experience and results among other CIS countries constituted the core of the international conference *ICT-based Distance Education* held in May 2003 with participation of more than 60 representatives from 9 countries (Armenia,

Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Republic of Moldova, Russian Federation, Tajikistan, and Ukraine).

23. IITE has accomplished in cooperation with UNESCO Almaty Office the sub-regional project *Strengthening the Development of Distance Training Networks in Central Asia*. The Institute has also elaborated the project *Information and Communication Technologies for Higher Distance Education (HDE) Usage in Sub-Saharan Africa* for training and retraining of educational personnel on ICT usage in HDE in the region and has started the activities financed by the EFA Trust Fund.

24. The IITE activities in **Programme area III** aimed at *Improving the Quality of Education Through ICT Usage*. The theme *Indicators of ICT Application in Education* included elaboration of a system of related indicators, its application for quantity and quality analysis in practice, measurement and succeeding assessment of influence of the ICT usage on the development and quality of education. IITE has run the sub-regional project *ICT Application in the Systems of Education of the Member States of the Commonwealth of Independent States*, and in the course of its implementation the measurement of ICT usage in education was accomplished, the materials of the expert meeting *ICTs in Education: State-of-the-Art, Needs and Perspectives – Indicators and Information System* and statistical report *Basic ICT Usage Indicators in Secondary Education in the Baltic and CIS States* were printed and disseminated. The results of the project were presented at the 7th Conference of Ministers of Education of the CIS countries (Almaty, Kazakhstan), consultative workshop for *Developing Performance Indicators for ICT in Education* (Quezon City, Philippines) and international conference *Secondary Education for a Better Future: Trends, Challenges and Priorities* (Muscat, Oman).

25. The other theme of Programme area III *Ethical, Psychological and Societal Problems of the Application of ICTs in Education* was designed to improve the quality of education through assistance in social, ethical, and psychological tendencies appeared in societies and education under the ICT development. For this purpose the research seminar *Ethical, Psychological, Societal and Legal Aspects of the Application of ICTs in Education* was held by IITE, in which 19 experts from Germany, Poland, Russian Federation, United Kingdom, and USA participated. Corresponding information and analytical materials prepared by the international groups of experts from Japan, the Netherlands, Russian Federation, United Kingdom, and USA were published.

26. IITE **Programme area IV** *Promoting ICT Usage in Education for Learning to Live Together* contains three main themes, namely *ICTs in History Education, ICTs in Teaching/Learning Foreign Languages*, and *Education, Art and ICTs: Integration for the Development of One's Personality*. The core of the IITE activities within the framework of this Programme area has been the ICT usage in educational process to extend mutual understanding, tolerance, respect for traditions and preservation of cultural and linguistic diversity as a prerequisite of sustainable development.

27. In this area, IITE held international expert meetings *Internet Usage in Teaching/Learning of Foreign Languages* (with 17 experts from France, Germany, Norway, Russian Federation, and USA) and *Education, Art and ICTs: Integration for the Development of One's Personality* (with 12 experts from Italy, Kazakhstan, Lithuania, Russian Federation, and United Kingdom) and the training workshop *ICT Usage in Teaching of Foreign Languages* for 40 Russian teachers. The Institute has prepared a number of information and research materials on these themes.

28. IITE has actively participated in the **UNESCO cross-cutting theme project** *Higher Education Open and Distance Learning Knowledge Base for Decision-Makers.* A special expert meeting of the IITE focal points from the CIS and Baltic countries on the development of this project was held by IITE in Kiev, Ukraine, which was attended by the representatives of 11 countries (Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Lithuania, Republic of Moldova, Russian Federation, Tajikistan, and Ukraine). Following the recommendations of the expert meeting, IITE has set up a working group to develop project documentation, organized special regional research which resulted in creation of architecture and structure of a WWW-based knowledge base and modes of filling it in.

29. Like research and training, the **clearing house** was one of the main domains of the IITE's activities. In 2002–2003 IITE published 37 analytical, training, methodological, and information materials, and IITE Newsletter. (See Annex IV.)

30. To strengthen the links between the Institute and its clientèles all over the world, preference has been given to the direct circulation of IITE publications among educational authorities responsible for the application of ICTs in education and higher educational establishments. For these purposes IITE sent above 4,500 copies of its publications to more than 400 addresses of the National Commissions for UNESCO and national focal points for cooperation with IITE as well as IGOs and NGOs, institutes and professional communities all over the world. Apart, the IITE publications were disseminated on special requests of the Ministries of Education and National Commissions for UNESCO from 38 countries, international organizations, UNESCO Offices and Centres, representatives of administrations, researchers and educators of educational institutes of the world. (See Annex V.)

31. Following the decisions of the 31st session of the UNESCO General Conference to provide the "development and upgrading of the IITE information system to facilitate the exchange of experience and information on ICT usage in education among UNESCO Member States" (31 C/5, 01340), since year 2000 IITE has been developing **IITE information system** – WWW portal (www.unesco-iite.org), consisting of the IITE web site, *Information System on Information Technologies in Education* database, and specialized web sites for group work and communication, e.g. used for 10 online research and training seminars. WWW portal placed at 12 domains aggregates about 3,000 static and dynamic HTML pages and occupies (without graphics) almost 800 MB of disk space. There are about 38,000 items in 11 separate databases, including 481 documents in PDF and DOC formats. The resources are required monthly by approximately 40,000 users from more than 70 countries, which generates 1.1 GB downloading traffic. Direct links to IITE WWW portal may be found on 500 web pages.

IV. International cooperation

32. The Institute maintains regular relations with national and international organizations interested in the Institute's activities, such as: UNDP, ISESCO, the World Bank, European Union, League of Arab States, ILO, UNEVOC; with foundations, e.g. Japanese Funds-in-Trust for the Capacity-Building of Human Resources, EFA Fund Trust; with professional associations: Conference of the Ministers of Education of the Commonwealth of Independent States (CIS), Council on Education of the CIS countries, African Academy of Languages, the Commonwealth of Learning, International Certificate Conference, Federation of Internet Education, International Federation for Information Processing, European Residence for Educational Multimedia. IITE has striven to take an active part in the Organization's endeavours to consolidate the international efforts to achieve the goals of the Dakar Framework for Action and presented the results of its work at 10 international forums. (See Annex VI.)

33. IITE develops the international network of national focal points for cooperation with IITE nominated by the National Commissions for UNESCO and Ministries of Education of 35 countries. This network serves for strengthening national capacities in ICT application in education, exchange of information, joint research and project activities as well as for learning needs and requests of Member States and feedback. During the biennium 8 working meetings of representatives of the national focal points for cooperation with IITE took place in Almaty (Kazakhstan), Nairobi (Kenya), Moscow (Russian Federation), Dar es Salaam (Tanzania), and Kiev (Ukraine).

V. Financial resources

34. IITE's budget was financed in 2002–2003 by direct contributions and indirect contributions (in-kind) amounting to US$ 4,826,400 for the biennium, including: UNESCO financial allocation US$ 1,100,000; Russian Government's contribution US$ 766,000 (in-cash) and US$ 2,086,000 (in-kind); contribution by other Russian institutions US$ 285,000 (in-kind); other extrabudgetary resources US$ 589,400 (including those from the EFA Trust Fund and Japanese Funds-in-Trust for the Capacity-Building of Human Resources).

Annex I

IITE RESEARCH ACTIVITIES

Meetings, seminars, and workshops:

1. Research seminar *Ethical, Psychological, Societal and Legal Aspects of the Application of ICTs in Education.* IITE, Moscow
2. Expert meeting *Distance Higher Education in Africa: Professional and Course Development.* Dar es Salaam, Tanzania
3. Expert meeting *Internet Usage in Teaching/Learning of Foreign Languages.* IITE, Moscow
4. Expert meeting *Information and Communication Technologies in Special Education.* IITE, Moscow
5. Expert meeting *ICTs in Technical and Vocational Education and Training.* IITE, Moscow
6. Workshop *Distance Education: Canadian and Russian Experience.* IITE, Moscow
7. Expert meeting *Digital Libraries in Education.* IITE, Moscow

8. Expert meeting of the IITE Focal Points from the CIS and Baltic Countries on the development of the UNESCO cross-cutting theme project *Higher Education Open and Distance Learning Knowledge Base for Decision-Makers*. Kiev, Ukraine

9. Seminar for high-level experts on *Policy Formulation and Practical Usage of ICTs for Higher Distance Education in Countries in Africa*. Nairobi, Kenya

10. Expert meeting *Education, Art and ICTs: Integration for the Development of One's Personality*. IITE, Moscow

11. Working meeting of IITE and the Board of Directors in both ECDL Russia AS and Datakortet AS on cooperation in the Russian Federation and CIS countries. IITE, Moscow

12. Working meeting on preparation of the UNESCO side event at the World Summit on the Information Society – round table *Education and Knowledge Societies*. IITE, Moscow

The participants of the 12th International Conference *Information Technologies in Education (ITE–2002)*. IITE, Moscow, 2002

7. Conference *Information Technologies at School*. Vilnius, Lithuania

8. International Conference *ICT-based Distance Education*. Moscow, Russian Federation

Round tables:

1. *Towards Policies for Integrating ICTs into Education*. Bangkok, Thailand

2. *International Experience of ICT Usage in Education*. IITE, Moscow

3. *Strengthening the Development of Distance Training Networks in Central Asia* (on the results of a joint, IITE and the UNESCO Almaty Office, sub-regional project of the same name). Almaty, Kazakhstan

International conferences co-organized and/or co-sponsored by IITE:

1. International Forum *Informatization of Education of Kazakhstan: Step to the XXI Century*. Almaty, Kazakhstan

2. The 11th International Conference and Exhibition *Information Technologies in Education (ITE-2001)*. Moscow, Russian Federation

3. The 7th Annual UNESCO–ACEID International Conference on Education. Bangkok, Thailand

4. The 13th International Technology Institute (International Conference) *New Computer Technology in Education*. Troitsk, Russian Federation

5. International Forum *Issues of Informatization of Education Systems in the CIS Countries*. Almaty, Kazakhstan

6. The 12th International Conference and Exhibition *Information Technologies in Education (ITE–2002)*. Moscow, Russian Federation

Working meetings on national and sub-regional pilot projects:

1. Working meeting on the national pilot project *Training and Retraining of Educational Personnel on ICT Application in Education in the Republic of Moldova*. Kishinev, Republic of Moldova

2. Working meeting on the national pilot project *ICTs in Special Education* in Armenia. IITE, Moscow

3. Working meeting on the sub-regional project *ICT Application in the Systems of Education of the Member States of the Commonwealth of Independent States*. Almaty, Kazakhstan

4. Working meeting on data collection *Indicators of ICT Usage in Education: CIS and Baltic Countries* (within the framework of the sub-regional pilot project *ICT Application in the Systems of Education of the Member States of the Commonwealth of Independent States*). IITE, Moscow

5. Working meeting on the national pilot project *Distance Learning for Rural Schools in Kazakhstan*. Almaty, Kazakhstan

6. Eight working meetings of IITE national focal points on joint programme activities. Almaty, Kazakhstan (two meetings); Moscow, Russian Federation (three meetings); Nairobi, Kenya; Dar es Salaam, Tanzania; Kiev, Ukraine.

Annex II

IITE TRAINING ACTIVITIES

Training sessions and workshops:

1. Training session on *Multimedia in Education*. Vilnius, Lithuania

2. High level seminar and workshop for decision-makers and policy-makers from Asia and the Pacific *Towards Policies for Integrating ICTs into Education*. Bangkok, Thailand

3. Training seminar *Retraining of School Educators in the Application of ICTs in Education*. Naltchik, Russian Federation

4. Training seminar *Retraining of School Educators in the Application of ICTs in Education*. Kishinev, Republic of Moldova

5. Seminar *The Use of Information Technology Across the Curriculum (Multimedia and Internet)*. Nicosia, Cyprus

6. Five training and testing sessions on ICDL/ECDL. IITE, Moscow

7. Training seminar for teachers and teacher trainers *Retraining of School Educators in the Application of ICTs in Education*. Vilnius, Lithuania

8. Training seminar *Distance Learning in the CIS Countries: Monitoring of Educational Needs and Opportunities*. IITE, Moscow

9. Workshop *ICTs in Distance Education*. Dar es Salaam, Tanzania

10. Workshop *ICT Usage in Teaching of Foreign Languages*. IITE, Moscow

11. Two workshops for testers on ECDL. IITE, Moscow

Thematic online research and training seminars:

1. The Use of Information Technology Across the Curriculum (Multimedia and Internet)

2. ICTs in Special Education

3. The 7th Conference of Ministers of Education of the CIS Countries
4. Digital Libraries in Education
5. Policy Formulation and Practical Usage of ICTs for Higher Distance Education in Countries in Africa
6. Multimedia in Education
7. Towards Policies for Integrating ICTs into Education
8. Distance Learning in the CIS Countries: Monitoring of Educational Needs and Opportunities
9. Information Environment for Education: Designing and Practice of Usage
10. Ethical, Psychological, Societal and Legal Problems of ICT Application in Education
11. Distance Education on the Basis of Information and Communication Technologies

Testing on ECDL. IITE, Moscow, 2002

IITE EDUCATIONAL PROGRAMME

Basic course	Elementary ICT Curriculum for Teacher Training
Specialized training courses	ICTs in Primary Education Multimedia in Education ICTs in Distance Education Internet in Education Development of Educational Personnel for Distance Education ICTs in Special Education (in preparation) Digital Libraries in Education (in preparation) ICTs in Technical and Vocational Education and Training (in preparation)
Sets of support training materials	Towards Policies for Integrating ICTs into Education Retraining of School Educators in the Application of ICTs in Education

IITE PUBLICATIONS

1. *Medium-Term Strategy of the UNESCO Institute for Information Technologies in Education for the years 2002–2007*

Analytical surveys:

2. *Current WWW Information Systems on Information Technologies in Education* (Russian version)
3. *Digital Libraries in Education*
4. *ICTs in Technical and Vocational Education and Training*
5. *Distance Learning in the CIS Countries: Monitoring of Educational Needs and Perspectives*
6. *Basic ICT Usage Indicators in Secondary Education in the Baltic and CIS States* (English and Russian version)
7. *Open Distance Learning Knowledge Base for Decision-Makers: Experience of Kyrgyzstan*

Methodological and training materials:

8. *Multimedia in Education.* Specialized training course
9. *ICTs in Distance Education.* Specialized training course
10. *Internet in Education.* Support materials for educators
11. IITE High Level Seminar for Decision-Makers *Towards Policies for Integrating Information and Communication Technologies into Education.* Support materials for decision-makers

12. *Development of Educational Personnel for Distance Education.* Guide and instruction book (Russian version) – 7 volumes
13. *Retraining of School Educators in Application of ICTs in Education.* Set of materials for training seminar – 4 parts

Other publications:

14. *ICTs in Education: State-of-the-Art, Needs and Perspectives – Indicators and Information System.* Final report
15. *Towards Policies for Integrating Information and Communication Technologies into Education.* Subject outline
16. *Digital Libraries for Education.* Final report
17. *Ethical, Psychological, Societal and Legal Problems of the Application of Information and Communication Technologies in Education.* Final materials
18. *Information and Communication Technologies in Special Education.* Final report
19. *ICTs in Technical and Vocational Education and Training.* Final report and selected materials
20. *Education, Art and ICTs: Integration for the Development of One's Personality.* Information materials
21. *ICT Role in Secondary Education for Information Society.* Position paper

22. Seminar for High-Level Experts *Policy Formulation and Practical Usage of ICTs for Higher Distance Education in Countries in Africa.* Final report
23. IITE Booklet
24. *The 12th International Conference "Information Technologies in Education (ITE–2002)".* Annotations
25. *Building up National Focal Points' Online Community.* Recommendations
26. *Higher Education Open Distance Learning Knowledge Base for Decision-Makers.* Selected materials of the meeting of IITE focal points of the CIS and Baltic Countries

CD-ROMs:
27. *ICT WOLL IMPACT (ICTs in Foreign Languages)*
28. *History, Dialogue, and Future of Civilization*
29. *ICTs in Distance Education.* Readings

30. **IITE Newsletter** (8 issues)

Annex V

COUNTRIES AND ORGANIZATIONS WHICH SUBMITTED ADDITIONAL REQUESTS FOR IITE PUBLICATIONS

I. Ministries of Education, National Commissions for UNESCO, UNESCO Offices and Centres:

Armenia	Ethiopia	Jamaica	Rwanda
Azerbaijan	Gambia	Kazakhstan	Senegal
Belarus	Georgia	Kyrgyzstan	Serbia and Montenegro
Brazil	Greece	Latvia	Slovenia
Canada	Haiti	Lithuania	Spain
China	India	Nigeria	Tunis
Congo	Iran	Panama	Tajikistan
Cook Islands	Iraq	Republic of Moldova	Ukraine
Cyprus	Israel	Russian Federation	United Kingdom

II. International Organizations:

Islamic Educational, Scientific and Cultural Organization (ISESCO); UNDP, the World Bank, European Commission/Eurydice/Eurostat, Council for Cooperation in the Field of Education of the CIS Countries, Commonwealth of Learning.

Annex VI

IITE's PARTICIPATION IN THE INTERNATIONAL FORUMS

1. The 7th World Conference on Computers in Education. Copenhagen, Denmark
2. Chinese national conference *Information Technology in Education of Elementary and Secondary School.* Cancun, China
3. The 7th Annual UNESCO–ACEID International Conference on Education. Bangkok, Thailand
4. International Forum *Informatization of Education of Kazakhstan and CIS.* Almaty, Kazakhstan
5. The 2nd International Forum *Informatization of Education of Kazakhstan and CIS.* Almaty, Kazakhstan
6. International Consultative Workshop *Developing Performance Indicators for ICT Usage in Education.* Quesone, Philippines
7. International Conference *Secondary Education for a Better Future: Trends, Challenges and Priorities.* Muscat, Oman
8. Pan European Regional Ministerial Conference in preparation of the World Summit on the Information Society. Bucharest, Romania
9. International Conference *The Use of ICT for Capacity-Building in Science.* Okinawa, Japan.
10. International Conference RCDL'2002 *Digital Libraries: Advanced Methods and Technologies, Digital Collections.* Dubna, Russian Federation

31st SESSION OF THE GENERAL CONFERENCE OF UNESCO

From 15 October to 3 November, attended by a record number of participants – 2,965 including 2,522 representatives from 185 of 188 UNESCO Member States, the 31st session of the General Conference was held. The General Conference expressed unanimous support for UNESCO's commitment to promote education as a fundamental right all over the world. It emphasized UNESCO role in ensuring inclusive education and education that helps fight poverty and exclusion.

Information and communication technologies (ICTs) were at the heart of the General Conference debates and are expected to play a key role in all UNESCO's fields of competence. The General Conference stressed that equitable access to information should enable better embodiment of cultural diversity in all forms, multilingualism including, and called on UNESCO to continue the work on a standard-setting instrument adequate to the increased exchange of knowledge, thus promoting intercultural dialogue and better understanding among nations.

IITE delegation at the 31st session of UNESCO General Conference

'The field we have yet to explore is a broad one, and there will no doubt be a long way to go, as there is for any standard-setting action, before we arrive, in each of the areas so requiring, at instruments meeting with the approval of all,' said the Director-General at the close of the General Conference. *'I am thinking in particular of the promotion and use of multilingualism and universal access to cyberspace, where the debate revealed that we had still to amplify our reflection and needed to engage in further consultation.'*

The delegation of UNESCO IITE took part in the debates on education issues which were mainly concentrated in Commission II of the General Conference. On the first day of its work Prof. Peter Canisius, Chairperson of the IITE Governing Board, presented the results of the IITE activities in 2000-2001, and Institute's budget. Special attention was devoted to supporting Member States with informational and training on-line/off-line services in different ICT fields in education, such as ICT curriculum development, distance learning, education via the Internet, special education and others.

During the next days of debates, the Member States representatives revealed their interest in further development of ICT integration in education. The following issues – training and retraining of teachers, national policies on ICTs in education, distance education, ICTs for girls' education, the role of ICTs in knowledge society development, ICTs and digital divide in education, international knowledge bases on ICTs in education – were discussed by the participants from many countries among which Argentina, Canada, Congo, France, Israel, Lebanon, Morocco, Nepal, New Zealand, Norway, Republic of Korea, South Africa, Swaziland, Syria, Tanzania, Thailand, Yugoslavia.

Mr John Daniel, Assistant Director-General, addressed the issues raised during Commission II debates. He stressed, in particular, the importance of distance education technologies in promoting the global knowledge society. In this context, as Mr John Daniel said, the needed cross-cutting activities of Education Sector in close collaboration with Communication and Information as well as other UNESCO sectors and institutes should be strengthened.

Following the presentation of the Assistant Director-General, the Chair invited the Directors of UNESCO education institutes to comment on Commission II debates. In his speech IITE Director Prof. Vladimir Kinelev stated that ICTs have already become one of the most important factors in the worldwide educational development. He stressed that the present world community is on the threshold of a new stage of the educational revolution which will entail a dramatic shift in all spheres of human existence in the information society.

New social demands and the new world around us are shaped by new information and communication technologies, and models of action call for new literacy for the information society. Meanwhile, it will be a mistake to think that the new information and telecommunication technologies automatically

raise the quality of education. In order to exploit their opportunities effectively, such fields as computer psychology, computer didactics and computer ethics should be explored and employed by educators better, he said.

During the last two years IITE has been extremely busy to serve UNESCO Member States with advice, analytical, methodological and training materials in the area of its competence. The seminars and workshops, training courses IITE conducted in the biennium ranged from assistance in shaping national policies of UNESCO Member States at their requests to various special subject meetings.

Finally, the General Conference of UNESCO has approved the Report of the IITE Governing Board on the Institute's activities in the biennium and its

tasks for years 2002-2003. The IITE Governing Board and staff should pay special attention to:

- harmonization of IITE orientations and activities with the relevant strategic objectives and strategies of the Education Programme;

- reinforcement of national capacities in Member States for the applications of ICTs in their education systems;

- launching national, regional and subregional training programmes on the use of ICTs in education in collaboration with Ministries of Education and UNESCO field offices;

- undertaking research and studies aimed at the development

Prof. P. Canisius, Chairperson of the IITE Governing Board

and upgrading of the IITE information system to facilitate the exchange of experience and information on ICT usage in education among UNESCO Member States;

- implemention of operational projects in its field of competence.

IITE FOSTERING COOPERATION ON DISTANCE EDUCATION WITH UNIVERSITIES IN AFRICA

Within the framework of IITE international project *Distance Education: Structure, Methodology, Staff Development and Legal Aspects*, the UNESCO Institute for Information Technologies in Education (IITE) held expert meeting *Distance Higher Education in Africa: Professional and Course Development* and workshop *ICTs in Distance Education*. Following the invitation of

UNESCO National Commission of the United Republic of Tanzania, these events were organized at the Open University of Tanzania, Institute of Educational Technology (Dar-es-Salaam, Tanzania) on 20 and 21 September.

Mr Zubein M. Mhita, (Member of Parlament) Deputy Minister of Science, Technology and Higher

Education of the United Republic of Tanzania, opening the events welcomed the participants on behalf of the Tanzanian Government and wished them successful work. In his speech Mr Mhita thanked IITE for the arranged expert meeting and seminar on distance education in Tanzania and expressed the hope that the resultant outcomes of both activities will contribute significantly to the development of higher education in the United Republic of Tanzania as well as in other countries of Africa.

Prof. Simon Mbilinyi, (Member of Parliament), Chairman of the Council of the Open University of Tanzania, Prof. George S. Eshiwani, President of the Association of African Universities, Dr Nureldin

Satti, Director of UNESCO Dar-es-Salaam Office, Mrs Niwako E. Mnzava, the Secretary General of UNESCO National Commission of the United Republic of Tanzania participated in the activities.

Mr Zubein M. Mhita, Deputy Minister of Science, Technology and Higher Education of the United Republic of Tanzania

Guests of Honour and IITE Director

Registration of the participants

Prof. Vladimir Kinelev, Director, headed IITE team which included Prof. Valery Meskov, Consultant, Dr Yuri Zaparo- vanny, Senior Programme Specialist, and Dr Azat Khannanov, Programme Spe- cialist.

Representatives of the dip- lomatic corps took part in the opening and closing cere- monies.

The events attracted mass media attention: they were fully covered by the national television and exposed in the national newspapers.

International Expert Meeting
Distance Higher Education in Africa: Professional and Course Development
20 September 2001, Tanzania

The international expert meeting envisioned the following major goals:

• to examine the professional build-up for the purposes of dis- tance education in higher school of Africa;

• to consider the courses and teaching/training materials used for staff development in the field of distance education;

• to identify the needs of qualifi- cation and course development in distance education in the region;

• to discuss with the specialists participating in the meeting pos- sible joint activities of IITE and UNESCO Member States of Africa fostering the application of information and communica- tion technologies (ICTs) in edu- cation, especially in professional and methodological fields of distance education.

About 60 participants and observers from eight UNESCO Member States: Kenya, Namibia, South Africa, United Kingdom, United Republic of Tanzania,

USA, Zambia, India (by corre- spondence) and Israel (by corre- spondence) attended the expert meeting.

Free discussions, plenary sessions, presentations of the invited speak- ers and representatives from African universities worked for the objectives of the expert meeting.

The following reports were pre- sented at the expert meeting:

• *IITE Programme Activities in the Field of Distance Education.* Prof. Vladimir Kinelev (UNESCO Institute for Information Technologies in Education)

• *Distance Education for the Information Society.* Dr Nick Farnes (International Centre for Distance Learning, UK Open University)

• *Promise and Peril of Distance Learning in Higher Education in Sub-Saharan Africa: The Case of the African Virtual Univer- sity.* Prof. George S. Eshiwani (Kenyatta University, President of the Association of African Universities)

Opening ceremony

• *Strategy Innovation for O&DL in Africa.* Prof. Wayne G. Mackin- tosh (Information and Com- munication Technology Direc- torate, University of South Africa)

• *Course Development Procedures in Open University of Israel.* Dr Victorya Libin-Levav (Open University of Israel)

• *Challenges of Globalisation and ICT Usage, as Exemplified by African Virtual University (AVU).* Mr Charles Senkondo (Business Manager of African Virtual University

• *ICT Applications for Open and Distance Learning in India.* Prof.

H. P. Dikshit (Indira Gandhi National Open University)

• *Role of ICT in Distance and Open Learning.* Dr Satoki T. Mahenge (Institute of Educa- tional Technology, Open Univer- sity of Tanzania)

Group discussions were focused mainly on three issues:

• ICT policy in Africa;

• state-of-the-art of ICT infra- structure in Africa;

• human resources in Africa.

The discussions resulted in *Terms of Reference* which can be provided

Participants of the expert meeting

for future action and are summarized in the following categories:

Policy Issues (Group 1)

- Group stated the need to work out a policy on distance education (DE).

- ICTs cannot be separated from the contemporary DE, consequently ICT policy should be elaborated in conjunction with DE policy. Group called for a multi-spectrum approach.

- An expert group must analyse the current DE practice, particularly, the numerous documented studies that have already been conducted in various African countries on the subject. The expert group must also identify appropriate groups to participate in this process.

- Concern was worded on the current dynamics of the higher education privatization in many African countries as well as on the need for a memorandum of understanding between private and state-funded tertiary education sectors.

- The usage of appropriate technologies was pointed out, particularly, in respect to the available technologies and infrastructure.

- Stronger collaboration among institutions and organizations was called for, including regional, national, continental and international cooperation.

- The need for policy-makers to be well aware of unique challenges and issues associated with ICTs and DE was emphasized.

- The school curriculum should be paid urgent attention to include adequate ICT training which demands the revision of assessment strategies.

- Existing reference documents and studies generate certain concern regarding their relevancy, given the dynamic nature of the ICT environment.

State-of-the-Art (Group 2)

Group focused on upgrading the DE content. The following problems and proposals were put forward:

- Lack of statistical data on global activities in open distance learning (ODL) and DE at all educational levels. Group addressed UNESCO with the request to promote the incorporation of this dimension into global statistics.

- The inventory of DE achievements must start the process, as well as the analysis of documented studies to identify the gaps for future analytical work. It should be focused on the success factors setting up strategies to share the results of the research with the continent.

- Group recommended a holistic approach to ICTs and DE to cover all levels, including primary, secondary, tertiary, adult basic education and non-formal education. A holistic approach in DE policy formulation is also required, hence DE policy for different levels of education should be developed comprehensively for every level.

- Local examples of good practice and innovation must be analysed and shared throughout the continent.

- Opportunities for innovation and experiment must be created and supported so that 'space' for local advance is promoted.

- Problems associated with the African Diaspora were discussed, and the necessity of adequate education for decision-makers was stressed.

- Better cooperation between regional distance education associations on the continent must be promoted.

- Mechanisms for enhanced collaboration and sharing of resources at regional, national and continental level must be worked out.

- Existing attitudes and perceptions towards ICTs and DE, though difficult to obtain, must be analysed.

Capacity Building (Group 3)

- A prior analysis of existing training needs for ICTs and DE is required before a human resource policy and specific training modules are elaborated.

- Group turned to UNESCO to consider feasible ways to facilitate training in ICTs and DE fields.

- UNESCO is ment to render its assistantce for the establishment of Multi-Purpose Community Centres (MPCCs) in the communities providing adequate training in establishment, management and sustainability of such centres.

- Group addresses UNESCO with the request to facilitate and coordinate training programmes as well as ensure adequate facilities are secured for such training.

- UNESCO shall promote sensitization sessions on ICTs and DE for policy-makers.

Prof. George S. Eshiwani (Kenya) and Mrs Niwako E. Mnzava (Tanzania)

Prof. Ralph Massenge, Director of Postgraduate Studies (Open University of Tanzania) and Dr Nick Farnes (United Kingdom)

Prof. Wayne G. Mackintosh (South Africa)

- The need in a training policy was marked; institutional staff rotation and sharing must be also provided. A compensation fee for the trained staff in the public sector taken over by the private sector was mooted.

The central theme discussed was the prospective approaches to the capacity building for distance education in African higher school and possible joint activities of IITE and UNESCO Member States of Africa in fostering ICT application in education, especially in the professional and course development for distance education. The participants of the expert meeting surveyed the international experience of ICT usage in distance learning, particularly, in the universities of

Africa, discussed issues related to the educational programmes and ICT applications in staff development for distance education, reviewed cases of course development for distance learning, debated the role of international cooperation in building-up national capacities for higher education in Africa.

The participants and observers were informed about IITE programme activities, in particular, in the field of distance education:

- IITE long-term international project *Distance Education: Structure, Methodology, Staff Development and Legal Aspects*;

- analytical survey *Distance Education for the Information Society: Policies, Pedagogy and Professional Development*;

- specialized training course *Information and Communication Technologies in Distance Education*.

The information on IITE high-level seminar for Ministers of Education, decision- and policy-makers *Towards Policies for Integrating ICTs into Education* was also presented.

After the discussions the participants of expert meeting *Distance Higher Education in Africa: Professional and Course Development* agreed on the following:

Recommendation 1

The detailed feedback from each discussion group in the expert team can be used to define *Terms of Reference* for the responsible executives of the stated recommendations.

Recommendation 2

The expert group supports IITE in launching a UNESCO cross-cutting project on distance education and open learning in higher education in Africa.

Recommendation 3

The expert group supports IITE in setting up a working group to prepare an analytical survey *ICTs and Distance Education in Africa: State-of—the-Art, Needs and Perspectives*.

Recommendation 4

The expert meeting recommends a representative group of experts

be organized to develop a policy framework to be used as a potential resource in formulating the ICT and distance education policy for Africa.

Recommendation 5

The expert group recommends a continuing service be established to exchange best practice (on relevant distance education and open learning issues) among African higher education institutions. UNESCO (IITE) should set up an accessible information system to achieve the task.

Recommendation 6

The expert group recommends capacity building initiatives for ICTs and distance education be instituted via respective strategies to ensure access and sustainability of human development strategies.

Recommendation 7

The expert group recommends higher education institutions in Africa be supported in their efforts to develop teaching/learning resources for distance education and open learning.

Workshop
ICTs in Distance Education
21 September 2001, Tanzania

The workshop was attended by about 60 participants and observers from eight UNESCO Member States: Kenya, Namibia, South Africa, United Kingdom, United Republic of Tanzania, USA, and Zambia.

The main goals of the workshop were:

- to examine the structure and content of the specialized training course *Information and Communication Technologies in Distance Education* prepared within the framework of the IITE educational programme by the international working group

set up by IITE and headed by Dr Michael G. Moore (USA);

- to share the information and materials related to the issue which are at IITE disposal;

- to apply the prepared specialized course *ICTs in Distance Education* to higher education in Africa;

- to discuss the issues of further usage of the submitted specialized course in training practice to strengthen national capacities of the UNESCO Member States of Africa for distance learning in higher education in the region.

During the workshop Dr Honoratha Mushi (member of the international editorial team, Tanzania) presented the specialized training course *Information and Communication Technologies in Distance Education*.

The course is currently elaborated by the international working team which is headed by Dr Moore (USA) and consists of Dr Mushi (Tanzania), John Nworie (Nigeria), Creso Sa (Brazil) and Edward Thompson (USA).

Developing the educational programme for training activities at the Institute and beyond, IITE has chosen a modular structure for this programme allowing the necessary flexibility and meeting the needs of different users and various target

Dr Yuri Zaparovanny (Russian Federation) and Dr Honoratha Mushi (Tanzania)

groups. Thus, the IITE educational programme includes a basic course on application of information and communication technologies in education and several specialized training courses such as *ICTs in Primary Education, Internet in Education, Multimedia in Education, ICTs in Special Education* and *ICTs in Distance Education.*

The course *ICTs in Distance Education* is prepared for policy-makers in education, both pre- and in-service teacher trainers, trainers in vocational institutions, instructional guidance specialists and school teachers.

The course compiles the following parts as a basis for training activities:

• concept of distance education, its history and special place of ICTs in the particular educational context;

• prime organizational contexts and representative economic/ social contexts in which ICTs are used in distance education with illustrative case studies;

• system and course design procedures in distance education using ICTs;

• teaching principles and procedures in using ICTs;

• information about learning and learners using ICTs in distance education;

• key policy issues at institutional and national levels.

At the beginning of the workshop Prof. Vladimir Kinelev, Director of IITE, informed on the background of *IITE Training Activities in the Field of Distance Education.* Then the head of the international editorial team Dr Moore made a video presentation of the specialized training course *Information and Communication Technologies in Distance Education.*

After the specialized training course was introduced, a member of the international editorial team Dr Mushi presented the course proper, module by module, the participants making valuable comments and suggestions.

The main observations and comments included the following:

• the definitions of distance education and distant learning are clear;

• the course covered the needs of audience at different levels of education;

• effective teaching requires integration of facts, concepts, theories, knowledge, collaboration, innovation and communication;

• the adequate education and training are needed;

• the course must include M & E for quality control; research acquires priority;

• relevant case studies need to be included in each module to provide practical examples;

• the existing text to be enriched by cross-referencing to the findings in the IITE analytical survey presented at the expert meeting;

• literature on how to bridge the Digital Divide must hold the statements of African leaders such as Hon. Mbeki, the President of the South Africa;

• literature used does not include materials from Africa;

• distance education course design must be based on the organizational principles of the functions of distance teaching, namely:
- primary mode of presentation
- interaction
- assessment
- support

• the course must meet the needs of learners and teachers with

disabilities and other special educational requirements.

Further, Dr Azat Khannanov, IITE Programme Specialist, presented *IITE WWW Information System on Information Technologies in Education (ISITE)* and introduced the conceptual design of the system, gave the exhaustive description of the types of the resources accumulated, database architecture and the schemes for infor-mation interaction between the IITE and its partners through the interactive tools. The web pages devoted to the documents on ICTs in education, IITE projects and cooperation with the IITE Focal Points were demonstrated. Finally, the participants learned main ISITE principles using on-line mode.

The workshop *ICTs in Distance Education* reached the following conclusions:

• to adapt the training course for distance education in higher school of Africa and later to use it in staff development for distance education;

• to enrich the course with good practice examples of ICT application in distance education;

• to supply the users of the training course with current update on hardware and software resources required for its implementation;

• to consider possible implementation of the module in a classroom course (e.g. 32-hour) and at an e-learning course; to prepare two relevant versions of the module;

• to organize a pilot distance learning course;

• to publish an improved version of the specialized training course and disseminate it among Member States.

At the end of the workshop Prof. Kinelev gifted an LCD pro-

Dr Michael G. Moore (USA)

jector to the Open University of Tanzania.

The participants acknowledged the significance and importance of such events as the expert meeting and workshop on distance education organized by IITE for African countries and underlined their timeliness and fruitfulness for fostering ICT application in higher school of Africa. They expressed the gratitude to the UNESCO

Mr David Groenewald (Namibia)

National Commission of the United Republic of Tanzania, the Open University of Tanzania and the Institute of Educational Technology for hosting and supporting the expert meeting in Dar-es-Salaam, Tanzania.

Prof. Richard Siaciwena (Zambia)

HIGH-LEVEL SEMINAR – IITE EXPERIENCE

Preparation of the Seminar. Within the framework of its educational/training programme, the UNESCO Institute for Information Technologies in Education (IITE) prepared a high-level seminar for ministers of education, decision- and policy-makers *Towards Policies for Integrating ICTs into Education.* This work was started following the recommendation of the international research seminar *Teacher Training for Information Society* (21-22 July 2000, IITE, Moscow), where the experts from 12 countries participated, and which suggested the IITE training activities should concentrate on the top-level educational target group for the most effective fostering of ICT implementation in education among UNESCO Member States.

The seminar was designed to assist the high-level educators in elaboration and improvement of national action plans on ICT application in education in line with the Dakar Framework of Action. The first working meeting on the seminar arrangement was held by IITE from 17 to 19 December 2000 at the UNESCO Headquarters in Paris. The following experts from the international working group set up by IITE, took part in the meeting: Prof. Bernard Cornu (France) – Chairman, Mr Mike Aston (United Kingdom), Prof. Clara Danon (France), Prof. Raymond Morel (Switzerland, by correspondence), Dr Bal K. Passi (India) and

Mr Matti Sinko (Finland) as well as Prof. Valery Meskov, IITE Consultant and Dr Irina Smirnova, IITE Senior Programme Specialist. The participants of the meeting drafted the content and structure of the seminar, its schedule and tasks to get instructive and supplementary materials prepared. The working group continued its activities to organize the seminar by correspondence till the end of April 2001.

Moscow Seminar, 2001. The first seminar was held by IITE from 26 April to 30 June 2001. In reply to the IITE announcement and invitation, the ministers of education from 13 UNESCO Member States nominated the participants, among them deputy ministers, heads of the departments of the ministries of education and other educational personnel responsible for national policies on ICT application. The following Member States were represented at the first seminar:

Armenia
Azerbaijan
Belarus
Czech Republic
Estonia
Kazakhstan
Kyrgyzstan
Lithuania
Republic of Moldova
Russian Federation
Tajikistan
Ukraine
Uzbekistan

Along with the Russian Federation, three Russian regions, namely, Moscow, St.-Petersburg and Tatarstan were represented.

The following specialists invited by IITE moderated the seminar:

Prof. Bernard Cornu (Chairman) – Professor, Institut Universitaire de Formation des Maitres (IUFM) of Grenoble, at present – Head of the project *European Residence Dedicated to Educational Multimedia*, France;

Mr Mike Aston – c/o The Advisory Unit: Computers in Education, United Kingdom;

Prof. Raymond Morel – Director, Center Pedagogique des Technologies de l'Information et de la Communication, Switzerland;

Dr Bal K. Passi – Professor of Education, Educational Faculty, INDORE, Delhi, India, at present – Consultant, UNESCO-PROAP-ACEID, Bangkok, Thailand;

Mr Matti Sinko – Director, Development unit, Finnish Virtual University, Finland.

The seminar was divided into three related parts. The first three days at IITE (26-28 April 2001) were devoted to such themes as *Education and Sustainable Development, Educational Philo-*

sophy in the 21ˢᵗ Century, Sample Policies; technology, process, pedagogical and ethical issues and issues of economy were also discussed. The participants shared questions and reflections on ICT application in education.

For two months the participants worked on their own according to the plans and discussed the ideas, meanwhile being supported by the IITE consultants electronically, thus elaborating or improving the national strategies, policies, programmes and action plans on ICT application in education. The seminar was continually assisted through the IITE web site (including special seminar's forum) and information system.

The third two-day period at IITE (29-30 June 2001) was mainly devoted to practice and prospective matters coupled with further ICT integration in education. Moreover, IITE invited three speakers who presented their visions on ICT application in education:

Mr Michael Potashnik – President, E-learning Associates, LLC;

Mr Yuri Sereda – Education Department Head, Apple Computer Russia, IMC;

Mr Andrei Tolstopyatenko – Programme Manager, the World Bank Institute.

Moderators of the high-level seminar: Mr Mike Aston, Mr Matti Sinko, Prof. Raymond Morel and Prof. Bernard Cornu.

Prof. Peter Canisius, Chairperson of the IITE Governing Board (Germany) and **Prof. Saleh Abdulrahman Al-Athel**, Vice-Chairperson of the Board (Saudi Arabia) attended the closing session of the seminar. They warmly greeted the participants and highly assessed the work done by IITE and the moderators.

At the end of the seminar the participants were awarded with Certificates of Attendance.

Outcomes and Follow-up. Admittedly, the main aims of the seminar were achieved. The participants expressed their gratitude to the UNESCO Institute and the leaders of the seminar and underlined that this event succeeded in developing and updating their national and regional strategies, policies, programmes and action plans on the application and integration of information and communication technologies in education. They acknowledged the helpful content and unusual forms of work at the seminar as well as the spirit of friendliness and creativity.

The results achieved at the first seminar encouraged further elaboration of these forms for the benefit of UNESCO Member States. The theme was included in the programme of *Seventh UNESCO-ACEID International Conference on Education* (Bangkok, Thailand, 11-14 December 2001) to be discussed at a special round table for policy-makers.

IITE is ready to hold such seminars at request of UNESCO Member States and invites all interested partners to collaborate with the Institute in their organization.

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INTERNATIONAL EXPERT MEETING "MULTIMEDIA IN EDUCATION"
Review of specialized curriculum devoted to pre-service and in-service teacher education
By Bent B. Andresen

Prof. Bent B. Andresen, Danish University of Education

An international expert meeting was held from 5 to 7 July 2001 in Pushkin, Russian Federation, which considered the topic *Multimedia in Education* and the current need for in-service and pre-service teacher education in the field. Experts from Denmark, Germany, Portugal and Russian Federation took part in the discussions.

In particular, the experts considered the specialized training course *Multimedia in Education* developed by the author of this article together with Katja van den Brink. The objective of this course is to develop participants' competencies regarding why, where and how to use multimedia in educational settings as well as knowledge about pedagogical scenarios and the learning/teaching aspects related to the mainstream and future use of educational multimedia. In particular, this includes knowledge about teachers' roles, students' learning strategies, social/collaborative learning, ICT literacy, metacognition, and motivation.

The objectives also comprise critical and reflective selection and use of educational multimedia that can support the present educational goals as well as proper evaluation methods related to the educational use of multimedia.

The overall objective is to develop motivation to use multimedia in education and to adapt the knowledge and skills of the course into the educational practice.

The curriculum regards the role of teachers and students, and the potential impetus of multimedia on the students' learning, motivation, cooperation, etc.

Currently, the students are encouraged to use a growing number of multimedia products in a number of different ways. The application of interactive multimedia into educational systems takes place all over the world, although the range and speed of the implementation varies from country to country.

The multimedia products and on-line services serve as a means of communication and an expressive tool in various pedagogical scenarios. The notion of *pedagogical scenario* designates a postulated sequence of imagined events of a learning situation. Each of these is characterised by particular roles of teachers, students and educational multimedia products.

Four Scenarios Concerning the Use of Multimedia

Some educational products are designed to control the process of presentation, and students are assigned a somewhat passive role as receivers of information. Other educational multimedia products are interactive in the sense that students are assigned an active role, where they can select topics and jump between these. These different ways, in which students deal with multimedia, can be categorised — according to the scenario model developed by the author of this article — in four pedagogical scenarios:

1. The use of multimedia linear educational sources;

2. The use of multimedia hypertext-based materials;

3. The use of multimedia supervising products;

4. The use of multimedia productive tools and ingredients.

Scenarios No. 1-3 view students as *end-users* of messages from educational multimedia. Scenario No. 1 regards students' reception of the content of linear multimedia products. These lead students through different tasks in sequence. They can pick the episodes they want. However, once the potential useful sources have been located, the students have very limited control during the narration.

Katja van den Brink, University of Landau (Germany)

Dr Sergei A. Khristotchevsky, IITE coordinator of the specialized training course *Multimedia in Education* (Russian Federation)

Scenario No. 2 covers the students' reception of the content of non-sequential multimedia products. These non-sequential narratives encompass hypertext-based, interactive CD-ROMs and Internet services which are often used as information providers. No guidance is offered through different sections leaving a student as an explorer.

Scenario No. 3 regards the students' reception of the content of multimedia products aimed at teaching. These products display various guides for the students and help them break down and structure different tasks. This type of products typically consists of some tutoring strategy, e.g. knowledge about a subject matter and about instruction often presented in drill-and-practice sessions, and a critiquing strategy, e.g. provision of feedback tailored to the particular needs of each student, helping her/him confirm hypotheses and refine proposals.

In scenario No. 4 students are considered *producers* of small-scale multimedia products. The use of multimedia productive tools according to this scenario views the students as authors and producers. The scenario regards production of the students' own multimedia presentations by means of proper multimedia tools in the classroom.

The four scenarios cover widely used multimedia genres in educational settings that differ with respect to the role of students and teachers as well as the function of multimedia products and on-line services. Many mainstream approaches are similar to one of the scenarios presented or consist of a mixture of these.

It does not mean, however, that the widespread multimedia pedagogical practices are considered limited to these four approaches. The intention is to describe some typical pedagogical scenarios and not to present an exhaustive list of scenarios. More specialised scenarios may, of course, be also found.

The Target Group

After the course on *Multimedia in Education*, the participants are expected to be able to use and apply the acquired knowledge and competencies in the teacher educations they are in charge of.

The curriculum is tailored for teacher educators, heads of pre- and in-service teacher training, vocational development institutions and trainers of trainers for ICTs in education, instructional guidance and support specialists and ICT technology coordinators.

The participators are expected to be able to develop knowledge and skills regarding the following topics:

- the scenario model described above, i.e. important learning and teaching aspects while learning with educational multimedia;

- critical and reflective selection of educational multimedia according to educational objectives of the use of multimedia (what knowledge and competencies do students need to develop and how might educational multimedia support these goals?);

- the applications of educational multimedia according to Scenario No. 1, 2, 3 and 4 and mixtures of these into educational settings;

- methods of evaluation of the knowledge and competencies acquired.

From the point of view of school organization, the integration of multimedia in the process of teaching and learning demands reflexive, pragmatic and experiential approaches which place teachers, ICT school coordinators and other educational personnel at the centre of the innovation. Using multimedia, the teacher's role is extended from a transmitter of information and a primary source of knowledge to being one among other sources of knowledge and a facilitator or conductor of the learning processes.

Recommendations

The expert meeting regarding the curriculum was a success. The experts reviewed and highly recommended the training course *Multimedia in Education* and suggested an on-line presentation of the training course on the IITE homepage.

Moreover, the experts recommended a further work on the development, implementation and evaluation run by the author of this article.

In particular, the experts emphasised the following topics:

- how to describe the advantages and disadvantages of multimedia in education;

- how to select and evaluate educational multimedia;

- how to take into account different teaching traditions in various educational systems;

- how to increase motivation and to integrate new forms of learning – self-regulated learning and collaborative learning – into a classroom.

The experts considered recommendations for further project stages. In particular, they gave recommendations concerning the integration of practical examples of best practice with educational multimedia in different cultures and the implementation of the course in various countries.

In the autumn of 2001, the course module was elaborated and published. The next step is a pilot course which is planned to take place in January 2002.

Information about the course module and future courses are available at IITE UNESCO: www.iite-unesco.org

Discussions on multimedia in education at the international expert meeting

IITE ACTIVITIES WITHIN THE FRAMEWORK OF THE SEVENTH ANNUAL UNESCO-ACEID INTERNATIONAL CONFERENCE ON EDUCATION

Mr John Daniel

The Seventh Annual UNESCO-ACEID International Conference on Education was held from 11 to 14 December 2001 in Bangkok, Thailand. More than 400 participants from about 40 countries of Asia, Pacific, Africa, Europe and North America attended the Conference.

This year the major Conference theme was *Using ICT for Quality Teaching, Learning and Effective Management*, and the UNESCO Institute for Information Technologies in Education (IITE) mandated by UNESCO to act in the field of the application of information and communication technologies (ICTs) in education, was one of the main partners of the UNESCO Asia Pacific Center of Educational Innovation for Development (ACEID) in organization of the Conference and sponsored the attendance of some participants from the least developed countries and print of the Conference documents.

At the official opening ceremony on 11 December Mr John Daniel, Assistant Director-General for Education, delivered the Raja Roy Singh Lecture devoted to the major conference theme.

IITE was represented by Prof. Vladimir Kinelev, Director; Prof. Valery Meskov, Consultant; Dr Irina Smirnova, Senior

Programme Specialist, and Dr Azat Khannanov, Programme Specialist. The Institute also invited its partners Prof. Bernard Cornu (France), Prof. Raymond Morel (Switzerland) and Dr Bal. K. Passi (India) to participate in different activities.

Within the framework of the Conference IITE organized a series of activities related to plenary sessions, demonstrations and workshops, round tables, meetings with the officials of UNESCO Asia Pacific Regional Bureau of Education and participants from different countries. The sets of information and training materials

in printed form and CDs elaborated by the Institute were distributed free of charge.

Round table *Towards Policies for Integrating ICTs into Education* held by IITE within the framework of the Conference was aimed at sharing experience in policy formulation for ICT integration into education and presentation of the work done at IITE in this field as a follow-up to Dakar Forum, in particular, at High-Level Seminar prepared and organized by the Institute in April and June 2001 in Moscow. The main topic of the Bangkok round table was *How can a country, a policy-maker, a decision-maker design an educational*

policy integrating information and communication technologies? The subthemes of this round table were related to the emerging trends, guiding principles, pedagogical considerations, ethical guidelines, tools and parameters of policy planning for integrating ICTs into education.

At the round table, there were 51 participants of varying backgrounds from about two dozen countries ranging from Asia, Pacific, Europe, Africa to America. All attendees were supplied with the sets of materials prepared by IITE and related to the High-Level Seminar, including

IITE Round table

printed *Subject Outline* and CD with the mentioned Outline, photo gallery and video records of the Moscow seminar. The participants

of the round table concluded with the request to IITE to organize high-level seminars for policy/decision-makers on integrating ICTs into education for all UNESCO regions with a special priority to the Asia, Pacific and Africa regions.

Also, IITE organized **Demonstration** *IITE Educational Programme and Information Resources for Teacher Training* which attracted the attention of more than 70 participants of the Conference. The materials prepared by IITE for teacher training, up-to-date technologies and software for designing modern information systems and educational portals were introduced to the participants.

The attendees delegated by IITE took active part in all plenary sessions, demonstrations, workshops and round tables included in the Conference programme. Moreover, Prof. Kinelev, IITE Director, chaired Plenary Panel 1 *Using ICT for Quality in the Curriculum and in the Classroom*. Prof. Cornu as a keynote speaker at Plenary Panel 3 *Using ICT for Effective Management: Innovative Approaches and Practices* presented *National Policies on ICT in Education*. Prof. Morel chaired one of the round table discussions summarizing main conference outcomes and formulating recommendations for future actions.

Participants of the Conference

ADDRESSING ETHICAL AND SOCIETAL CHALLENGES OF THE INFORMATION SOCIETY

Research Seminar *Ethical, Psychological, Societal and Legal Problems of Application of Information and Communication Technologies (ICTs) in Education*

IITE, Moscow, 13–14 July 2001

The main objective of the research seminar *Ethical, Psychological, Societal and Legal Problems of Application of Information and Communication Technologies in Education* was to identify basic ICT applications in education which would account for ethical, psychological, societal and legal aspects of the relevant processes. It was scheduled that in the course of the seminar the directive principles for an analytical survey in project would be defined. As a basis for discussion, all experts received information materials which were prepared for the seminar by a group of the specialists at the request of the UNESCO Institute for information technologies in education (IITE).

The research seminar was opened on 13 July 2001 in the IITE conference hall. Prof. Vladimir Kinelev, IITE Director, welcomed the participants and thanked them for finding the possibility to come to the seminar. Prof. Kinelev noted that the seminar theme is critical for IITE in particular and UNESCO on the whole. ICTs present vast opportunities to develop the information society, to gain access to knowledge and technologies, to bridge the gap between the developed and developing countries; they transform the learning process proper as well as the usage of education in practice. However, it does not mean, as the IITE Director stressed, that ICTs upgrade the education quality automatically. To use positive potentials, which ICTs discover to the full, the deep research is required in such areas as computer ethics and psychology, societal and legal problems of ICT applications in education. The Institute has initiated several projects aimed at upgrading the education quality via ICTs. In the series of initiatives of such nature is the project on the ethical, psychological, societal and legal problems of ICT usage in education. Prof. Kinelev mentioned that this project is actively supported by the Director-General of UNESCO; research and development of the aforementioned issues will be vital among the Institute activities. Prof. Kinelev introduced the IITE objectives to the seminar participants.

The participants elected Prof. Deborah Johnson, Director of the Programme *Philosophy, Science and Technique* at the School of Public Policy of Georgia Institute of Technology (USA), a seminar chairperson, and Dr Irina Alekseeva, leading scientist of Institute of Philosophy of the Russian Academy of Sciences (Russian Federation) – a rapporteur.

At the morning session on 13 July the ethical issues of ICT applications in education were discussed in accordance with the seminar schedule.

Dr Alekseeva briefly reported on the ethical section of the information materials prepared for the seminar by a group of the specialists at the IITE request. In the presentation she drew attention to the fact that ICTs, while expanding the access to the educational resources, create new ethical tensions, as the state-adopted copyright laws contradict the values of academic culture and morale-law conscience of students and instructors. The latter is especially distinct in the countries, which have recently changed the attitudes to the property.

Prof. Reiner Küchlen, Head of the Department of Computer and Information Science, University of Konstanz (Germany), stressed that ethics cannot be reduced to mere observation of norms; the purpose of ethics is to doubt the basis of rules and regulations, thus raising the copyright specifics in the field of education. With the ICT expansion, the classical paradigm of an individual learning (which assumes reading books, attending lectures and passing the exams) is being replaced by the communicative approach. What is crucial here, ICTs allow many people from all over the world to be involved in communication. Prof. Küchlen shared his experience of electronic conferences on information ethics, which testifies for the unlimited ICT capabilities to the public benefit.

Dr Duncan Langford, Computing Laboratory, University of Kent at Canterbury (United Kingdom) focused on the ICT-connected problem of the propriety of materials which are used in education. As he noted, the training materials face special requirements, thus it is essential to set the standards of reliability which are to be met by the information placed on the educational sites. Under the wide ICT spreading, one of the imperatives of the instructor's ethics is to teach a student how to determine if the information is reliable.

Prof. Johnson underlined that one of the serious problems of ICT application is their impact on human thinking: when we transfer our activity into the informative and technological sphere, it starts shaping us. In that respect we can apply a 'hammer' metaphor, which perceives all objects as nails. Prof. Johnson mentioned that currently much attention is paid to the problem of ICT access alignment, and an impression emerges that it is the major problem to direct the available resources to, not to let education play the role of 'a nail' for 'a hammer' of the information technologies; the access mechanisms should correspond to the educa-

tion objectives. Prof. Johnson suggested that the important factor under these conditions should become the critical thinking. At the same time one must remember that one of the instructor's goals is to promote students' socialization, to bring them up as citizens.

Prof. Kinelev stressed that he sees the seminar's objective in the research of fundamental issues related to the information technology increment and new culture shaping, and the Institute's goal is to attract to the discussion of these problems as many specialists from UNESCO Member States as possible.

Dr Aleksey Sidorov, head of the chair of Moscow State Aviation Institute (Russian Federation), participating in the seminar as an observer, noted that to discuss ethical aspects of ICT application in education it is vital to apprehend if ICT development leads to a new shaping of civilization, or the new technology fits the old industrial liberal paradigm.

The evening session on 13 July dealt with the legal and social aspects of ICT application in education.
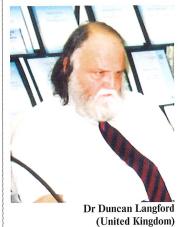

Prof. Deborah Johnson (USA)

Prof. Reiner Küchlen (Germany)

Dr Bozhena Petržhko, senior lecturer from University of Silezia, Institute for Policy Sciences and Journalism (Poland), dwelt on the ICT development in the social environment of modern educational institutions. From these viewpoints considering the practice

Dr Duncan Langford (United Kingdom)

of ICT applications in Poland, she drew attention to such factors as loss of the monopoly in knowledge transfer by the traditional institutions (and the transition of this role to those who work for corporations and international organizations),

new attitude towards knowledge as to consumer goods which now spreads because of the need to pay for education as well as the students' attitude to ICTs not as to the means to get the knowledge, but as to a knowledge substitute.

Prof. Vladimir Sobkin, Director of Sociology Centre of the Russian Academy of Education (Russian Federation), spoke about the results of the sociological research accomplished by his colleagues, which data give the base to estimate the forms and intensity of computer usage by students and teachers. Prof. Sobkin mentioned that with ICT development a fundamental issue emerges as to the place of a teacher in the system of education and his/her role of a cultural mediator.

At the plenary session *Humanitarian Aspects of ICT Application in Education*, the participants conveyed their views on the problems discussed during the seminar as well as on probable prospects of their study under the aegis of UNESCO, including the capacities of a working group, which can be organized for this purpose.

At the closing meeting, recommendations of the research seminar were worked out and approved by experts.

The participants:

• discussed the above-mentioned aspects of ICT application in

education, adverting to the information materials prepared by IITE;

• endorsed the UNESCO's position as a forum for ethical reflection on science and technology;

• gave their support to the UNESCO initiatives regarding ethical, legal and sociocultural challenges of the information society (30 C/5, p. 04125) as high priority for the sustainable development of the international community;

• suggested to extend these reflections and investigations as applied to education taking into account the importance and specificity of education in social life, on the one hand, and a lack of relevant applied research and scientific information which could be helpful to teachers, learners and decision-makers in educational sphere, on the other;

• underlined the need for thorough examination of ethical,

Prof. Vladimir Sobkin (Russian Federation)

psychological, societal, legal and medical problems raised by ICT rapid development and their growing influence both on the educational process and its environment.

Prof. Kinelev thanked those who participated in the seminar and expressed the hope for their future fruitful cooperation with IITE.

On behalf of the participants Prof. Johnson conveyed gratitude to IITE and the Director for the arrangement of the seminar.

Participants of the seminar

LANGUAGE EDUCATION AND ICTs

Expert meeting *Modern Language Education and New Information Technologies*
30 September 2001, IITE, Moscow

Expert meeting *Modern Language Education and New Information Technologies* was held jointly by the UNESCO Institute for Information Technologies in Education (IITE), European Centre for Modern Languages (ECML), Graz, the Goethe Institute in Moscow and Moscow State Linguistic University on 30 September 2001 in the frame of ECML programme *Information*

and Communication Technologies in Vocationally Oriented Language Learning (VOLL). After the expert meeting, the teacher training and workshop were held for the language teachers to use information and communication technologies (ICTs) in education.

Experts from the Council of Europe took part in the expert meeting and workshop:

• Antony Fitzpatrick, International Certificate Conference, Frankfurt/Main, Germany;

• Andreas Lund, Research Fellow, The University of Oslo, Norway;

• Bernard Moro, Head of English Department, Language Centre Pierre Mendes, France University, Grenoble, France.

The main goal of the expert meeting was to increase interest in the ICT usage in language learning. Attention of the participants was focused on the results of ICT application with regard to teaching/ learning strategies and outcomes.

The aims of the meeting were to:

• discuss the role of the information and communication tech-

**Mr Antony Fitzpatrick,
a representative of International
Certificate Conference (Germany)**

nologies in the language learning process;

- define the new roles of teachers, learners and institutions in this environment;

- analyse the ways in which ICTs can encourage new methods to be used for teaching and learning foreign languages;

- present the advantages and disadvantages in the use of ICTs when teaching and learning foreign languages;

- discuss which tools of ICTs can be used in teaching foreign languages from the points of view of teachers and educators.

The workshop, being a part of a series of similar workshops carried out within a medium-term ECML project (3 years) and involving most of the European countries, was set out to show how ICTs and their multimedia applications can be established as an integral part of the modern language curricula in vocationally-oriented education and training, and how they can encourage the use of more flexible and accessible educational provision.

The process of learning a second language may be structured in different ways — in a classroom or at home, with or without a teacher, emphasizing or minimizing grammar, gradually exposing the student to native speakers or prompt immersion. No matter

where and how the learning occurs, ICTs are powerful tools to improve the teaching/learning process.

Recommendation of the Expert Meeting

A systemic approach to *ICT in Teaching and Learning of Languages*:

- There is an overall need to eliminate duplication in the field of ICTs in language learning and, by doing so, to decrease expenditure. To this end, information exchange systems on the state-of-the-art in this field can be usefully created on the basis of the IITE WWW information system and database.

- The considerable research carried out to date and in progress in the field of ICTs in language learning and teaching has not been systematically reviewed and evaluated. For the teaching community to benefit from this work, there is a need to analyse and discuss these efforts.

Questions to be raised concerning *The Teaching and Learning of Languages through ICT with regard to Needs and Perspectives*:

- The role of a teacher in an ICT-rich foreign language-learning environment.

- ICT environments as contributors to cross-cultural understanding.

- Methodological implications of the use of the new media in language learning and language teaching: a forum for exchange between practitioners and researchers.

- The promotion of a dialogue between designers and end-users of technical applications.

- The effective and economic use of ICTs in this field.

- A new paradigm for learning in technology-rich environments: new skills, new competences, new literacies.

- A teacher as a learner: new co-operative roles in ICT learning/teaching scenarios.

- 'Multiliteracy' as a key qualification in the information/ knowledge society: the integration of different elements and new aspects of language emanating from the interplay between different media, cultures and social interaction.

- A principled approach to ICT integration in educational processes.

- The development of a *Guidance on ICTs* by IITE in language

teaching/learning educational technologies can be recommended. Dissemination of annotated examples illustrating approaches by practitioners in the field, whose work reflects current and accepted views of good practice.

- The establishment of a cascading system of *Teacher Training*, using a system of multipliers and addressing, in first instance, experienced and interested colleagues.

- On-line courses for language training need special attention as this area of expertise is insufficiently developed to date.

- Educators should be empowered to participate fully in the development of training courses entirely integrating ICTs in their own teaching practice.

- Policy documents and foreign language learning curricula should provide adequate and appropriate space for technology implementation in language learning, paying due attention to the motivational and enriching aspects of ICTs in learning contexts.

- Testing and evaluation.

- Support of language testing and evaluation by means of ICTs

Prof. Irina I. Khaleeva, Rector of Moscow State Linguistic University, greets the participants of the workshop

should be vigorously monitored and pursued, taking into account national/international standards and requirements.

- An expert group should be established to provide guidance to create new generation of ICT testing material.

The group for *Teacher Training* faces the task to develop 'training modules for teachers', i.e. the modules teachers may use to familiarize themselves with the use of ICTs in VOLL. The modules should be informative, instructional and used by teachers on-line or in follow-up workshops. The overall aim of the TT-modules is to present information and assess-

ment of tools and programmes that teachers may use for various purposes. The grounds for the group's deliberation originate from the ICTs demand of new teaching methods. The use of ICTs will make it easier to collect and prepare texts, exercises and information for vocationally-oriented language teaching. Material that can be used for language learning is

already accessible on the Net and can be obtained in the shortest time using ICTs.

As language learners themselves increasingly make regular use of new technologies in their everyday life, computer-assisted language learning is very motivating for a learner to stimulate and enhance language acquisition.

TRAINING WORKSHOPS IN KISHINEV AND NALCHIK

1. Republic of Moldova, Kishinev, 12-19 August 2001

Six-day training workshop *Information and Communication Technologies Integration in Education. Entering the Common Information Space* under the aegis of the National pilot project *The Professional Development of the Educational Staff in the Field of ICT Application in Education* took place in Kishinev.

The goals of the seminar were determined as:

- to promote further development of the Common Information Space in the systems of education in the Republic of Moldova;

- to determine the potential ways of integrating the informatization of education in the common process of modernization of education;

- to organize executive and key staff training in the field of ICT application at school;

- to provide a basis for building a regional strategy and creating an infrastructure for the national education informatization.

The workshop was organized by the UNESCO Institute for Information Technologies in Education, Ministry of Education of the Republic of Moldova with the assistance of the Moscow Institute of New Technologies of Education. The workshop was held on the premises and with the aid of the Focal Point of the UNESCO

Institute for Information Technologies in Education in which 70 participants were involved, among them policy-makers from the Ministry of Education, local educational decision-makers, school principals and teachers from various regions of the Republic of Moldova.

The plenary meeting focused on the discussion of the need of global changes in education and the place of ICTs in this process. Among others, Deputy Minister of Education gave a speech about the state of affairs in the republican education system and the Ministry of Education of the Republic of Moldova policy in the process of integration of ICTs at school.

Then, the participants were suggested to choose a section of his/her interest for detailed study and practical work. The seminar was conducted by UNESCO specialists in educational ICTs; a range of subjects were covered, including mathematics, physics, science, language. Special emphasis was given to the practical work, project construction on certain subjects as well as cross-curriculum ones.

The participants of the math and physics sections created interactive models to illustrate a specific problem or to explore a particular theme using the *Interactive Physics* and *Geometer's Sketchpad* software. In the Cross-Curriculum Projects section, projects on a wide

range of subjects, including language study, arts, informatics, chemistry, math, earth science, study of local lore, etc., were produced with the most advanced version of Logo-software, the *MicroWorlds 2.0* authoring tool.

On the last day of the seminar, the teaching staff visited a summer educational camp for advanced students and gave a presentation on modern educational software in the course of school mathematics and a practical workshop on cross-curriculum projects using *MicroWorlds 2.0*. The audience of the kids aged 6-16 showed a deep interest in the subject and demonstrated a splendid quick-wittedness and skillfulness as well as the ability to promptly create a wide variety of interactive projects.

It is important to mention the hospitality and amazingly warm welcome displayed by the receiving

party towards the visiting teaching staff. A marvelous trip to the ancient Moldavian village and the Rock monastery completely lifted the stress of a week of hard work at the seminar.

In the course of the seminar, the number of schools and other educational institutions were recognized as the ones that can form a basis for further development of the pilot project *Application of ICT in Education*. Those schools, through their representatives, were rewarded with various educational software.

At the final meeting, the participants were given the *Certificates of the Attendance* by the Ministry of Education of the Republic of Moldova. The results of the seminar were found effective, and the parties expressed the wishes to collaborate further in the field of ICT application at school.

2. Republic of Kabardino-Balkaria, Nalchik, 5–12 August 2001

A six-day training workshop under the aegis of the IITE National Pilot Project designed for the Russian Federation *Re-training of School Educators in Application of the Information and Communication Technologies (ICTs) in Education* took place in Nalchik.

The goals were approximately the same as for the workshop, which took place in Kishinev.

The workshop was organized by the UNESCO Institute for Information Technologies in Education, Ministry of Education and Science of the Republic of Kabardino-Balkaria and Kabardino-Balkarian State University with the assistance of the Moscow Institute of New

Technologies in Education. The workshop was held on the premises and with the aid of Kabardino-Balkarian State University, in which 78 participants took part, among them regional educational decision-makers, school principals and teachers as well as university teaching staff.

The opening plenary meeting focused on the discussion of the need of global changes in education and the place of ICTs in this process. The meeting was opened by the Minister of Education of Kabardino-Balkaria Prof. Mikhail Balkizov.

Kabardino-Balkarian State University showed great and active interest in the professional staff devel-

opment project as well in the seminar proper. To develop the ICT application in education project further, the University purchased modern digital equipment for science classes and a set of advanced educational software.

It is hard to leave out the hospitality and amazingly warm welcome displayed by the receiving party towards the visiting teaching staff. A trip to the marvelous mountains and the Blue lakes will last in memories for long.

INTERNATIONAL FORUM

"Informatization of Education of Kazakhstan: Step to the 21st Century"
Almaty, Kazakhstan, 12-13 October 2001

UNESCO Institute for Information Technologies in Education (IITE) participated in the International Forum *Informatization of Education in Kazakhstan: Step to the 21st Century* held in Almaty on 12 and 13 October 2001.

Over 300 teachers, university professors, heads of education system of the Republic of Kazakhstan and CIS representatives, prominent public figures and scientists from the CIS countries were invited to the Forum. The Forum activities were covered by mass media of the Republic of Kazakhstan. Mr I. Tesmagambetov, Deputy Prime-Minister of the Republic of Kazakhstan, made an opening speech.

The results and future development of informatization of the Republic of Kazakhstan were in the centre of discussions.

At the plenary meeting of the International Forum the IITE report *Information Technologies in*

Education of 21st Century was presented.

The Forum participants were informed on the IITE activities in the field of new information and communication technology applications in education in the light of the decisions of the World Forum on Education, which was held in April 2000 in Dakar.

Special attention was paid to the joint works of IITE and the Republic of Kazakhstan, their results and plans for future. The Forum displayed much interest to the national pilot project *Distance Education for Rural Schools* which is being conducted in the Republic of Kazakhstan under the guidance of IITE and its focal point — the Republican

Scientific and Methodological Centre on Informatization of Education.

Over 50 reports were presented on the Forum's theme.

The presentations are published in the official catalogue of the International Forum.
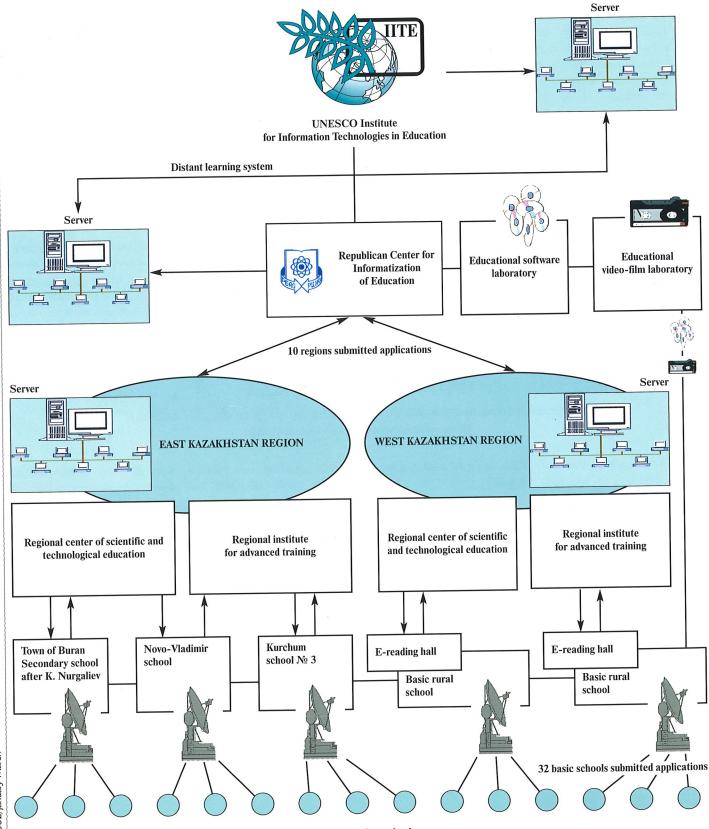
Distance Education for Rural Schools of the Republic of Kazakhstan
Project realization programme

Server

IITE

UNESCO Institute
for Information Technologies in Education

Distant learning system

Server

Republican Center for
Informatization
of Education

Educational software
laboratory

Educational
video-film laboratory

Server

10 regions submitted applications

Server

EAST KAZAKHSTAN REGION

WEST KAZAKHSTAN REGION

Regional center of scientific and
technological education

Regional institute
for advanced training

Regional center of scientific
and technological education

Regional institute
for advanced training

Town of Buran
Secondary school
after K. Nurgaliev

Novo-Vladimir
school

Kurchum
school № 3

E-reading hall

E-reading hall

Basic rural
school

Basic rural
school

32 basic schools submitted applications

Rural incomplete schools