



**UNESCO INSTITUTE FOR INFORMATION TECHNOLOGIES IN EDUCATION**

# **MEDIUM–TERM STRATEGY**

## **2002–2007**

**MOSCOW 2002**



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## FOREWORD

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The UNESCO Institute for Information Technologies in Education (IITE) presents its first Medium-Term Strategy for 2002-2007.

Established at the 29<sup>th</sup> session of the General Conference of UNESCO in accordance with the recommendations of the Second International UNESCO Congress on Education and Informatics as an integral part of UNESCO, IITE has been called upon to contribute to the design and implementation of the Organization's programmes in regard to the application of information and communication technologies (ICTs) in education.

IITE's Medium-Term Strategy for 2002-2007 comprises information concerning several current

trends in the world and education, IITE's mission, its contribution to UNESCO's Medium-Term Strategy, and the main directions of the IITE's programme activities.

The elaboration and implementation of the first IITE Medium-Term Strategy coincides with the global spread of information and communication technologies in education. UNESCO devotes its full attention to this process, striving to help developing countries to overcome the key problems of the digital divide. This objective is a prime strategic challenge throughout UNESCO activities in the years 2002-2007. Thus, the main goal of IITE's Medium-Term Strategy is to bring a valuable contribution to these endeavours of the Organization.

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## GENERAL INFORMATION

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**The establishment of IITE:** The UNESCO Institute for Information Technologies in Education was established as an integral part of UNESCO by the General Conference of UNESCO at its 29<sup>th</sup> session (November 1997) and is located in Moscow, Russian Federation. At the same session, the Statutes of IITE were adopted.

In his note of 26 March 1998 the Director-General of UNESCO announced the establishment of the UNESCO Institute for Information Technologies in Education and set terms to form the IITE Governing Board.

**Background:** The creation of the Institute followed several stages. The Second International UNESCO Congress on Education and Informatics (July 1996), attended by more than 1,000 participants from 70 countries, examined the impact of the rapidly developing information and communication technologies on education and related challenges and recommended the establishment of a UNESCO Institute on educational policy and new information technologies. Following the provided procedure, UNESCO Headquarters organized a study of the problem, a special mission to Moscow (December 1996) and a High Level Expert Group Consultation in Paris (June 1997). On 10 February 1997 the fourth UNESCO education institute, namely the UNESCO Institute for Information Technologies in Education, was opened in Moscow on an experimental basis in compliance with the Agreement between the Government of the Russian Federation and UNESCO. The functioning of the Institute was discussed at the 150<sup>th</sup> and 152<sup>nd</sup> sessions of the Executive Board preceding the 29<sup>th</sup> session of the General Conference, which established the UNESCO Institute for Information Technologies in Education within the framework of the United Nations Educational, Scientific and Cultural Organization.

**The Governing Board:** In accordance with Article III (1) of the IITE Statutes, the IITE Governing Board consists of eleven members appointed by the Director-General of UNESCO on a geographical distribution basis that is as equitable and as wide as possible.

**The staff:** The Institute's staff consists of UNESCO staff and non-UNESCO staff detached from the Russian Government.

**The host country agreement:** The Agreement currently in force between the United Nations

Educational, Scientific and Cultural Organization and the Government of the Russian Federation, concerning the UNESCO Institute for Information Technologies in Education, was signed on 21 July 1998.

**Financial regulations:** IITE has financial autonomy and is accountable to the Governing Board. Its financial resources consist of an allocation approved by the General Conference of UNESCO, the Russian Government's contribution, as well as other extrabudgetary resources.





## **Part I**

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INTRODUCTION: GLOBALIZATION AND THE MAIN TRENDS  
IN EDUCATION FOR EVOLVING SOCIETY



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## INTRODUCTION: GLOBALIZATION AND THE MAIN TRENDS IN EDUCATION FOR EVOLVING SOCIETY

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The first IITE Medium-Term Strategy for the years 2002-2007 has been formulated within the context of several trends, which may be identified as follows:

- There is an active phase of intensifying the process of globalization which embraces not only the economic and financial fields, but all spheres of human activities. The development of new information and communication technologies breaks the territorial borders of nation states and makes geographical boundaries inadequate as delineations of jurisdictions. These technologies constitute a truly international and global realm of action, where it is practically impossible to impose successfully national laws and regulations. Information and communication technologies based on the Internet, telenetworks and intelligent computer systems open up new and exciting perspectives for free flow of knowledge and information across national boundaries. It allows for the opportunity to talk about global knowledge that is beyond local and indigenous context. It is cross-cultural and tends to be characterized by the diversity in source, built on the basis of global information infrastructure and depends on the following global domains of human activities: scientific and technical; political and economic; human and social; cultural and educational.
- The process of globalization coincides with a fundamental transformation to the information society – a new worldwide community based on information. Evolution of the information society entails dramatic changes in production and business activities, as well as in a larger social context. Rapid development of the information sphere of society is drastically altering the structure of work and employment, and produces new occupations and jobs. More and more people are being drawn into the information society as learners, workers and consumers. People all over the world have high hopes that new technologies will lead to healthier lives, greater social freedoms, increased knowledge and more productive livelihoods. It will not be an exaggeration to contend that succeeding generations will face the challenge of adjusting to a new social environment, wherein information and scientific knowledge will replace matter and energy as pivotal factors and will define both society's strategic potential and prospects for its development.
- Scientific and technical progress and the global spread of technologies developed in the most advanced countries of the world constitute one of the main arguments in favour of the leading role of education in the 21<sup>st</sup> century. The level of technological development is indicative nowadays not only of the economic power and living standards of a particular country, but also of the place and role of this country in the global community and the scope and prospects of its economic and political integration with the rest of the world. At the same time, the level of development and utilization of modern technologies is determined in different countries not only by their material resources, but, to a large extent, by the degree of society's ability to produce, consume and apply new knowledge. These achievements, in turn, are tightly linked to the level of education. All these processes are largely driven by information and communication technologies, where scientific knowledge and information increasingly determine new patterns of growth and wealth creation and open up possibilities for more effective poverty reduction.
- The leaders of virtually all countries striving to prepare the citizens to respond adequately to the challenges of the 21<sup>st</sup> century have professed the desire to transform their countries into learning economies and learning societies, inasmuch as the information society needs competently knowledgeable citizens. The age of new information and communication technologies does not eliminate the most difficult problems that the world of education faces now and that have to be solved irrespective of whether the new technologies are adopted or rejected.



Nevertheless, training and development, social and professional requirements, globalization of communication, economy, and political projects of building a new society heavily rely on the introduction of information and communication technologies into education. The alternative is to lag behind these developments chronically and, in effect, fail to meet the challenges of the 21<sup>st</sup> century.

- Presently, there are tremendous efforts on behalf of most governments to modernize their countries' educational systems on the basis of information and communication technologies perceived as a key to such modernization. Some countries consider information and communication technologies as a vital component in upgrading the quality of education through changes in curricula, introduction of training in new skills and wider scope of knowledge. In other countries information and communication technologies are utilized mainly to ease access to education for various groups of the population or are used for the narrower purpose of facilitating self-education through programmes broadcast via radio and television. Yet, other countries emphasize the reliance on technologies as a means of transforming the educational environment or satisfying specific needs of different categories of students.
- Education for emerging society requires information and communication technologies to meet large scale learning needs arising from social and economic development. For the first time in history, information and scientific knowledge are not simply a means of improving society, but are becoming the main products of the economy. Moreover, the knowledge is the main asset and product of the information society upon which continued economic well-being and social development depend. Information and communication technologies are in the mainstream of these developments. Information and communication technologies and the information society are both concerned with the creation, acquisition, sharing, dissemination, delivering, support and recognition of knowledge. Information and communication technologies are the means for providing access to and achievement of the continuous learning necessary for successful participation of all social groups of the population in the information society.
- Learning issues are of central importance to the evolving information society. The development of modern information and communication technologies is creating an environment of rapid and ongoing changes. The current pace and magnitude of change break the traditional framework of historical gradations. For the first time in the history of our civilization, generations of products and ideas come and go faster than generations of people succeed one another. Even in private life, change tends to oust continuity and stability. Moreover, changeability reveals itself through earlier unparalleled diversity, making it impossible to define our era through any single event or development in the life of society. This environment demands in principle a new approach to learning. A human being needs new skills and understandings and must develop the facility to enhance these skills and understandings on an ongoing basis. In other words, humanity must embrace and promote a culture of lifelong learning. New information and communication technologies exceed the traditional framework of the learning process. Learning can no longer be viewed as a ritual that one engages in during only the early part of a human being's life. Information and communication technologies are being used to cross the age, time and space barriers to bring lifelong learning to all. People of all ages, whatever they are doing, in all places and in all different environmental contexts are learning all the time. Thus, they comprise the learning society.
- The amazing standards and prospects of applications offered by information and communication technologies in learning and teaching processes show that humanity is on the threshold of new stage of the educational revolution which will entail a dramatic shift in all spheres of human existence. These circumstances and new social demands, the new world community shaped by the new information and communication technologies and models of action call for new literacy for the information society. The new literacy demands, in principle, the creation of new technology for obtaining scientific knowledge, new pedagogical approaches for teaching and learning, new school curricula and methodological materials for teachers and learners. All of this is to awaken the student's intellect, shape an individual's creative potential and mentality, develop a holistic world outlook in

**United Nations A/RES/56/258**  
**General Assembly**  
**Distr.: General**  
**4 April 2002**  
**Fifty-sixth session**  
**Agenda item 12**  
**01 49736**

## **Resolution adopted by the General Assembly**

[without reference to a Main Committee (A/56/L.68/Rev.1)]

### **56/258. Meeting of the General Assembly devoted to information and communication technologies for development**

The General Assembly,

Recalling its resolution 55/2 of 8 September 2000, entitled “United Nations Millennium Declaration”, in particular paragraph 20 of the Declaration, the ministerial declaration of the high-level segment of the substantive session of 2000 of the Economic and Social Council<sup>1</sup>, agreed conclusions 2001/1 of the coordination segment of the substantive session of 2001 of the Council<sup>2</sup>, and other relevant resolutions,

Recalling also its resolution 56/183 of 21 December 2001, in which it welcomed the fact that the World Summit on the Information Society would be held in December 2003 in Geneva and in December 2005 in Tunis,

Recognizing that information and communication technologies are among the critical determinants for creating a global knowledge-based economy, accelerating growth, raising competitiveness, promoting sustainable development, eradicating poverty and facilitating the effective integration of all countries into the global economy,

Recognizing also that the information and communication technologies revolution poses opportunities and challenges, and that there is a pressing need to address the major impediments to the participation of the developing countries in that revolution, such as lack of infrastructure, education, capacity-building, investment and connectivity,

Mindful that market forces and the role of the private sector are fundamental, but that they alone will not suffice to bridge the digital divide and to promote digital opportunities, and convinced that partnerships involving Governments, multilateral development institutions, bilateral donors, the private sector, civil society and other relevant stakeholders will play a key role in bridging the divide,

<sup>1</sup> See Official Records of the General Assembly, Fifty-fifth Session, Supplement No. 3 (A/55/3/Rev.1), chap. III, para. 17.

<sup>2</sup> A/56/3, chap. V, para. 7. For the final text, see Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 3.

A/RES/56/258

Convinced that the United Nations system should play a leadership role in promoting synergies and coherence of all efforts directed at expanding the development impact of information and communication technologies,

Welcoming the fact that the Information and Communication Technologies Task Force was launched on 20 November 2001, and fully convinced that the Task Force will play an important role in harnessing the power of information and communication technologies for advancing the internationally agreed development goals,

Welcoming also the fact that the Economic and Social Council, in its resolution 2001/24 of 26 July 2001, extended the mandate of the Ad Hoc Open-ended Working Group on Informatics until 31 December 2002,

1. Decides to convene a Meeting of the General Assembly consisting of three plenary meetings devoted to bridging the digital divide and promoting digital opportunities in the emerging information society during the fifty-sixth session of the General Assembly; the Meeting will address the digital divide in the context of globalization and the development process and promote coherence and synergies between various regional and international information and communication technologies initiatives, including, inter alia, the Information and Communication Technologies Task Force and the Digital Opportunities Task Force; the participation of all relevant organizations will be encouraged;
2. Also decides that, parallel to the plenary meetings, separate informal panels will be organized that will include the participation of non-governmental organizations, academia and the business sector;
3. Stresses that the Meeting shall be prepared and organized in a manner that will assist Governments and all the relevant partners in their preparations for the two phases of the World Summit on the Information Society, to be held in December 2003 and December 2005, and their preparatory processes;
4. Requests the President of the General Assembly to make proposals in consultation with Member States, for consideration by the Assembly, on the themes of the informal panels;
5. Also requests the President of the General Assembly to make proposals, in consultation with all Member States, for consideration by the Assembly, on the representatives of non-governmental organizations, academia and the business sector who will be invited to participate in the informal panels, taking into account the principle of equitable geographical representation, relevant expertise and the need to obtain the perspective of developing countries;
6. Requests the Secretary-General to provide all necessary administrative and organizational support for the preparation of the Meeting;
7. Decides to include in the agenda of its fifty-seventh session an item entitled "Information and communication technologies for development".

93rd plenary meeting  
31 January 2002

an individual to let him or her gain a foothold in the information society. Thus, it will be a mistake to think that the application of new information and communication technologies automatically raises the quality of education. In order to exploit their opportunities effectively, such fields as computer psychology, computer didactics and computer ethics should be better developed, explored and employed by educationists. It is worth keeping in mind that in spite of a variety of information sources and teaching technologies that transform information into knowledge, there is only one way to convert knowledge into education. Such a conversion takes place in a human being's consciousness. It is the most interesting and mysterious interaction that is going on between the psychic space and cyberspace. A human personality is born and develops as a result of this interaction. It allows us to contend that no two educations evolving as a result of this interaction can be treated as completely congruous, inasmuch as no two human personalities are the same because each individual is unique. The priority of the human personality was the main result of the past century. The priority of the human personality is the main imperative of the 21<sup>st</sup> century.

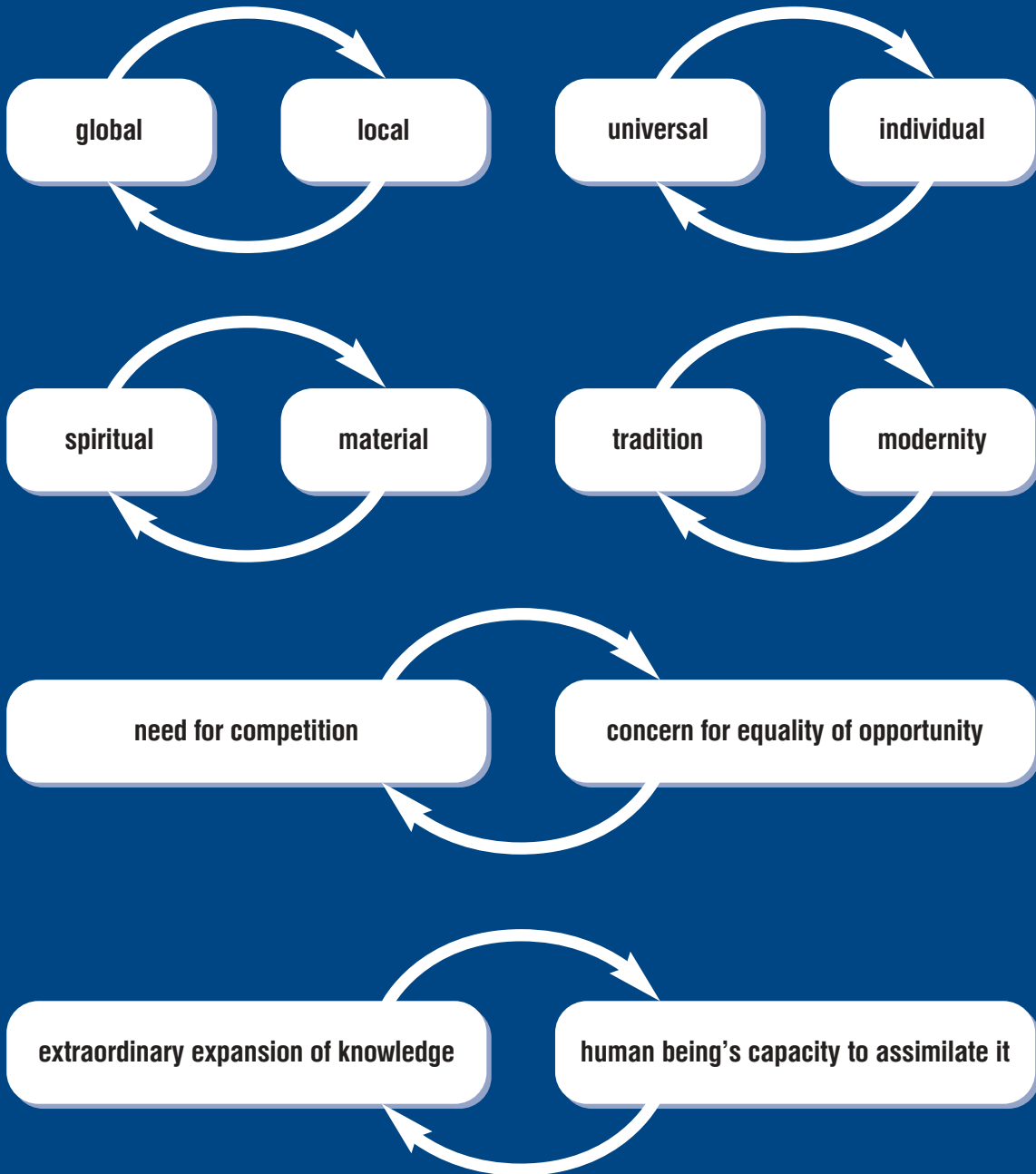
- The present level of development of information and communication technologies lays out a realistic basis for a global system of distance learning, which will help people create open educational milieu without boundaries. Regardless of the physical distance, new information technologies ensure the kind of direct and interactive communication between the teacher and the student that has always been a characteristic of full-time education as well as its undeniable advantage. There are two main obstacles that a human being should overcome in order to create an educational environment without frontiers: geography and varying capacity of different people to transmit and perceive the same information, particularly those with special needs, who, due to various reasons, are unable to obtain education through other standard methods. New information technologies as well as the man-created artificial intellectual environment have the capacity to return, at least partially, to many people the kind of abilities and communication possibilities that they may have been deprived of by nature, environmental

disasters, military conflicts, or human violence. Probably, this is the major humane tendency connected with the use of information and communication technologies in education and other spheres of the practical and spiritual activity of a human being.

- The penetration of information and communication technologies into educational settings requires, in principle, the formulation of new ethical, psychological, legal and moral aspects of applying such technologies to learning. The computer, information and communication technologies do not merely enhance intellect, they designate new dimensions of the human mind and produce an orderly system of a new global culture. New information and communication technologies offer wonderful opportunities to reach out to our fellow human beings, but the darker side of human nature finds its way into cyberspace, too. The full spectrum of reprehensible or outright debased moral behaviour is represented online: aggression, violence, crime, deception, brutality, rudeness and so on. The global nature of new information and communication technologies not only opens up broad opportunities for dissemination of knowledge, but also increases the danger of conflict between values and standards espoused by different cultures. For such a global information community to become a reality, an effective mechanism of information exchange should be developed to inhibit the erosion of national and cultural identity. The past century has clearly shown that in the great history of times and peoples, there is neither a small culture nor a small nation – only together they constitute the supreme value of the world civilization and the basis for the sustainable development of the world community.

In the new millennium, information and communication technologies will provide tremendous opportunities to narrow the socio-economic development gaps between communities and nations. They are an opportunity for the increased exchange of knowledge and know-how, for the promotion of intercultural dialogue, and for greater understanding among nations. Information and communication technologies give all nations a new chance that cannot be missed. However, for these purposes, the key problems of the digital divide that exclude entire groups and countries from the

## EDUCATION TENSIONS IN THE 21<sup>st</sup> CENTURY



Report of the International Commission on Education for the 21<sup>st</sup> Century  
*Learning: The Treasure Within*

potential benefits of digital opportunities in networked-knowledge societies and lead to a global gap between information 'haves' and 'have-nots' should be addressed urgently. Bridging the digital divide between developing and developed countries and within countries will thus become a prime strategic challenge throughout UNESCO's activities. This entails activities to strengthen national capacities and the professional skills of a human being, to create a new content of education, to enlarge access to information, to foster scientific research, and to share scientific knowledge and

information through networking, communication media and information systems. Thus, political guidelines, ethical principles and the educational opportunities can provide a real basis for an effective educational strategy, overcoming the digital knowledge divide between developing and developed countries and within them and the creation of necessary conditions for sustainable development of the evolving information society.

Vladimir Kinelev  
Director, IITE

## Okinawa Charter on Global Information Society

1. Information and Communications Technology (IT) is one of the most potent forces in shaping the twenty-first century. Its revolutionary impact affects the way people live, learn and work and the way government interacts with civil society. IT is fast becoming a vital engine of growth for the world economy...
2. The essence of the IT-driven economic and social transformation is its power to help individuals and societies to use knowledge and ideas. Our vision of an information society is one that better enables people to fulfil their potential and realise their aspirations...
3. ... principle of inclusion: everyone, everywhere should be enabled to participate in and no one should be excluded from the benefits of the global information society. The resilience of this society depends on democratic values that foster human development such as the free flow of information and knowledge, mutual tolerance, and respect for diversity.
4. To achieve this, it is important to build on the following key foundations:
  1. Economic and structural reforms to foster an environment of openness, efficiency, competition and innovation, supported by policies focusing on adaptable labour markets, human resource development, and social cohesion;
  2. Sound macroeconomic management to help businesses and consumers plan confidently for the future and exploit the advantages of new information technologies;
  3. Development of information networks offering fast, reliable, secure and affordable access through competitive market conditions and through related innovation in network technology, services and applications;
  4. Development of human resources capable of responding to the demands of the information age through education and lifelong learning and addressing the rising demand for IT professionals in many sectors of our economy;
  5. Active utilisation of IT by the public sector and the promotion of online delivery of services, which are essential to ensure improved accessibility to government by all citizens.







## Part II

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FRAME OF REFERENCE



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## FRAME OF REFERENCE

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### IITE's mission

Statutes: aims and functions

Strategic objective

Principles of activities

The mission of the UNESCO Institute for Information Technologies in Education is to *strengthen the national capacities of UNESCO Member States for applying ICTs in education.*

While accomplishing this mission during the period of the first IITE Medium-Term Strategy, the Institute will assist UNESCO Member States in providing the following: an effective educational strategy, overcoming the digital knowledge divide between developing and developed countries and within them, and the creation of necessary conditions for their full value participation in the development of the evolving information society.

### IITE's mission

**Statutes: aims and functions**

Strategic objective

Principles of activities

#### **Aims and functions\***

1. The Institute shall contribute to the design and implementation of the programmes of the Organization in regard to the application of information and communication technologies (ICTs) in education.
2. To that end, its functions shall be:
  - (a) to promote *collection, analysis, dissemination and exchange of information* on the use of information and communication technologies in education;
  - (b) to provide at the request of Member States *advisory services* and promote *studies* in Member States on the application of information and communication technologies in education;
  - (c) to offer *technical assistance based on research findings in the design of curricula and courses* on the use of information and communication technologies in education;
  - (d) to organize *pre- and in-service training*, including open and distance education, for educational personnel on the use of information and communication technologies in education, giving priority to developing countries and countries in transition;
  - (e) to foster *the development of UNESCO regional programmes* on the application of information and communication technologies in education in all Member States and, particularly, in the countries of the Commonwealth of Independent States.

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\* Article II of the Statutes of the UNESCO Institute for Information Technologies in Education (IITE) adopted by the General Conference at its 29<sup>th</sup> session (29 C/Res.6)

IITE's mission

Statutes: aims and functions

**Strategic objective**

Principles of activities

The UNESCO Medium-Term Strategy 2002-2007 determines three strategic objectives in education:

*Strategic objective 1.* Promoting education as a fundamental right in accordance with the Universal Declaration of Human Rights.

*Strategic objective 2.* Improving the quality of education through the diversification of contents and methods and the promotion of universally shared values.

*Strategic objective 3.* Promoting experimentation, innovation and the diffusion and sharing of information and best practices as well as policy dialogue in education.

Striving to make its contribution to attaining all these strategic objectives as much as possible, within the context of the global tendencies and in compliance with its mission, IITE will consolidate its efforts around the strategic sub-objectives: *Identifying new trends in educational development and promoting policy dialogue* and *Harnessing information and communication technologies for education*.

To that end, acting in accordance with its Statutes and proceeding from the UNESCO strategic objectives and sub-objectives, IITE will pursue, in its programme activities during 2002-2007, the following **strategic objective: reinforcing national potential in ICT application for the development of education.**

For implementation of this strategic objective, IITE will concentrate its resources on attaining real results and focus its efforts on the activities where it has a comparative advantage and gained experience. During the Medium-Term period, IITE will carry out its activities in four **main programme areas:**

- Supporting National Capacity-Building for ICT Application in Educational Systems;
- Forming an Information Environment for Education;
- Improving the Quality of Education through ICT Usage;
- Promoting ICT Usage in Education for Learning to Live Together.

The realization of the IITE strategic objective will be led in three correlated **programme activities' domains**, namely: research and project development, training and clearing house activities.

### Unifying theme

UNESCO contributing to peace and human development in an era of globalization through education, the sciences, culture and communication.

### Two cross-cutting themes

- Eradication of poverty, especially extreme poverty •
- The contribution of information and communication technologies to the development of education, science and culture and the construction of a knowledge society •

### Three main strategic thrusts

Developing and promoting universal principles and norms, based on shared values, in order to meet emerging challenges in education, science, culture and communication and to protect and strengthen the “common public good”

Promoting pluralism, through recognition and safeguarding of diversity together with the observance of human rights

Promoting empowerment and participation in the emerging knowledge society through equitable access, capacity-building and sharing of knowledge

### Twelve strategic objectives

Education	Sciences	Culture	Communication and Information
<ul style="list-style-type: none"> <li>• Promoting education as a fundamental right in accordance with the Universal Declaration of Human Rights;</li> <li>• Improving the quality of education through the diversification of contents and methods and the promotion of universally shared values;</li> <li>• Promoting experimentation, innovation and the diffusion and sharing of information and best practices as well as policy dialogue in education.</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting principles and ethical norms to guide scientific and technological development and social transformation;</li> <li>• Improving human security by better management of the environment and social change;</li> <li>• Enhancing scientific, technical and human capacities to participate in the emerging knowledge societies.</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting the drafting and implementation of standard-setting instruments in the cultural field;</li> <li>• Safeguarding cultural diversity and encouraging dialogue among cultures and civilizations;</li> <li>• Enhancing the linkages between culture and development, through capacity-building and sharing of knowledge.</li> </ul>	<ul style="list-style-type: none"> <li>• Promoting the free flow of ideas and universal access to information;</li> <li>• Promoting the expression of pluralism and cultural diversity in the media and world information networks;</li> <li>• Access for all to information and communication technologies, especially in the public domain.</li> </ul>

UNESCO will pursue the following strategic sub-objectives:

### **Identifying new trends of educational development and promoting policy dialogue**

By observing and analyzing trends and patterns, UNESCO will identify and anticipate future challenges and advise Member States on new educational issues and agendas. In particular through its institutes, it will provide intellectual support to policy-makers and practitioners in the identification of priorities, best practices and innovations with a view to buttressing education strategies and policy reforms. UNESCO's education institutes and centres will contribute, in a coherent and complimentary manner, to the achievement of the objectives and sub-objectives of the education strategy and, to that end, develop focused and concentrated programmes, adopt results-oriented approaches and enhance visibility and outreach. UNESCO will act as a laboratory of ideas, supporting research and undertaking comparative studies as well as nourishing links with research centres, universities and professional institutions. Through these processes, and in particular through periodic publications and reports, UNESCO will generate and make available a rich, dynamic base of knowledge about new thinking and innovative approaches to teaching and learning.

UNESCO will promote policy dialogue between all actors and stakeholders in education (governmental, non-governmental – in particular teachers' associations –, civil society and private sector and intergovernmental organizations). Such a policy dialogue, based on country ownership and empowerment, will form a key contribution to improving the quality and relevance of education. By fostering a more open dialogue and better public understanding of educational issues, UNESCO will help Member States build consensus and mobilize support for education, in particular, national EFA plans. For decades, education has been acknowledged as a public good that promotes equity through free basic education and fosters social cohesion. Today, educational provision increasingly includes, alongside state institutions, private sector providers, franchised institutions, and open and distance learning through the Internet and other ICTs that offer a variety of educational services. On these issues, UNESCO can be a platform of dialogue and a trusted interlocutor between the public and private sector providers of educational goods and services. The Organization will also engage in a variety of partnerships with all actors concerned.

#### **Expected outcomes:**

- Education policies and strategies better formulated and developed, informed by research results and prospective studies and analyses;
- Prospects for effective nation education plans enhanced in many Member States as consensus among and ownership by all stakeholders is secured through broad-based dialogue;
- Better understanding of educational approaches and learning processes and more effective collaboration and synergies among all actors, including public and private providers of education, through national, regional and global workshops and seminars.

## **Harnessing information and communication technologies (ICTs) for education**

ICTs offer the potential to expand the scope of learning, breaking through traditional constraints of space and time as well as boundaries of current education systems. The accelerating privatization of educational goods and services, partly driven by the potential and impact of ICTs, poses an entirely new challenge for the international community. The challenge is to define the best use of ICTs for improving the quality of teaching and learning, sharing knowledge and information, introducing a higher degree of flexibility in response to societal needs, lowering the cost of education and improving internal and external efficiencies of the education system. ICTs will be the objects of study since computer literacy is a basic skill for performing in the knowledge society. ICTs also provide the means for better management and use of educational resources. UNESCO will promote the judicious use of ICTs as innovative and experimental tools to renew education. It will also explore their potential as new delivery mechanisms and for system-wide expansion of educational provision and quality, especially through distance education and by focusing on non-formal education. By further exploiting the potential of ICTs, UNESCO will establish closer links between the producers and users of educational materials in order to promote quality and encourage participation in all cultural and linguistic settings.

### **Expected outcomes:**

- Wide dissemination of knowledge and best practices related to the impact of ICTs on education through an online clearing house, knowledge-base and multimedia resource centre;
- Broader use by governments of ICT-based delivery systems in formal and non-formal education, utilizing different mixes of new and traditional media and appropriate methodologies;
- Dissemination of research results on ICT-induced changing dynamics of the teaching-learning process and its impact on content and teacher-learner interaction, in particular as regards distance education and teacher training and development;
- International debate and reflection promoted in favour of developing internationally compatible descriptors and standards for distance and e-learning courseware, and for e-learning institutions.

### **UNESCO Medium-Term Strategic Objectives in Education**

Promoting education as a fundamental right in accordance with the Universal Declaration of Human Rights

Improving the quality of education through the diversification of contents and methods and the promotion of universally shared values

Promoting experimentation, innovation and the diffusion and sharing of information and best practices as well as policy dialogue in education

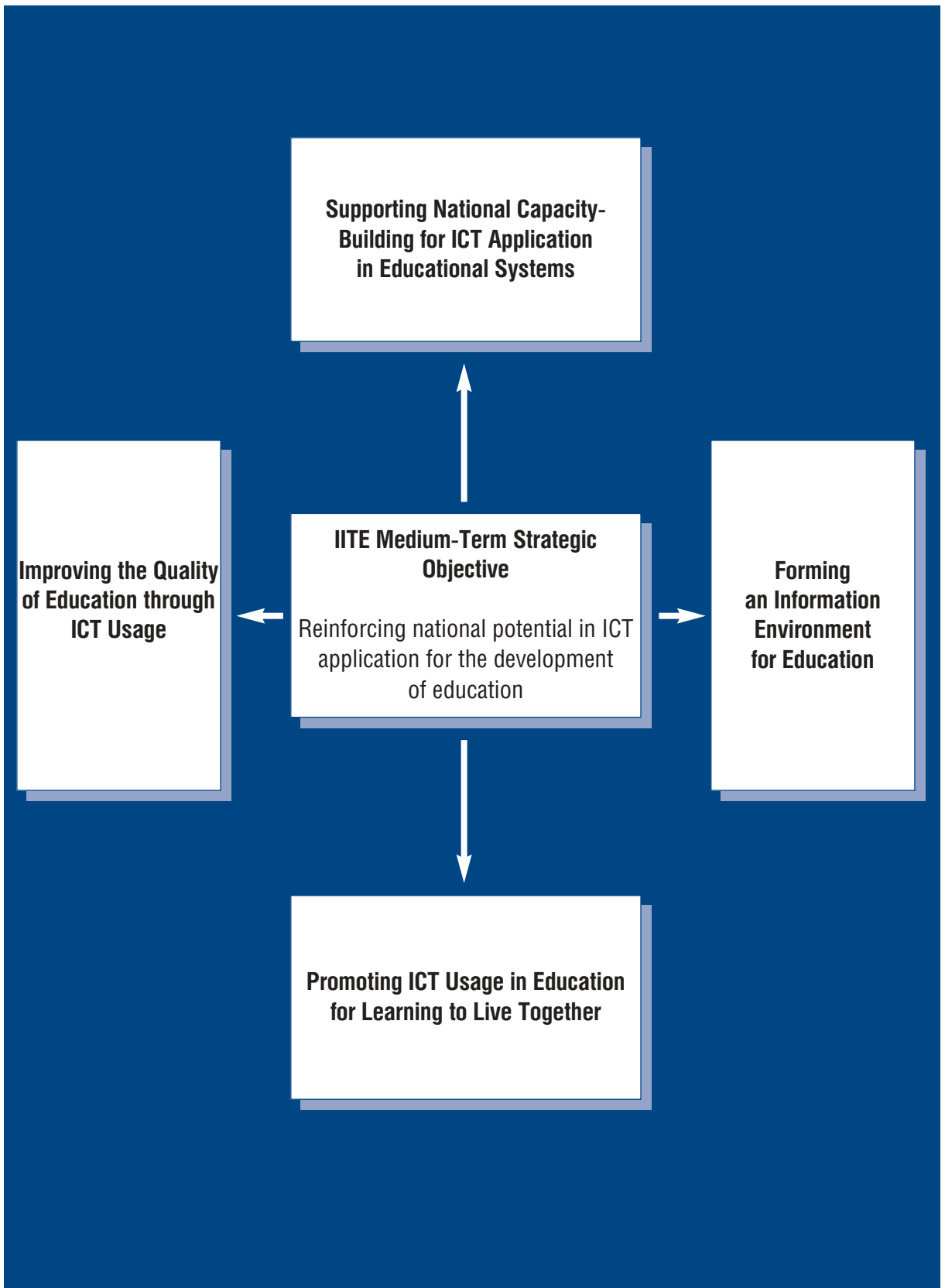
### **UNESCO Medium-Term Strategic Sub-objectives**

Identifying new trends of educational development and promoting policy dialogue

Harnessing information and communication technologies for education

### **IITE Medium-Term Strategic Objective**

Reinforcing national potential in ICT application for the development of education





## Principles of activities

The whole range of IITE activities is based on five main principles:

Meeting needs

Concentration

Flexibility

Partnership

Integration and synergy

### Meeting needs

Concentration

Flexibility

Partnership

Integration and synergy

The IITE programme activities will be oriented on the urgent needs of UNESCO Member States, and first of all on the needs of developing countries. In compliance with this principle IITE will:

- monitor the requirements of UNESCO Member States in matters concerning ICT application in education;
- keep up with state-of-the-art, needs and perspectives of ICT application in educational systems of UNESCO Member States;
- work out appropriate methodology for data analysis and interpretation on ICT usage in education indicators in order to facilitate educational policy development and monitoring;
- assist UNESCO Member States in developing their national capacities for data collection, analysis and dissemination of information on ICT application in education by means of consultant service and training of national educational personnel.

### Meeting needs

Concentration

Flexibility

Partnership

Integration and synergy

IITE will consolidate its programme activities around several items of vital importance to UNESCO Member States taking into account their requests, available resources and prospective of the most essential impact. In accordance with this approach:

- IITE programme activities will be based on a set of international development goals;
- IITE research will be aimed at identifying the practical needs and priorities of Member States in the development of ICT application in their educational systems;
- IITE will target its educational policy, methodological materials, information support and training programmes at attaining practical results for policy- and decision-makers in developing strategic plans and policy of ICT application in education.

Meeting needs

Concentration

**Flexibility**

Partnership

Integration and synergy

Taking into account the tremendous pace of change in the field of ICT application in education IITE will:

- strive to maintain sufficient flexibility in its programme activities to be able to cope in a proactive manner with the emergence of new issues and challenges that might necessitate a change or shift of emphasis in its activities;
- organize itself as a focal point for the collecting, processing and disseminating of the latest available knowledge and experience in the field of its competence;
- sustain close relations with the prime movers in the intellectual and scientific community, with relevant professional communities and centres of expertise throughout the world;
- promote a culture of evidence-based policy in UNESCO Member States through the collection and use of high quality, timely data in the field of ICT application in education.

Meeting needs

Concentration

Flexibility

**Partnership**

Integration and synergy

IITE will continue to give priority to its partnership relations with national, sub-regional, regional and international organizations striving to:

- work in close cooperation with the National Commissions of UNESCO Member States;
- maintain partner relationships with IGOs and NGOs acting in the field of its competence;
- cooperate with regional, national institutions, organizations and specialists functioning in the field of its competence;
- develop a partnership net of national focal points for cooperation with IITE for involving national potential into the Institute's programme activities;
- initiate joint activities with the private sector, bearing in mind to provide appropriate substantial and financial contributions to its programme activities.

Meeting needs

Concentration

Flexibility

Partnership

**Integration and synergy**

IITE will strive to make its input in strengthening interdisciplinary and intersectoral projects by means of:

- participating in the development of the UNESCO cross-cutting theme *The contribution of the information and communication technologies to the development of education, science and culture and the construction of a knowledge society*;
- encouraging joint activities with UNESCO sectors, bureaus, divisions and units;
- maintaining working relations with UNESCO institutes and centres.





## **Part III**

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UNESCO'S MEDIUM-TERM STRATEGY AND IITE'S CONTRIBUTION



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## UNESCO'S MEDIUM-TERM STRATEGY AND IITE'S CONTRIBUTION

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### Strategic approach

Forms of work

Methods of activities

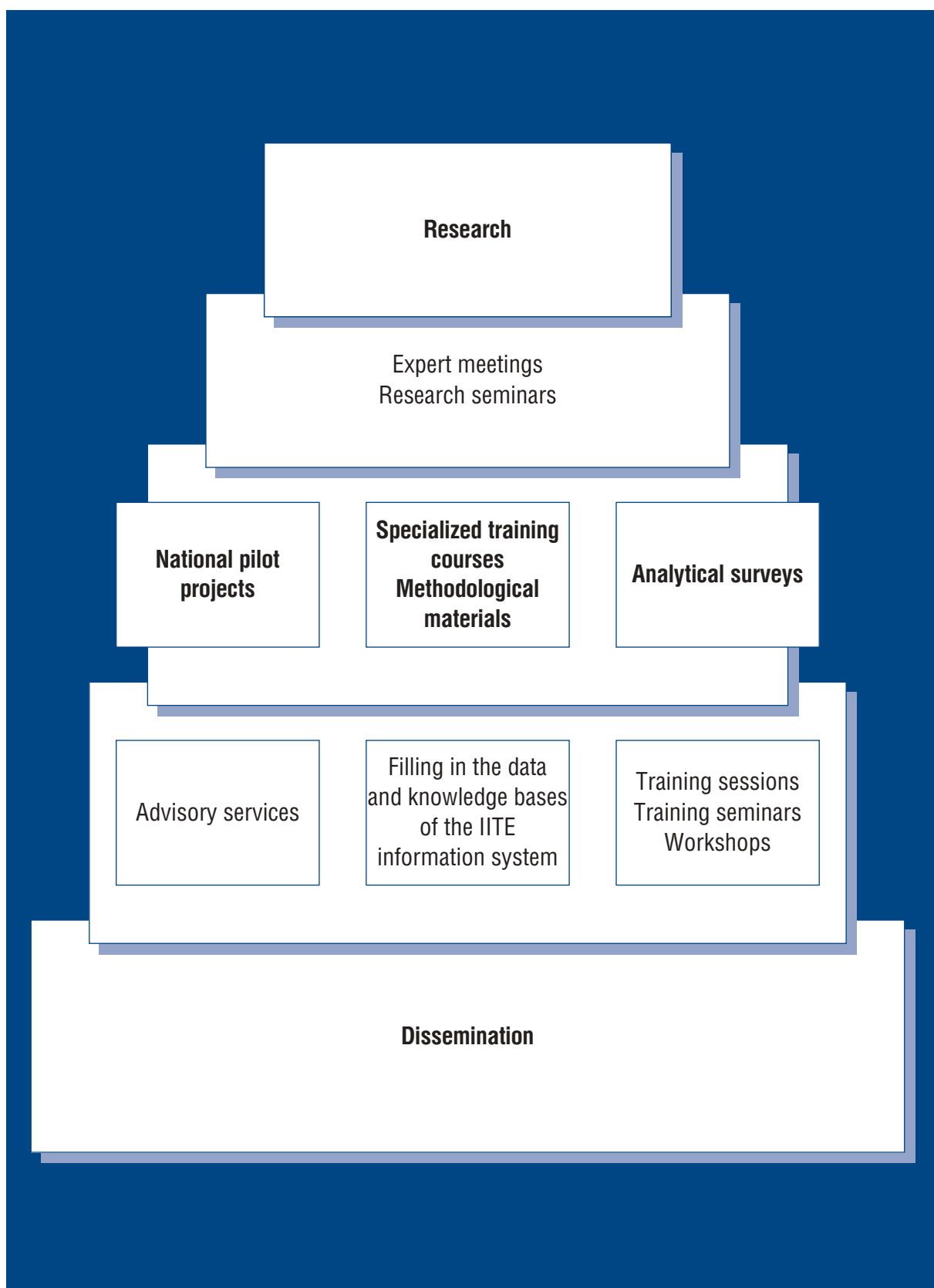
Main expected outcomes

IITE's Medium-Term Strategy has been developed with close attention to UNESCO's Medium-Term Strategy for 2002-2007: *UNESCO contributing to peace and human development in an era of globalization through education, the sciences, culture and communication*.

In accordance with its Medium-Term Strategy, IITE will strive to make its contribution to the implementation of UNESCO's functions as a whole, namely, to act as:

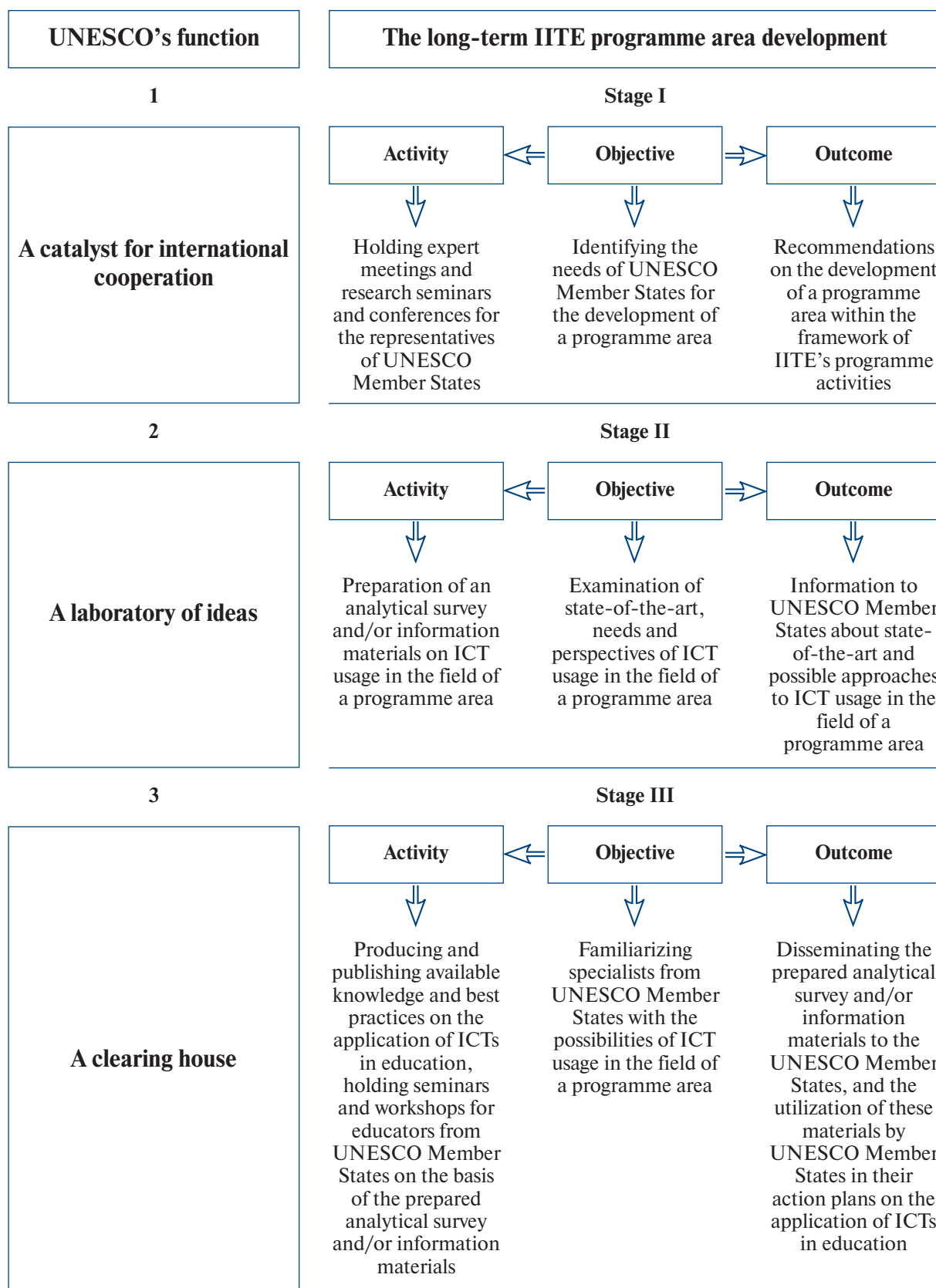
- a catalyst for international cooperation;
- a laboratory of ideas;
- a clearing house;
- a learning organization;
- a capacity-builder in Member States.

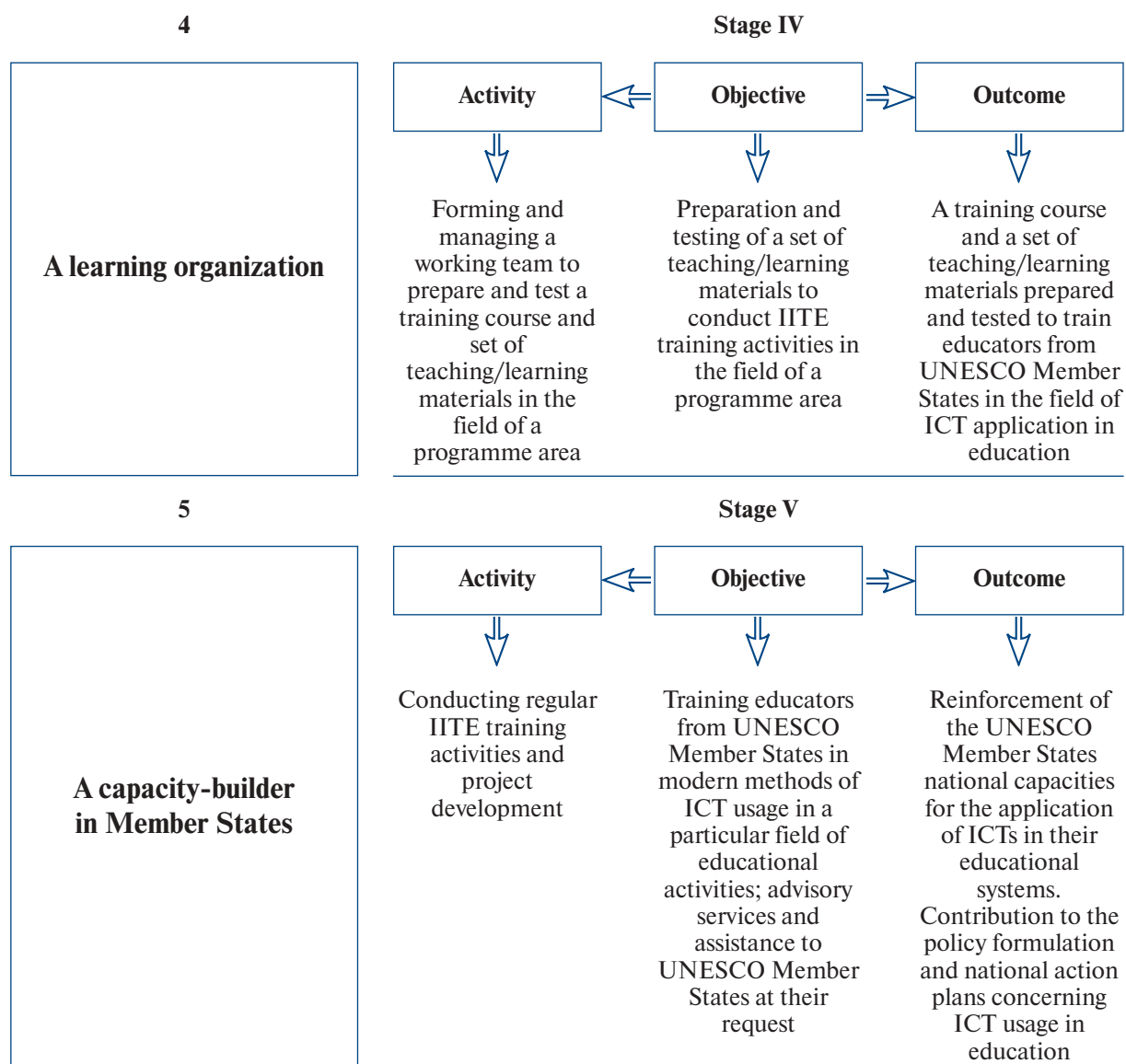
To perform these functions in the frames of its rather limited financial resources the Institute will continue to fulfil its programme activities using a long-term approach to the development of each main programme area. In compliance with such approach within the framework of all main programme areas, IITE's activities will be realized in several stages, each of which will be aimed at, on the one hand, the ultimate achievements regarded as the Institute's contributions to the functions of UNESCO as a whole; and on the other hand, aimed at creating the basis for the subsequent stage of the main programme area development to be fulfilled.



<p>Strategic approach</p> <p><b>Forms of work</b></p> <p>Methods of activities</p> <p>Main expected outcomes</p>	<p>Realizing its mission, implementing the decisions of the General Conference of UNESCO and taking into account the requests of UNESCO Member States, the UNESCO Institute for Information Technologies in Education, as a UNESCO institute specializing in the field of ICT application in education, will continue to develop its programme activities in <i>three main correlated domains: research and project development, training, and clearing house activities</i>.</p> <p>IITE will operate in coherent activities domains by developing several main programme areas, and each of them will join a number of related themes brought into operation in the form of international projects.</p> <p>To realise the main themes and carry out the international projects, IITE will continue to use the following forms of work: the research work is started with preliminary studies that entail consulting and discussions at international expert meetings and research seminars. Based on the results achieved from this research, IITE prepares analytical surveys, specialized training courses, methodological materials; conducts national pilot projects in Member States at their request; elaborates its educational programme and fulfils training activities in the form of workshops, training seminars as well as training sessions; enriches the data and knowledge bases of the IITE information system and its thematic subsystems; provides advisory services at the request of Member States; disseminates the results of the activities acting as a clearing house at the service of UNESCO Member States.</p>
<p>Strategic approach</p> <p>Forms of work</p> <p><b>Methods of activities</b></p> <p>Main expected outcomes</p>	<p>IITE will use methods in its activities that are regarded as a systemized algorithm, which allows the Institute to accomplish its mission, attaining strategic objectives, realizing the principles of activities and obtaining tangible outcomes.</p> <p>For these purposes, every IITE programme area will be developed in several stages, each of which will be characterized by setting a definite objective and accomplishing result-based activities. These activities will contribute to the fulfilment of UNESCO's function, and the outcomes achieved will be intended for the use by UNESCO Member States, and at the same time will lay the foundation for the next stage of the programme area development.</p> <p>This long-term approach leads to flexibility of IITE programme activities, allows it to save its resources and keenly react to the requests of Member States.</p>







Strategic approach

Forms of work

Methods of activities

**Main expected outcomes**

In fulfilling its mission, IITE will aim its programme activities towards the following main outcomes:

- National educational capacities for ICT application in education will be strengthened; improvement in the quality of education and reduction in digital divide will be stimulated through guiding policy- and decision-makers and training teachers, trainers of trainers, methodologists and other educational personnel in ICT usage in the educational process.
- National educational policies will be updated with advisory services and assistance rendered by IITE in policy analysis and policy formulation.
- National and regional capacity building will be supported by IITE at the request of UNESCO Member States in the form of development of national pilot projects on ICT application in their educational systems.
- Topical issues on the use of ICTs in education will be highlighted and their investigation and drawing recommendations for educational practice will be intensified.
- Available knowledge and best practices in the application of ICTs in education, in particular as regards distance education and teacher training will be collected and analyzed, and the exchange of information and experience will be fostered via networking, using the IITE information system and disseminating the results of IITE research and project development.
- International cooperation in the field of ICT application in education will be reinforced by jointly carrying out international projects, developing a network of national focal points for cooperation with IITE as well as organizing by IITE of international conferences, expert meetings and research seminars.





# **PART IV**

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IITE PROGRAMME ACTIVITIES



## IITE PROGRAMME ACTIVITIES

### MAIN PROGRAMME AREAS

Pursuing its mission and striving to attain the IITE's Medium-Term strategic objective, namely, reinforcing national potential in ICT application for

the development of education, IITE will fix its activities in the following **main programme areas** and corresponding **themes**:

Programme Areas	Themes
Supporting National Capacity-Building for ICT Application in Educational Systems	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
Forming an Information Environment for Education	Information Environment for Education: Design and Usage ICTs in Distance Education Digital Libraries for Education Internet in Education Multimedia in Education
Improving the Quality of Education through ICT Usage	Ethical, Psychological and Societal Problems of the Application of ICTs in Education Indicators of ICT Application in Education
Promoting ICT Usage in Education for Learning to Live Together	ICTs in History Education ICTs in Teaching/Learning Foreign Languages Education, Art and ICTs: Integration for the Development of One's Personality

Being flexible and wide-ranging, each of the programme areas might be modified and expanded during the Medium-Term period by adding new themes following the requests of UNESCO Member

States and in conformity with available resources. Each theme will be put into action through a series of consequent result-based projects, which number and scope might also vary.

### **Programme area 1: *Supporting National Capacity-Building for ICT Application in Educational Systems***

Progress in the application of ICTs in education depends to a great extent on policy formulation, methodical work at the level of an educational system, clear awareness about the modern role of ICTs, goals, methods and forms of their usage. The systematization of international experience and knowledge about the ICT implementation at the educational system's level should be regarded as a prerequisite to any thorough success in educational development.

The Programme area 1, *Supporting National Capacity-Building for ICT Application in Educational Systems* and its themes, are intended for synthesizing available knowledge and best practices in ICT usage at the above-mentioned level, and assistance to UNESCO Member States in upgrading their educational systems, especially Technical and Vocational Education and Training (TVET) as well as General Education. Taking into account that there are alternative developments in special needs education in relation to the application of ICTs that are regarded as an integral part of *UNESCO Education For All*

*strategies*, IITE will develop the theme *ICTs in Special Education*. Particular attention will be paid to the ICT usage in the teacher educational system, playing a key role in transforming education.

Within the framework of this Programme area and in conformity with the Dakar Follow-up activities IITE will also assist in policy formulation as well as elaboration and innovation of national action plans on ICT application in educational systems, using in particular such forms as the IITE high-level seminar for decision- and policy-makers *Towards Policies for Integrating ICTs into Education*.

While developing this Programme area, IITE will fulfil a series of *researches*; hold expert meetings and roundtables; prepare analytical surveys; continue to support the national pilot project on ICTs in special education; elaborate training materials on all themes and implement them in *training activities*; collect, analyse and store information concerning the Programme area 1; and disseminate this information carrying out the Institute's *clearing house* function.

### **Programme area 2: *Forming an Information Environment for Education***

Being a part of an overall information environment, the developing educational information environment has its specifics and inner tendencies. To become really instrumental in improving education, lifelong learning and education for all, the information environment should be specially designed for education and used in accordance with these goals. Spontaneous application of available ICTs in the educational process, and even unstructured usage of the existing information environment for educational purposes, could not be considered as a significant progress.

The Programme area 2, *Forming an Information Environment for Education*, is devoted to research, summarizing successful local practices in this field and assistance to UNESCO Member States in the creation, regulation and exploitation of the educational information environment so that it could serve to improve their educational systems, management and teaching/learning processes.

The theme *Information Environment for Education: Design and Usage* will result in an overview and

guidelines on the subject as a whole, and other themes will encompass such components as *Digital Libraries for Education*, *Internet in Education*, and *Multimedia in Education*.

As distance education concentrates on the application of all modern information and communication technologies and needs a special environment, the theme *ICTs in Distance Education* will become a focal point in this Programme area. The theme will be devoted to revealing the specifics of ICT application in distance education, preparing relevant methodological materials and coursewares in this field, and aimed at promoting this educational method for teacher training and development.

The activities in the Programme area 2 will continue the sequence of IITE *research* in ICTs in distance education, the Internet and multimedia as well as digital libraries used for education. IITE will undertake studies on an information environment for education; convene expert meetings and hold

workshops on these issues; develop the specialized training courses and elaborate new training materials on all themes for their application in *training*

*activities*; and use the Institute's *clearing house activities* to assist UNESCO Member States in forming an information environment for education.

### **Programme area 3: *Improving the Quality of Education through ICT Usage***

The quality of education depends on many factors, and in the age of the evolving information society, the use of modern technologies (both inside and outside the educational system) becomes one of the most influential. The management of the process of improving education requires correct sizing up and, chiefly, assessing ICT usage.

The Programme area 3, *Improving the Quality of Education through ICT Usage*, is aimed at rendering UNESCO Member States services related to quantity and quality analysis of ICT usage in education and the assessment of its consequences for the quality of education. Within the framework of the theme *Indicators of ICT Application in Education*, the system of indicators elaborated and tested by IITE will be expanded and implemented for evaluation of ICT usage in educational systems.

In spite of the fact that the social aspects of spreading information and communication technologies are rather well known and discussed, their diffusion in education as a specific sphere is explored to a lesser degree. The theme *Ethical, Psychological and Societal Problems of Application of ICTs in Education* is intended to meet this shortage and assist in improving quality of education by means of appropriate orientation in social, ethical and psychological tendencies while formulating policy and strategic planning.

It is expected that the activities in the Programme area 3 will include *research* on both themes, preparation of analytical and statistical surveys, and case studies; and the elaboration of methodological materials for assessment, evaluation and *training* in this field; clearing house activities for the improvement of quality of education, using the assessment of ICT usage.

### **Programme area 4: *Promoting ICT Usage in Education for Learning to Live Together***

Education is one of the main and, perhaps, the most important milieu for forming a personality, developing his/her abilities and civilized habits, and at the same time, education is one of the modes of saving heritage and cultural diversity. In this sense, education serves for the sustainable development of a society and prosperity of a person.

Information and communication technologies became a powerful tool for the distribution of knowledge, but, simultaneously turned out to be a channel for spreading intolerance, hate and dissensions.

The Programme area 4, *Promoting ICT Usage in Education for Learning to Live Together*, is aimed at encouraging ICT application in education in favour of expanding mutual understanding, tolerance and respect for traditions of other peoples, nations and societies. Within the framework of this area, IITE will develop a number of themes backing this process.

The theme *ICTs in History Education* will be aimed at presenting the history of humankind and different peoples with the aid of ICTs. ICTs as a means of mastering a foreign language for the improvement of mutual understanding and contacts will be at the centre of the theme *ICTs in Teaching/Learning Foreign Languages*. ICT-assisted knowledge acquisition in fine arts throughout education, using ICTs in art education as an influential way for cultural upbringing, will be considered in the theme *Education, Art and ICTs: Integration for the Development of One's Personality*.

The Programme area 4 as a rather new one requires an amount of *research*. A series of studies, expert meetings and analytical surveys are planned. On the basis of research findings, the training materials will be prepared for *training activities*, and an intensive exchange, analysis and dissemination of information on the subject will be undertaken within the framework of the IITE *clearing house activities*.



## DOMAINS OF ACTIVITIES

For successful implementation of the IITE Medium-Term Strategy, achievement of expected outcomes and real results of its Programme activities, the

Institute will act within the framework of three main domains: research and project development, training, and clearing house activities.

### Research and project development

In the Medium-Term period, research on ICT application in education will be 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.

Any undertaking in project development, assistance to UNESCO Member States or training (regardless of its initiation by UNESCO, IITE or a Member State) will be started with studies on the state-of-the-art condition of one or another aspect of ICT usage in education, best practices and available knowledge, followed by a needs analysis. For this purpose IITE will convene international expert meetings, research seminars and workshops and set up international work groups consisting of well-known specialists for the purpose of analytical work and case studies.

IITE will continue ongoing research, including the following themes:

- ICTs in Distance Education;
- Internet in Education;
- Multimedia in Education;
- ICTs in Special Education;

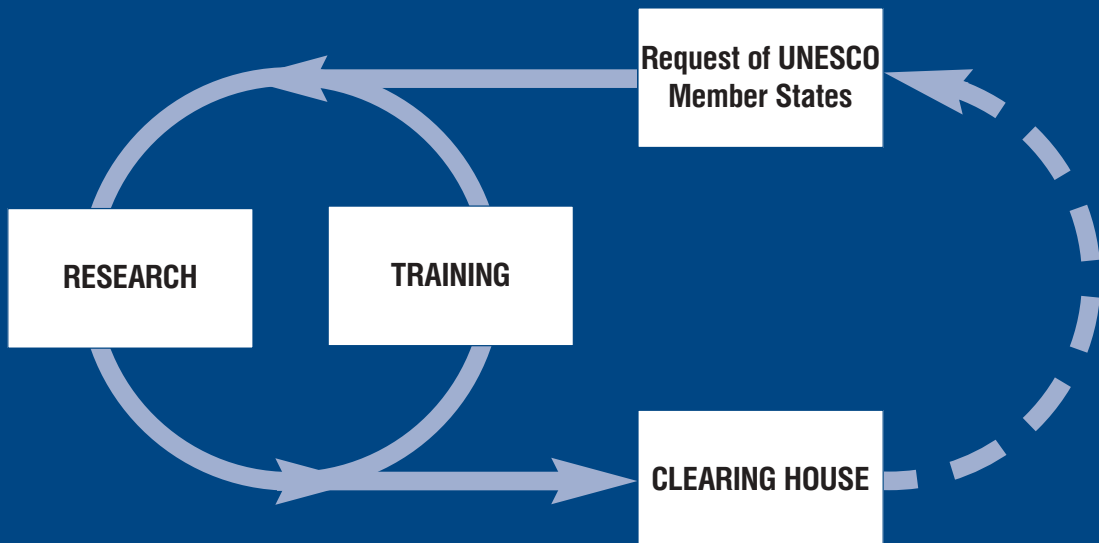
- Indicators of ICT Application in Education;
- Digital Libraries for Education;
- ICTs in Technical and Vocational Education and Training;
- Ethical, Psychological and Societal Problems of the Application of ICTs in Education.

Some research will be carried out on new themes after feasibility studies just started:

- ICT Usage for the Development of General Education;
- Application of ICTs for the Improvement of Teacher Education;
- Information Environment for Education: Design and Usage;
- ICTs in History Education;
- ICTs in Teaching/Learning Foreign Languages;
- Education, Art and ICTs: Integration for the Development of One's Personality.

The IITE research activities will result in recommendations, position papers, analytical and statistical surveys, information materials and reviews, final reports and collected materials of the various meetings to be disseminated in UNESCO Member States. The outcomes of these activities will become the groundwork for the elaboration of training, methodological and support materials for training in IITE and outside it.

## MAIN DOMAINS OF THE IITE ACTIVITES





UNITED NATIONS EDUCATIONAL,  
SCIENTIFIC AND CULTURAL  
ORGANIZATION

# THE EXPERIENCE OF INTERNET USAGE IN EDUCATION

ANALYTICAL SURVEY

# RESEARCH

ICTs IN EDUCATION: STATE-OF-THE-ART,  
NEEDS AND PERSPECTIVES –  
INDICATORS AND INFORMATION SYSTEM

UNESCO

Final Report



UNITED NATIONS EDUCATIONAL, SCIENTIFIC  
AND CULTURAL ORGANIZATION

## INFORMATION AND COMMUNICATION TECHNOLOGY IN SPECIAL EDUCATION

Analytical Survey

## BASIC ICT USAGE INDICATORS IN SECONDARY EDUCATION IN THE BALTIC AND CIS STATES

Statistical



UNITED NATIONS EDUCATIONAL, SCIENTIFIC  
AND CULTURAL ORGANIZATION

## DISTANCE EDUCATION FOR THE INFORMATION SOCIETY: POLICIES, PEDAGOGY AND PROFESSIONAL DEVELOPMENT

Analytical Survey



ОСНОВНЫЕ ПОКАЗАТЕЛИ ИСПОЛЬЗОВАНИЯ  
ИНФОРМАЦИОННЫХ ТЕХНОЛОГИЙ  
В ОБРАЗОВАНИИ

## АНАЛИТИЧЕСКИЙ ОБОЗР СУЩЕСТВУЮЩИЕ ИНФОРМАЦИОННЫЕ СИСТЕМЫ СЕТИ ИНТЕРНЕТ ПО ИНФОРМАЦИОННЫМ ТЕХНОЛОГИЯМ В ОБРАЗОВАНИИ



UNESCO INSTITUTE FOR  
TECHNOLOGY IN EDUCATION

## ANALYTICAL SURVEY CURRENT WWW INFORMATION SYSTEMS ON INFORMATION TECHNOLOGIES IN EDUCATION



UNESCO Institute for  
Technology in Education



## DIGITAL LIBRARIES

EXPERT MEETING  
DIGITAL LIBRARIES FOR EDUCATION

14-16 June 2001, Paris, France



Анализ использования  
информационных технологий  
в образовании



Современные информационные  
технологии в образовании  
и дистанционном обучении

## Training activities

In accordance with IITE's strategic approach, training objectives, namely, training and retraining of educational personnel in the application of new information and communication technologies in education, will be a top priority of the Institute's activities in 2002-2007. It will allow for the achievement of the multiplicative effect in the efforts of the Institute to disseminate among the UNESCO Member States the available knowledge and best practices on ICT application in education as much as possible.

The **main target groups** of the IITE training activities will be 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.

For these purposes, the Institute will complete the elaboration of IITE's own educational programme as a set of guidelines, which consists of a basic course, specialized training courses of a modular character, and sets of support training materials, with the purpose of facilitating the training and retraining of educational personnel in a specific subject area.

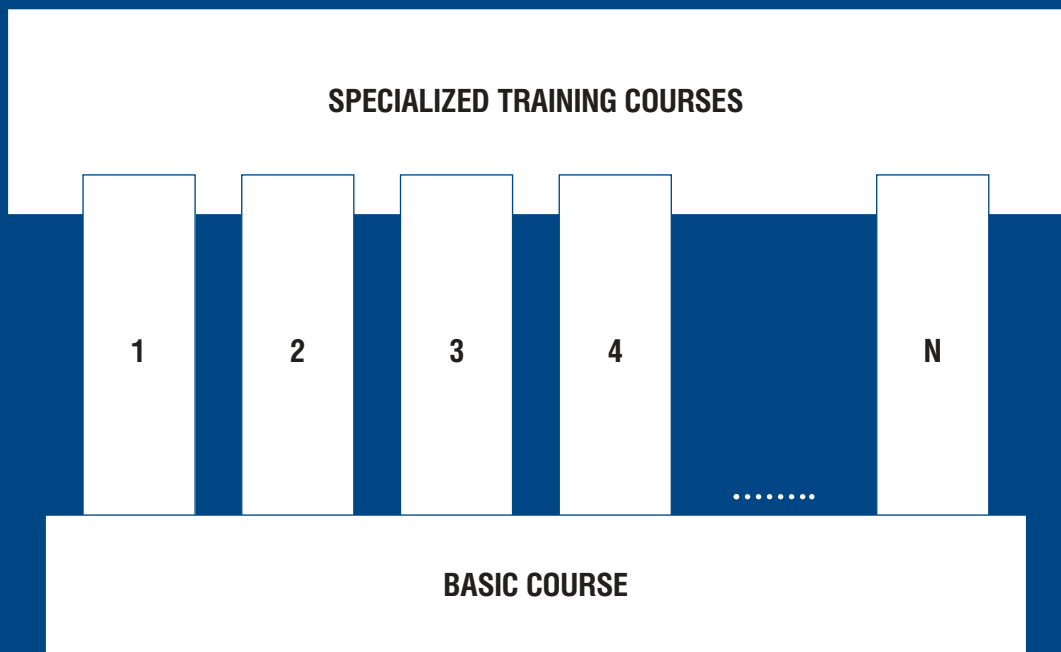
Title of training material	Year of edition
<b>Basic course</b>	
Elementary ICT Curriculum for Teacher Training	2001
<b>Specialized training courses:</b>	
ICTs in Primary Education	2000
Multimedia in Education	2001
ICTs in Distance Education	2001
Internet in Education	2001
ICTs in Special Education	2003
Digital Libraries for Education	2003
ICTs in Teaching Foreign Languages	2004
Designing Information Environment for Education	2004
<b>Sets of support training materials:</b>	
Towards Policies for Integrating ICTs into Education	2002
Guide and Instruction Book on Preparation of Educational Personnel for Distance Education	2002
Retraining of School Educators in the Application of ICTs in Education	2002

These training materials will be tested at national, sub-regional and regional levels. To prepare the basic course, specialized training courses and sets of support training materials, IITE will continue to work in close cooperation with well-known specialists and educational organizations in the field of ICT application in education.

The Institute will carry out its training activities in the form of workshops, training seminars and sessions. At the workshops, training seminars and sessions, IITE will present new data in the field of education for

building national and regional strategies to the heads and administrators of education; pedagogical and concrete practical achievements in the field of ICT application at schools – to educationists and trainers of trainers; basic principles of ICT implementation in the process of teaching different subjects, new achievements in such fields as distance education, multimedia in education, the Internet and telecommunications in education – to specialists in the field of ICT usage in education. During the Medium-Term Strategy period, IITE will work towards a tighter focus on web-based training, using its information system.

## STRUCTURE OF THE IITE EDUCATIONAL PROGRAMME



**INFORMATION AND COMMUNICATION TECHNOLOGIES IN DISTANCE EDUCATION**

SPECIALIZED TRAINING



# TRAINING

High-Level Seminar for Ministers, Decision-Makers and Policy-Makers

**TOWARDS POLICIES FOR INTEGRATING INFORMATION AND COMMUNICATION TECHNOLOGIES INTO EDUCATION**

DAKAR FOLLOW-UP



UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

**ELEMENTARY ICT CURRICULUM FOR TEACHER TRAINING**



Организация Объединенных Наций  
по вопросам образования,  
науки и культуры

**ИНФОРМАТИКА  
В  
НАЧАЛЬНОМ  
ОБРАЗОВАНИИ**

Рекомендации

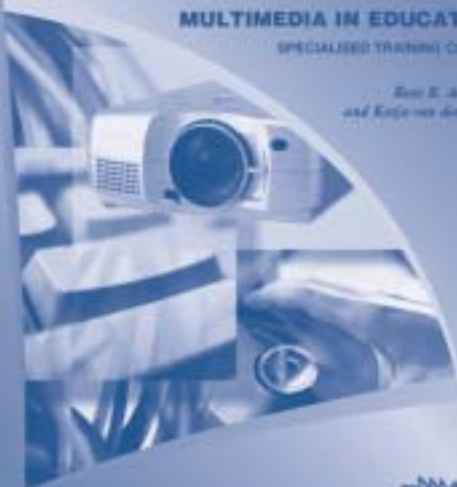
ITE TRAINING MATERIALS



UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION

**MULTIMEDIA IN EDUCATION**  
SPECIALIZED TRAINING COURSE

*Ken E. Anderson  
and Kojiroshi Ito*



UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION



MOSCOW 2002

ORGANISATION DES NATIONS UNIES  
POUR L'ÉDUCATION, LA SCIENCE ET LA CULTURE



**INITIATION  
À L'INFORMATIQUE**

UNITED NATIONS EDUCATIONAL, SCIENTIFIC  
AND CULTURAL ORGANIZATION



**INFORMATICS  
FOR PRIMARY  
EDUCATION**

Recommendations



## Clearing house activities

Like research and training, the clearing house will be one of the main domains of the IITE's activities. On the basis of the Institute's research and studies, IITE will continue the preparation of the analytical surveys, training, methodological and information materials on ICT usage in education as well as the IITE Newsletter in electronic and printed forms and their dissemination in all UNESCO Member States and international organizations acting in the field of its competence. To strengthen the lines of communication between the Institute and its clientele all over the world, preference will continue to be given to the direct circulation of IITE publications among educational authorities responsible for the application of ICTs in education and higher educational establishments. At present, IITE sends its publications to about 400 addresses of the National Commissions for UNESCO and 34 national focal points for cooperation with IITE, IGOs and NGOs, institutes and professional communities all over the world.

Striving to facilitate access to IITE's information resources for the educational personnel from UNESCO Member States, the Institute will continue to develop the IITE information system – WWW Portal, consisting of a web site, *Information System on Information Technologies in Education* (ISITE) database, and online training tools.

As a result, the IITE information system activity will become not only a means for information dissemination, but simultaneously, it will implement the functions of information, analytical, organizational, training and communication support of the Institute's activity in other two areas of activities: research and

training. Achieving these goals IITE information system – currently developed as a complex of high technology instruments – will gradually move in the direction of a more flexible and end-user oriented system at the service of constantly changeable real demands of the UNESCO Member States' educational community. In this way, the shift from the "data-technology" to a pedagogically useful knowledge-sharing approach will be made.

In this context, the IITE information system's goal and functions within the framework of IITE programme activity will be the following:

- **Main goal:** *facilitating the exchange of experience and knowledge on ICT usage in education among UNESCO Member States* through the further development of an information and communication environment supporting the main domains of the Institute's activity – research, training and clearing house activities.
- **Main functions:** *providing information, analytical, organizational, training and communication services for UNESCO Member States.*
- **Main target groups:**
  - Educational community of UNESCO Member States (information and analytical support);
  - Network of national focal points for cooperation with IITE, partners and community experts of IITE (information, analytical, organizational, training and communication support);
  - IITE personnel (information, analytical, organizational, training and communication support).

## IITE information system

Currently, IITE is developing the IITE information system – WWW Portal, consisting of a web site, an *Information System on Information Technologies in Education* database, and online training tools. The main functional features and perspectives of the development for each subsystem are given below.

At present, the web site contains information on IITE structure, partners, programme activities and

publications. This is an entry point to the IITE Portal, where visitors usually start browsing the information system from the *News* and *Events* sections. The *About Institute* section contains information about the aims and objectives of the Institute and its web-service, organizational chart, interactive presentation of IITE directions, contact information and feedback to the IITE. *Programme Activity* section provides for clear and schematic messages to the visitors, concerning the current state



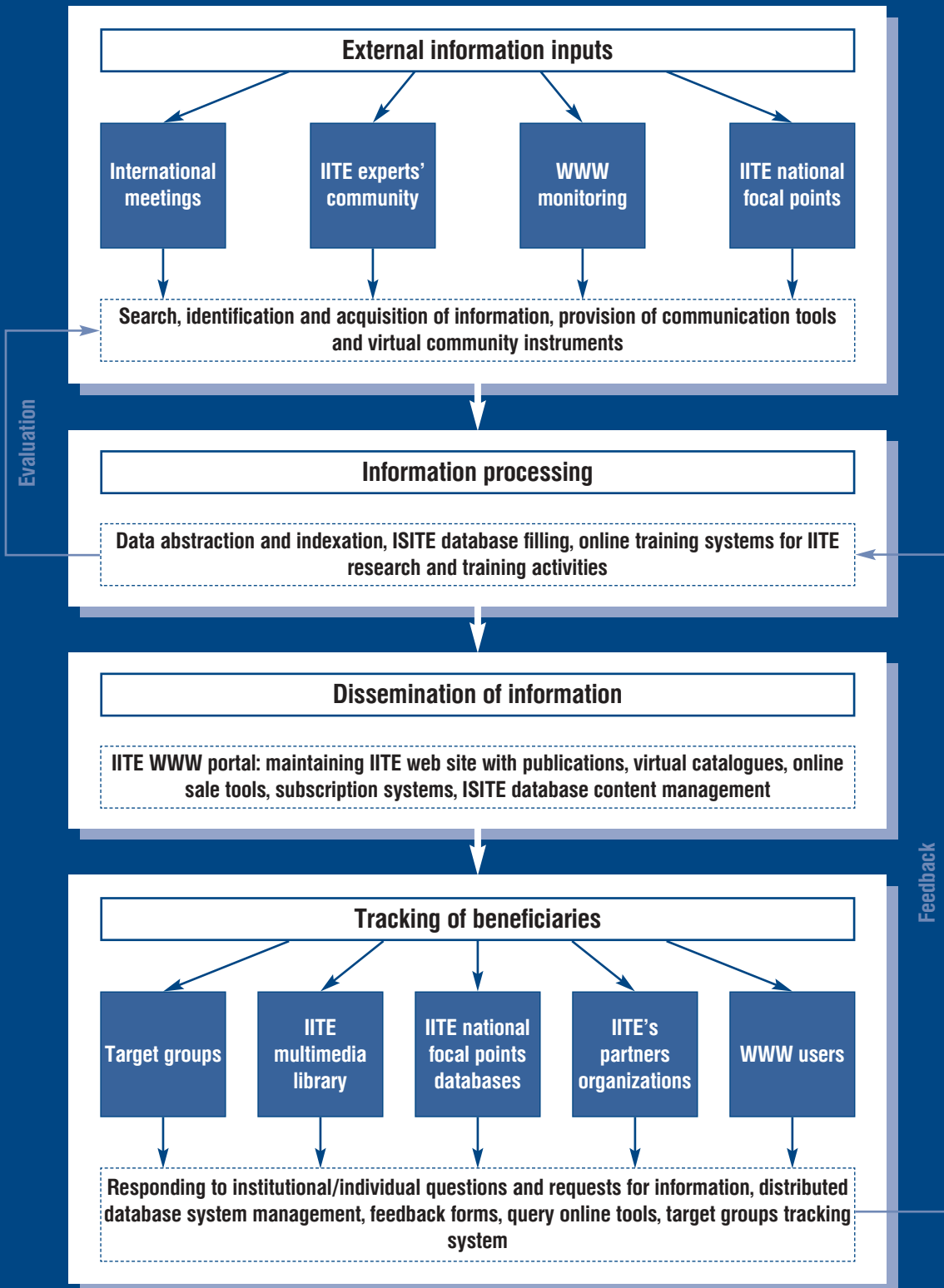
of projects, programmes and activities. *IITE national focal points* highlights the IITE proposed system of collecting, processing and dissemination of information that comes from Member States organizations involved in building a network of national focal points for cooperation with IITE. The *Publications* section of the IITE web site is aimed at the support of IITE dissemination activities. It consists of two subsections – *Publications online*, that provides the direct access to IITE publications, and *Publications on sale*, where the users can order printed versions of IITE materials. All parts of the web site are equipped with online feedback forms, allowing the visitors to make requests on particular questions and send comments and suggestions to IITE directly from the web site.

The main directions of the web site development in 2002-2007 will be aimed at diversification of channels, forms and technologies of dissemination of the information on IITE activities. Among them – multilanguage interfaces (Russian, Spanish and French versions will be added to the existing English version), “text only” version for regions with slow Internet connectivity, profiling the web site to different categories of users, which will allow the creation of various modifications of the web site.

Nowadays, *Information System on Information Technologies in Education* is intended to fulfil the information-analytical support of IITE research projects through sharing up-to-date information on ICTs in education amongst the IITE staff, IITE partners and UNESCO Member States educational community. Each expert meeting or workshop held by IITE is accompanied by a set of information resources that is accessible to the participants as well as to all Member States educational community in online mode. The database gateway provides more than 900 hyperlinks to WWW resources in five languages (English, French, German, Russian and Spanish) with structured descriptions, associated indexation and query tools. The structure of the Internet catalogue is the following:

- R&D and information in the field of ICTs in education;
  - Statistics on ICTs in education;
  - Internet in education;
  - Multimedia in education;
  - ICTs in distance education;
  - ICTs in education for people with special needs.
- ISITE is not a “read only” system. It also provides IITE worldwide partners with a mechanism for data exchange through a specialized WWW interface and is easy to use by non-programmers – teachers, researchers, educationalists, etc.
- The main goal for further development of the ISITE is its integration into the worldwide system of the educational databases, especially within the UN community. For this purpose the implementation of internationally recognized standard procedures of data description and querying (such as Dublin Core metadata approach) will be performed. The outcome of the process will be a widening of access to ICTs in education data for all UNESCO Member States.
- The online training tools have been developed for the information-analytical, organizational and communicational support of IITE training activities through the WWW. These tools, enriched with instruments for group working and training activities, allow for professional networking by creating worldwide virtual environments for policy-makers and planners, research and development personnel and educators. The different types of personnel involved (participants, moderators, experts, observers, and IITE staff) can interactively use different services of the system and edit the personal profile, get the latest information on the timetable, publish their teaching materials online, “home works” and comments on each of the documents online. There are advanced instruments for communication between the participants and a special area for the forum.
- Paying attention to the high priority of the IITE education programme in the next five years, these tools will be transformed into highly interactive powerful e-learning instruments, integrated with the ISITE database. All necessary teaching/learning and moderating facilities, such as secure technologies for testing, multimedia creation tools, webcasting and simultaneous online conferences, will be added to the existing features.

## IITE CLEARING HOUSE ACTIVITIES





## UNESCO'S CROSS-CUTTING THEMES AND IITE'S CONTRIBUTION

As it is stressed in the UNESCO Medium-Term Strategy for cross-cutting theme, *The contribution of information and communication technologies to the development of education, science and culture and the construction of a knowledge society*, ICTs play a significant role in development efforts, in poverty alleviation – underlining the linkage between both cross-cutting themes – and in all the fields of competence of UNESCO.

For successful implementation of this cross-cutting theme, UNESCO plans to study the issues arising from the transition to a knowledge society and to examine its effects on the organization, forms and content of knowledge and knowledge-sharing with a view to elucidating the choices of this domain. UNESCO will endeavour to bring about a common and consensual vision of the ultimate goals of the knowledge society by encouraging the broadest possible participation by decision-makers, professional communities, representatives of civil

society, bilateral and multilateral partners and the private sector in a debate on the conditions for the development of a knowledge society open to the greatest number.

Furthermore, through pilot projects, UNESCO will encourage the use of ICTs as levers for educational change. In the context of formulation of EFA national plans, advice will be provided to Member States on the increased use of ICTs with a view to reaching out to the excluded; to improving quality of content and teaching; and to creating centres of innovation and experimentation in communities.

During the Medium-Term Strategy period IITE is going to use these approaches for its contribution to the UNESCO cross-cutting theme *The contribution of information and communication technologies to the development of education, science and culture and construction of a knowledge society*.

### **Contribution to the Development of the UNESCO Cross-Cutting Theme Project *Higher Education, Open and Distance Learning Knowledge Base for Decision-Makers***

This UNESCO cross-cutting project is expected to develop, test and make available a sustainable Knowledge Base targeted at decision-makers and their staff, but also it will be of value to a wide range of professionals with the responsibility for, or interest in, open/distance learning (ODL). Development will be undertaken through collaborative work in three regions (Africa, Asia and the countries of the Commonwealth of Independent States (CIS)) through the identification of priority information needs and available information sources. Capacity-building for decision-makers in the target regions will be fostered through workshops in the regions, using a prototype Knowledge Base.

IITE will take part in all activities within the framework of this project in partnership with UNESCO divisions and educational institutes, and the Institute will be especially involved in two of them: (a) *Knowledge Base Development* and (b) *Preparation of Training Materials and Workshops for Decision-Makers*.

The first activity *Knowledge Base Development* will be based on a needs analysis for this project in the target

region accomplished by IITE in 2001. It will address these needs by promoting cooperation with ongoing initiatives, both in the respective regions and elsewhere, to deliver pertinent, useful and accessible information. It will include the analysis of higher education information needs at the decision-making level. Categories will be established to classify information related to needs identified. Information on available ODL information sources in the target regions will be gathered. Tools for content collection and technical specifications of the Knowledge Base will be developed. Attention will be given to assuring that there is a Social and Human Sciences component to the analysis. A higher education experts' workshop will be held to establish priorities for the Knowledge Base contents in the region and a strategy for data collection. A mechanism and resources for data entry will be established, and a strategy for sustainability will be developed.

The activity *Preparation of Training Materials and Workshops for Decision-Makers* will be accomplished in cooperation with the UNESCO International Institute for Educational Planning (IIEP) as a

component of the development of a common training strategy for the three regions in order to promote capacity building for decision-makers in the target regions and to test the Knowledge Base. A special User's Guide for the Knowledge Base will be

prepared to explain what the Knowledge Base contains and how it is structured conceptually, how to access and sustain it. A series of workshops for users will be held to test and evaluate the prototype Knowledge Base.

### **Development of the Pilot Project for Countries in South-Eastern Europe *Information and Communication Technologies for the Development of Education and the Construction of a Knowledge Society***

The IITE sub-regional project *Information and Communication Technologies for the Education Capacity Development towards the Construction of a Knowledge Society* is developed on the basis of priorities expressed during the High-level Conference on Strengthening Cooperation in South-East Europe (SEE), UNESCO Headquarters, 4 and 5 April 2002. This pilot project is aimed at strengthening national education capacities of all levels and various education realms through the development and systematic use of information and communication technologies in education relying on the appropriate planning and policy-making. Thus, based on the main areas of IITE activities, the project integrates a set of synergizing modules:

- ICT Usage for the Development of General Education;
- ICT Usage for the Development of Higher Education;
- ICT Application in Technical and Vocational Education and Training;
- ICTs in Special Education;
- Application of ICTs for Improvement of Teacher Education.

Project modules absorb the results of programme activities elaborated on by IITE with participation of well-known international experts from UNESCO Member States.

These project modules are specifically adjusted to the priority areas of education capacity development for SEE states. Each of the project modules is designed for a target group and is aimed at a specific result for each of these groups.

Accomplishment of each of the project modules will initiate the education capacity development for the specified direction by means of generating databases, producing research reports and analytical surveys, developing materials for national action plans on ICT integration in education, training senior educational management personnel, and promoting educational policies on ICT usage in education.

IITE will continue developing integral projects adjusted to the specified needs of UNESCO Member States based on the results of its research and training activities.

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