


*Interactive Learning Environment.  
Teacher's New Competencies*



Technologies and Innovations  
for Modern Education (TIME)  
St Petersburg, Russia



ICTs modify educational system  
according to demands of informational society

# *ICT s in education.*

## *Current situation*

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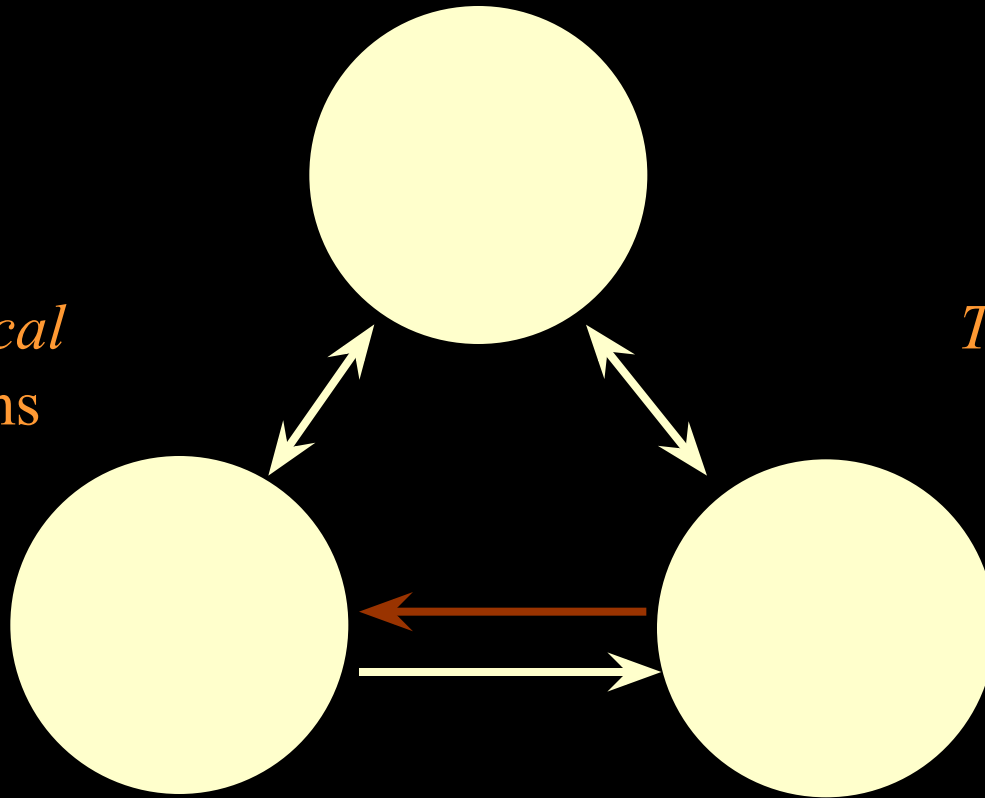
- Existing resources
  - computer equipment
  - ICT facilities
  - administrative infrastructure
  - development programs
  - regular budget
  - attention of society
- Demanded resources
  - pedagogical basis of computer assisted teaching and learning
  - relevant media objects, courseware and teaching methods
  - teachers' training and retraining system

# *Innovative development*

School system  
administrators

*Pedagogical  
innovations*

*Technological  
innovations*



Teachers,  
teaching methods  
experts

ICT experts

# *Traditions and innovations*



*Educators who consider ICT facilities only in a context of their current practice make a typical fundamental mistake*

UNESCO

ICTs in education. Theory and Practice

# *Traditions and innovations*



They put a question:  
How can I use those technologies  
to improve my every day practice?

# *Traditions and innovations*



They put a question:

How can I use those technologies  
to improve my every day practice?

instead of asking:

How can I use those technologies  
to implement things I have never done yet?

## *Key factors*

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The concept is based on a triangle of mutually related models

- Pedagogical model
- Instrumental model
- Informational model



# *Pedagogical approach*



- Student's activity
  - One gets opportunities for individual and/or group activities in a framework of school studies
- Co-operation
  - Learning activities should be implemented in co-operation between a teacher and students' team
- Teacher's mission
  - A teacher has a leading role similar to orchestra conductor's one. Every student plays own role as a part of a common pedagogical symphony

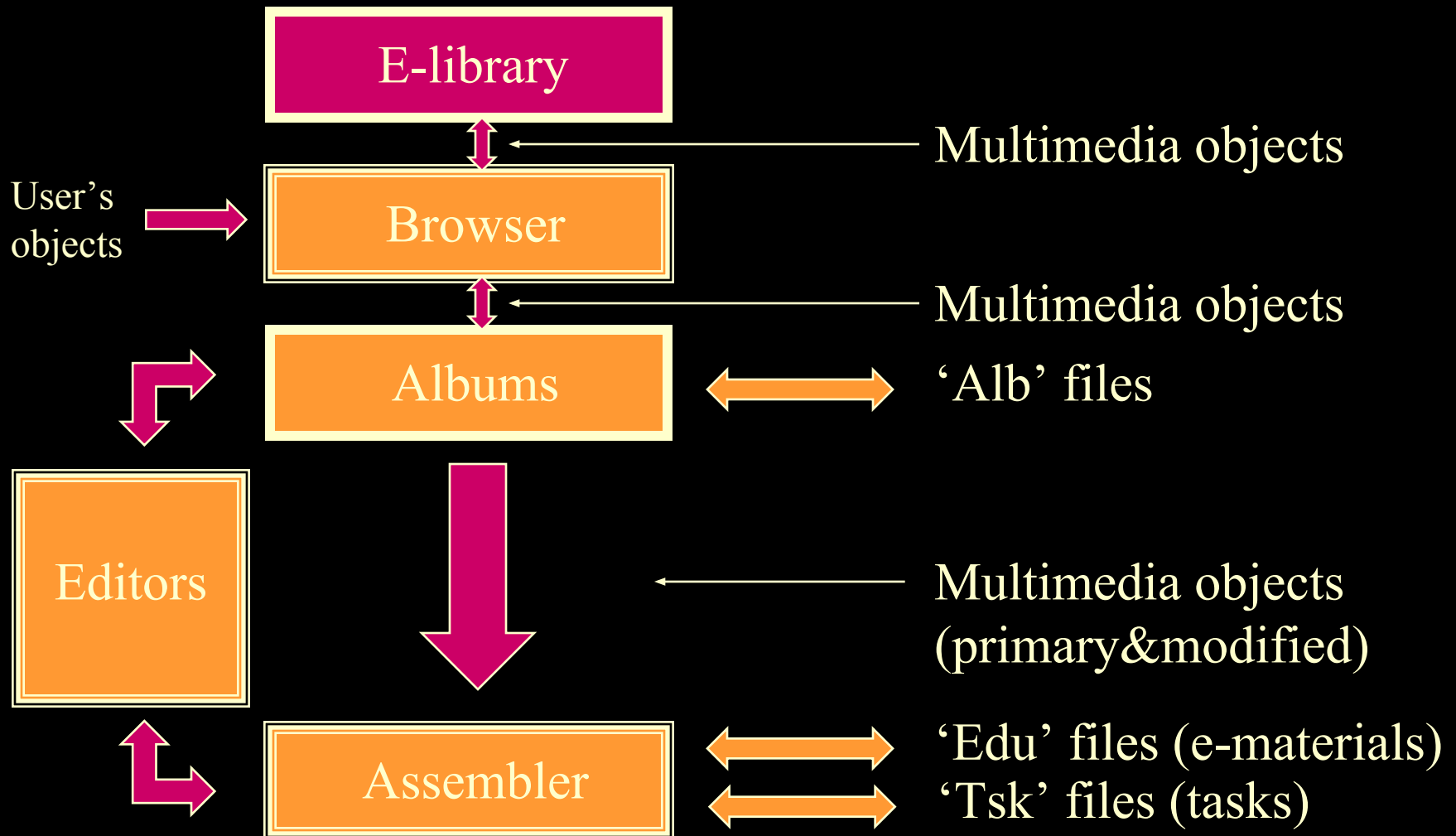
# *Authoring toolkit*



- *Common modus operandi*
  - A teacher and students use the same methods and common toolkit for producing e-materials

*Common modus operandi* guarantees that authoring activity started by one of educational process participants might be continued or edited by another student or other member of a school community

# Authoring toolkit



# *Access to information resources*



- Open informational environment
  - Learning media objects (e-library) are equally accessible for every participant of educational process.
  - Originally e-library should be collected by experts but it can be appended afterwards.
  - Expert community monitors and moderates the process of e-library development.

# *Training and retraining*



Subject competencies

Subject competencies

+

ICT competencies

Subject competencies

Special ICT training programs

# *Training and retraining*

Subject competencies

+

ICT competencies

Subject competencies

+

ICT competencies

Subject competencies

+

ICT competencies

ICT training modules in a framework of subject retraining

# *Training and retraining*

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Interactive learning  
environment

+

Subject competencies +  
ICT in subject teaching

Subject competencies +  
ICT in subject teaching

Subject competencies +  
ICT in subject teaching

# *Possible strategy*

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- Goals
  - Interactive learning environment concept
  - An innovative model of teacher's competencies
  - New approach to retraining process
  - Standard of teachers' retraining
  - Pedagogical computer tools and technologies for subject teaching