Oktatási Minisztérium

A tudás a hajtóerő

State of eLearning in Hungary

Ádám Horváth
IT advisor
Ministry of Education, Hungary

Cselekedni most és mindenkiért

Accelerating time

- 5% of the existing professions change in every five years,
- 5% decrease in the professions not based on knowledge of info-communication technology in every two years,
- Existential perspectives of professions not based on ICT knowledge move around the average minimal wage,
- learnt professional skills become out of date within 10 years.

Oktatási Minisztérium

Paradigm change

Industrial society	Knowledge-based society
Facts, data, rules	Skills and Competencies
Transfer of closed, final, textbook-knowledge in one occasion	Lifelong learning knowledge-networks
Fixed, homogeneous team-studying method	Flexible, heterogeneous team-studying method (individual-centred education)
Frontal pedagogy	„Constructivist” education

Employee of our time

- Very flexible
- Possessing up to date knowledge and skills
- Ready to learn again and again
- Fluent in ICT skills

Facts about Hungary

- 10 000 000 citizens
- 1 400 000 pupils in primary and secondary education
- 160 000 teachers
- 5 500 primary and secondary institutions
- 67 Universities
- 400 000 students in higher education
- Internet penetration at home 17%
- home computer penetration 25%

Oktatási Minisztérium

Requirements for eLearning

- network – the wider the better,
- computers – the more the better,
- authentication and authorization – the more reliable the better,
- intention to learn – the harder the better,
- skills to learn – the more up to date the better,
- something to learn – the digitalised the better.

Programmes/Results

- In the following we will see a quick overview about Hungarian programmes related to elearning in the perspective of the eLearning Initiative of the EU.

eLearning Initiative

to provide all schools with access to the Internet and multimedia resources,

- Hungarian results:
- all higher educational institutions are connected through broadband fibre optic cable
- broadband (ADSL) Internet access to all (5500) primary and secondary schools until 2005. (3200 already connected)

Oktatási Minisztérium

eLearning Initiative

to equip all classrooms with a fast Internet connection by the end of 2002,

- Hungarian results
- 60% of existing PC labs are connected
- 300 wireless network has been given out to secondary schools this spring as a trial for a wide range of program which aims to cover all schools with broadband wireless access by the end of 2006.

Oktatási Minisztérium

eLearning Initiative

to connect all schools to research networks by the end of 2002,

- Hungarian results:
- All higher educational institutions' network are also part of the GEANT, the European research network. The backbone is over 10 Gps.

Oktatási Minisztérium

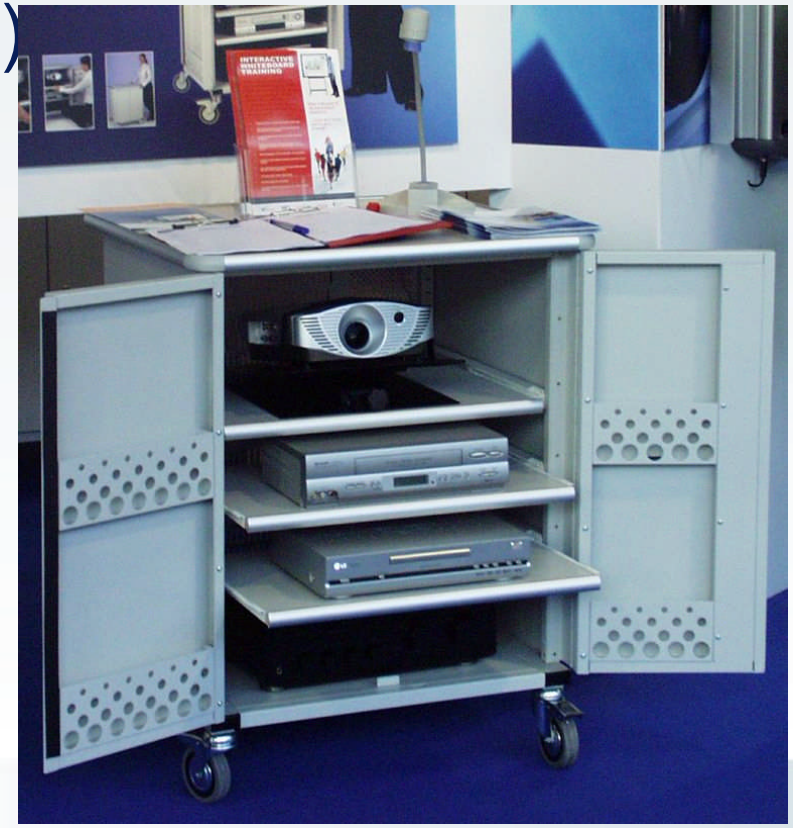
eLearning Initiative

to achieve a ratio of 5-15 pupils per multimedia computer by 2004,

- Hungarian results:
- The ratio of pupil/online computer was 20 last year. By the end of 2005 it will fall to 12 by connecting the schools, and decrease further down with opening new computer labs.

ICT in frontal teaching

- Mobile, digital presentation equipment („digital trolley”)



Oktatási Minisztérium

ICT in frontal teaching

1100 mobile, digital presentation tool („digital trolley”) for all secondary schools

- Contents:
  - 1 laptop
  - 1 projector
  - Amplifier, speaker, microphone
  - VHS, DVD
  - Keeping box

Oktatási Minisztérium

Tax deduction from ICT equipment

- Sulinet Express Program
- Anyone who buys a PC, can deduct 50% of the price up to 240 euros each year as part of a direct tax deduction program.
- 35 000 new computers,
- 50 000 upgraded computers in 2003.

ICT equipment in schools

The Ministry of Education is going start a normative financing program in 2005 for educational institutions to make them able to develop and to maintain ICT infrastructure to reach and keep a Quality Service Level set up by the ministry.

This amount of money will make the schools able to reach and to maintain the required 12 pupil / multimedia PC ratio or better.

Oktatási Minisztérium

eLearning Initiative

to ensure the availability of support services and educational resources on the Internet, together with on-line learning platforms for teachers, pupils and parents,

- Hungarian results:
- Sulinet Portal
- Sulinet Digital Knowledge Base
- Sulinet curriculum

Oktatási Minisztérium

Sulinet Digital Knowledge Base

- Digitalized teaching materials for K 7-12 covering the whole curriculum in 12 subjects
- More than 200 000 reusable learning objects
- Examples, animations, demonstration films,
- Supplementary data bases, background information,
- Methodological assistance, lecture drafts,
- Opportunity for individual editing and content forming
- Forum, chat, collaborative opportunities.

sdt.sulinet.hu

Oktatási Minisztérium

eLearning Initiative

to support the evolution of school curricula with integrating new learning methods based on ICT by the end of 2002,

- Hungarian approach:
- Human Resource Operative Programme is responsible for building up the skills of Life Long Learning in the pedagogical methodology reform in primary and secondary education on a competency based way until 2006 in the National Development Plan.

Oktatási Minisztérium

eLearning Initiative

to start training at all levels, especially by promoting digital literacy and the general availability of appropriate training for teachers,

- Hungarian results:
- Most of the teachers don't have computers at home,
- Only 10% of the teachers use computers regularly in the classroom,
- Less then 1% use computers daily,
- Teacher training program modules are ready on the field of basic ICT knowledge,

Mass training has started in 2004 with 10 000 teachers

Oktatási Minisztérium

Other relevant issues

- Administration
- Authentication, authorization
- Access control
- Unified Educational Identification Number
- Digital Signature
- Foreign language teaching

Oktatási Minisztérium

State of elearning

- Elearning is mostly used in adult education and in internal company trainings
- Lack of home computers and Internet access prevent the deployment of eLearning
- Lack of consumption power for online learning
- Lack of experience of creating, teaching and using eLearning materials
- 12 000 000 euros spent in 2003 on eLearning
- 3/4 of it was spent by the Ministry of Education on the development of Sulinet Digital Knowledge Base

State of elearning

- Public Education
  - Very few eLearning systems are available
  - CD-ROMs are more frequent because of missing network and/or narrow Internet access
  - Systems, learning objects are heterogeneous, not compatible with each other
  - Self development in schools because of missing consumption power
  - Very few teachers are familiarized with use of ICT

Oktatási Minisztérium

Digital Secondary School

- Pilot programme for minorities, who have felt out of secondary or primary education
- With the control of University Miskolc, the Földes Ferenc secondary school is holding ICT helped courses in the computer lab of local primary schools in the afternoon for adult gipsies
- Special methodology is applied
- Compatible with Sulinet Knowledge Base

Oktatási Minisztérium

State of elearning

- Higher Education
  - Most of higher educational institutions have some kind of eLearning system. At least file servers to share documents.
  - All institutions have online administrational systems, but without Learning Management or Learning Content Management functions.
  - The forthcoming reform in higher education will move towards the Bologna Process and will make available credit exchange.
  - Nowadays, fully electronic education, such as eCampus can not be accredited in Hungary.

Barriers of digital content development

- Overwhelming majority of English content and lack of content in other national languages, especially those of minorities,
- Lack of response to teachers' needs,
- Missing standards about how to define educational content in a pedagogical way,
- Lack of pedagogical methodology for using ICT in the classroom,
- Missing appropriate standards about how to define content in a technical way,

Oktatási Minisztérium

Barriers of digital content development

- Missing international accreditation system for educational content,
- Few standardised Content Management Systems,
- Lack of experience and practice in educational publishing companies,
- Limited government subsidy for the publication of digital educational content,
- Unregulated property- and copyright management.

Possible solutions

- Making common market requires more than open coordination.

- Standardization,
- legal clearing, and
- identifying common needs.

- The solution in the long run not the sharing of centrally developed content for free, but a healthy, self determining content market.
- However such a market can not evolve without the help of central regulations and demand creating investments.

Proposal

The establishment of National Clearinghouses for Educational Content, that should:

- collect,
- catalogue,
- clear for copyright,
- evaluate, and
- eventually translate best examples of digital teaching aids into different languages.

Oktatási Minisztérium

Proposal

European Centre for Exchange of Digital Educational Content

- This Centre should provide the EU member states with recommendations:
  - on defining and classifying educational content,
  - on suggested technical standards
  - on suggested meta data system
  - on managing intellectual property right issues

Oktatási Minisztérium

Proposal

- This Centre should also provide the EU member states with recommendations:
  - on international accreditation of digital educational content
  - on sharing best practices about learning content management systems and content
  - on unified applying for eContent tenders
  - on establishing national clearinghouses.

We would like to invite governments and major commercial software and content producers in Europe to consider supporting these proposals to take some steps forward to the foundations of a sustainable developing European market for eLearning services.

Oktatási
Minisztérium

Thank you for your attention!

A tudás
a hajtóerő

Cselekedni
most és mindenkiért