

**Institutional Environment Guideline
Descriptions of National Environments
- POLAND -**

**National policy of e-learning in Higher Education in Poland:
opportunities, threads, present day, future perspectives**

Polish educational market – some statistics

We start our consideration with a brief presentation of the Polish educational market. All the data below are based on research by Polish Central Statistical Office¹ and data from Polish Ministry of Science and Education.

Tab. 1. shows the overall number of students and graduates in different types of HE schools and study systems.

2004/05 szkoly schools	2003/04	2004/05	2002/03	2003/04	Study systems Type of schools
	studenci students		absolwenci graduates		
	w tys. in thous.				
427	1858,7	1926,1	366,1	384,0	TOTAL
x	877,4	923,1	134,1	143,3	study: day
x	73,2	66,0	16,5	15,0	evening
x	887,4	913,5	211,2	219,3	weekend
x	20,7	23,5	4,3	6,4	extramural
17	543,4	554,9	106,1	110,1	Universities
22	342,4	340,2	56,2	57,1	Technical universities

Tab. 1. HE institutions and total number of students and graduates in Poland in 2002-2005.

We observe, that the most popular study system is a weekend one (a little bit more than daily studies), and extramural studies (the most suitable for e-learning – “traditional” contact limited just to exams) are still marginal.

¹ http://www.stat.gov.pl/opracowania_zbiorcze/maly_rocznik_stat/2005/09_edu_i_wych.pdf

Another interesting statistics presents schools by school governing institutions (Tab. 2).

Szkoły Schools	Uczniowie i studenci Pupils and students	Absol- wenci ^a Grad- uates ^a	Specification
	w tys.	in thous.	
427	1926,1	384,0	Tertiary education
125	1323,7	246,1	Central (government) administration en- tities
14	29,8	5,8	Religious organizations
288	572,7	132,1	Others

Tab. 2. Schools by school governing institutions.

Polish educational system is dominated by non-public schools. The number of government administration entities is app. 2 times less. Public and non-public schools have, in some sense, different “business models”, and that may influence e-learning strategies in these institutions.

Another interesting statistics shows a popularity of different fields of education (Tab. 3).

2003/ /04	2004/05		2002/ /03	2003/ /04	Fields of education ^a
studenci students		absolwenci w tys. graduates in thous.			
ogółem w tys. total in thous.	w tym kobiety w % of which females in %				
1858,7	1926,1	56,5	366,1	384,0	TOTAL
239,7	247,3	71,0	55,4	58,8	Education science and teacher training
19,8	20,9	63,7	2,9	3,0	Arts
146,2	149,9	71,3	27,0	26,7	Humanities ^b
248,9	261,8	64,6	53,3	55,5	Social and behavioural science
13,7	15,6	70,7	2,4	2,7	Journalism and information
505,4	503,2	62,1	129,0	132,3	Business and administration
57,3	56,7	53,3	8,9	8,3	Law
16,1	13,2	81,2	2,9	2,5	Life science ^c
34,3	34,9	55,9	5,9	5,9	Physical sciences ^d
17,1	16,2	63,4	2,9	2,6	Mathematics and statistics
66,4	105,5	13,3	6,4	13,1	Computing
177,6	158,1	17,8	23,9	21,8	Engineering and engineering trades
33,3	27,8	47,5	5,0	4,2	Manufacturing and processing
55,3	56,0	36,5	6,2	7,2	Architecture and building
37,0	38,0	53,4	6,4	6,0	Agriculture, forestry and fishery
4,0	4,2	65,0	0,5	0,6	Veterinary
62,0	77,5	75,8	7,6	9,9	Health
1,5	2,2	84,5	0,1	0,2	Social services
44,3	55,2	63,0	6,7	8,8	Personal services
14,6	15,5	13,6	2,1	2,1	Transport services
56,8	57,2	52,2	9,7	10,4	Environmental protection
7,4	9,2	26,8	0,9	1,4	Security services

Tab. 3. Popular fields of education.

As we can see, still the most popular are Business and Administration Studies, and then Social and Educational one. Computing, life sciences, engineering and maths are much less popular. That may be a good sign for development of DL methodology or on-line instructional design as a part of Education science and teacher training studies.

The final statistics we want to present is pupils and students by age groups, which is important for life long learning considerations (Tab. 4).

Grupy wieku Age groups	2000/01	2003/04	2004/05
	w % ludności ^b danej grupy wieku in % of population ^b of given age group		
7—12 lat	98,8	98,6	98,5
13—15	97,2	98,3	98,4
16—18	88,7	92,5	95,1
19—24	45,4	52,9	54,4
25—29	10,6	10,2	10,2
30 lat i więcej and more	0,9	1,0	1,0

a Bez studentów studiów ekstemistycznych oraz cudzoziemców. *b* W roku szkolnym 2000/01 do przeliczeń przyjęto liczbę ludności zbilansowaną w oparciu o wyniki Narodowego Spisu Powszechnego Ludności i Mieszkań 2002; patrz uwagi ogólne do Rocznika, ust. 13 na str. 15.

a Excluding students attending extramural studies as well as foreigners. *b* In 2000/01 school year, the number of population, applied in calculations, was balanced on the basis of the results of the Population and Housing Census 2002; see general notes to the Yearbook, item 13 on page 22.

Tab. 4. Pupils and students by age groups.

We observe that in fact there is practically no life long learning education in Poland. Of course it's possible that older people do not study but attend different "informal" courses and trainings, but still when we look at HE statistics app. 1% of a given age group studies.

National policy – strategies of HE and vocational education until the 2010

In this section we present two national strategies: *Strategy of expansion of higher education in Poland by the year 2010*² and *Strategy for development of continuous education until the year 2010*³. We limit our presentation to DL and e-learning aspects of these policies.

Strategy of expansion of higher education in Poland by the year 2010

Authors of this strategy propose 7 directional aims:

1. Sustaining and expanding universal and accessible higher education
2. Improving the quality and the effectiveness of the higher education system
3. Education for work after education
4. Science, research and staff development
5. Developing the infrastructure of higher education institutions and opening up access to the Internet
6. **Lifelong learning and e-learning**
7. Harmonization within the European Higher Education Area

² http://www.men.gov.pl/menis_en/higher_education/strategy.php

³ http://www.men.gov.pl/menis_en/education/vocational_education.php

For us the most important is directional aim 6: Lifelong learning and e-learning. Quoting directly the document, the aims of the strategy of implementing the idea of lifelong learning are as follows (underlines by Author of this paper):

- to guarantee universal access to education gaining and refreshing skills essential for active participation in knowledge and information society,
- to raise the level of investment in human resources, making it a priority area,
- **to create efficient teaching and learning methods and appropriate conditions of implementing the idea of lifelong learning,**
- to create and improve the tools of assessing the effects of the learning process, especially the one taking place outside institutions (the informal one),
- to provide easy access to information.

Implementing lifelong learning requires:

- **creating networks of public and non-public institutions of lifelong and practical learning, including also institutions of training the staff of central and district administration units,**
- **introducing e-learning and e-diploma,**
- **specifying the conditions of confirming (certification) of acquiring certain professional qualifications in case of finishing the course,**
- **introducing accreditation mechanisms for telecommunication forms of education,**
- **forming as an advisory body the National Council for Lifelong and Distance Learning.**

The tasks of the Council are as follows:

1. Analyzing the current state of lifelong and e-learning, including the rules of the so-called Good Practice,
- 2. Assessing draft legal acts on lifelong learning,**
- 3. Creating draft documents on the development of lifelong and e-learning,**
4. Assessing the applications for allocation of financial means from the state budget in the field of lifelong and e-learning,
5. Inspiring innovative projects,
6. Cooperating with domestic and foreign organizations.

As we can see, the most important issues covered by this strategy are:

1. Development of efficient DL teaching/learning methodologies
2. Accreditation and certification procedures/institutions
3. E-diploma
4. Creation of legal acts regulating e-learning.

Strategy for development of continuous education until the year 2010

The main goal of this strategy is *to outline the directions of development of continuous education in the context of the concept of lifelong learning and the formation of a knowledge based society.*

Authors propose the following 6 priorities:

1. **Increasing access to continuous education.**
2. **Raising the quality of continuous education.**
3. **Cooperation and partnership.**
4. **Increasing investment in human resources.**
5. **Creation of information resources on continuous education and the development of advisory services**
6. **Recognizing the role and significance of continuous education.**

For each of these priorities authors propose precise tasks, implementing institutions, period of implementation and financing sources. Thus, this strategy is much more precise compared to quite general *Strategy of expansion of higher education in Poland by the year 2010*.

Sample tasks addressing e-learning are:

1. **Creation of network and additionally supplying generally-accessible places for distance learning, including e-learning** (responsibility of local government units; participating in implementation ministers competent for education, labor, science. Financed by: state budget, own income of local government units)
2. **Development of concept of Polish model of distance learning** (responsibility of minister competent for education; participating in implementation scientific institutions. Financed by: state budget)
3. **Preparation of curricula and didactic framework for distance learning, in this for e-learning** (responsibility of minister competent for education; participating in implementation competent ministers, in this minister competent for labor, scientific institutions, educational institutions. Financed by: state budget, Structural Funds)
4. **Creation of computer databases and information systems available for various groups of recipients** (responsibility of competent ministers. Financed by: state budget, Structural Funds).
5. **Creation and dissemination of material for various groups of recipients (students, teachers, unemployed persons, adults, counselors).** Responsibility of ministers competent for education, labor, other competent ministers, publishers, multi-media producers, local government units. Financed by: state budget, Structural Funds, own income of local government units.

As we can see, Authors concentrate on:

1. e-learning model (system solution, didactic framework etc.)
2. e-learning infrastructure, including databases of e-content.

The next part of this paper presents some difficult questions which arose in different discussions among representatives of Polish HE institutions experienced in e-learning, dealing with e-learning models and the regulating role of National policies.

E-learning in HE in Poland versus national policy

We start this section with a brief sketch of **current situation** and **key issues and obstacles (barriers of e-learning in Poland)**.⁴

⁴ These are of course personal Author's impressions.

The current situation

1. In Poland two HE sector co-exist: public (free of charge, mainly Universities, Technical Universities and Academies) and private (commercial Universities, teaching mainly on BA level).
2. In 90-ties number of students increased app. 4 times, while number of teachers app. 1,5 times.
3. Non-public schools have business orientation and strongly compete.
4. Public universities are funded by Government, are quite poor, but in some sense don't play on a free market: almost always have more candidates than they can handle.
5. A relation between these two sectors is very complex: on one hand many professors work "here" and "there", on the other there is a kind of informal competition between public and private universities. In consequence, PPP's are quite rare and unstable.
6. In the public HE sector e-learning is commonly found as a way of supplementing traditional education (e.g. virtual campuses), a way of dissemination of results of different scientific projects and a source of research grants
7. In the private HE sector is commonly found as a way of substituting a traditional learning process in order to increase a market share, a new quality in education resulting in better PR, a way of internal and external integration.

The barriers of e-learning in Poland:

1. There is no act or decree that regulates the open and distance learning, including e-learning and life-long learning. Lack of system solutions.
2. Public universities are not flexible enough (procedures, decision-making process, administration, management, corporate culture, etc) to become financially self-sufficient.
3. In that sense private universities are much more dynamic and flexible.
4. Content and quality control issues:
 - a. Content authors (field experts, professors etc) are very busy and expensive (UE rates)
 - b. lack of qualified instructional designers
 - c. academic society from a given university generally doesn't accept programs and content from other universities. Consequence: limited reusability of content among schools.
 - d. the resistance of the academic society (mainly quality issues)
5. There is a place and growing need for a Virtual University of PPP's type, but first legal issues concerning e-learning in HE must be solved.
6. At the moment society awareness of e-learning in Poland is too small in order to create some reasonable self-financing e-learning institution (e.g. Polish Virtual University, the biggest such initiative in Poland, acquired BEP at level of 1 000 students after 3 years of a very intense and expensive promotion).
7. We are in the early stage of e-learning. Thus, as start-up's, e-learning initiatives require external financing.

Difficult questions

In this section we present questions which arose during the discussion of the process of formulation of system solutions regulating e-learning at the national level. We start with accreditation and quality control issues, then address problems like who should be trained, who should teach, what shall we teach, how, what about the infrastructure and, last but not least, who will pay?

Accreditation, quality control system solutions

In the case of “traditional” teaching the problem of accreditation and quality control is quite simply solved. At the national level we have the National Committee for Accreditation, which controls mainly procedures like the number of students versus the number of qualified teachers or realization of minimum standards for a given field of studies (like the number of hours of lectures and workshops), which are regulated at the national level by Ministerial Acts.

In case of e- or blended-learning things are getting complicated. First, there is no algorithm of “translation” of traditional lecture hours into e-learning activities. Second, there are no quality standards for DL and e-learning. What can be found as a satisfactory form of teaching on-line by one institution, may be neglected by another. And, last but not least, there are more and more forms and techniques of e-learning/teaching, and that makes the word “standard” a little bit fussy (how dynamically should those “standards” change in order to follow up the trends?).

In general, we control quality in order to:

1. eliminate bad practices
2. promote good practices.

The question we should answer in the process of formulation quality standards at the national level are:

1. How to define quality?
 - a. Shall we address:
 - i. Content quality?
 - ii. It's multimedia form?
 - iii. Activities and interactions: intensity? Quality?
 - iv. Training results? (like competency development)
 - b. How our quality measures/standards will address:
 - i. Traditional education standards?
 - ii. Changing reality?
2. Who should define and update quality standards?
 - a. DL “society” – informal group of experts?
 - b. National body? How to form it?
 - c. HE institutions at their own level (sth. like quality book or internal ISO)?
 - d. In general: who decides what's good, acceptable and what should be eliminated?
3. How to control the quality?
 - a. As a part of traditional accreditation process?
 - b. Or as a separate process?

Answers to these questions are very important, not only because of quality issues. We all know that content preparation is very expensive. Institutions who decide to build their own e-libraries must be sure, that after “positive” accreditation the standards won't eliminate it after some time – that may result with terrible financial disaster and won't encourage anyone to develop content.

Who should be trained?

E-learning is one of the techniques of distance teaching, so this question addresses rather DL in general than e-learning. Of course a person who decides to start some long-lasting e-learning activities (like e-studies for example) should experience this type of

method before just to discover her/his limitations concerning e.g. self-motivation, fluency of IT skills required or communication skills.

National Strategy of Continuous Education especially aims at people >25 years, what is sensible: first, we must encourage people to continue their education (and not just to limit it to "obligatory" one), and, last but not least, for youngsters modern techniques of communication and acquiring knowledge (like discussion forums, Internet sites, chats, skype etc) are much more natural than for older one. Continuous education strategy should than motivate people who already work (or are looking for a job, or are in the process of its change) to look for some e-learning courses or studies as an easy and flexible way of self development.

It should be strongly connected with promotion of e-learning (or blended solutions) and telework best practices among employers. If a labour market accepts that form of education (together with electronic diplomas and e-portfolios), it will be much easier to encourage potential learners to start e-learning activities. Thus, the question *who should be trained?* becomes the next important problem to be solved.

Who should teach?

E-learning becomes more and more popular, and has lots of forms. There are more and more new learning and teaching techniques, since Internet generates more and more new tools and social phenomena (like long, pod casting, P2P, Kazaa, Wikipedia etc.). Moreover, there are lots of new and original educational applications of existing techniques, which are efficiently communicated by Internet and on different meetings/workshops/conferences.

That makes the definition of e-teacher extremely difficult. Is she/he a person, who knows how to use ICT to prepare multimedia? Or, knowing nothing about IT, is she/he fluent in digging for interesting content in the Internet and than use it as a source of knowledge in the classical lessons? Does she/he blend "e-" with traditional training or teach purely on-line? Alive or in the asynchronous mode? Or she/he is just an instructional designer, who can convert "traditional" books and workshop activities into e-learning, according to "new" methodology?

In the context of the national e-learning policy this is a crucial question: who can teach on-line? In the traditional school it's very easy: one should have appropriate diploma (in the given field) and attend to courses for teachers. The point is that we don't have at the moment standards of DL methodology and thus it's difficult to prepare standards for teacher's educations (although there are more and more projects of train-the-trainer type). As we can see, the answer to this question is strongly correlated with quality issues addressed before.

What shall we teach?

In the *Strategy for development of continuous education until the year 2010* we find, that Polish Ministry plans to support development of different content libraries. That's a brilliant idea. The point is that we can't finance everything: a preparation of a good content takes time and costs money. Thus, we should have some priorities. That directs us to next important questions:

1. what education fields/topics are most suitable for e-learning? In which form?
2. are those topics popular (will we find "the client")? Compare e.g. Tab. 3.
3. and once again: who sets these priorities? How often should they change?

What about infrastructure?

The next big issue is the infrastructure for e-learning. In both cases: traditional schools and e-learning we may have our own or “rented” infrastructure. The difference is that in the case of e-learning in one “place” (server or a farm of servers) we may host almost unlimited number of “e-schools”. Thus, we encounter the next non-trivial problem of infrastructure development strategy:

1. What type of infrastructure is needed?
 - a. For a given type of e-school?
 - b. For a given technique of e-learning?
 - c. What is:
 - i. Really needed?
 - ii. An option?
 - iii. Not necessary?
2. Is it better to buy or host the required infrastructure?
3. How to develop and implement it?
 - a. On a national level (centralized model)?
 - b. Or to support local initiatives?
 - i. Regional?
 - ii. Institutional?

Our observation is that hosting model, although in many cases more efficient, is still unpopular – HE institutions prefer to buy their own systems.

And final question: who pays?

This is a very natural question: in the context of National Policy, what should be a system of financing the central and local e-learning initiatives? How should it be correlated with EU information society strategies?

Conclusions

In this short overview of the Polish e-learning educational market we pointed out the most important problems which arose during the discussions about national policy regulating e-learning. Some of them are very fundamental, and have the origin in the observation that e-reality changes very fast. New technologies enter and change our lives. Some even say that we have a new human species: Homo Zappiens.

Trying to answer those questions in some sense we have opened the Pandora’s Box. New reality forces us to answer the new big question: **on the national level, shall we regulate or stimulate the educational system?**