

# Selected Polish e-learning initiatives popularising free access to knowledge

## L'e-learning per l'accesso libero alla conoscenza Esperienze in Polonia

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### **Abstract**

*The text addresses the problem of imbalanced access to education, as well as the issue of popularisation of open access to the sources of educational content. Insufficient skills in the selection of information sources constitute a major problem identified in literature. Thus, the quality of educational materials on offer should be closely monitored. This requires initiatives that would promote free access to information and knowledge, which would in turn affect successful implementation of the idea of democratisation. Research indicates that network users enjoy free access to resources and are eager to popularise them (for example, through their involvement in translating their content into other languages). Valuable materials can therefore activate their recipients.*

*The second part presents Polish initiatives promoting free access for students and teachers to knowledge contained in materials for distance learning. The portal Scholaris constitutes an example of cooperation between academic teachers. The last part of the text features examples of practical projects related to online resources designed for the purpose of education.*

Keywords:

**open access, educational materials, online resources,  
distance learning, democratisation**

*Il testo affronta il problema dell'accesso squilibrato all'istruzione, così come la questione della divulgazione mediante open access delle fonti di carattere educativo. Competenze insufficienti nella selezione delle fonti di informazione costituiscono il principale problema identificato in letteratura. Così, la qualità dei materiali didattici offerti dovrebbe essere strettamente monitorata. Ciò richiede iniziative tese a promuovere il libero accesso all'informazione e alla conoscenza, che a sua volta dovrebbe influenzare un'efficace attuazione del principio di democratizzazione. La ricerca indica che gli utenti della rete godono di libero accesso alle risorse e sono desiderosi di diffonderle (per esempio, attraverso la traduzione del loro contenuto in altre lingue). Materiali di un certo valore possono quindi attivare i loro destinatari.*

*La seconda parte presenta le iniziative polacche volte a promuovere l'accesso gratuito di studenti ed insegnanti alla conoscenza contenuta nei materiali per l'apprendimento a distanza. Il portale Scholaris costituisce un esempio di cooperazione tra docenti universitari. L'ultima parte del testo presenta alcuni esempi di progetti concreti legati alle risorse online e concepiti in ottica formativa.*

Parole chiave:

**accesso libero, materiali didattici, risorse online,  
apprendimento a distanza, democratizzazione**

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## Introduction

A fragment of a quotation from a book *Crossing Borders: An Exploration of Educational Technology in the U.S. and Poland* by Bronisław Siemieniecki, Dorota Siemieniecka, Kerry Rice, Phil Kelly (2016) will serve as an introduction to this text.

The systems of post-communist countries are subject to cultural transformation while maintaining the characteristics of the previous order. Therefore, there arises a question about the prospects of the education system in light of an aim to establish an information society based on knowledge. Thus, the thoughts of Zbigniew Kwieciński, postulating the requirement for new, different education are still relevant. He pointed to the inability to exit the schemes of the previous system. He also predicted that “most people would not be able to function within the framework created for political, economic and cultural democracy, thus destroying democracy” (Kwieciński, 1994). Another aspect is contained in the fact that the democratic system itself and market economy fail to provide equal access to education and to increase citizens’ competence (e.g. literary; Szkudlarek, 1997; Brzeziński, Kwieciński, eds., 2000) The problem is widely addressed in the literature of Sociology of Education (Feinberg, Soltis, 2000; Giddens, 2001; Tarkowska, Giermanowska, Górniak, Kaczmarek, Kalbarczyk, Leżeński, Raclaw-Markowska, Ułanowska, 2007).

## 1. Projects associated with e-learning in Poland<sup>1</sup>

Democratic access to information requires initiatives at the level of educational policies, on the one hand, and grassroots initiatives, on the other hand. Thus, cooperation between universities and schools is of utmost importance.

A series of studies on e-learning have been implemented in Poland, one of which was experimentation with tools for spontaneous acquisition of knowledge on neural networks. It made it possible (Tadeusiewicz, 2012) to

1 Examples are elaborated in the book: *Crossing Borders: An Exploration of Educational Technology in the U.S. and Poland*, authorship of: Bronisław Siemieniecki, Dorota Siemieniecka, Kerry Rice, Phil Kelly, Wydawnictwo Naukowe UMK, Toruń 2016.

describe how to use e-learning resources in the circumstance of unconstrained and non-certified access to knowledge. It was pointed out that when dealing with open resources, users more willingly join in the processes of their development and popularisation. Also, a *Project of Internet Information Resources Centre* was implemented in Poland (D. Siemieniecka, 2005), which accompanied the creation of the Educational Portal *Scholaris* (in operation since 2004), through the involvement of employees of the Department of Educational Technology NCU in Toruń. The materials published on the portal are developed by students and teachers. The Service *Scholaris* ([www.scholaris.pl](http://www.scholaris.pl)) is a good example of cooperation between higher education institutions and teachers – school practitioners. Its primary aim was to integrate Polish schools, to popularise their achievements (teachers' publications, didactic materials, sharing knowledge on: educational practice, teaching materials, organisation and implementation of teaching procedures, as well as exchange of experiences and self-development). The very creation of the portal also constituted a manifestation of a creative initiative.

Numerous initiatives promoting e-learning in Poland are implemented, such as Polish Virtual University (<http://www.puw.pl/pl>), which is the largest university in Central and Eastern Europe, OKNO (<http://www.okno.pw.edu.pl/>) (this centre organises free training for teachers in the techniques of e-learning, it is also involved in creating multimedia textbooks). Among other initiatives popularising open access to knowledge, there are the following: Centre for Open and Multimedia Education (<http://vu2015.come.uw.edu.pl/>, <http://portal.uw.edu.pl/web/come-community/about-us>, this initiative aims to popularise free access to online education), the activity of Warsaw School of Economics (<https://www.e-sgh.pl/>), which publishes academic courses online, or the University Centre for Modern Teaching Technologies (<http://www.ucntn.umk.pl/elearning>, <http://www.ucntn.umk.pl/en/about>), whose website features a number of open courses on application of modern IT tools in education and tutorials), or AGH E-learning Centre (<http://www.cel.agh.edu.pl/>) that provides teaching materials for its courses.

## 2. E-Learning projects in Poland

Several distance learning initiatives carried out in different areas of knowledge will be presented below. Educational portals contain free and open access courses. It is worth noting that the content of the courses closely corresponds to the directions described in the section *Important Policies and Reports in Polish Education*. They pursue the assumptions included in the documents UNESCO by Jacques Delors (1998) on lifelong learning and focus on actively constructed knowledge (Schools for the 21<sup>st</sup> century). These courses respond to individual learning needs (education and training). Their content is open and concerns preparation to enter the labour market, entrepreneurship. They facilitate acquisition of practical skills, work experience (in agreement with the proposals contained in the documents *Ulisse Analyses and*

*exchanges of good practices*, Education Development Strategy). The courses offered on the platforms facilitate learning foreign languages.

## Teachers, pupils and school

### – **www.edukacja.torun.pl**

<http://www.edukacja.torun.pl/majewska/kons/pus.notebook>

The materials become activated after installation of a Smart Notebook on a computer. Also, a Power Point application is available.

#### • E-Twinning

<http://www.etwinning.pl/kursy-internetowe>

On the website, we can find an informative description of the project: *E-Twinning is a European collaboration of schools and preschools, implemented by means of electronic media, as well as teachers' professional development. Pupils and teachers use the Internet in cooperation across borders, i.e. they interact, exchange information and didactic materials. E-Twinning broadens the scope of educational opportunities offered to teachers and pupils, it motivates to learn and opens onto Europe. The program is made up of a community of more than 310,000 teachers in 140,000 schools, who work in collaboration on over 34,000 different projects annually.* The portal offers weekly and monthly courses available after registration. They cover both operating software (Audacity, Prezi, PowerPoint, Movie Maker, fotoedycja) and Web 2.0 tools, Clouds, Hot Potatoes, LearningApps.org, WIX, Kidsblog etc. The list of courses with descriptions can be found at: <http://www.etwinning.pl/kursy-internetowe>.

## Educational Services in Poland

#### • Interkl@sa, interklasa.pl

It is a Polish educational portal created in 2000, whose main objective is to promote the use of modern technologies in education. It was developed in cooperation with the Polish-American Freedom Foundation and the Pozna Supercomputing and Networking Centre. It is a very elaborate, non-profit initiative featuring current information (in *Edukurier* and *Messages* tabs) on new technologies and publications. It is divided into 3 parts: for teachers, pupils and parents. The part designated for teachers includes subject-oriented categories, among other features, where they can find lesson suggestions with media add-ons (many of them of interactive character). The portal also features teachers' blogs with own educational materials. It is a rich source of didactic knowledge, which promotes teaching aided by new technologies. It should also be added that Interkl@sa extended its patronage of a number of training sessions related to popularisation of information technology tools at schools. Within the framework of the training "*Intel-Teaching towards the Future*", thousands of teachers have been trained. The academic centre in

Toruń was also involved in their implementation. Their training content focused on IT applications in subject-teaching.

- Educational service: Professor, at profesor.pl

The website contains an abundant offer for teachers: lesson plans, articles, methodical plans, work plans, tests, regulations, presentations, computer programs.

## Prevention program

- Dziecko@w sieci

<http://fdn.pl/kursy/>

“The e-learning platform of the campaign “*Dziecko w sieci*” (Child in the web) offers free courses on children’s online safety. It provides advanced options for educational use. Their courses may also constitute educational tools for parents or for young surfers who on their own initiative seek knowledge about safe use of electronic media”.

The website was created as a result of a campaign carried out in Poland in order to counteract violence on the Internet. In the course of its implementation, conferences and training courses for teachers were held and the portal, offering educational materials, lesson plans, multimedia and didactic videos, was launched. Its didactic offer includes: a course for year I to III primary school pupils “Safe Internet”, a course for year IV-VI primary school pupils “Safe adventure with Internet”, a course for year IV-VI primary school pupils “3.2.1.Internet”, courses for middle school pupils “Lesson on Safety” and “Where is Mimi?”, “Take care of Face”, as well as courses for the upper-secondary level, such as “On the web”. The project also features a course for teachers “Child in the Web”. The courses last about 25-30 minutes and are characterised by attractive design and a good level of knowledge. As a result of the implementation of the project *Safer Internet in Poland*, two platforms were created, one designed for students ([edu.fdn.pl](http://edu.fdn.pl)) and one for teachers ([edukacja.fdn.pl](http://edukacja.fdn.pl)).

The project covers a wide range of initiatives:

One of them is [sieci@ki.pl](http://sieci@ki.pl), where children are familiarised with educational materials in the form of animation, depicting e-dangers and how to avoid them. Other initiatives undertaken within this project are: a free browser BeSt for 3/10-year-old children and Necio.pl service ([http://dzieckowsieci.fdn.pl/necio\\_pl](http://dzieckowsieci.fdn.pl/necio_pl)), designed for 4/6-year-old children. It contains multimedia content (games, songs), meant to teach their children safety on the Internet. The project also gave rise to *Internet without hatred* (<http://dzieckowsieci.fdn.pl/internet-bez-nienawisci>), aimed at children and young people, whose assumption is to offset hate speech and hate-based attitudes (hejterstwo). The materials posted on the website include numerous lesson plans, such as a series of lesson plans illustrated by cartoons *Sheep in the network* (<http://dzieckowsieci.fdn.pl/owce-w-sieci>).

## Open access educational resources online

- E-WSliZ Open Educational Resources

<http://e-wsiz.edu.pl/katalog-kursow>

The project was implemented within the framework of EU funds. Its resources include 45 courses in the areas of: social sciences, science, humanities, natural sciences and engineering.

- PARP Academy

<http://www.akademiaparp.gov.pl/o-akademii-parp.html>

The numerous courses provided on this website are intended for owners and employees of small and medium-sized enterprises, with content related to business knowledge. The project was commissioned by the Polish Agency for Enterprise Development and co-financed by the EU. It addresses tax matters, e-commerce and Internet marketing, market research, work safety, finances and communication.

- The Piotrków e-learning platform

[www.elearning.piotrkow.pl](http://www.elearning.piotrkow.pl)

Accessing the platform requires registration. The website provides information on how to do it. In addition to the Polish version, this site also has French and English-language versions. Its courses include: computer tutorials, Microsoft Office functions, the principles of constructing CVs, and information on business registration rules. The portal also offers language courses at different levels.

- The NBP Portal

<http://www.nbportal.pl/dydaktyka/iprzedsiebiorczosc/czlowiek-przedsiębiorczy>

The site contains materials that are designed for teachers who can use them when running classes at the lower-secondary level. Within the category iPrzedsiębiorczość, we find two proposals: “An enterprising man” and “The World of Finances by Terry Pratchett”. In the tab: <http://www.nbportal.pl/wiedza/prezentacje>, there are multimedia presentations on basic topics notions of economics, finance, banking system and capital market.

- E-learning courses of the Polish Tourist Organisation

<http://www.zrot.pl/44-platformy-e-learningowe-polskiej-organizacji-turystycznej>

On the website <http://www.polandspecialist.com/user/login>, we read: *Thanks to the Poland Specialist Program, you will get to know why Poland is worth visiting, you will also obtain knowledge useful in the process of preparing good offer for your clients. The courses provide information about Poland's tourist attractiveness in a simple, friendly way. The interesting content is accompanied by numerous photographs, videos and presentations. After finishing our course, you will receive the Specialist Poland certificate. With the certificate, it will be easier and more satisfactory for you to persuade more customers to visit Poland.*

- netAkademia e-learning training [www.netakademia.pl](http://www.netakademia.pl)

On the website of netAkademia, apart from paid courses, there are also free options, such as: “What is Business”, “Internet for Seniors”, “How to Get a Job”, “Communication on the Internet”.

A page containing descriptions and screenshots of sites offering commercial and open access online courses can be found at: <http://www.e-learningwpolsce.pl/kursy-e-learning/>.

## Other initiatives

- The project Super-teachers <http://www.superbelfrzy.edu.pl/o-blogu/>

This is a teachers’ initiative, who banded together in a group consisting of “professionally active teachers, trainers and educators who make use of IT technologies in their daily teaching practice at various educational stages and levels (from pre-school up to ‘third age’ schooling in accordance with the principle of LLL, i.e. Lifelong Learning”. The teachers create educational materials to share their knowledge by publishing articles. Their blogs can be found at <http://pl.padlet.com/mwalkow41/5ozrx4om3v>.

## Methodical manuals and trainings

The most important training projects of the 25th anniversary of Polish independence include a training cycle, which encompassed preparation for the use educational graphics software, and Micrografix software package (software graphics and multimedia) in detailed didactic applications. The project lasted from 1998 until 2000 and was implemented in two stages. The first stage included the training of primary school year-4/6 teachers. The second stage involved the training of middle school teachers. The participants received materials in the form of a book by Bronisław Siemieniecki and Wojciech Lewandowski, *Micrografix krok po kroku* (Micrografix step by step), and other teaching materials developed for the purpose. The book *Micrografix krok po kroku* was a methodical manual aimed at teachers and users of such programs as Picture Publisher, Windows Draw and Charisma. The training sessions were conducted in the Toruń MICROGRAFIX training centre by a team under the supervision of Bronisław Siemieniecki.

## Multimedia textbooks

Within the project *Cyfrowa Szkoła* (Digital School) a study was completed in order to facilitate “the understanding how multimedia teaching is instituted in Polish schools on the example of multimedia textbooks approved for use in schools by the Ministry of Education, and to make a diagnosis of supporting the construction of an e-textbook within the framework of the

project *E-textbooks for general education*". An analysis of 25 multimedia textbooks (approved by the Ministry of Education) was made, whose results were used to create an e-book. Based on the studies conducted by the Ministry of Education in 2012, based on an online survey covering 10,229 people (5716 teachers and 3140 pupils) and 1,373 parents, it was found that e-books are useful in teaching. In the opinion of the respondents, such materials should include interactive exercises, audio/video materials, interactive simulations and games. Also, a diagnosis of the condition and expectations towards the use of e-textbooks was made, with the conclusion that a learning environment should be created and that content should be separated from form. According to the respondents, e-textbooks should have multimedia add-ons (there should not be representations of printed forms). These materials should include learning styles, the use of different platforms and tools (e.g. Mobile application), and various educational levels.

E-textbooks should cater for creating teachers' own modules, for the expansion of the content of the existing modules, for the needs of people with disabilities (blind and deaf), as well as for individualisation of learning and "extension of schools' didactic space by means of an e-textbook (the knowledge upon request model) *Pupils' work in a virtual environment*" (*A Report of the Centre for the Development of Education. Multimedia Textbooks in Polish Schools. Research Report*, 2013, pp. 26-27).

Below, examples of e-books are presented:

- E-textbooks for general education:

<http://www.ore.edu.pl/attachments/article/6173/e-podr%C4%99czniki-dokształcenia-ogolnego.pdf>

- E-textbooks for Mathematics:

[http://www.ore.edu.pl/attachments/article/6244/Epodreczniki\\_do\\_matematyki\\_Politechnika\\_Lodzka.pdf](http://www.ore.edu.pl/attachments/article/6244/Epodreczniki_do_matematyki_Politechnika_Lodzka.pdf)

- E-books Digital School Program

[http://www.ore.edu.pl/attachments/article/6244/E\\_podreczniki\\_biblioteka\\_J.K\\_ onczak.pdf](http://www.ore.edu.pl/attachments/article/6244/E_podreczniki_biblioteka_J.K_ onczak.pdf)

- E-books for pupils

<http://www.ore.edu.pl/dla-uczniow/4493-e-podreczniki>

Two initiatives are worth recalling, the first being <https://wolnelektury.pl/>, founded by the Modern Poland Foundation. On their page we read "in the collection there are 3415 works, including school reading recommended for use by the Ministry of Education. All the works are properly designed, annotated and made available in several formats – HTML, TXT, PDF, EPUB, MOBI, FB2. The library also features hundreds of audiobooks, read by actors." The majority of materials contained on this site is in the public domain. The project is implemented under the auspices of the Ministry of National Education and the Ministry of Culture and National Heritage, among others.



## Open-access Educational Resources

For a list of open-access educational resources, please visit: [http://men.gov.pl/wp-content/uploads/2013/07/mapa\\_oze.pdf](http://men.gov.pl/wp-content/uploads/2013/07/mapa_oze.pdf). It features links to websites of educational value, for such subjects as the Polish language, Entrepreneurship, History, Art and Media Education, among others.

Platform Edustation (<http://www.edustation.pl/>)

It is designed for teachers, language teachers and anyone who wants to learn English. Its materials are available free of charge.

## E-teacher of Biology

Software developed in cooperation between the Adam Mickiewicz University and Boulder's Language Technologies, whose main component is a virtual teacher called Monika, is an interesting initiative implemented in Poland (Gulińska, 2012). This is an educational platform designed for year-4/6 primary and middle school pupils. When using the platform, pupils interact with an animated teacher (a virtual modelled character developed in Flash) (Baroszewicz, Pietrała, 2012). The software consists of 180 lessons which feature a module of knowledge presentation with commentaries and an online mini-network enabling to search for information. The module also features simplified scientific articles. Additionally, the software is bilingual (Polish and English), has an evaluation unit (checking the degree of understanding of the learning content), and a self-study module (Gulińska, 2012 in Lewowicki, Siemieniecki, 2012). The educational platform was used to support lessons of Chemistry and Biology. The project was carried out in Poznań and Kórnik and encompassed 45 teachers and 420 pupils. The use of a virtual character was meant to arouse interest and to make its activities more attractive. The character was supposed to be a type of a science expert. Details of the description of the E-teacher project (funded by the European Social Fund), together with a sample lesson module, can be found at <http://wa.amu.edu.pl/e-nauczyciel/student>

## Conclusion

The overview of the research led in Poland focuses on a category defined as effectiveness of education. These studies included: perception, socio-economic preconditions, the role of emotions, and multimedia strategies (Gulińska, 1997). The rules related to designing multimedia materials (described in literature by Gulińska, 1997; Walat, 2004) and preconditions for effective use of multimedia (described in literature by Krystyna Żuchelkowska, 1995) are familiar. The research scrutinised users' properties, which are developed in contact with the media: independence of thought and action (Żuchelkowska, 1995; Siemieniecki, 2012). These tools are

attractive for pupils, allow for better hierarchisation of the learning content (Siemieniecki, 2007, 2012; Majewska, 2015) and improve their retention of knowledge. New media also create opportunities for evaluation and motivate to pay attention (e.g. interactive remote controls). However, research on educational measures requires a cognitive approach, especially embarking on analyses of brain activity and cognitive processes as seen from the perspective of the impact of the media (especially the Internet).

The prospects of research on the reception of information fall within the area neurodidactics, which addresses the issue of neurobiological aspects of learning, especially research on cognition and visual reception of the learning content.

The question of the role of conscious reception of information and reflectivity in the teaching process is not addressed in the research. These studies should focus on the potential of designing and constructing transmission, as well as on efficient use of technology in the teaching process (see: Siemieniecka, 2015).

Contemporary new technology didactics refers to cognitive science, constructivism, connectivism and multimedia-assisted instruction.

In this perspective, it seems important to focus on reflective teaching aimed at familiarisation with pupils' personal knowledge. The latest publication *Education and new technologies in culture, information and communication* by Dorota Siemieniecka (ed.) (2015) includes considerations of Polish authors on the opportunities offered to teachers by new technologies (in terms of communication with pupils or/and parents, evaluation: marking tests, creating educational materials enriched with simulations of experiments, games, interactive forms, web 2.0, the use of the potential of mobile devices) allowing for individualisation of education. However, it is emphasised that some tools (e.g. Twitter) make it possible to transfer large amount of information, which may lead to loss of its context. The media should provide opportunities for fullest and clearest communication in terms of educational content. This requires targeting young people on intellectual development, abstract thinking and arousing their cognitive interests.

Work on properly developed and integrated knowledge sources (in the form of a site or portal), which are didactically valuable, is a major challenge at educational institutions of all levels. There is a growing number of educational websites, although many of them still contain factual errors. The creation of valuable sources of knowledge should be accompanied by active learning community and collaboration of interdisciplinary teams of neuro-pedagogues, methodologists, practitioners, teachers, specialists, teachers specialising in the application of new technologies in teaching or specialists in computer graphics or copyright law. Democratic education should be implemented by means of a predetermined goal, understood as humans themselves, as well as their talents and their creative potential. Therefore, it is worth considering how to make the new educational technologies not only consolidate lifestyles (also by copying the existing content), but be subservient to social change (Dewey, 2001), meant to construct a civil society. Such a

society should be based on the category of *learning community* that shares knowledge within the system of its open resources.

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