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E-behaviour of Polish Consumers in the Market for Educational Services

Summary

In the first decade of the 21st century, we have been observing an intense process of "education internetisation", i.e. broader and broader penetration and use of Internet in various phases of the educational process. Education via Internet in Poland becomes more and more popular, and there is strong evidence that popularity of this form of education will systematically grow. In her article, the author presented a comparative analysis of online services connected with education in Poland and the European Union countries. She particularly focused on pointing out to Internet users' involvement in their own process of online education, *inter alia*, on seeking by them for information on the education offer, independent communication and learning (participation in e-courses, use of the contents provided by other net users: Wikipedia, blogs, etc.).

Key words: education, educational services, e-learning, m-learning, Internet users, e-courses.

JEL codes: I21, L86, N3

Introduction

Progress in the information society is inseparably connected with a quick development of new ways of communication, information processing and storing. With the development of information and communication technology (ICT), there is growing requirement for various analyses concerning the chosen aspects of functioning of information societies. Research is focused mainly around the problems relating to the use of ICT by individuals, enterprises and households, particularly in the aspect of opportunities for an effective use thereof, possible obstacles in their use as well as digital divide. Diffusion of new communication means (mobile technologies) leads to new patterns of behaviour – in result, there grows both supply of ICT-based services (e-services) and there increases the readiness to make use of them. Besides the today's already basic services available online such as e-commerce and e-banking[1], there grows the popularity of online services in the sector of healthcare, administration, culture and education.

[1] A. Dąbrowska, M. Radziukiewicz, D. Szepieniec-Puchalska, A. Szymańska: "*Konsument na rynku e-handlu i e-bankowości*", IBRKK, Warsaw, 2011.

The main aim of the article is to bring closer to readers the subject matters of online services connected with education[2]. At present, developing and updating new solutions in the field of education appears to be the necessity issuing, first of all, from an unending process of development of computers and Internet. Owing to diffusion of Internet and a broader and broader access to it, education has acquired new meaning and has opened new opportunities for new methods of knowledge transfer. Hence, it is not surprising that in the recent years the phases such as *technology-supported learning*, *distance learning*, *distance education* have been replaced by the new terms: *e-teaching*, *e-learning*, and *e-education*.

E-learning, as a new way of knowledge acquisition, enjoys a great popularity especially in the United States and Canada. From year to year, there grows the number of individuals using the e-learning services in Europe and in Poland.

After a concise definition of the most important (basic) notions concerning e-learning, there is presented an analysis of consumers' behaviour in the market for educational e-services. There is made a focus, in particular, on presentation of Internet users' involvement in their own process of online education. The attention is paid to the such key elements of online knowledge transfer as seeking for information on the educational offer, independent communication and learning [participation in e-courses, making use of the contents delivered by other net users (Wikipedia, blogs, etc.)].

Essence of e-learning

E-learning is one of the forms of distance learning (d-learning), learning where there is lack of physical contact with the teacher. The first examples of the application of ***d-learning*** were correspondence courses in shorthand[3], which replaced the previous – typical for the conventional education direct interpersonal communication – with communication where the traditional post office was a go-between (there were used mainly letters). This method of education (distance teaching), which development prerequisite was ensuring both-side communication in order to make possible a dialogue between the learner and the teacher, was begun in the 19th century to be exploited on a large scale by universities[4] (particularly in the United States and United Kingdom). Course completion – over years their offer was all the time being expanded – begins with the onset of the 20th century to be tantamount with completion of the study line in the traditional way as it became possible to acquire an academic degree by way of correspondence studying.

With development of new communication technologies there was also changing the way of transfer of materials between the learner and the teacher – in the 1920s, a new knowledge transmitter became radio (the so-called *educational radio*), and in the 1960s also television (the

[2] Education concerns a significantly broader range of services than e–learning.
[3] As early as in 1728, *The Boston Gazette* in the USA published the first announcement on the possibility to take such a course – *Wprost*, 31.07.2009.
[4] In Poland, as early as in 1776, there were introduced correspondence courses, and as the first the University of Cracow applied them – see *Historia e-learningu na świecie i w Polsce*, http://www.heuristic.pl.

so-called *educational television*). It is worth to remind that a great interest was then aroused by entertainment education (***edutainment***), carried out through those mass media, where entertainment became a way of making a message of the educational nature more attractive.

The origins of ***e-learning*** date since the year 1965 when the University of Illinois launched the first computer-based system, the so-called PLATO System. Within next years, university centres in the USA and Western Europe expanded their education offer by ***online courses***. The dynamic development of information technologies – in 1982, there appeared in the market the first personal computer (PC) IBM with the DOS operating system; in 1991, there was invented the HTLM language and in 1994 – the World Wide Web (WWW), which has caused that, starting from the 1990s, we have dealt with distance learning where development of skills and knowledge is implemented through the use of up-to-date electronic technologies (***electronic learning***).

Therefore, e-learning[5] – learning with the use of computer networks and Internet –excellently supplements (supports) the traditional method of teaching and learning. It allows completion of the course, training and even studies with the need of physical presence in the lecture hall.

Currently e-learning – depending on the type of technologies and role those technologies play in the didactic process – comprises the two main models (forms of education):

- **CBT**, ***computer-based training***, and
- **IBT**, ***Internet-based training***, or **WBT**, ***web-based training***.

The CBT is a term used in relation to teaching (training) in whatever degree making use of the computer, most often courses related to support for development of definite linguistic or computer competences. In turn, WBT training defines whatever form of training for individuals or groups, carried out through Internet. The typical WBT[6] training is delivered by specialised companies or universities. Due to the fact that at present the most accessible and common ICT medium is Internet, a more popular form of e-learning is WBT, i.e. education with the help of Internet or Intranet networks. Though in both systems (models) of training the side transferring knowledge and examining is computer[7], nevertheless they require dif-

[5] E-learning is merely one of the elements of education.

[6] G. Zajączkowski, "*Metodyka szkoleń e-learningowych*", an EFS-EQUAL project within the framework of the project called "Want2Learn – Chcę się uczyć", 2011.

[7] At first, it seems that the education systems CBT and WBT are practically the same as the CBT courses may be make available on local nets, i.e. on Intranet, while the WBT courses can be put on a CD-ROM, if it is required. However, there are important nuances, when e.g. these systems of education are considered from the authors' side. As an author (lecturer) I can work out my lectures (text, tables, charts, tests, film, etc.), for example, in Power Point and record them on a CD-ROM. The elaboration will be a didactic material in the CBT form. Putting the material online (on the net, i.e. on one's WWW server) and 'packing' it within an author system (it can be from a store's shelf) we make it a material in the WBT form. An online presentation shall enable an interaction with students as soon as I send them login/password of access. The WBT system becomes for me considerably more complicated and advanced only from the programmer's view-point. Costs of creation of a software are put on the programmers' side. The lecture put on the net on one of servers (e.g. on the education platform) may be available for all (the learner will find it on their computer, irrespective of the type of computer and operating system held) 'free of charge'. The lecture version will be one and under a greater control of those who direct it (authors/designers, lecturers, experts) as there is no possibility of non-authorised access to the materials presented.

ferent tools used by manufacturers to set up a CBT system and other tools for Internet site designers[8].

In turn, depending on the relationships between the e-learning participants, the didactic process may include the teacher or not; there are distinguished a few various types of e-learning. The most popular are:

- ***self-directed learning, doing***, which is characterised by a complete lack of contact between the participants and tutors (teachers, lecturers, experts, etc.), who make available the training contents, lectures, self-check tests and appraisals with the use of applications of both the CBT (*computer-based training*) and WBT (*web-based training*) types;
- ***synchronic education***[9] where participants communicate with one another on an ongoing basis, and in their mutual communication use video- and audio-conference (replacing the traditional presentation by the scheme: lecturer-projector-slides), telephones, e-mails, online talks (chats);
- ***asynchronic education*** where participants are usually in other place and at a different time, hence the contents are delivered through Internet, CD-ROMs, focus groups or via electronic mail;
- education in the ***mix-method of education*** which is adding virtual elements to the full-time education.

In terms of the modes of transfer of didactic materials, there are often distinguished[10]:

- ***online courses*** which, with the use of high-tech, deliver 80% of knowledge to learners;
- **traditional, *face-to-face*, courses** – such where merely from 0% to 29% of knowledge is delivered based on online technologies. This category includes both traditional courses (with lack of information technology, the content is delivered in writing or orally) as well as the courses making use of computer-based networks and Internet (mainly Internet sites);
- ***blended-learning* courses**, which combine with one another online and face-to-face courses, when an considerable advantage is on the side of discussion in the online form, whereas there is reduced the number of face-to-face meetings.

The blended-learning courses, also known as ***mix-learning*** and ***hybrid-learning***, are a response to the social need for a continuous and unrestricted access to information and the need of ***lifelong learning***.

The lifelong learning is defined as learning from the preschool phase till the late pension phase, including the whole spectre of **formal** learning (at schools and other establishments of the education system), **extra-formal** (at institutions beyond the system of education) and **informal** (natural, referring to whatever, lasting the whole life activity of learning. Aimed at development of knowledge, competences and skills in the personal, civic, social and em-

[8] Differences between computer-based training and carrying out training with the use of Internet technologies concern distribution, supplies, and development – see: C. Shepherd: "*Web-based training: doing it for yourself*", http://www.fastrak-consulting.co.uk

[9] An example may be a **virtual class-room** where the teacher controls the course of education having an opportunity to present materials with a simultaneous conducting discussion and appraisal of work of learners – see: A. Grabowska, M. Dąbrowski, "*E-learning przez Internet. Doświadczenia SGH w Warszawie i Politechniki Gdańskiej*", Pismo PG No. 3, 2004.

[10] I. E. Allen and J. Seaman, "*What is online learning*?" [in]: *Changing Course: Ten Years of Tracking Online Education in the United States*, Babson Survey Research Group and Quahog Research Group, LLC, 2013.

ployment-oriented perspective). It is one of the priorities of the European Union in the decade to come what is emphasised, inter alia, in the document called *Europe 2020*[11].

Summing up the topic of definitions of e-learning, one cannot omit the next step in the field of education, namely mobile learning (***m-learning***). The term *m-learning* is not new. It describes learning when the learner is not in a definite location (he/she does not depend on time and place) or when, while learning, they make use of the tools of mobile technology and with their assistance they use the mobile Internet[12]. In essence, m-learning is inseparably connected with the most up-to-date technology and it cannot function without it (few years ago, the mobile learning tools were limited to laptops' at present, it refers to smartphones, tablets, mobile games and consoles). One can learn whatever he wants, how he wants and when he wants.

Internet users

Learning via Internet in Poland becomes more and more popular, and there are evidences that popularity of this form of education will be systematically growing. These tendencies are facilitated by the growth of Poles' educational aspirations as well as a broader and broader and cheaper and cheaper access to the Internet. Many adherents of e-learning think that each user of this form of education must be equipped with the basic knowledge of the available technology as well as use it as the means for a specific purpose achievement.

In 2012, in Poland, the per cent of people who whenever used the Internet[13] accounted for 68%, whereas yet in 2005 the Internet was not used by almost half of Poles. Internet is also dealt by more and more younger pupils[14] – in 2011, it was used by 72% of Polish children aged 6-10 and as many as 97% aged 11-14. There attracts attention the growing popularity of Internet among children and youth – 72% of the respondents aged 9-16 were using the net on daily basis and as many as 96% at least once a week looked up it.

Nevertheless, still a high per cent of Poles (32%) is excluded from the access to such a modern and important tool of communication with the environment (Table 1). Among the individuals who do not use the Internet, only 4% declare they plan to use it in the nearest future[15].

In the EU member countries, within the last year, the per cent of people, who have never used the Internet, decreased on average by 2 p.p. The biggest decline was noted by Portugal (by 7 p.p.), Romania (6 p.p.) as well as the Czech Republic and Cyprus (by 5 p.p. each). It is assumed that by 2015 per cent of digitally-divided people should not exceed 15%.

[11] http://ec.europa.eu/europe2020/index_pl.htm

[12] **The mobile Internet** is a medium combining flexibility of Internet with accessibility of mobile phones. The mobile Internet idea is to make possible access to WWW services from the level of mobile (portable) devices, mainly mobile phones and PDA, also a netbook or another mobile computer.

[13] Internet users are defined as adults aged 16-75. In order to eliminate sporadic users, they are often asked about the use of Internet within the last 3 months.

[14] 96% of the respondents aged 9-16 log in at least once a week and 72% everyday – see report "*EU Kids online 2011*" (http://www.spidor.pl/raport-eu-kids-online-2011).

[15] Results of the research World Internet Project 2012, carried out jointly by Orange Polska and Gazeta.pl (Polscy internauci 2012).

Table 1

Percentage of Poles using the Internet (against the background of average for EU-27) in 2005-2012

Specification	Percentage of individuals who have never used the Internet							
	years							
	2005	2006	2007	2008	2009	2010	2011	2012
Poland	42	48	52	56	61	65	67	68
EU-27	57	58	63	67	70	74	76	78

Source: Statistics in Focus 66/2011 http://appsso.eurostat.ec.europa.eu

Table 2

Use of portable (mobile) devices for accessing the Internet in Poland and in the chosen countries of the EU in 2012

Type of devices and/or type of connections	Poland (%)	EU(27) (%)	The highest percentage of users		The lowest percentage of users	
			country	%	country	%
Mobile hand-held device	15	24	Sweden Luxembourg	60 48	Romania Bulgaria	6 7
Portable computer (laptop, notebook, netbook or tablet (iPad))	17	22	Sweden Luxembourg	49 46	Romania Turkey	5 7
Portable computer or mobile hand-held device	22	32	Sweden Luxembourg	70 63	Romania Bulgaria	7 13
Mobile hand-held device via GPRS, UMTS (with use of phones of mobile nets)	11	19	Sweden Iceland	56 41	Czech Rep. Bulgaria Romania	3 4 4
Portable computer with use of USB key or card to laptop (with use of the mobile telephony network)	8	9	Sweden Finland	34 25	Cyprus Denmark	2 3
Mobile phone via UMTS (3G))*	3	8	Iceland Luxembourg	23 20	Bulgaria Turkey	1 1
Portable computer (laptop) via mobile net WiFi or mobile telephony*	12	19	Luxembourg Denmark	43 40	Greece Romania	3 4

* data for 2010.
Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu

In the EU countries, more and more users receive their access to the Internet via mobile devices. The idea of mobile Internet is to make possible access to WWW services from the level of mobile devices, mainly mobile phones, iPods, smartphones, netbook or another mobile computer (iPad). Also in Poland, there is systematically changing the mode of net use. In

2012, 16% of Polish Internet users used mobile devices of the newest generation[16] in order to obtain access to the Internet, whereas in 2011 only 10%, and in 2010 merely 8%.

Access to the net, especially the mobile access is a domain of young users. The Internet is used via such devices as mobile phone, palmtop or smartphone 36% of individuals aged 15-19. With age, the number of those using the mobile access to the Internet drops – among the Internet users aged 40 and more, it is used by only 6-7%, and among the Internet users in the age group of 60+ – merely 2%.

Among Poles intensively using the Internet, the mobile access is chosen by as much as 28%, men often (every fifth connects with the net in a mobile way) than women (every ninth). The average user spent on Internet in 2012 around 5 hours and 50 minutes a week, hence, nearly 50 minutes a day, while on the mobile Internet, around 3 hours and 23 minutes a week, i.e. almost 30 minutes a day[17].

The countries with the biggest number of users with the mobile access to the Internet vis-à-vis the whole number of those using the Internet within the last 3 months are Sweden, Iceland, and Finland (Table 2).

In turn, Romania, Bulgaria and Turkey are the countries with the lowest number of users making use of the mobile Internet, *inter alia*, due to a poor technical infrastructure. The cited statistics show that in Poland, as in the majority of the Central and East European countries, use of the mobile Internet still differs from the average for 27 countries of the EU. The least differences between Polish and European users concern the issue of how widespread is access to the Internet via portable computers (5 p.p.), and considerably greater via hand-held mobile devices (9 p.p.).

Internet users in the sphere of access to information

The more and more widespread access to the Internet, *inter alia*, via mobile phones and the greater and greater technological advancement thereof causes that the problem of access[18] seems to be less important than an adequate level and quality of the use of opportunities they provide. Skills of making use of the opportunities offered by the Internet are measured by way of indicating particular activities[19] of Internet users. The information contained in Table 3 enables a closer look at Internet users' activity in Poland against the background of EU[20] countries in 2012 or in 2011.

[16] E.g. smartphones, which were in 2012 held by already 18% of Poles, i.e. every fifth holder of the mobile phone (http://www.isobarmobile.com, http://www.aegisplc.com.)

[17] "Co szósty polski internauta z dostępem mobilnym. Maile i mapy ważniejsze niż social media." ["Every sixth Polish Internet user has a mobile access. Mails and maps more important than social media"] 1.12.2012. (http://www.wirtualnemedia.pl)

[18] The subject matters of access to ICT are presented, *inter alia*, in reports of Diagnoza Społeczna 2009 and 2011.

[19] As % of individuals using the Internet in specific categories of activities within the last 3 months.

[20] The indicators presented in this table are included in the 2011-2015 Benchmarking Digital Europe Framework (http://ec.europa.eu/information_society/eeurope/i2010/docs/benchmarking/benchmarking_digital_europe_2011-2015.pdf).

Table 3

Purpose of Internet use in 2012

Specification	Percentage of users					
	Poland	EU(27)	maximum		minimum	
			country	%	country	%
Interpersonal communication						
E-mail sending/receiving	51	64	Netherlands	89	Romania	38
Calling (by phone) or video talks	24	25	Lithuania	48	Italy	18
To-date exchange of news with another net user (e.g. chats, *gadu-gadu*, Skype, etc.)	42	37	Netherlands	65	Romania	22
Participating in social services (Facebook, twitter, etc.)*	36	38	Norway	59	Romania	25
Participation in play (entertainment)						
Listening to the radio and/or watching TV	29	32	Sweden	63	Romania Italy	21
Downloading games, pictures, films or music	28	34	Finland	58	Ireland	17
Participation in games with other users on the net	8	10	Denmark	23	Italy	6
Access to information						
Reading/downloading newspapers/news in their electronic version	30	44	Finland Sweden	80	Italy	30
Subscribing news on products and services (for the purpose of their regular receiving)*	2	6	Denmark	34	Italy	2
Searching for information on health (on injuries, illnesses, nutrition)*	23	38	Iceland	61	Bulgaria	24
Searching for information on education, training, courses*	**17**	**29**	**Iceland**	**54**	**Czech Rep.**	**12**
Searching for information on goods and services	48	61	Luxembourg	84	Romania	31
Downloading software (other than games)*	16	21	Norway	44	Bulgaria	9
Civic and political participation						
Searching for/sending opinions on civic and political problems (e.g. blogs, etc.)*	6	14	Finland	43	Belgium	5
Participation in consultancies, voting and surveys of opinions on political problems*	2	7	Iceland	32	Belgium, Poland, Cyprus, Slovakia	2
Creativity (user-generated content: photos, music, blogs, Wikipedia, etc.)						
Creating websites and blogs	3	6	Netherlands	16	Turkey	2
Uploading contents on the net created by users	15	24	Netherlands	48	Malta	10

Specification	Percentage of users					
	Poland	EU(27)	maximum		minimum	
			country	%	country	%
Learning						
Participating in Internet-based courses	**2**	**5**	**Finland**	**14**	**Slovakia**	**1**
Using Wikipedia*	**27**	**39**	**Luxembourg**	**67**	**Bulgaria, Romania**	**15**
e-Health						
Consulting/arranging meetings with a specialist	3	7	Finland	26	Greece	1
Personal finance management						
e-Banking	32	38	Finland	82	Romania	3
e-Commerce						
Selling goods and services	10	16	Slovenia	30	Cyprus	1
Purchasing goods and services (including foreign countries)*	20	34	United Kingdom	64	Romania	4
Purchasing services connected with travelling and accommodation	12	36	Finland	62	Bulgaria	9
Professional life						
Job-seeking or sending job applications*	17	11	Norway	30	Cyprus, Czech Rep.	7
Participating in social networks gathering professionals of various professions*	37	40	Iceland	72	Romania	25

* data for 2011.
Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu

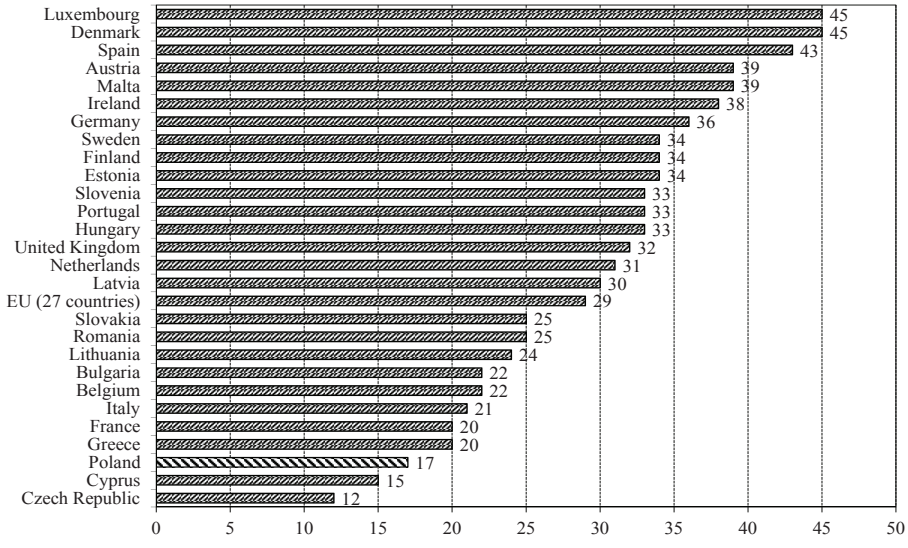
The observation of behaviour displayed by Internet users as a whole indicates that the Internet is for them mainly the place where they can find interesting information and contact with other people, *inter alia*, by way of e-mail sending/receiving. This form of communication was used by 51% of Polish Internet users. A considerable per cent of Polish Internet users (42%) shared news with other net users via chats, *gadu-gadu* [chitchat], Skype, etc. Most Internet users in Poland were searching on the Internet for information on interesting for them goods and services (48%). In information on education, training and offered courses were interested merely 17% of individuals using the Internet in 2011.

It is worth to note that all the mentioned in Table 3 indicators concerning Poland are much lower than those in other countries; therefore, they indicate a considerable growth potential, particularly as related to searching for information on education (by 12% less than the EU average).

Poland, with its percentage accounting for 17%, is among 27 EU countries in the distant, 25th position, being ahead of only two countries – Cyprus and the Czech Republic (see Fig. 1).

Figure 1

Internet users who were, within the last 3 months, searching for information on education, training and courses in 2011(in % of individuals)



Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu

Most often the information on the educational offer aroused interest in case of Internet users from Iceland (54%), Luxembourg and Denmark (45%), Spain (43%) and Norway (42%). Besides them, the most active in searching for information on this issue were Internet users in other Scandinavian countries, Finland and Sweden. In 2011, they constituted in their respective countries the 34% population. The per cent of individuals in the EU surfing on Internet in search of interesting for them information on education accessibility (possibility) reached in 2011 the level of 29%. And in several countries, *inter alia*, in Austria, Ireland, Germany, Estonia, Slovenia, United Kingdom and Netherlands, the per cent of individuals using the Internet as a source of information on education was higher than the average for the EU. In other countries, including Poland, Internet users searching for information on educational possibilities constituted a lower per cent of individuals than on average in the EU. Quite a low percentage was specific for France and Greece (20%).

In behaviour of Internet users in the sphere of access to information, including, *inter alia*, the access to information on the education offers, there can be observed the process of simultaneous behaviour's similarity and dissimilarity. Despite the significant differences between countries, occurring at least in development of the infrastructure, individual countries display substantial similarities as regards the use of such information, evidenced by quite a convergent profile of its users. The pattern of Polish and European users searching for information on education, training and courses in terms of the chosen socio-economic traits is presented in Table 4.

Table 4

Individuals searching on Internet for information on the education offer, training and courses in 2011 (% of individuals)

Group		Poland (%)	EU(27) (%)	The highest per cent of users		The lowest per cent of users	
				country	%	country	%
Total		**17**	**29**	**Iceland**	**54**	**Czech Rep.**	**12**
Age	16-24	40	54	Norway	80	Cyprus	34
	25-54	18	32	Iceland	59	Czech Rep.	9
	55-74	3	9	Iceland	29	Czech Rep.	2
Education*	No or low formal education	15	18	Norway	47	Cyprus	6
	Medium formal education	12	28	Portugal	61	Czech Rep.	8
	High formal education	36	45	Malta	74	Czech Rep.	21
Income in the household of:	First quartile	9	21	Denmark	50	Czech Rep.	5
	Second quartile	14	24	Iceland	54	Czech Rep.	7
	Third quartile	17	28	Iceland	60	Czech Rep.	12
	Fourth quartile	24	38	Iceland	59	Czech Rep.	19
Socio-professional status	Employees**	19	32	Iceland	53	Czech Rep.	9
	Jobless people	16	33	Iceland	64	Czech Rep.	12
	Retired and other inactive	4	9	Iceland	31	Bulgaria	3
	Students	45	65	Malta	86	Belgium	44
	Blue-collar workers	7	18	Iceland	42	Czech Rep.	3
	White-collar workers**	29	39	Spain	60	Czech Rep.	12
Competences in the area of ICT	ICT professionals	42	49	Portugal	76	France	21
	ICT non-professionals	19	32	Iceland	53	Czech Rep.	8

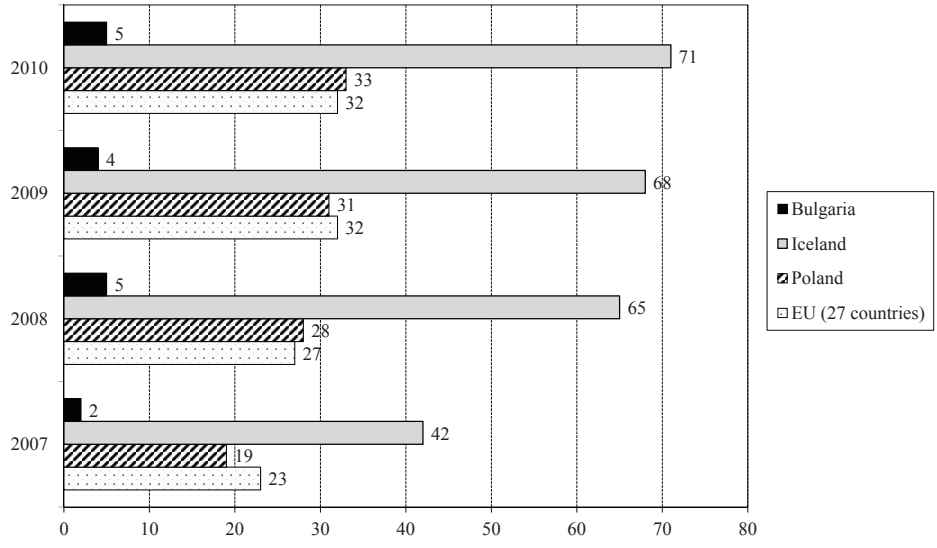
* at schools and other establishments of the system of formal education
** including self-employed, family workers
*** including the armed forces
Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu

There are confirmed general tendencies – the most active in searching for information on education are young people, aged below 24, completed their education or being educated (students), having relatively good earnings (the incomes they receive situate them in the top quartile group) and having the highest competences as regards the ICT. On the other hand, there attract attention the fact that, as compared with Polish Internet users, among European Internet users searching for information on education, there are 3 times more people aged 55-74 and more than twice more individuals with secondary education, with the lowest incomes, jobless, blue-collar workers and pensioners as well as other people being vocationally inactive.

The data illustrated with Figure 2 show that starting from 2007 more and more Poles aged 16-74 are searching for information in order to commence their education. In 2010, Poland, with its 33% of Internet users searching for information in order to start learning, was placed a little bit above the EU average (32%). However, still the distance Poland has to cover in order to catch up other European countries, and particularly Iceland, is significant.

Figure 2

Individuals using the Internet in their search for information for educational purposes in 2007-2010 (% of individuals aged 16-74)



Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu

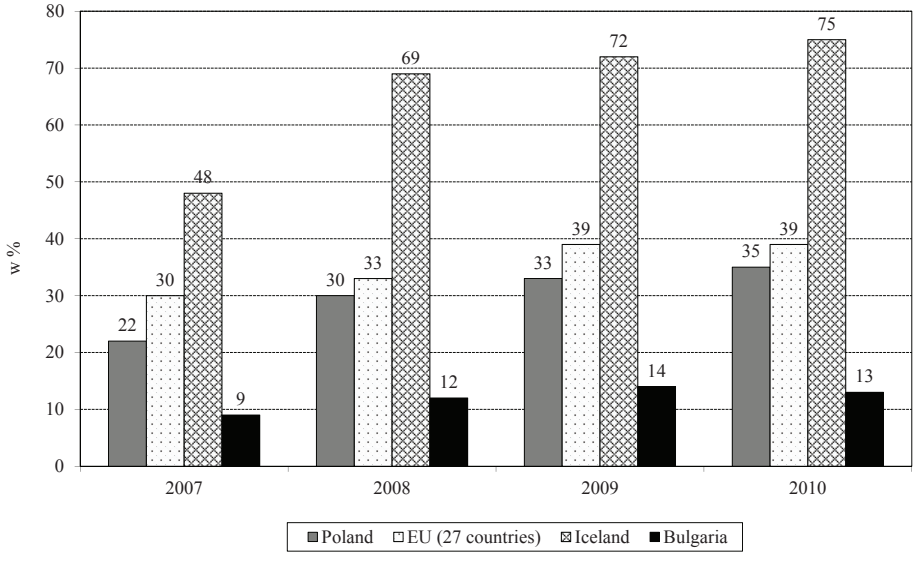
In Poland, in the period of 2007-2010, the number of Internet users aged 16-74 searching for information for education purposes was growing on average annually by 14.4%, whereas in Iceland – by 10.4%. Despite the developments under way, our country has still been significantly in arrears compared to the countries where per cent of such individuals is the highest: Iceland (71%), Finland (67%), Luxembourg (65%), Norway (57%) and Denmark (56%). It is worth to say that the highest average rate of growth of the per cent of individuals searching on the Internet for information on education was specific in that period for Latvia where the average growth accounted on the year to year basis for 72.4% as well as for Slovakia (47.1%) and Austria (34.6%).

Internet users and e-education

Besides the access to the Internet by way of use of the most up-to-date ICT technologies and skills in searching for information on the accessible on Internet education services, an extremely important issue is use of the Internet for the purpose of knowledge acquisition (learning). The Internet is an important source of knowledge. Owing to its resources it has become a comprehensive tool used in all the areas of life. The purpose of the use of Internet is not only contact with other individuals, but searching for various contents in order to deep one's knowledge.

Figure 3

Per cent of individuals who used Internet within the last 3 months for training and education in Poland and in the chosen European countries in 2007-2010 (% of individuals)



Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu

It is worth to look at the use of Internet for training and education in Poland against the background of other European countries in 2007-2010 (Fig. 3).

The most active in this field are Internet users from Iceland whose number is more than 5 times more than in Bulgaria. Compared to 2007, the biggest growth of the number of individuals using Internet for educational purposes was noted by Iceland and Finland (by 27 p.p. each), Luxembourg (by 25 p.p.), Latvia (by 23 p.p.). Three times higher per cent of e-education consumers than in 2007 has Slovakia (27%) and twice higher Greece (28%).

The subject matters of raising the level of knowledge with acquisition of new qualifications and skills attract much of attention of the European Union. One of the European Union's priorities in the decade to come, what has been emphasised, inter alia, in the document called *Europe 2020*[21], is the need for a continuous and unrestricted access to information and the necessity of ***lifelong learning*** defined as "*…. learning from the preschool phase till late pension phase, including the whole spectre of* ***formal*** *(at schools and other establishments of the education system),* ***non-formal*** *(at institutions beyond the system of education), and* ***informal*** *learning (natural, relating to any long-life learning activities, aimed at development of knowledge, competences, and skills in the personal, civic, social and employment-oriented perspectives….)*".

[21] http://ec.europa.eu/europe2020/index_pl.htm

Leaders of the use of online training and education are citizens of Luxembourg, France and Scandinavian countries: Finland, Denmark, Sweden, and Norway (67%). The per cent of people making use of online education accounted in these countries in 2010 for more than 50%. Poland, with its result of 35%, is placed in the 17th position outrunning, *inter alia*, Austria, Hungary and Estonia. The last position in the ranking is occupied by Romania and Bulgaria, not exceeding the level of 20% of Internet users.

Among the individuals using the Internet for learning there is the biggest number of young people. The countries with the biggest number of young Internet users making use of online training and education are Denmark and Finland (90%), Luxembourg, Iceland, Norway, Latvia and Slovenia (above 80%). Obvious is the fact that the older is Internet user, the less their interest in learning. However, in such countries as Iceland and Luxembourg, the Internet users aged 55-74 who do not resign from online learning is more than 50%, i.e. more than 3 times more than the EU's average (17%).

Table 5

Individuals using the Internet for learning in 2010 (% of individuals)

Group		Poland (%)	EU(27) (%)	The highest per cent of users		The lowest per cent of users	
				country	%	country	%
Total		**35**	**39**	**Luxembourg**	**72**	**Bulgaria**	**13**
Age	16-24	71	68	Denmark	90	Bulgaria	37
	25-54	39	43	Finland	80	Bulgaria	13
	55-74	9	17	Iceland	52	Lithuania	3
Education*	No or low formal education	29	24	Luxembourg	58	Bulgaria	6
	Medium formal education	28	38	Malta	72	Bulgaria	11
	High formal education	65	61	Iceland	91	Bulgaria	28
Income in the household of:	First quartile	18	22*	Denmark	69	Bulgaria	4
	Second quartile	29	28*	Iceland	67	Bulgaria	5
	Third quartile	36	34*	Iceland	77	Bulgaria	12
	Fourth quartile	49	48*	Finland	83	Bulgaria	20
Socio-professional status	Employees**	42	44	Finland	77	Bulgaria	13
	Jobless people	30	39	Iceland	73	Bulgaria	6
	Retired and other inactive	9	15	Luxembourg	48	Romania	2
	Students	78	80	Finland	95	Slovakia	54
	Blue-collar workers	21	26	Finland	65	Bulgaria	4
	White-collar workers	58	53	Finland	83	Bulgaria	20
Competences in the area of ICT	ICT professionals	81	75	Iceland	100	Greece	42
	ICT non-professionals	41	43	Finland	76	Bulgaria	13

* data for 2009

Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu.

The countries with a high per cent of people aged 55+ making use of the Internet for online learning are also Finland (44%), Norway (38%) and Denmark (37%). Poland, with its result of 9%, i.e. almost twice lower than the average for 27 countries of the EU, only confirms that in this country elder people are a digitally divided group. This group also includes pensioners and other people vocationally inactive. What's most important, these differences do not concern exclusively the very fact of use, but also skills and versatility of using the Internet – Table 5.

No doubt, the low level of use of the Internet for learning is displayed by Internet users with the lowest incomes in the household and blue-collar workers. In the use of Internet for knowledge acquisition, the leaders are Iceland and Finland. In Iceland, as in Finland, practically the majority of Internet users (and irrespective of their belonging to socioeconomic groups) use the Internet for training and education.

Courses via Internet (e-courses)

E-services via Internet (*e-commerce, e-banking, e-health, and e-tourism*) are or become very popular in the EU (see Table 3). The higher and higher awareness of the possibilities sticking in the Internet causes that there is growing the interest in these services also among Polish e-consumers. In Poland, the most popular and arousing the greatest interest are e-services in the banking sector.

Definitely the lowest percentage of e-consumers use the education services provided via Internet in the form of e-courses. The number of Internet users-consumers using this form of learning (e-learning) is yet low both in Poland and in other EU countries (respectively 2% and 5%).

Attractiveness of this form of use of knowledge is the highest in Finland (14%), in Lithuania and in Iceland (10%) as well as in Spain (10%), Denmark and Norway (7%). It is proper to add that in the period of 2007-2011 the number of Internet users participating in online courses in most countries remained at an unaltered level. The biggest growth of the number of e-trainees, as compared with 2007, took place in Lithuania (by 5 p.p.) as well as in Spain and Romania (by 4 p.p.). Finland has also the highest percentage of Internet courses participants among individuals aged below 24 (35%), aged 25-54, with secondary education (14%) and individuals with the highest skills in the ICT area (38%). On the other hand, in Spain we can observe the biggest number of e-courses participants with higher education (20%) and being the best off (18%). In turn, in Iceland, online courses are used by the biggest number of individuals aged 56-74. Actually a complete lack of interest in online courses is displayed by Polish, Cypriot, Bulgarian (2%) and Slovakian (1%) Internet users. It seems that the majority of Internet users perceive the Internet merely as a means supplementing other, more traditional types of courses.

Use of Wikipedia

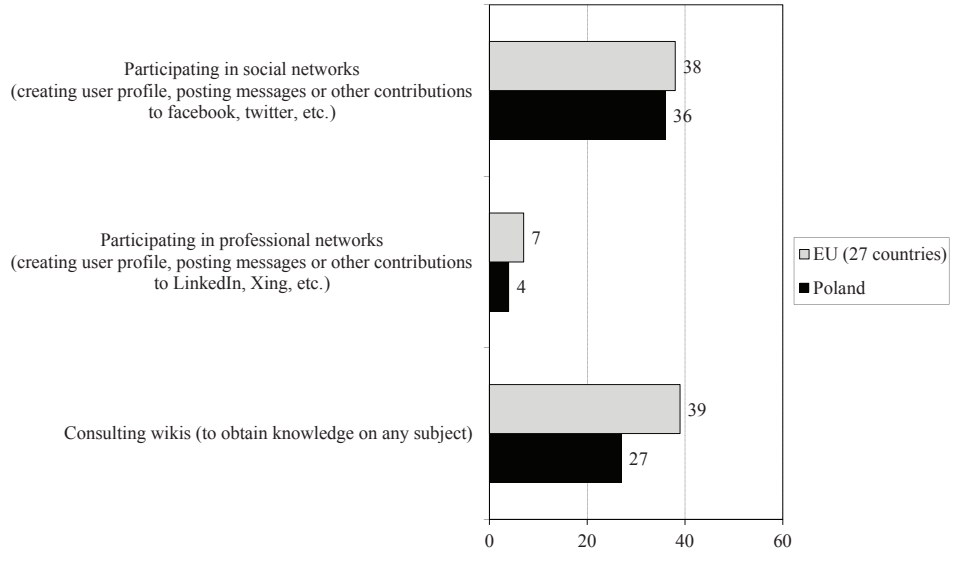
A new trend in the education market is **social learning**. Social learning means gaining individual and practical competences by way of work with other people in the group. These competences (the so-called **social skills**) are used, first of all, with interaction and communication with others. Internet offers us useful tools in this field.

Blogs, Wikis, social portals have become a means of communication (message). In many cases, they are used merely for fun, not yielding any value or development (see *nasza-klasa*, *fotka* and other social portals). However, they obviously serve establishing contacts, exchange of news, discussions and knowledge acquisition, an example of which is the Internet encyclopaedia, Wikipedia.

In Poland 40% and in the EU (27) 48% of Internet users took part in social networks, and 4% and 7% of them, respectively, participated in professional networks. A considerable share of Internet users made use of new opportunities to acquire knowledge. The biggest number, 27% of Polish Internet users (against 39% of the European ones) consulted news on various topics through Wikipedia – Fig. 4. Wikipedia is one of the most often visited Internet sites. Practically all visiting this site may edit the contents of Wikipedia and create new articles enabling edition to every user visiting the site and current up-dating its contents, as the

Figure 4

Individuals using the Internet for networking and use of Wikipedia in Poland and the EU (27) in 2011 (% of individuals)



Source: Worked out on the grounds of Eurostat's data, http://appsso.eurostat.ec.europa.eu

encyclopaedia has been built on the conviction that cooperation between users will lead to a continuous improvement of the substantial contents of entries.

Resumption

E-learning is a tool which is, in the assumptions, to facilitate self-education and independent deepening knowledge in the preferred areas. Owing to the Internet, the access to information is easy and acquisition thereof does not require any special effort. Therefore, at present, the key competence becomes not so much holding of a definite set of information, but the ability to search for it and an effective use for one's purposes. Our competences and qualifications are capital whose importance grows under the conditions of global competition; hence, they should be constantly improved. The observed process of "internetisation of education" is conducive to diffusion of knowledge, creating and opening its resources and, what in effect serves equalling the educational opportunities by all social groups.

E-zachowania polskich konsumentów na rynku usług edukacyjnych

Streszczenie

W pierwszej dekadzie XXI wieku obserwujemy intensywny proces "internetyzacji edukacji", czyli coraz szersze wnikanie i stosowanie Internetu w różnorodnych fazach procesu kształcenia. Nauka przez Internet w Polsce staje się coraz bardziej popularna, i wszystko wskazuje, że popularność tej formy edukacji będzie systematycznie rosła. W artykule przedstawiono analizę porównawczą usług online związanych z edukacją w Polsce i krajach Unii Europejskiej. Skoncentrowano się zwłaszcza na ukazaniu zaangażowania internautów we własny proces kształcenia online, m.in. poszukiwaniu przez nich informacji na temat oferty edukacyjnej, samodzielnej komunikacji i uczeniu się (udział w e-kursach, wykorzystywanie treści dostarczanych przez innych użytkowników sieci: Wikipedii, blogów itp.).

Słowa kluczowe: edukacja, usługi edukacyjne, e-learning, m-learning, użytkownicy Internetu, e-kursy

Kody JEL: I21, L86, N3

Э-поведение польских потребителей на рынке услуг обучения

Резюме

В первой декаде XXI века наблюдается интенсивный процесс «интернетизации обучения», т.е. все более широкое проникновение и использование Интернета в разновидных фазах процесса обучения. Наука через Интернет в Польше становится все более популярной, и, судя по всему, популярность этой формы обучения будет систематически повышаться. В статье представи-

ли сопоставительный анализ услуг онлайн, связанных с обучением в Польше и в странах Европейского Союза. В особенности сосредоточились на указании включения интернавтов в собственный процесс обучения онлайн, в частности, на поиске ими информации о предложении по обучению, самостоятельной коммуникации и учебе (участие в э-курсах, использование содержания, предоставляемого другими пользователями сети: Википедии, блогов и т.п.).

Ключевые слова: обучение, услуги обучения, электронное обучение (э-обучение), мобильное обучение (м-обучение), пользователи Интернета, э-курсы.

Коды JEL: I21, L86, N3

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