PERSPECTIVES OF ONLINE EDUCATION IN THE CZECH REPUBLIC

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Abstract

The paper deals with the future of online education in the Czech Republic. It maps whether people in different social and personal situations are interested in the online form of education, and whether there are some correlations between computer skills, age, education, population of resides on the one side and the attitudes to online learning on the other side.

Key words: *education, online, courses, perspectives, conditions, specific population groups*

1. WHAT IS ONLINE EDUCATION?

Online education is with no doubt the very actual theme of nowadays theoretical discussion in pedagogy as well as the actual practical phenomena which couldn't be ignored by any modern society. Before we start to discuss practical questions, we have to state what we exactly mean by the term online education and what are the differences among online education, distance learning and e-learning.

There exist many definitions of distance learning but, for our case, we can follow the simple definition which describes the effort of providing access to learning for those who are geographically distant (Poulin, 2003; Moore, Dickson-Deane and Galyen, 2011). The concept of distance learning is almost two hundred years old (Specter, Merrill, Merrienboer and Dristoll, 2008) and originally it was based on post correspondence. According to the definition the distance learning is a specific form of learning and it doesn't depends on the kind of method of delivering learning materials. Obviously when the computers and especially personal computers were developed, the methods of delivering information have been definitively changed. But, as Moore (1990) highlights, both the printed and electronic ways of delivering are often used. We believe that in the era of fast internet connection and high quality mobile electronic readers (tablets or e-book readers) the age of papers is almost at the end.

On the opposite to the concept of distance learning the concept of e-learning is not so clear. First of all we argue that e-learning in its own substance is not a form of education but it is the method of education, more specifically method of delivering information and communication. The e-learning from this point of view is nothing more than the usage of available technology (Poulin, 2003) in educational process in both common and distance form of learning. E-learning materials are in this time used at the universities as well as at secondary and high schools (it doesn't matter whether the originator of material is from the school where the resources are used). The electronic delivery of information should very vary from interactive CD, TV to the modern web based technologies and complex LCMS systems. (Allen, 2003)

According to previous definitions distance learning and e-learning, online education is the special case of e-learning and should fulfill the idea of distance learning. Since the turn of the millennium online teaching and learning presents in many ways the future of education (Sutton, Basiel, 2014) The fact whether the online distributed material is or is not the distance education depends especially on the intention of the author. It can be used only for delivering information with some form of interaction but it can also be the very complex course such as some MOOC courses from the world top universities are. In our case we assume that the educational institutions should be interested in creation of complex courses for many reasons and for different purposes. In this article we mention only those of them which are, by our opinion, the most important:

- First of all reasons is the possibility to increase number of students and/or enhance the conditions of education for contemporary students. We shouldn't forget that the education is now market-oriented (Lea, 2007). Following this reason for online education has one important risk: the school which implements online education has necessarily to increase the costs of the education with increasing the numbers of students otherwise the quality of education will fall (Inglis, 2008).
- The created online materials could be used for pupils or students who are not able to go properly in school. The numbers of students with individual study plan is growing up rapidly in Czech society and these students need to 'collate evidence of their achievement in a way that is highly personal' (Beetham, Sharpe, 2009, p. 33).
- The importance of lifelong learning and improvement of qualification is also growing up in entire Europe. Online education offer one of serious ways to fulfill the idea of learning society. (Jarvis, 2010)
- The online education sites could be not only the tools for learning but also the sites of practice (Goodfellow, 2007).
- The creation of online version of study materials is the opportunity to redefine the educational objectives and rethink the design of the course. (Beetham, Sharpe, 2009)
- High quality open online educational materials (especially MOOCs) are one of actual PR tools for the schools (Clark, 2008a; Haber, 2014)

Preparing quality materials for the distance learning delivered by internet is one of the important research theme and topic of the expert debate for almost last two decades. (Sutton, Basiel, 2014) The discussion continues till nowadays and with growing of the connection speed and technological possibilities of the computers, tablets or even the smartphones will surely continue ad infinitum.

After all reasons mentioned above and with the respect to the expert debates we are convicted we have to ask more difficult and actual question. Is the Czech society already prepared for delivering education digitally? Are the people able to use the technology across the whole population? Do people ever want to learn online? Are they able to build learning community? (Are they able to communicate effectively over the internet?) To answer these questions we realized the research which important part is published in this paper.

2. METHODOLOGY OF THE RESEARCH ON THE ONLINE EDUCATION CONDITIONS

The research of the online education was designed as wide quantitative investigation. The research problem mentioned above has been critically revised and the fundamental variables measured in questionnaire have been divided in some key groups of measured variables. Descriptive statistics and analysis of these variables is written below in this section. The research sample includes 3860 persons from the whole Czech Republic but mostly from the regions of Moravia and East Bohemia. This number may vary in each question because some people didn't answer every question. The data were collected from the May 2014 till August 2014. The questionnaire was divided in three sections. In the first section we asked about personal profile of the respondent (sex, age, population of respondent's residence, school or employment, professional orientation, family situation, education, economical situation of the family). Second area of our interest was focused on the experiences and skills in the IT (PC, tablet or smartphone usage, using of internet, email communication, social networks and so on). Finally the third section of the questionnaire was focused on the online courses designed for and delivered over the internet (internet as a source of education, willingness and readiness for internet courses and field of study. The data was collected as the simple random selection from the population. The fundamental characteristics and description statistics of the selection are published in the section 3.

The whole research is based on theoretical assumption that there exist the relationships between key characteristic of population (such as sex, age, population of resides, social situation, family

background including the family economy, education, professional orientation) and the e-learning skills (Clarke, 2008) or the attitudes to online courses in different areas. All these relationships were formulated as hypothesis and falsificated. The results are published in the section 4. The most both problematic and important concept for our research is what does it exactly mean e-learning skills. In the context of online learning it is often understand as the information literacy or ICT literacy (Goodfellow, Lea, 2007). We agree with Clark (2008) that the e-learning skills is the group of special computer skills which should be achieved to be e-learning skilled. The problem is how to measure these skills. If we assume that this skills are the complex ICT literacy we probably never could measure exactly this complex literacy without the very complex measure instruments as f. e. ECDL tests. But more important question is: it is really necessary to achieve complex ICT literacy to have e-learning skills? We argue no because more important for e-learning (or generally online learning) is to be proficient in the area of ICT, to be used to use this instruments thou not always the best ways. That is because we introduce the ICT **proficiency index** (I_p):

$$I_p = 1 - \frac{\left(\sum_{i=1}^{7} Q_i\right) - 7}{24}$$

where Q_i is the answer of one of seven questions which are a part of our questionnaire. The questions (Q_i) are designed to ask two dimensions of ICT proficiency: the frequency of using ICT and the wideness of used ICT tools (PC, smartphones, tablets and so on).

The frequency of use is measured by questions:

- Are you used to use the PC? (Q_1)
- Are you using the computer for interner searching and web pages reading? (Q_2)
- Are you using email? (Q_3)
- Do you have active account on some social network (like facebook, twitter and so on) (Q_4)

The wideness of used ICT is measured by questions:

- Are you using smartphone? (Q_5)
- Are you using tablet? (Q_6)
- Are you using the internet to search information for your personal or professional education or development? (Q_7)

Maximum score in these questions is 31 and it mean that the respondent is not proficient at all. On the other hand the lowest score is 7 and it means the very high proficiency using ICT. The index I_p is the number between 0 – 1 and signalize the degree of ICT proficiency on the normalized and standardized scale. The measured Ip for our selection has the mean 0,549 and the standard deviation (*sd*) 0,275. For the common use in the research we divided the whole measured people to the four groups: high proficiency in ICT ($I_p \geq I_{pavg} + sd$), good proficiency in ICT ($I_p \geq I_{pavg} \wedge I_p < I_{pavg} + sd$), low proficiency in ICT ($I_p \geq I_{pmean} - sd \wedge I_p < I_{pavg}$) and no proficiency in ICT ($I_p < I_{pavg} - sd$). By this division the new variable – I_p group – was invented and also used in the hypotheses testing. The I_p group variable represents in all hypothesis the construct of e-learning skills, so if we founded the relationship between the Ip groups and f. e. age of respondents, it means the same as there is the relationship between the level of e-learning skills and the age of respondents.

All hypotheses were tested on the significance level p=0,05 and p=0,01 using the χ^2 test for the independence of variables in the contingence table (Sheskin, 2007).

For the correlation analysis and statistical evaluation of research hypothesis was the non parametric χ^2 test of independence form contingence table used. For each cell of contingence tables the adjusted residuals were calculated, too. (Azen, 2011)

3. DESCRIPTIVE STATISTICS – SELECTION OF RESPONDENTS, IT SKILLS AND ATTITUDES TO THE ONLINE COURSES

3.1 Personal characteristics of the selected respondents

First question asked in the questionnaire was about the sex of respondents. This question was answered by 3857 of 3860 respondents.

Sex	***n***	***f***	n_c
Male	1908	0,4947	1908
Female	1949	0,5053	3857
Total	**3857**	**1**	

Table 1: Sex of respondents

Second question in the binder was about the age of respondents. The question answered 3717 of 3860 respondents. For the better clarity of this variable we grouped it in age groups with the range 5 years.

Age groups	***n***	***f***	n_c
< 20	170	0,0457	170
21 - 25	598	0,1609	768
26 - 30	469	0,1262	1237
31 - 35	350	0,0942	1587
36 - 40	407	0,1095	1994
41 - 45	336	0,0904	2330
46 - 50	367	0,0987	2697
51 - 55	342	0,092	3039
56 - 60	254	0,0683	3293
61 - 65	132	0,0355	3425
> 65	292	0,0786	3717
Total	**3717**	**1**	

Table 2: Age groups

The third and very important variable measured in the first section of the questionnaire was population of respondent's residence. This question was answered by 3829 of 3860 respondents.

Population of respondent's residence	***n***	***f***	n_c
Less than 2 000 residents	1118	0,292	1118
2 000 to 5 000 residents	649	0,1695	1767
5 000 to 15000 residents	681	0,1779	2448

15 000 to 60 000 residents	603	0,1575	3051
60 000 to 150 000 residents	488	0,1274	3539
More than 150 000 residents	290	0,0757	3829
Total	**3829**	**1**	

Table 3: Population of respondent's residence

Next important question measured by the questionnaire was the personal situation (status) of respondent. The question was answered by 3854 respondents of 3860 total.

Personal situation of respondent	***n***	***f***	n_c
Student	563	0,1461	563
Employee	2057	0,5337	2620
Tradesman	341	0,0885	2961
Unemployed	162	0,042	3123
Maternity / parent leave	180	0,0467	3303
Disability pension	111	0,0288	3414
Pension	407	0,1056	3821
Other situation	33	0,0086	3854
Total	**3854**	**1**	

Table 4: Personal situation of respondent

The fifth measured variable was focused on the professional orientation (kind of profession) of respondents. This question answered 3848 of 3860 respondents.

Professional orientation	***n***	***f***	n_c
Management	262	0,0681	262
Technics and technology	370	0,0962	632
Medicine and health sciences	345	0,0897	977
Education	563	0,1463	1540
Business and economy (including accounting)	442	0,1149	1982
public administration	255	0,0663	2237
Information and communication technologies	187	0,0486	2424
Law and social or cultural services	280	0,0728	2704
Private or public services	623	0,1619	3327
Operation of machines	326	0,0847	3653
Auxiliary and unskilled labor	195	0,0507	3848

Total	**3848**	**1**	

Table 5: Professional orientation

The next measured personal variable was focused on education. This question answered 3855 of 3860 respondents.

Education of respondent	***n***	***f***	n_c
Elementary	186	0,0482	186
Apprenticeship	788	0,2044	974
High school	1718	0,4457	2692
College	1163	0,3017	3855
Total	**3855**	**1**	

Table 6: Education

Last but one question of personal matters was focused on the family situation of the respondent. The question answered 3836 of 3860 respondents.

Family situation	***n***	***f***	n_c
Living in primary parent family (complete)	607	0,1582	607
Living in primary parent family (incomplete)	181	0,0472	788
Living alone	558	0,1455	1346
Living in marriage	716	0,1867	2062
Living in partnership (no marriage)	426	0,1111	2488
Living in procreation family (complete)	1119	0,2917	3607
Living in procreation family (incomplete)	170	0,0443	3777
Other	59	0,0154	3836
Total	**3836**	**1**	

Table 7: Family situation

The very last personal question was about the financial situation of respondent's family. This question answered 3811 of 3860 respondents.

Family financial situation	***n***	***f***	n_c
Bad or very bad (not enough for living)	119	0,0312	119
Not good (can't make reserves)	686	0,18	805
Neither bad nor too good (can't make enough reserves)	1708	0,4482	2513

Good (can make a reserves)	1062	0,2787	3575
Very good (can make big reserves)	236	0,0619	3811
Total	**3811**	**1**	

Table 8: Family financial situation

3.2 Information and communication technology usage and skills

In the second block of questions in the research questionnaire we asked respondents about their skills in the information and communication technology.

First question of this block was whether the respondent is using the personal computer. The question was answered by 3823 of 3860 respondents.

Are you used to use the PC?	***n***	***f***	n_c
Very often (several times daily)	1909	0,4993	1909
Often (once a day or two)	904	0,2365	2813
Sometimes (once a week)	465	0,1216	3278
Rarely (once a month)	205	0,0536	3483
Never	340	0,0889	3823
Total	**3823**	**1**	

Table 9: Are you used to use PC?

Second question about the IT skills was about internet searching and web pages reading. The question was answered by 3838 of 3860 respondents.

Are you using the computer for Internet searching and web pages reading?	***n***	***f***	n_c
Yes, can't imagine PC without Internet	1923	0,501	1923
Often (once a day or two)	931	0,2426	2854
Sometimes (once a week)	429	0,1118	3283
Rarely (once a month)	205	0,0534	3488
Never	350	0,0912	3838
Total	**3838**	**1**	

Table 10: Are you using the computer for internet searching and web pages reading?

The next one question was focused on the smartphone usage. The question answered 3843 of 3860 respondents.

Are you using smartphone?	***n***	***f***	n_c
Yes, including internet connection and online applications	1415	0,3682	1415
Yes, including applications but without internet connection	351	0,0913	1766
Yes, but like common phone	547	0,1423	2313
I don't use smartphone	1530	0,3981	3843
Total	**3843**	**1**	

Table 11: Are you using smartphone?

After the question about smartphones one about tablets had to follow. The question about tablet using answered 3824 respondents of 3860 total.

Are you using tablet?	***n***	***f***	n_c
Yes, including internet connection and online applications	685	0,1791	685
Yes, including applications but without internet connection	164	0,0429	849
Yes, but like common diary	148	0,0387	997
I don't use tablet	2827	0,7393	3824
Total	**3824**	**1**	

The next question focused on the usage of email communication, because this form of communication is, in addition to the ability to search the Internet, the gate for all types of internet education. The question was answered by 3818 of 3860 respondents.

Are you using email?	***n***	***f***	n_c
Yes, often	2233	0,5849	2233
Yes, rarely	987	0,2585	3220
No	598	0,1566	3818
Total	**3818**	**1**	

Table 12: Are you using email?

The very last question about the ability of IT communication was focused on the usage of the social networks. This question answered 3838 of 3860 respondents.

Do you have active account on some social network (like Facebook, Twitter and so on)	***n***	***f***	n_c
Yes, and I use it intensively	630	0,1641	630
Yes, and I use it often	690	0,1798	1320
Yes, and I use it sometimes	596	0,1553	1916

Yes, but I use it rarely	523	0,1363	2439
I don't have an account	1399	0,3645	3838
Total	**3838**	**1**	

Table 13: Social network usage

3.3 Online education attitudes and areas of interest

The last section of the research questionnaire was focused on the attitudes to the online courses. In this case we mean courses which are completely delivered digitally.

First question in the section of online education attitudes is focused on the common interest in the searching the information for personal or professional development. This question has answered 3803 of 3860 respondents.

Are you using the internet to search information for your personal or professional education or development?	***n***	***f***	n_c
Very often	717	0,1885	717
Often	973	0,2559	1690
Sometimes	874	0,2298	2564
Rarely	495	0,1302	3059
Not at all	744	0,1956	3803
Total	**3803**	**1**	

Table 14: Using internet for education

Second question of this block was about the attitudes to the online education itself. The question was specifically formulated as follows: “If you find interesting online course due the internet searching would you join it?” This question was answered by 3831 of 3860 respondents.

Would you join the online course?	***n***	***f***	n_c
Yes, with no doubt	814	0,2125	814
Yes, but afraid if I will be able to register or study online	200	0,0522	1014
Yes, but afraid about my personal information	485	0,1266	1499
Yes, but afraid about my professional competences to follow the course	185	0,0483	1684
No, I don't use internet for this things	2147	0,5604	3831
Total	**3831**	**1**	

Table 15: Would you join the online course?

The last most important and interesting question we asked about online learning was focused on the areas of interests of the respondents. The fields of interests we grouped by the general fields of study into humanities (A), religion studies (B), social sciences (C), arts, music, dramatic arts (D), science (E) and health and medicine (F). The numbers in the column *n* of following table mean the counts of those

of 3860 respondents who selected the field. The numbers in the column n_{sel} of following table mean the counts of those 1684 respondents who selected the field of interested and also answered one of yes options in previous question. The relative numbers in the columns are related to the total 3860 in the case of f column and to the total 1684 in the case of f_{sel} column.

Field of interest	***n***	***f***	n_{sel}	f_{sel}
A.1 philosophy	218	0,0565	149	0,0885
A.2 history	576	0,1494	296	0,1758
A.3 languages	819	0,2125	556	0,3302
A.4 archeology	136	0,0353	75	0,0445
A.5 cultural studies	327	0,0848	208	0,1235
B.1 Bible - biblical world, history and interpretation of the texts	241	0,0625	113	0,0671
B.2 history of christianity and church	215	0,0558	104	0,0618
B.3 christian theology	126	0,0327	71	0,0422
B.4 judaism – its culture and history	83	0,0215	48	0,0285
B.5 islam – its culture and history	62	0,0161	35	0,0208
B.6 eastern religious (f.e. buddhism, hinduism, shintoism)	101	0,0262	70	0,0416
B.7 natural religions (f.e. animism, totemism)	67	0,0174	45	0,0267
B.8 relation between religion and science	170	0,0441	93	0,0552
C.1 sociology	289	0,075	192	0,114
C.2 education	437	0,1134	296	0,1758
C.3 politology	213	0,0553	137	0,0814
C.4 psychology	663	0,172	440	0,2613
C.6 economy	470	0,1219	291	0,1728
C.7 social work	319	0,0827	195	0,1158

Table 16: Fields of interests and respondents choices – part I

Field of interest	***n***	***f***	n_{sel}	f_{sel}
D.1 history of music	245	0,0636	141	0,0837
D.2 history of arts	206	0,0534	122	0,0724
D.3 film and theatre	516	0,1339	270	0,1603
D.4 photography	454	0,1178	266	0,158
D.5 multimedia	339	0,0879	185	0,1099
E.1 math	185	0,048	112	0,0665
E.2 physics	125	0,0324	63	0,0374
E.3 chemistry	63	0,0163	39	0,0232
E.4 geology/geography	91	0,0236	55	0,0327

E.5 informatics	431	0,1118	267	0,1586
E.6 astronomy	188	0,0488	117	0,0695
E.7 nanotechnology	101	0,0262	70	0,0416
E.10 floriculture	218	0,0565	149	0,0885
E.11 zoology	576	0,1494	296	0,1758
E.12 engineering	819	0,2125	556	0,3302
E.13 electrotechnics	136	0,0353	75	0,0445
F.1 medicine	327	0,0848	208	0,1235
F.2 nursing	241	0,0625	113	0,0671
F.3 pharmacy	215	0,0558	104	0,0618

Table 17: Fields of interests and respondents choices – part II

4. ONLINE LEARNING AND CZECH POPULATION - THE FUTURE OF ONLINE EDUCATION

As we mentioned above we realized the division of measured population into four categories depending on the proficiency in the ICT. The result of this partition is in the following table. We divided 3858 of 3860 respondents (two responds didn't answered any of 7 indexed questions). In the following hypothesis we will use the variable **I_p group** (e-learning skills level) as a one of correlated variables in the testing of independence.

I_p group	***n***	***f***	n_c
High proficiency in ICT	694	0,1799	694
Good proficiency in ICT	1388	0,3598	2082
Low proficiency in ICT	1091	0,2828	3173
No proficiency in ICT	685	0,1776	3858
Total	**3858**	**1**	

Table 18: Measured population divided by I_p index

The relationships between measured variables and calculated $\chi 2$ values of these relationships are shown in the following table of research results summary.

	I_p groups	**Groups with better I_p than expected**	**Willingness for the online learning**	**Groups with higher willingness than expected**
Sex	17,95**	males	39,35**	females
Age	1569,23**	younger people to 35	325,19**	younger people to 35
Population of respondent's residence	84,72**	respondents from the cities with the population over 150 000	60,71**	respondents from the cities with the population 15 000 - 60

				000 and over the 150 000
Personal situation	1516,00**	students, employees, maternity/parental leave	262,28**	students, tradesmans

Table 19: Significant relationships and significant groups (** p < 0,01) - part I

	I_p groups	Groups with better I_p than expected	Willingness for the online learning	Groups with higher willingness than expected
Professional orientation	771,83**	management, technics, education, IT, law and social services,	347,13**	management, education, health professionals, IT, law and social services
Family situation	657,16**	Living in primary parent family (both complete and incomplete), living alone, living in partnership	111,78**	Living in primary parent family (both complete and incomplete), living in partnership
Education	572,00**	high school, college	277,36**	college
Family financial situation	321,75**	well and very well situated families	150,61**	well situated families

Table 20: Significant relationships and significant groups (** p < 0,01) – part II

The results in the tables 19 and 20 show we can conclude that there exist all relationships expected in the section 2 of this paper. We can also see the groups that are more proficient in the ICT than we expected and also the groups that have higher willingness for the online education.

If we analyze the first hypothesis about the influence of sex on the I_p index we can conclude that relationship is very strong in behalf on males. On the contrary, although the influence of sex on the willingness for the online education is also strong, the women are a group with more interest in the online form of education. Therefore, we assume that thanks to the interest of online education and increasing number of online courses will also grow e-learning skills of women.

As we assumed the age is also very important factor which affects the I_p index and also the willingness to join the online courses. It is no surprise that the younger people have higher proficiency in the ICT and also higher willingness to join online courses. Much more interesting are the age borders on which these exceptions are broken. The people under 35 years of age have higher than expected I_p, people between 35 – 45 years have expected I_p and only the people over 45 have lower than expected level of I_p. These numbers shows the proficiency in the ICT is not only domain of young people and middle aged people are in, too.

The hypothesis about the influence of the population of respondent's residence was confirmed, as well as the others. If we analyze this hypothesis in more detailed view we can see that the situation is much better in the cities over 150 thousands of residents. On the contrary the Ip index is lower in the villages under 2000 of residents.

Another hypothetical assumption which concerned the relationship between personal situation on the one side and I_p level and willingness for online learning was confirmed, too. In the first part of this hypothetical questioning - whether there is a connection between personal situation and I_p - we have to conclude that students, employees and people on maternity/parental leave have better I_p than the others. In the second part of hypothetical relationship – whether there exists relationship between

personal situation and willingness for online learning - we have to conclude that the over expected groups here are students and surprisingly also the tradesman – a group which is in other cases rather featureless. From this hypothesis we can draw the secondary assumption that for the future the tradesman could be very important group to be focused by online courses designers and producers.

From the professional orientation point of view we can confirm the assumption there exists many relationships among this factor, I_p and willing for the online education. Especially for the managers, technicians, educators, lawyers and workers in the social services we can confirm the over expected proficiency in ICT. On the other side among the groups mentioned above there are also health professionals added in the case of important correlation to the willingness for the online education.

From the family situation point of view we were slightly sad as we founded that the groups with higher than expected I_p level and willingness for online learning are consisting of people living in the primary family or people who are living in the partnership without marriage. On the first sight it may look like family life doesn't support use of ICT. But we hope that is not true and this factor is more affected by the age of respondents as these groups are also connected with the age groups under 30 years of life.

Last bud one hypothesis we tested in our research was the one assuming the relationship between education (erudition), I_p level and willingness to join the online courses. As we assumed the relationship has been confirmed and it is not surprise that people with higher acquirements have also higher I_p level (are more e-learning skilled) and the people with higher education are also more willing to join the online courses.

Last bud surely not least hypothesis assumed very important relationship from our point of view between family financial situation, I_p level and willingness for the online education. Unfortunately there exists the expected statistical dependency between these factors and we have to confirm that members of well situated or well-off families have much better I_p index and higher willingness for the online education than those who are from not so well-off families.

After all answers from the research the last question remains. What is the future of online learning in the Czech Republic? The most honestly answer is that there are many unanswered questions about the lifelong learning of those groups which are not so good in ICT proficiency (esp. older people and people with lower acquirements or not well-off families) but there also exists justified hope the situation becomes to be better in this area and there are mean opportunities to improve the e-learning skills. There is also no doubt the e-courses have strong educational potential but neither this potential is limitless. On the other hand there still remain many questions about the future of completely online courses or MOOCs because it seems the wave of MOOC mania is over and now all the universities and schools around the world are looking for the real level of importance of these forms of education.

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