# DisCo 2016

Towards open education and information society

11th conference reader
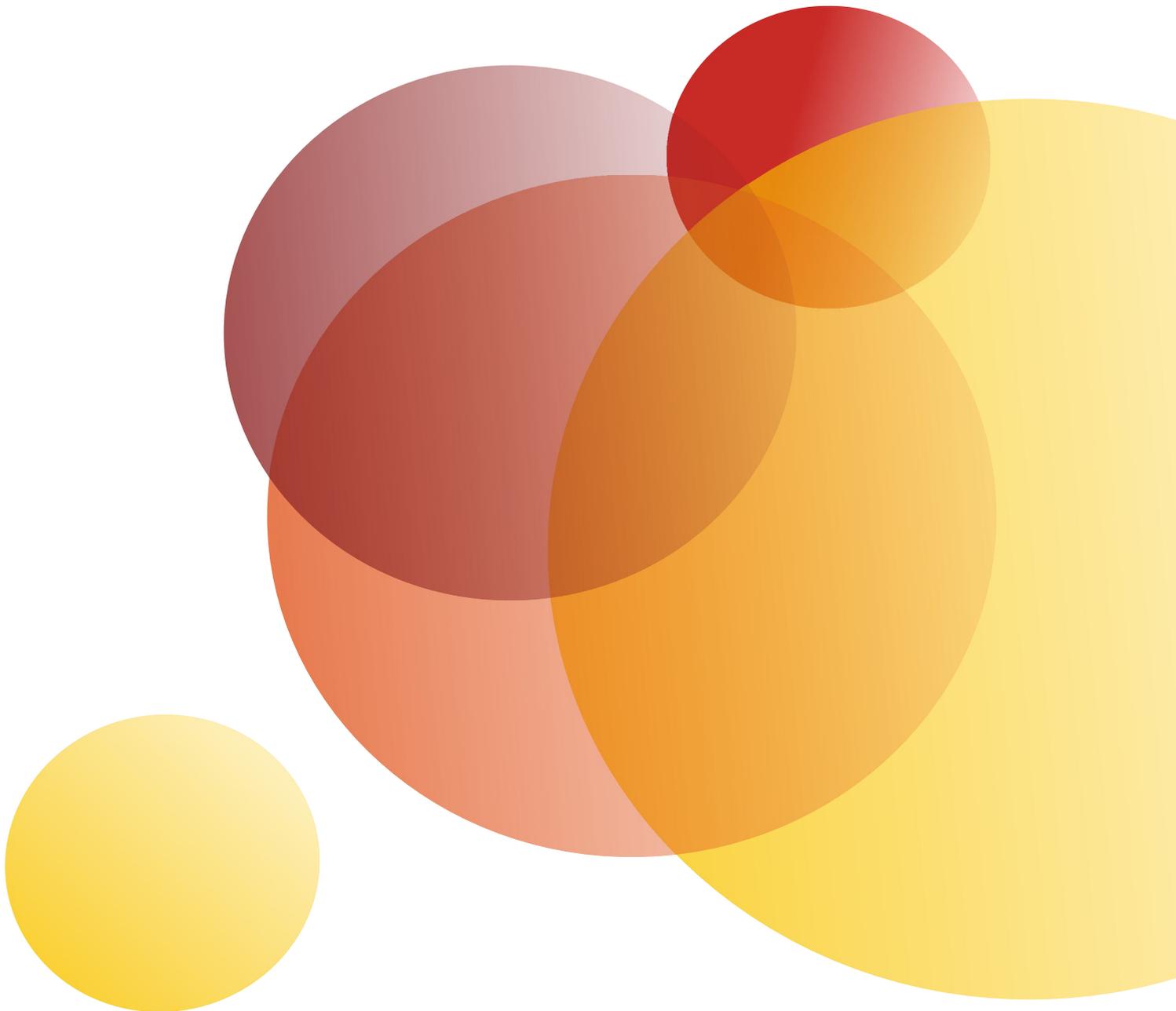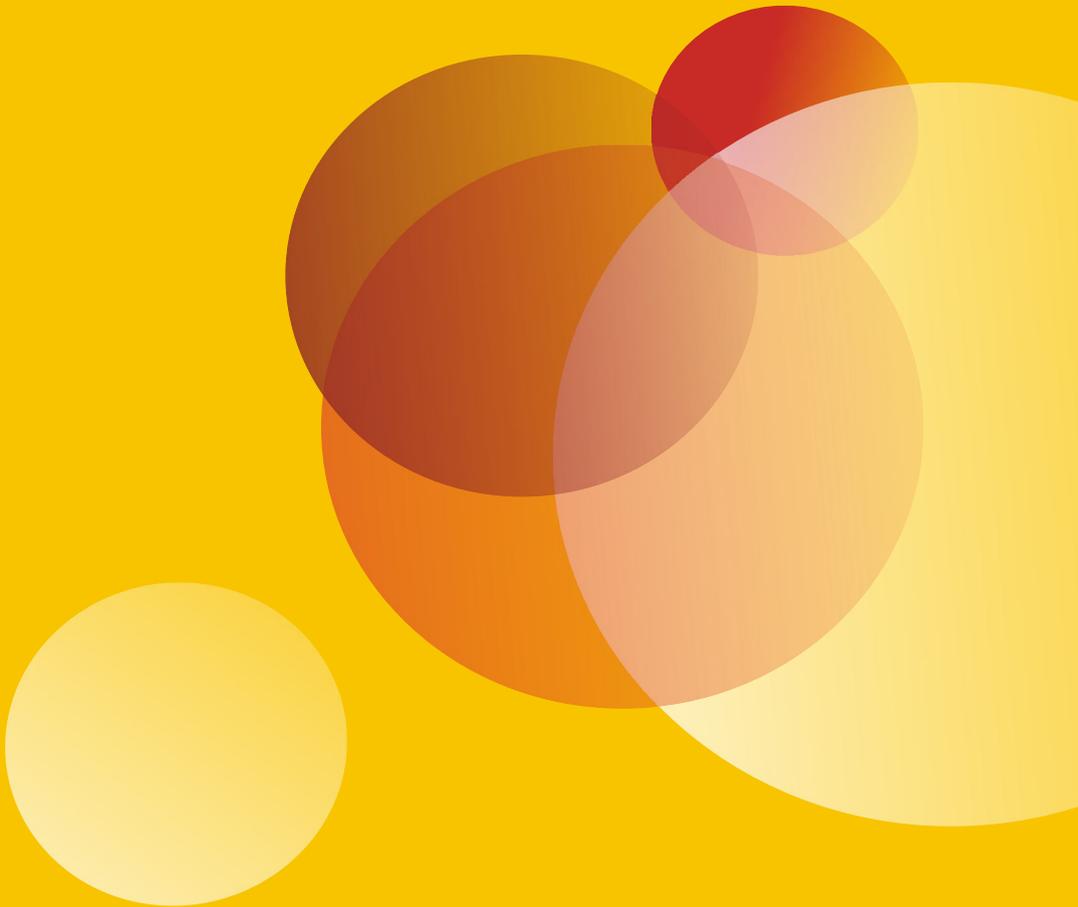
Jan Beseda (Ed.)

Publication is not a subject of language check
All papers passed a blind-review process

Reviewers

CONTENT

Dear readers,

the 11th international conference DisCo 2016: "Towards Open Education and Information Society" was hold from 20[th]lto 22nd June in Prague. More than 70 participants from 16 countries participated in the conference. 19 participants used CEI support for the travel costs and accommodation. Participant from South America took part for the first time. The conference program was opened by a workshop day in order to provide the participants with the practical information applicable to their day-to-day work with the students. Thus, Tereza Potůčková, Faculty of Education, Masaryk University, led two workshops dedicated to the web applications for practicing teachers – Verso and Nearpod. Tereza Hanemann from the Charles University presented the serious role play game **"Czechoslovakia 38-89: Assassination"**. Darco Jansen**,** European Association of Distance Teaching Universities, led a workshop about MOOCs. The first day finished with a networking session in "Paralelní Polis", the conference venue. The participants admired the chosen place because of its eco-friendly solutions in the interior and advanced IT implementation in a daily life.

The second day of the conference consisted of several sessions and was opened by the Athina Basha's keynote speech "Libraries as Gateways to Open Education and Information Society"**.** The first session focused mainly on the role of libraries in the modern world of digital technologies and education accessibility. The second session was devoted to the distance teaching tools. The afternoon session was open by Vladimír Vulic, the keynote speaker. He spoke about specifics of teaching a Facebook generation of students who on the one hand suffer from a traditional mode of thinking set up from the primary school and the increasing informational flow on the other hand.. Other presentations were focused on a role of media literacy and media didactics. Last section was mainly dedicated to experience with Wiki tools in teaching and gamification tendencies and opportunities which raised a vivid discussion among the participants and the speakers.

The second day was finished with a wiki session, where Ridvan Peshkopia presented a tool for questionnaires accessible through the tablets or cell phones. The day was closed by a networking session.

The third day of the conference started with a Darco Jansen's keynote speech about the importance of the Open Education, other presentations were also dedicated to the Open Education concept, needs and tendencies. Then Darco Jansen, Tamara Kovačová from educational NGO "EDUin", Luděk Brož from The Ethnological Institute of the Academy of

Science of the Czech Republic and Jiří Dlouhý, the head of the educational department of the Environmental Center of Charles University, raised the discussion about the advantages and the weakness of the Open Education nowadays without a proper support from the community, authorities or students themselves. The last presentation of the session enlightened on problems of effective text composition and presenting at the OER, as well as how to read the publications from the screen effectively. The situation of using ICT tools in education in the Republic of Macedonia and Albania and how to use tablets for public opinion surveys as a tool for Open Education was presented as well.

We can summarize findings from our panel discussion about Open Education in four points:

1) A system approach and a comprehensive strategy for the Open Education development and implementation is needed (the example of good practice is the Netherlands, where every research results should be published in Open Access journals during the nearest four years).

2) The universities/institutions cooperation is necessary for further development of the OER, as well as for good practices sharing and OER promotion.

3) The changes need time and the patience is necessary.

4) We as educators have to be active not only in promoting the Open Education but also in contributing to it ourselves as well as encouraging the students to participate in the process of enrichment the data bases.

However our discussion has not been finished. Tamás Bokor in his post on our Facebook page opened other question connected with Open Education and using ICT in education. I guess that these questions are really important for us and I decide quote his post:

"Although we had some conversations about the role of teachers, focus of the conference was rather put on a technological side of education: platforms, ICT equipments, applications, sites etc. Maybe if we had some more time to discuss (which was unfortunately interrupted due to a lack of time) we would have had an opportunity to detail the former. As an academic lecturer and communication trainer I'm quite well convinced about the fact that the personality of a teacher can strongly influence the outcome of education process as well as motivation and inspiration of students (distracting these latter two concepts for the sake of Veronika Nenickova, thanking her for emphasising the importance) .So if I'm allowed to present my claim I'd welcome some written remarks about your thoughts on the changing role

of teachers in open education systems: how can we influence students' motivation AND how can we inspire them in these new set of circumstances?

On what ways can you personalise curricula, class and supplementary material to fit these to the students' own needs and mental settings? (If Vladimir Vulic has right, every education process is the same as decades before, only in another way?) Ultimately: whose interest is to inspire them in an environment where the one end of the scale is making everything massive and widely affordable with e.g. MOOCs (thx for expanding my knowledge about them, Darco Jansen) and on the other end there's also a 'massive' need for extreme personalisation, esp. by Z-gen on eLMSs?(I'm asking these questions because I think education can't only be described as a process – it is also a condition in which we are constantly present with all our preparedness, skills and wills. As the vast majority of preparedness comes from other human beings, education without personal (at best virtual) and personalised contact between student and teacher is just learning but not education. In the brave new 21.5th century world there's a vision about self-made, on demand education, while the balancing dynamic shows up another need as well: the need for reinventing personal contact.)

Well, I'd be curious of what you think about it – who knows, perhaps we can move towards another future conference topic.

Disclaimer: it's not a research, it's only a kind of written pondering and a continuation of a paused discussion, so feel free to contribute."

You, dear readers, can continue with us in this discussion on our Facebook page https://www.facebook.com/DisCo.Conference/. We are looking forward to you insights, experience and opinions.

In our proceedings you can find abstracts of presentations, papers based on these presentations, which can stimulate your ideas about using ICT in education and which can help you more to understand current problems of educators and students. I hope that at least some ideas you can find useful for your praxis.

Finally, I wish to thank our partners for their patronage. Our thanks go to AAEI, Association of Adult Education Institutions, Czech Republic, Institute of Cryptoanarchy, Navreme Boheme s.r.o, Prague Development Center, Veriod and media partner portals Open Education Europa, Edumenu and journals Andragogika v praxi, Aula, RicercAzione and Ikaros. Last but not least, we would like to thank all the members of the program and

organization committees and volunteers. Without their help, the conference would not have taken place.

<div align="right">Jan Beseda</div>

Articles

Distance learning

TAKING THE DISTANCE OUT OF "DISTANCE LEARNING" THROUGH TECHNOLOGY		TEREZA POTŮČKOVÁ Faculty of Arts, E-learning Office Masaryk University, Czech Republic

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Abstract: The term distance learning as we know it no longer applies to modern trends in education. Distance learning today allows learners to be much closer to their teacher than in most regular face-to-face lessons. With such opportunities as web-conferencing, social networks, educational videos etc., students are brought right into the learning process through an innovative and inclusive way of learning. Modern tools provide students with unique opportunities for developing their skills. One such tool is a web-based application called Verso. The aim of this paper is to explore the potential of technological tools designed for distance learning, specifically the ones promoting the skill of asking questions. Inspired by the Right Question Institute, the paper will present the importance of asking questions and ways and approaches of incorporating this skill into the curriculum.

Introduction

In most face-to-face lessons, students might not get the opportunity or be too shy to ask teachers for help. Many argue that in an online environment, students may feel that they are quite distant to their classmates. That is why they should be encouraged to work toward building relationships in their academic community, since these relationships may be very beneficial in their future. It has been proven that many students benefit from the online learning environment especially due to direct contact with their teacher. While studying, students can leave an IM (instant messaging) message for their teacher and get an instant response. The same concept is true for peer communication. People in general are more likely to share things online rather than face-to-face. This is a great time for students to do just that as there are so many online tools to help overcome the distance. Many online courses require students to collaborate. Students can now share their work and collaborate in real time via Google, using Google Docs, Sheets, or Presentations, they can use web-conferencing tools and communicate as if they were in the same classroom. The same goes for student-teacher communication. It has never been easier to be in touch with teachers to receive instant feedback, or even just ask for help. Research shows that the fact that the teacher is present online and interacts with students is actually more important than communication with peers. (Means, Bakia & Murphy, 2014, p.157)

This paper will discuss the potential of online learning and ways in which it can facilitate the skill of asking questions. The sociocultural theory will be presented next, along with connectivism, as both have their place in studying learning in a social context. This section will be followed by discussing the importance of asking questions and ways in which online tools can help facilitate the Question Formulation Technique. The final chapter is devoted to a web-based application called Verso and its' possibilities for the development of the skill to ask questions.

Learning online as a Social Activity

Humans are social learners. (Meltzoff et al. in Means, Bakia & Murphy, 2014) This notion goes hand in hand with the sociocultural theory which has its basis in the work of Leo Vytotsky (1978), a Russian psychologist. According to this theory, learning is facilitated by interaction. Studies show that "cooperative learning online results in higher achievement than individualistic learning "(Rennie & Morrison, 2013, p.14). The basis of human intelligence can be found in the society's learning environment, which causes interpersonal growth in cognition of an individual, rather than intrapersonal. (Keengwe, Kungu & Schneller, 2014, p.22). In Vygotsky`s view, learning occurs on a social level first and only then can it reach the individual level. (Vygotsky 1986) The online environment offers great opportunities to make learning a social and collaborative experience. Fergusson & DeFelice (2010) argue that for an online course to be successful, effective communication between students and instructors is vital. According to the results of their study, a variety of ways for teacher-student communication should be included to emphasize interaction with the teacher. As far as the tools themselves, "live chat rooms, threaded discussions, and the use of blogs, combined with prompt responses to all email inquiries, are strategies that would provide opportunities for increased interaction" (Fergusson & DeFelice, 2010).

This model of learning is best reflected in Siemens`s theory of connectivism. He considers the learner to be part of a network. Connectivism "acknowledges the fact that the ways people learn and function are altered when new tools are used" (Rennie & Morrison, 2013, p.19).

The importance of asking questions

Student questioning has become a very important skill. Unfortunately, most students lack that particular skill. A research carried out by the Right Question Institute, Boston, MA, proved that student questioning drops off extensively once they begin formal education. The average number of questions asked by children in preschool age is about one hundred per day. Once they start middle school, students have virtually stopped asking questions[1]. (The Right Question Institute)

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[1] See Figure 1

FIGURE 1. 1 ASKING QUESTIONS

PERCENTAGE OF CHILDREN ACTIVELY USING THE SKILL

Source: (http://rightquestion.org/percentage-children-asking-questions/)
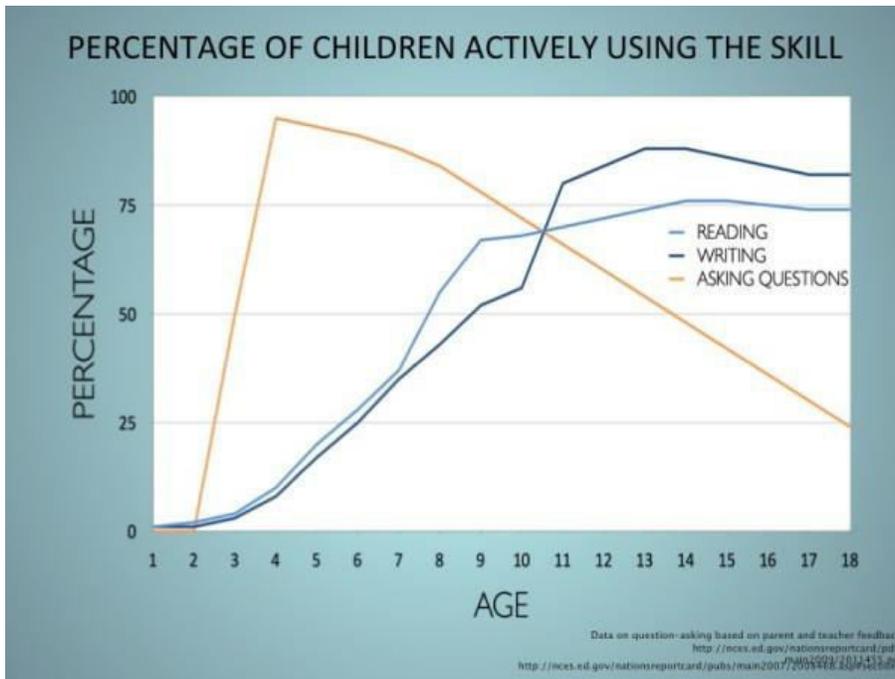
Questioning as such is born out of curiosity. By asking questions, students develop their higher order thinking skills. It is therefore an essential skill that teachers should focus on developing rather than discouraging it. The Right Question Institute has made it their mission to shed some light on the importance of asking questions. They developed a tool to help teachers teach this important skill. It is called the Question Formulation Technique (QFT). The QFT has six basic steps presented by Dan Rothstein and Luz Santana (2011), the co-directors of the Right Question Institute.

The first step is for teachers to design a question focus, which is a prompt presented in the form of a statement to attract student attention. It is important to emphasize that a question focus is not, nor should it be a question as such. This step is followed by actual question production by students. They should follow a set of rules and be provided with no assistance from the teacher. The four rules that apply to this step are as follows:

1. Ask as many questions as you can.

2. Do not stop to discuss, judge, or answer any of the questions.

3. Write down every question exactly as it was stated.

4. Change any statements into questions. (Rothstein & Santana, 2011)

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By applying these rules, students activate higher order thinking skills, produce more questions and take responsibility for their own learning. The third step is designed for improving the questions formulated in the previous step. The teacher presents students with the difference between open-ended and close-ended questions. Students then apply this knowledge to discern the different types of questions they have created and analyze the benefits or down-sides of both types. At the end of this step, students are asked to rephrase at least one of their questions so that it becomes open-/close-ended to better understand the effect it has on the quality and value of the information they will get. The fourth step consists of prioritizing questions so that they fit the criteria provided by the teacher (testable questions, questions related to a specific topic, etc.). Students focus on selecting questions for getting specific information. During step five students and the teacher work together to decide how to use the questions. In the final step students reflect on what they have learned. Having students reflect on what they have learned by producing, improving and prioritizing their questions helps them internalize the process, making it available to use in another setting.

The main belief of The Right Question Institute is that "its methods tap into the potential of tens of millions of people to become more self-sufficient in their own lives, and to become active citizens participating on all levels of our democratic society." (The Right Question Institute)

Online tools - Verso

The question formulation technique can be facilitated through online learning tools. One such tool is the Verso app[1]: "a digital platform designed to improve academic engagement by empowering teachers with quality questioning strategies for true personalization" (Verso Learning). According to its developers, Verso shifts the ownership of learning. Verso is based on the research from Hattie[2], Fullan[3], November [4] and Dweck[5]. In Verso, teachers set up online classrooms for students and prepare tasks that have the form of a discussion forum. Each task can be centered around a video, a news article, a picture, audio or any other media. Teachers should let students think of their own questions to post in the discussion forum upon teaching them the basics of the QFT. Students then answer and reflect on each others questions which might help them think of the task at hand in a new way. In traditional settings it would be the teacher who would ask most of the questions, having students reply to them and therefore limiting their interest in that particular task to those questions. Using the QFT, teachers set the stage for exploring tasks and concepts in a new way. Verso presents a very well-structured overview of student activity and easy monitoring of tasks

[1] Available at http://versoapp.com/
[2] Hattie, J. (2012). Visible Learning for Teachers: Maximizing Impact on Learning. Routledge
[3] Fullan, M. (2012). Stratosphere: Integrating Technology, Pedagogy, and Change Knowledge. Pearson, Canada; Fullan, M & Langworthy, M (2015). A Rich Seam. How Deep Pedagogies Find Deep Learning. Pearson
[4] November, A. (2012). Who Owns the Learning?: Preparing Students for Success in the Digital Age. Solution Tree
[5] Dweck, C. S. (2012). Mindset: How You Can Fulfil Your Potential. Constable & Robinson Limited.; Dweck, C. S. (2006). Mindset: The new psychology of success. New York: Random House.

for teachers along with an easy to navigate app for students. When doing the tasks, students first need to post their own questions before they see what their classmates posted, which guarantees that students actually think of what they want to say without being influenced by their peers.

Conclusion

This paper presented some theoretical background concerning online education and learning as a social activity, focusing on the need to teach learners how to ask questions – a skill which is mostly ignored across all levels of formal education. Theoretical background was presented in the form of the sociocultural theory and connectivism. Both of these theories view learners in a broader context, in a connected world where they need to collaborate. The need to teach students to ask questions was described in detail, along with the tools for the development of this skill. Among the tools presented in this study were the Question Formulation Technique formulated by The Right Question Institute and the Verso app.

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DISTANCE EDUCATION VIA WEBINARS: RESEARCH AND PRACTICE	MICHAL ČERNÝ Division of Information and Library Studies - Department of Czech Literature and Library Studies - Faculty of Arts - Masaryk University - Czech Republic

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Abstract: The paper examines different implementation models webinars to education within the university courses and in lifelong learning, we made during the last three years have been within the Division of Information and Library Studies - Course work with information, webinars, conferences and seminars, teacher training, individual mentoring or distance lectures for a foreign lecturer.

In the context of the data obtained will try to show some characteristics that are associated with this form of education-related and outline their practical implementation. All courses were implemented in Adobe Connect, so in terms of some technological similarities easily comparable.

The emphasis is put on the question of how to make quality, interesting webinars with appropriate educational content that are helpful and attractive for the students and on the implementation of webinars into the educational process. One of the pedagogical theories dealt with in connection with the development of the internet and online learning is connectivism, which emphasises the creation of knowledge in a network environment, creative individual activity of students and their ability of self-educate themselves to a large extent. Because this branch has lacked well-worked-out didactical methods, we find it useful to deal with them in a great detail here – especially taking into account that webinars are considered a typically connectivist form of education.

We also analyze the problems that are associated with teaching students who have webinar individually controlled and used for the education of others. In this paper, we will combine research data from evaluation participants (questionnaires), analyzing the data directly to individual user behavior and personal experience with this technology.

Introduction

While the great majority of digital learning objects has an asynchronous character (reference), a webinar takes place in real time and deny one of the basic characteristics of e-learning, although it formally belongs to (reference)

For eLearning is typical, that you can study at any time, you do not need to be bound to any particular time (Sweeney 2009, 1-5). Although the webinar can be recorded their major advantage is the time interplay between participants.

The concept of e-learning as an asynchronous form of education is often a practical and convenient, but it also brings some problems that tutors or students themselves has to cope with (Rohlíková and Vejvovodá, 2012, 154-158):

● Social isolation is one of the major problems, which also affects the motivation of the students completing a course or pay more attention to him. Possibility of meetings and personal contacts with other students and lecturers is important.

● The lack of immediate feedback, whether in the form of answers to questions that we have or the possibility of discussion and evaluation in real time.

● Too much time freedom is tempting for students submitting tasks at the last minute which reduces the quality of outputs.

● The limited possibilities of individual approach and consultations. Lower rates adapt the contents of to the needs of students.

It would be possible to name other determinants which may contribute to the negative perception of e-learning. These may be pretty much erased through webinars that take place online form, i.e. distance learning, but they also have a timeschedule that students can join (Sweeney 2009, 11-12).

It isn't easy to offer a comprehensive and widely accepted definition of what is a webinar.. Etymologically it is a term of a shortcut base web seminar, a workshop based on the web environment (Aggarwal 1999, 347-349). This may not necessarily be associated with transmission of video or audio, or with other characteristics (they are listed hereafter) that usually are attributed to webinars. We understand them as online workshops that are synchronous and the transmission of audio or video with at least one participant (i.e. at least with the teacher) and at least one other person (Černý 2015, 13).

The word "workshop" is very important. Webinars should not be digitized lecture or plain frontal interpretation. There should occur at least some degree of interaction, however the implementation of webinar will strongly depend on both the technology used and also on the pedagogical paradigm or approach (Aggarwal 1999, 349-351) of its coordinator.

Sometimes there is some confusion between video telephony or video-conferencing and webinar. Although this concepts are similar (Molay 2007), some differences can be identified[*] (cf. (McLaughlin 2015)):

● Webinars systems include analytical tools for monitoring the behavior of participants.

● Webinars systems include didactic tools to support the teaching (blackboard, the possibility of drawing).

● Webinars systems can usually build on any LMS.

● Webinars systems allow the attendance registration.

● Webinars systems are used primarily for educational purposes and all their components are adapted to it.

We want to emphasize that there is no single right way in using (only) webinars. Video conferences (or webcast) are often technically easier to implement, more comfortable for both teachers as well as for the participants (Molay 2007). They have a lower bitrate needs and last but not least it is easier to export a record, for example, on YouTube (but for example YouTube export is a typical weak point in Adobe

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[*] The commonly used webinar software is Adobe Connect, others are Blackboard Collaborate, OpenMeetings or BigBluebutton.

Connect, which are used in the research section). If you need to present records, in many cases is preferable to choose rather video conferences.

Although it is difficult to generalize the capabilities and features of each environment of webinars, we will try to provide at least a basic overview of the most technical function and components which can be regarded as standard and are, indifferent variations, in almost any webinar environment (McLaughlin 2015). Knowledge of individual functions are also important because they allow webinar effectively used as a form of education and digital learning objects (Černý 2015, 15-17) (Schullo, Hilbelink, Venable, Barron 2007, 331-345) (Pluth 2010, 45-54).

● Transmitting video and the voice of teacher. If you are working with active participation of students in the webinars can be chosen only voice that is not so much data and technically difficult, and can operate as minor psychological barrier.

● Administration of students and participants is necessary both for the sub-delegation of competencies (letting students speak, collaborative modes) and also for attendance and other purposes. It also allows you to distinguish between authorized users and guests, if it is integrated with the LMS also testing.

● Written chat is an important part of the communication strategy. It allows you to solve current problems, without burdening the lecturer, to communicate with other users and almost always works safely. It is a key component in solving problems with a defective audio or video.

● Usually motivational tools include surveys, which measure knowledge and attitudes of students in real time and allow also display results, including percentage scheme. A similar role during communication may also play a chance to vote or "raising the hand". Because the teacher has only very limited opportunities to know whether the program is gripping, understandable and entertaining, this is a useful feature that should endeavor to replace conventional visual social interaction.

● Whiteboard for writing and drawing may represent an area for mutual cooperation more people or it can be used as an ordinary whiteboard. One of the problems of webinars can also be tempo and difficult understandability. The fact that lecturer writes on the whiteboard, making the interpretation clearer and more understandable. It is usually possible to draw not only on board, but also directly to the slides, which is for many of webinars suitable solution - lecturer need not switch just lets space on slides for drawings. Into drawing or writing, it is possible to actively engage participants in a webinar, especially if it has more individual character.

● Document sharing is one of the key components to enable other users to see, for example, the presentation about which is spoken. In different systems, different levels of spectrum and

formats are supported. Presentation is needed to be tested before webinar, because support for most formats may not be foolproof, though it is declared by the producer.

- Possibility of private communication between lecturers and students supports model 1:1. Somewhat controversial feature is the mutual personal communication between students, which can be useful for many reasons, but it can also distract attention.

- Screen of lecturer sharing expands the capability of sharing of documents, for example, the possibility of presenting excerpts from Web sites, running video or real-time control of an application that is shown to the participants. In this variant, it is possible to highlight two potential pitfalls - the participants usually do not see the mouse and thus the place on the speakers shown. The second common problem is that some participants do not realize that it is a screen sharing, not the application itself, so they tend to actively manipulate it yourself.

Possibilities of research and analysis

In this chapter, we would like to mention some specific possibilities for research of the effectiveness of education through webinars, that we had the opportunity to try. It is not, of course, a complex methodology for measuring the effectiveness of education. At this point we do not want to discuss issue of measuring the effectiveness of distance education, but focus on quantitative areas that we used during our research probes.

- Comparison between conventional and online teaching

- Working with automatically obtained data

- Evaluation questionnaires after lessons

One of the most exciting and most direct way to measure of the effectiveness is the comparison between education through webinars and face to face teaching (McPaclad 2004) (Kelly 2007). But this comparison has great weaknesses. First, it is necessary to maintain consistency between teachers in both forms of the course. The second problem is largely different: the design of lectures, teaching methods, but also the errors and problems which the tutor can commit. (Pluth 2010, 17-30 and 55-60) They come into play as well as technical determinants. If we accept the proposition, "the medium is the message" (McLuhan 1967, 126-128), it is clear that this comparison is not methodologically simple and it is more than problematic.

Meaningfully here is the possibility for a qualitative research design, such as phenomenological interviews or ethnographic research. This area in more detail but we will not be considering pilot research in this paper. Generally, however, an interesting area that allows you to understand the causes of the results of the quantitative data.

For measuring the effectiveness of the education process through webinar it is an opportunity to work with automatically collected data (This approach may correspond to the model's driven education

(Wayman 2005, 296-298)). For example, while using Adobe Connect allows to monitoring student attendance, his activity in Connect, questions responses etc. With these tool, can be easily deduce at least on a superficial activity of students. It offers great potential to integrate with other data sources, such as a comparison of the grades that students receive at the end of the course or with their progress in the LMS. Also this connection may be a research methodologically problematic when working with two data files, which were obtained in two ways in two different environments. Personally, I believe that such a comparison may be interesting research.

Evaluation questionnaires after the webinars are one of the traditional sources of evaluation. It is a data for quick and orientation feedback, but can be used only for very limited depth analysis and broader conclusions.

When considering the characteristics of webinars would be appropriate to use less conventional evaluation methods as well as recording self-evaluation video, blogging or creating mind maps. These can be an interesting source of information of qualitative kind and the whole educational activity is shifted closer to connectivism or at least to the constructivist approach. In this paper we focus on quantitative methods, but the qualitative perspective could represent interesting research continuation.

Practical experience from KISK and research probe

In this section we want to share the experience that we gained through education via webinars in different contexts with different target groups. For our webinars we used Adobe Connect version 8 (what determines both functions, as well as the behavior of participants and lecturers) and a computer with access to the network CESNET. CESNET provides high-speed computer network, so that during the webinars we had no problems with low or volatile bit rate, blackouts etc.

Description of the Information literacy course course

Webinars are used to support multimedialization and improving Information literacy course. The specify evaluated course is a MOOC (online course aimed at unlimited participation and open access via the web, but only for students at Masaryk University) that around 1.000 students (per semester) attended. To each module a webinar was prepared, by a lecturer from the Department of information and library studies Masaryk University. The course was mounted on the LMS environment of IS MU. The students participated in real time as well as a watch from the record.

Motivation for using webinars in course was to reduce educational failure and elimination of social distance. Although the course is tutored, students have not the possibility of direct individual contact with teachers except communicating via Facebook or email.

Here, we provide results that are based on data from Adobe Connect and are compared with grading that referred to the information system at Masaryk University (594 students) in Information literacy course. Research probe was carried out on a course in the fall semester 2014. The data was only necessary to clean

and merge records that referred to the same person (for example, the first login EduID, the second time as a visitor).

Webinar leaving before the end (in per cents), as a function of its length in minutes. Chart analyze what percentage of participants who leave webinar before the end, thus finding the optimum length of webinars.

CHART 1. WEBINAR LEAVING
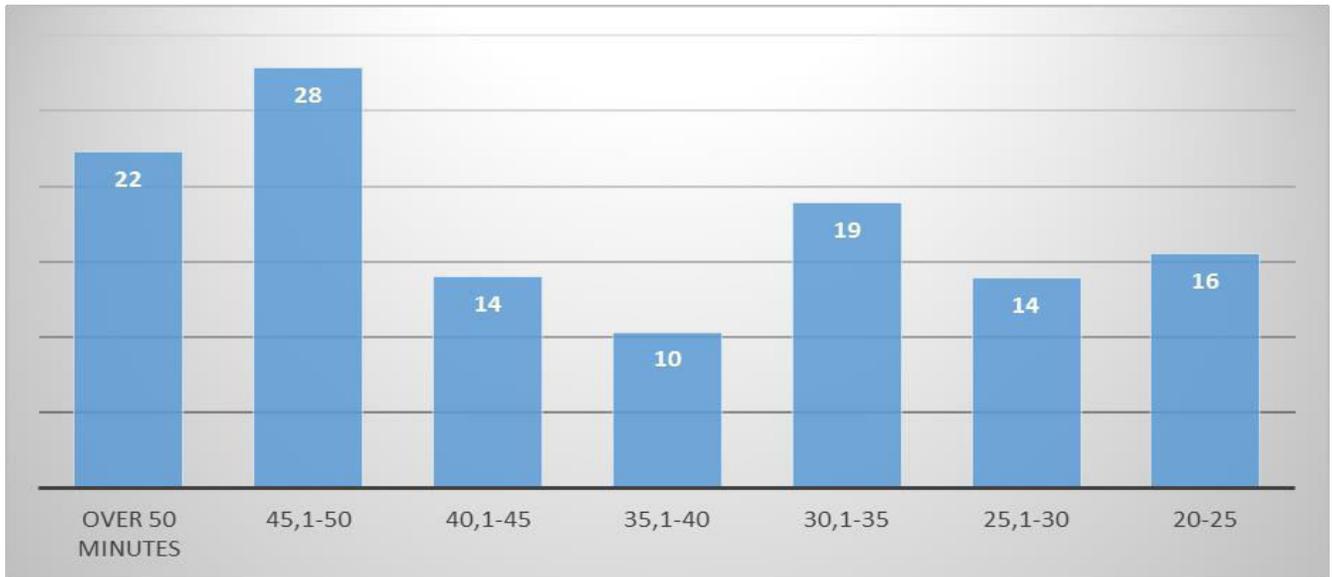
An ideal length seems to be between 35-40 minutes, which is equivalent to one common lesson in elementary school (where organizational time is counted out, it's really time the average length of educational content).

The second graph on the same sample shows that participation in the webinar can have a positive effect on completion of the course, which was taught in a purely online form. The problem is again low reliability of data, because the time on the order of minutes cannot be regarded as sufficient (considering that it is about one percent from total time of webinars). On the other hand, at least it is obvious that those students who were evaluated with E or F do not participate on them. Time spent on webinars also shows that students of distance course did not seek this optional activity.

Webinar as a form of further education of teachers

One of the specific focus of KISK is support and development of technology in education in the Czech school environment. In the years 2014-2015, was implemented INTERES, which was one year project, whose goal was the development of ICT skills of teachers of secondary and primary schools. Lecturer coverage were combined (part of the employees of institutions, part external), as well as forms of connection.

Within this form of education has been combined different forms of communication - from individual consultations to work with themes that were designed by professional project parts. Most of the topics but corresponded to the wishes and needs of the target group. Very interesting finding was a form of content consumption, where some schools have used mass screening of webinar in the staff room or classroom. There the most of teachers of the school were presented in the role of passive spectators.

Considering the low rates of return feedback, or for its low relevance (for example, in individual consultations at the feedback prevailed maximum satisfaction or were not communicated), all forms of teacher education as a specific socio-demographic groups were summarized into one unit. For the research was used questionnaire in SurveyMonkey.
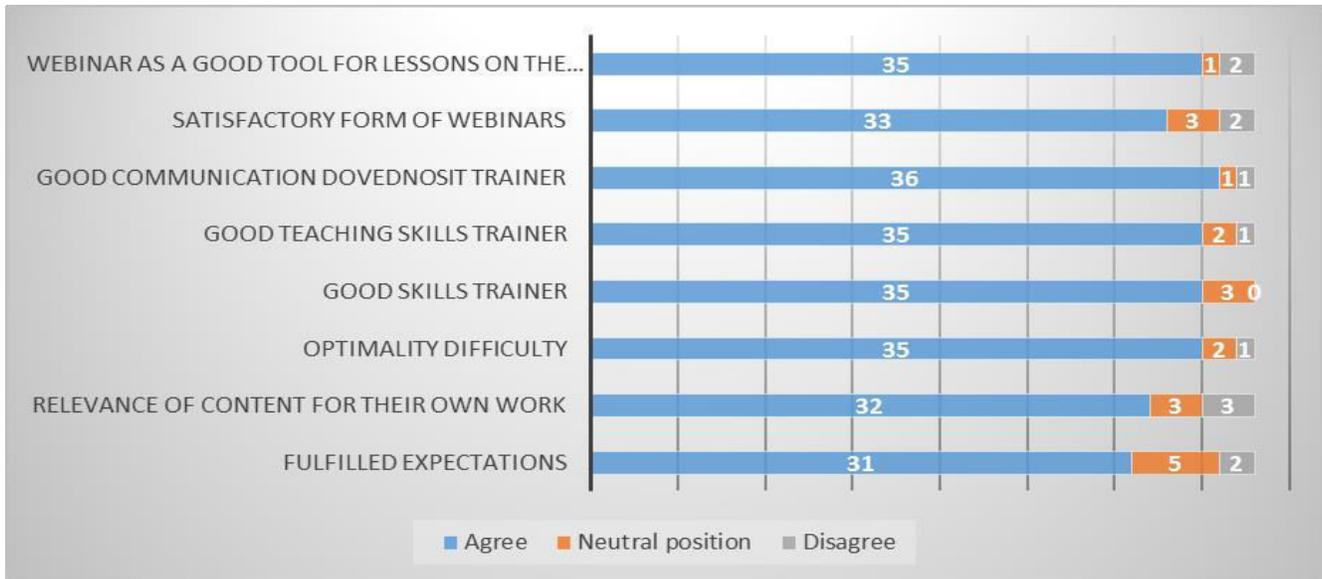
CHART 4 PROPOSALS OF TEACHERS TO IMPROVE WEBINARS. TEACHERS HAVE HAD BASIC CATEGORIES, WHICH ARE INDICATED IN THE GRAPH, AND CAN PROPOSE DIDACTIC RECOMMENDATIONS OR CONTENT CHANGES OF WEBINARS. THE GRAPH SHOWS THE RESPONSE IN ABSOLUTE VALUES.
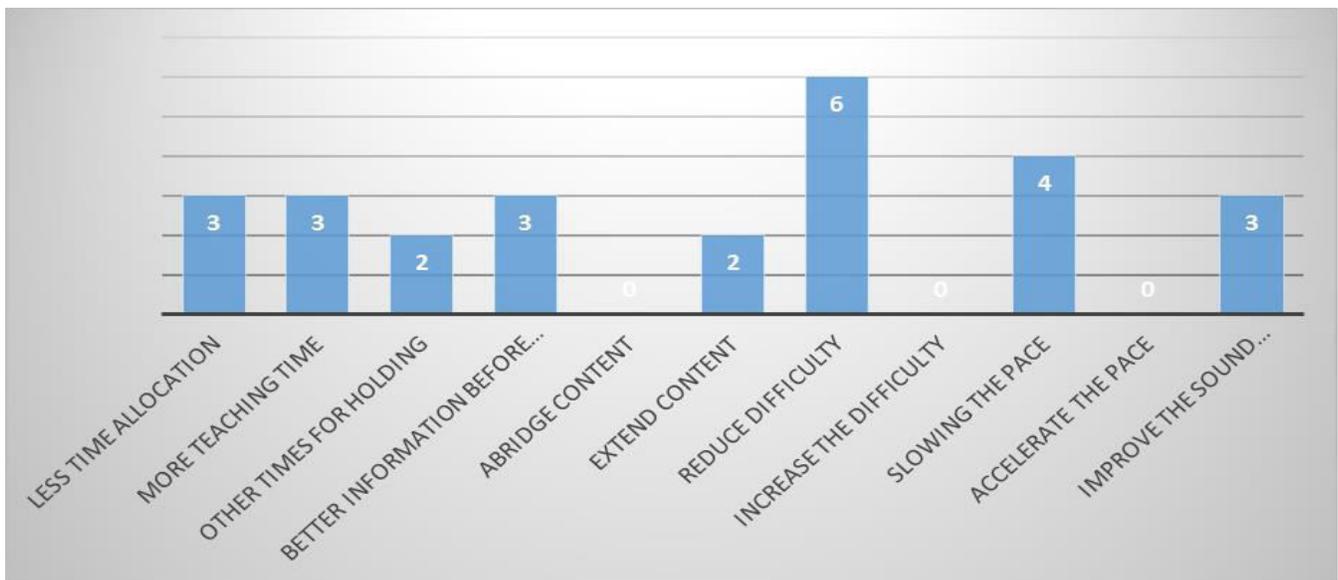
In the case the teachers attended the webinar (which implies an affinity and computer literacy), were mostly satisfied. Regarding suggestions for improvement, most often resound recommendations towards lower difficulty, or more teaching time and slower pace, thus reducing intensity. Based on these experiences webinar can be recommended as one of the possible forms of adult education, though not necessary for all target groups. At least for teachers represent functional educational tool undoubtedly.

The author of this paper led the thesis "Comparison of the approaches towards lessons realized in the form of a webinar and a classical contact lessons" in which Kateřina Blatná (2014) conducted simple research - one lesson was in classical form and the other in the form of webinars and author can assess the results of both. The lecturer was the same in both cases, the topic was also identical. It was not the research from practice, but rather some lab probe because the survey has not been linked to any teaching subject, a seminar or course.

Those interested in more detailed results can found them in the thesis, at this point, we will try restrict our self to some of the findings that we found very interesting. The probe was carried out in 2014 and had 17 participants in face to face class and 28 in the online environment.

CHART 5 THE GRAPH SHOWS THE ANSWER TO THE QUESTION WHETHER THE PARTICIPANTS DID IN THE LEARNING ENVIRONMENT FEEL GOOD. ADOBE CONNECT IS EVALUATED SIGNIFICANTLY BETTER THAN CONVENTIONAL CLASSROOM AT THE FACULTY. THE GRAPH SHOWS THE VALID RELATIVE FREQUENCY IN PERCENTAGE.
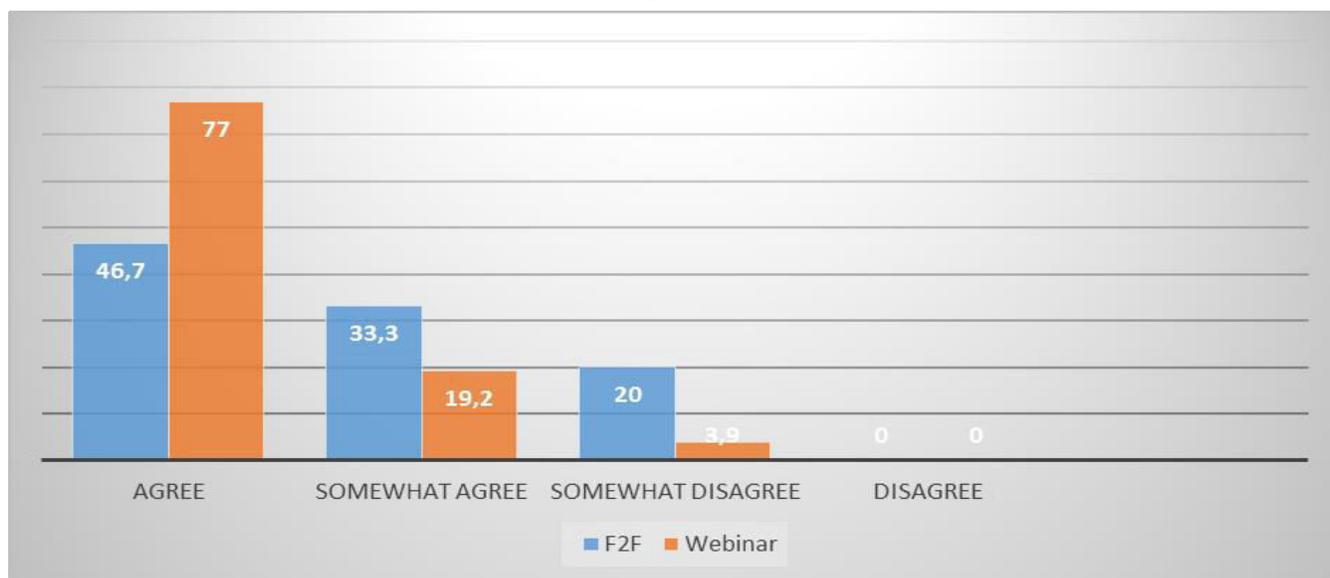
CHART 6 THE GRAPH SHOWS THE ANSWER TO THE QUESTION OF WHETHER TEACHERS CREATED AN ENVIRONMENT THAT WOULD MOTIVATE STUDENTS TO LEARN. ADOBE CONNECT IS RATED WORSE THAN A NORMAL CLASSROOM AT THE FACULTY. THE GRAPH SHOWS THE VALID RELATIVE FREQUENCY IN PERCENTAGE.
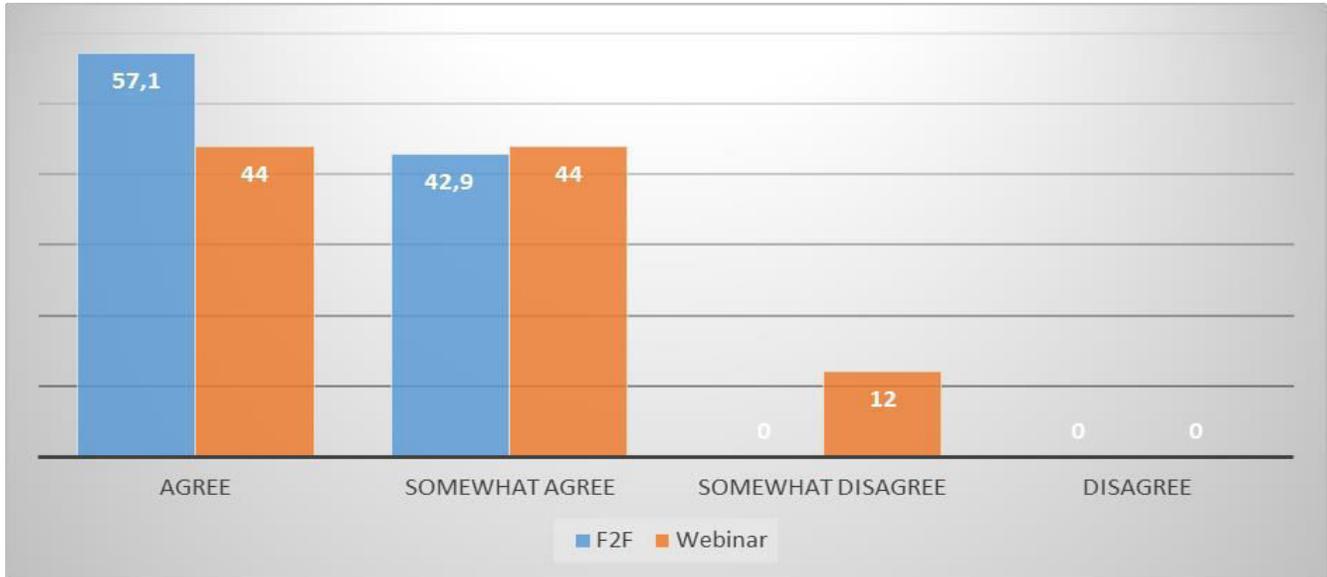
CHART 7 THE GRAPH SHOWS THE ANSWER TO THE QUESTION OF WHETHER THE STUDENT FELT THAT THE TEACHER GAVE HIM THE OPPORTUNITY TO ACTIVELY PARTICIPATE IN LEARNING. ADOBE CONNECT IS RATED WORSE THAN A NORMAL CLASSROOM AT THE FACULTY. THE GRAPH SHOWS THE VALID RELATIVE FREQUENCY IN PERCENTAGE.
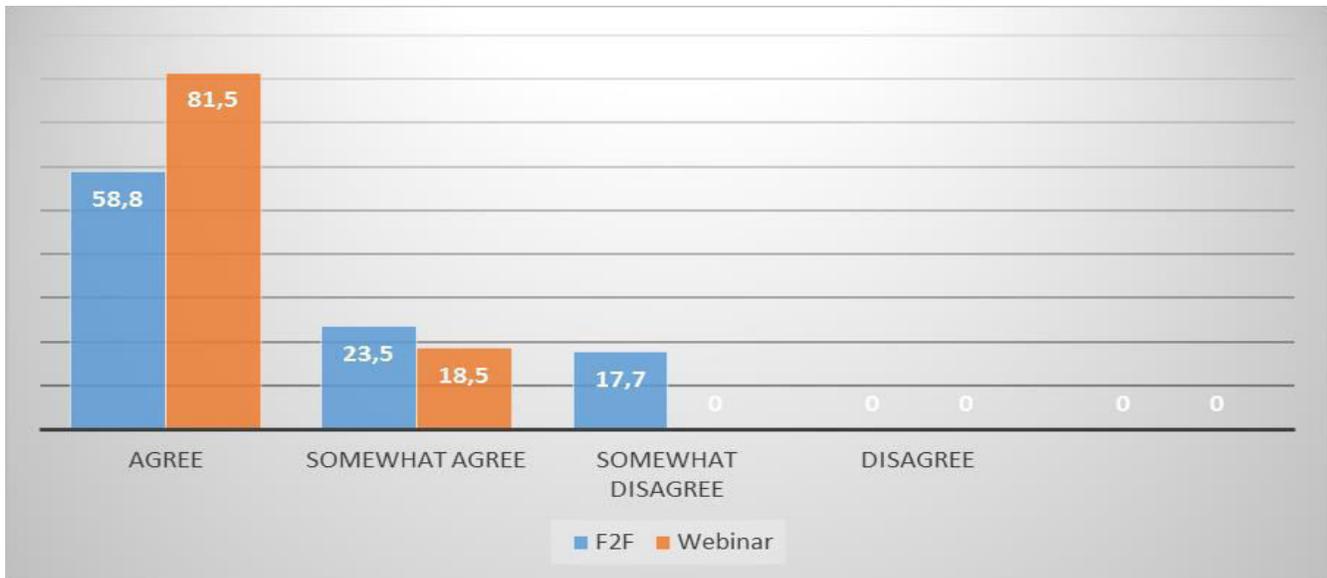
As the above selection follows an interesting finding - this concrete webinar lesson accounted a way to involved more students and also gave them a feeling of greater comfort. Paradoxically, with the feeling of a smaller educational intervention. It is a very interesting topic that could and should be explored in the future. Especially with regard to pedagogical theories which strongly supported cooperation (connectivism constructivism etc.). Other data confirm some assumptions intuitively obvious, for example, that students are more deal with during the webinar activities other than itself webinar are often distracted by during it.

Another practical experience

At this point we would like to mention - albeit briefly - other experience of using webinars. Especially it comes to activities that were associated with the project CEINVE. It's target was through the form of webinars developed information literacy at the university, but also in the wider public. These webinars have focused on different topics and the right choice of what will be a teaching unit proved be key. At the same time, however, also it shows that the marketing of similar events is problematic. Among the topics discussed were, for example: Presentation Skills, How do you choose the right topic or thesis, what is hidden in the text and how it will reveal, or a series of lectures about the correct writing from the viewpoint of grammar. It was interesting that especially the last was very well evaluated by the participants and took place in the regular time, regardless the attendance declined.

Another type of activities that are at KISK long organized are online conferences. It is a typical one day activity but can be also more days long. Feedback from these actions is mostly positive, but they are facing problems with lower attendance too. While in activities aimed at university students prevails thematic choice of themes, during the conference are the most popular posts of distinctive personalities and speakers. Larger conferences may have more sections next to each other, which we also tested - the willingness of visitors to move from the main room into an alternative, however, proved to be not great and it is questionable how such this model actually handle.

Pedagogical theories

Recommendations on the features of a good webinar can be found in both, the professional as well as popularizing literature in the relatively large quantities. (Pluth 2010) Generally, it is generally recommended to follow particularly the principles of didactics and communication skills - from eye contact to the design of the slide. The rule is that essential for the smooth conduct of webinar is the sound quality and especially forward tested the functionality of the technology.

We would however emphasize the aspect associated with pedagogical theories. It is a theme underrated both in pedagogy and also in lifelong learning. For meaningful design of education units, it is necessary to choose clearly identified paradigm and accordingly them design the whole webinar. (Brdička 2013)

For example, supporters of the behavioral school may accentuate lecture by teachers or other professionals who may participants ask questions at the end of the lesson. Although this model leads to a certain passivity, but it is technically and organizationally easiest and the least problems threatened in it. For example, turning on a camera or microphone, or a transfer of roles is for less experienced groups the matter of a few minutes, which can disrupt the entire process of education.

On the contrary constructivist approach leads to finding an educational framework that would allow active cooperation and co-working (Siemens 2005). This can be assured by discussing of participants

together (minimal using text chat), drawing on the whiteboard, talking or engaging in interpretation. For thus conceived education should be adapted the theme, as well as the overall style.

Connectivism as a concept may be similar to constructivist, perhaps with the only difference. It is expected that the workshop will not closed activity of students of one class, but externalists may also enter into it. Both through passive as well as active participation. Webinar in this concept represents a tiny part of wider conceptualized PLE (Personal Learning Environment).

On these aspects are logically adapted all other principles such as the choice of activation tasks, lesson structure, style of interpretation, preparation of worksheets or broader integration into the overall educational environment, which can be variously differentiated and personalized.

Conclusions

Webinars constitute very interesting element of distance learning, which can be easily applicable for the internationalization of education (on KISK, for example, are running courses that are taught through webinars and teachers do not have to go to Brno so often - or not at all - to ride), but also as a major relief for students especially those who commute. Erasmus students due to this technology can also study the subjects at his alma mater during the stay. We see substantial potential in supporting e-learning courses.

In the area of further research we see great potential in two main research questions, which we have already touched in the paper:

- How to ensure that education in the form of webinars had sufficient efficiency at the level of knowledge and yet not lose their attractiveness in the area of experience and motivations?

- Can webinars actually help reduce the failure rate and improve educational outcomes of students in distance courses?

We believe that there could be interesting research questions and projects, which may involve both qualitative and also mixed research design. The findings could have a major impact on the direction in which to develop the concept of distance education. Indeed, already now are different forms of webinars integral part of various MOOC courses and other projects, though usually not in an entirely perfect form. (Chamberlin 2011) (Viswanathan 2012, 37

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Youth and media

Reshaping the Venom's Vial. Considerations for planning an exploratory basic research on relations between new media usage patterns and generations' attitude towards integrity	Tamás Bokor Faculty of Social Sciences and International Relations Corvinus University of Budapest, Hungary

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Abstract: Corruption cases represented in media are only the tip of the iceberg in terms of all corruption cases happening in society. However, media itself is not only a scene of discourse about corruption but an important tool of enlarging publicity regarding the topics of corruption. In this paper we take considerations for an exploratory basic research with focus groups of X-, Y- and Z-generations. In this paper we gather the most problematic aspects of corruption representation in old and new media, emphasizing the importance of social context. A future mission is given to teachers and media experts: creating a cross-curricular MIL education system including the topic of media and integrity by forming recommendations in integrity education. Informal education may fruitfully apply several platforms and techniques to promote the integrity approach: mobile applications, development of the existing SNSs to give a broader awareness and recognition, elaborating gamified methods for anti-corruption and integrity (just like it happened in the case of Integrity Game and – concerning to data security – by Data Dealer game [datadealer.com]). Ultimately, after mapping the correlations and finishing the research we can explore the potential target group of such games, applications and informal education programs (CSR activities) and their attitudes, thoughts and interest in a qualitative way.

From crimes to corruptive cases

A quite good-looking Hungarian ice hockey player, born in 1967 in Transylvania, committed bankruptcy in more than 30 counts between 1993 and 1999, stealing cca. 142 million Hungarian forints (about 440.000 EUR). His unique practice was to drink a glass of whiskey right before each crime if a nice bar happened to be given nearby an actually targeted scene (bank branch, post office, travel agency, etc.). After he had been arrested, Attila Ambrus came up in the whole Hungarian media mentioned as "the whiskey robber", depicting him as a creative vivant, a modern Robin Hood who was able to remain anonymous in illegality and mislead the police for several years. Although in 2002 17 years of imprisonment was imposed to him, because of his good behavior, he was released on parole after ten years. During this time, the attention of media towards him almost didn't decreased at all. Despite robbing peoples' money, sympathy of media and a 'clean-washing narrative' inevitably appeared in most of the reports about him – these were nourished, among other things, by the news about graduating from a communication and media BA during the prison time, launching a one-person pottery factory in 2012-13 and other 'nice', quite humanistic acts (Rubinstein 2004).

The example above (which was transformed among others into a documentary novel published also in English) is only one among millions about the power of media in shaping a person, a case, a situation. Media, which works with cropped images and cuts elements from the whole picture, has a chance to influence what topics we think about, what we exactly think about these topics, and how we can communicate our thoughts. Indeed, media has the power to mix one's own opinion with other given

(external) opinions, thus the person's original opinion would be pushed towards and merged into the narrative of media (Silverstone 2006). This phenomenon works basically the same way both in old and new media. The media representation of Attila Ambrus eloquently attests that a pure crime (both in legal and social sense) like robbery may well be intentionally omitted if other elements (e.g. cuteness factor like 'a former robber becomes a potter', a memorable moment like 'drinking whiskey before commando', and a characteristic face like 'the sporty, beardy guy') are given.

Speaking about the central topic of our paper, media representation of corruption is a more difficult question. On one hand, media has the opportunity to conceal news about corruptive cases – this is part of the agenda setting (McCombs–Shaw 1972). On the other hand, if a corruption case appears in media, this might be transformed like the Ambrus case, washing clear the obvious crime, or remain under the threshold of recipients. Moreover, although a crime case can easily be detected and depicted, researching and presenting corruption cases is often impossible – the types may vary in infinite ways, and the corruption, which is based on trust and reciprocity, remains mostly in shadow.

Representing corruption in media

As a starting point, we accept the definition of corruption according to Transparency International's worldwide standard: corruption in general is defined as abuse of entrusted power for private gains (TI Glossary, 2016), showing various subtypes from kickbacks to bribery and fraud. All these types of social behavior are like pollutants in human bodies. We are all exposed to them, however a small amount of poison might be easily handled and its impacts can be automatically and imperceptibly eliminated by the human organs. However, if their concentration exceeds a critical threshold, consequences may well be deadly. Similarly, if the extent of corruption cumulates in a community or society, it might collapse, for an incremental phenomenon can spread to the level of a whole population and results in state capture or other serious misuses of commonwealth. (This exact limitation is hard to point out because of the different tolerance of different societies and different attitudes towards corruption. Limit is also a matter of the community's wealth and lifestyle.) Old and new media as representors of the social world work like a vial for corruption cases: media encloses the news about corruption into tiny, transparent bottles and expose them to the spectators. The latter ones may be amused, horrified or they just ignore the sight of any dangerous material, since it looks so harmless and negligible in the small vial.

We are absolutely convinced about the fact that current media environment, including both old and new media, bears outstanding importance and plays an extremely responsible role in keeping societies and their members in the condition of high-level integrity, thereby they can reduce the level of corruption in society and perhaps in one's individual life. In other words, integrity of a society depends on, inter alia, how media shapes the 'vials' of corruption cases: how they are recognizable and discussed, whether they step over the

stimulus threshold or not. Based on these considerations, the relation of media environment and media consumers/prosumers stands in the center of our research plan.

According to Szántó et al. (2012, 39.), corruption cases represented in media are only the tip of the iceberg compared to the totality of corruptive cases happening in the society. Nevertheless, late modern media environment (Myat 2014) in today's societies can play a crucial role in giving a sound discourse space about corruption and other misuses of public wealth and entrusted power. Moreover, media itself is not only a scene of discourse about corruption but an important tool of enlarging publicity regarding the topics of corruption.

Position of media in the 'Fraud Triangle'

As Transparency International's Corruption Perceptions Index shows (CPI 2015), most of the democratic states – e.g. Hungary, similarly to other Central and Eastern European countries – are forced to live together with fraud, bribe and other types (including state capture and systemic corruption as centralized types, see Burai–Hack 2012), i.e. wider perspectives of corruption. In addition, it's worth considering that the state itself also produces corruption. No wonder if it is so: Donald Cressey's 'Fraud Triangle' (Cressey 1973) suggests corruption to be the societies' congenital particularity which might be more or less kept at bay. The real question is just the degree of controllability: to what extent a country or other community can (and is motivated) to handle abusing acts. (Considering Hungary, there is unfortunately a very little control of state corruption, and elimination of checks and balances is being processed, see: Sólyom 2013).

As Cressey claims, there are three main motivators for fraud in every human social system. First one is the personal aspect of urge for corruption: one may commit fraud either because of necessity or due to greed. (If corruption appears in a larger scale, the latter reason is more probable, while everyday bribery is rather motivated by the former in general.) As a theory of human ethology infers, every single human being urges to favor their own genes, therefore nepotism (establishment of own family members into important positions) can be explained as a natural heritage of social systems (Csányi 2003).

The second motivator of fraud can be found in the social aspect: if the corruptive motivations of individuals cumulate, the community creates and spreads a narrative which suggests acceptance towards fraud. In this way, we are able to certify our corruptive behavior with reference of the 'rationality of crowd'. According to this, a cliché-like definition of corruption becomes comprehensible: 'corruption is what you are excluded from'. The narrative works quite simple: 'thus everybody does the same, if I don't follow the pattern, I will have to account personal losses' etc.

The explanation of corruption as an admissible regularity in every societal community results in a

special motivation of corruptive acts. This is, by the Fraud Triangle, the third main factor of corruption: the institutional imperfection. Every social institution (e.g. law, media, economic and even religious institutions) have loopholes, in other words, an ambiguity or inadequacy in the law or a set of rules. These can be explained either as an intentionally set up feature of institutions or some kind of accidentally occurring attributions. Anyway, institutional imperfections encourage people to capture the opportunity for corruption which stems from the lack of institutional regulation.

The three motivators of corruption creates a triangle presented in Picture 1. Merging the motivators together based on their cause and effect relationships, one can see that individual motivations create a community narrative which allows institutions to have their loopholes, and the existence of the latter encourages people to strengthen their own motivations towards the various abuses of entrusted (monetary or symbolic) power for private gains.
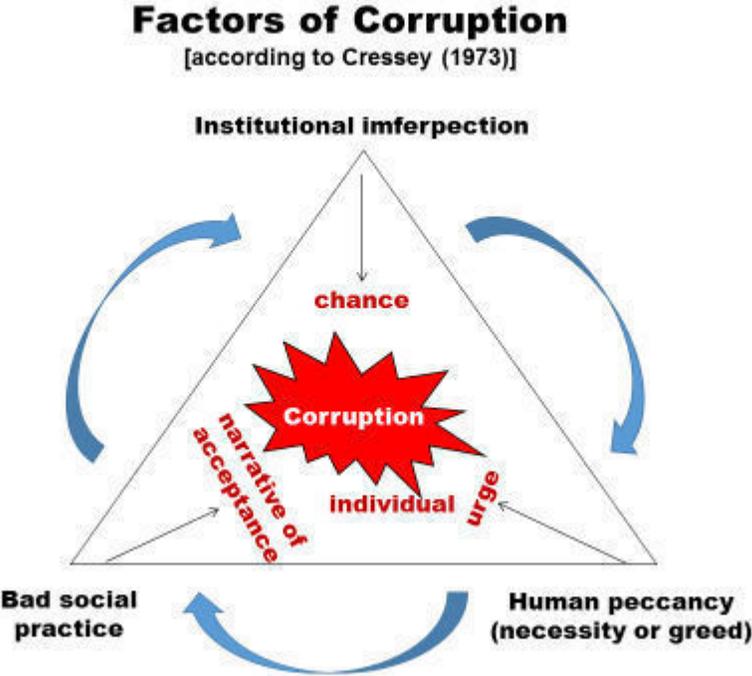
PICTURE 1.

Institutional imperfections can be influenced by legal and regulatory instruments and means: laws, decrees, codes, legal rewards and punishments etc. Personal and social motivators however, turned out to be a tough nut to crack for jurists. A logical question occurs at this point: what tools and instruments can generate an anti-corruptive attitude in personal and social level in addition to legal means? The answer hides behind the partition of rule-based and value-based tools. The formers are able to effect in a short time, but omit the basic reasons of corruption, namely the social motivators. The latter ones exert their effect rather in the long term, while take the 'soft' motivators into account and push the corruptive

processes towards a sound and integer system based on solidarity and mutual honesty in terms of the people and society. If we split these two groups of means we see that value-based tools require a great deal of patience and endurance from persons and groups who aim to change corruptive processes. (Here we don't detail the aspect of economic and other costs of different tools.)

Sensitizing trainings, courses on ethical behavior, anti-corruption and integrity aims as well as building integrity management systems on the basis of institutional and sectoral Codes of Ethics are all 'soft', value-based tools in comparison with legal means, for they have no administrative coercive power, while they also have their detectable efficiency in the long run. Publicity and the role of media in integrity management and anti-corruption fight can be designated as value-based tools. Both old and new media have the means to set corruptive acts into the agenda and to counterpoint the corruption-accepting social narrative.

Information society and corruption perception

Quite a few problems have to be considered at this point. Each thought contains several sub-problems. In this paper we only shouldered the task of presenting these considerations and not to give advices to solve them.

While investigative journalism can speak about corruption in an exact and detailed way, its costs are enormous comparing to the reading frequency and the return of investment from an editorial point of view.

Meanwhile, new media offers a free discourse space both for publishers and readers in terms of corruption topics, however the speed of publication results mostly in less elaborated articles, while readers' instantly articulated opinions move towards various types of extremisms.

Moreover, it's hard to raise awareness towards abstractly big sums while most of the people can't imagine the exact scale of millions or billions of a currency. Controversially, people tend to be outraged of everyday bribery than of 'big deals'.

This paradox is complemented by another one: the more we read about corruption the less we are aware towards the problem. Increasing amount of corruptive news increases the human stimulus threshold in parallel with a gradually strengthening paradigm of corruption acceptance we detailed in the previous subchapter.

As a Hungarian study (Székely 2013) pointed out, young people in young democracies are mostly disillusioned with their political system, therefore youngsters between 15-29 years have a lower stage of trust both in institutional and interpersonal levels towards the state's institutions. At the same time just this generation turns out to be the most active media consumer, so the influence of media in terms of corruption and institutional trust would be crucial. (It's still remarkable that young people at the age of 15-29 years

are the less likely to post political content on their social networking systems in comparison with elder generations.)

Despite the hidden premise of relation between IT development, new media usage rate and corruption awareness, there are no significant correlations between these factors. As Juhász (2016) claims, a clear trend cannot be observed considering CPI and IDI in Visegrad Countries, although in the Czech Republic, it seems as if at the same time we could see higher parallel CPI and IDI increase. In other cases, the change of one indicator do not show a direct correlation with the other, so for example, a sudden increase in IDI index does not fall significantly in CPI result and declining CPI numbers don't seem to slow IDI growth. (See Picture 2-5.) This important statement suggests that information and digital technology *per se* seems to be unable to develop the corruption perception. Online tools, initiatives and gamified applications like Integrity Game (http://game.integrityaction.org/) are essential, however a social context is required to strengthen awareness.

	2010	2011	2012	2013	2014
CPI change	100%	96%	107%	104%	111%
IDI change	100%	105%	109%	114%	122%
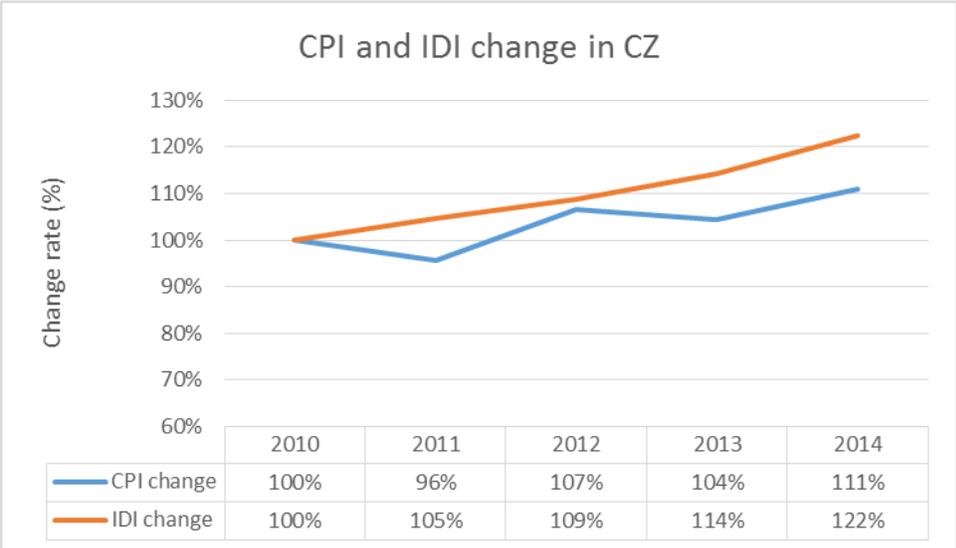
PICTURE 2. Source: Juhász (2016)
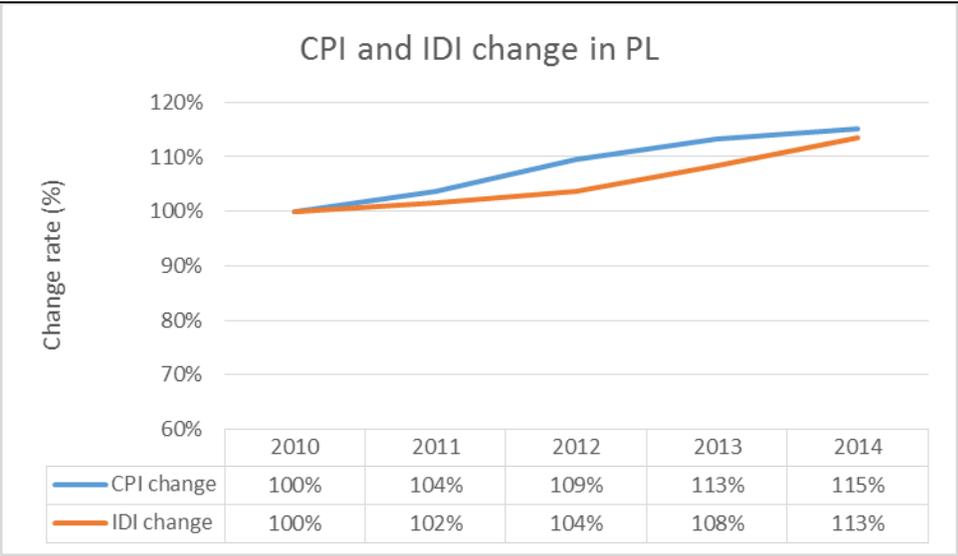
PICTURE 3 Source: Juhász (2016)
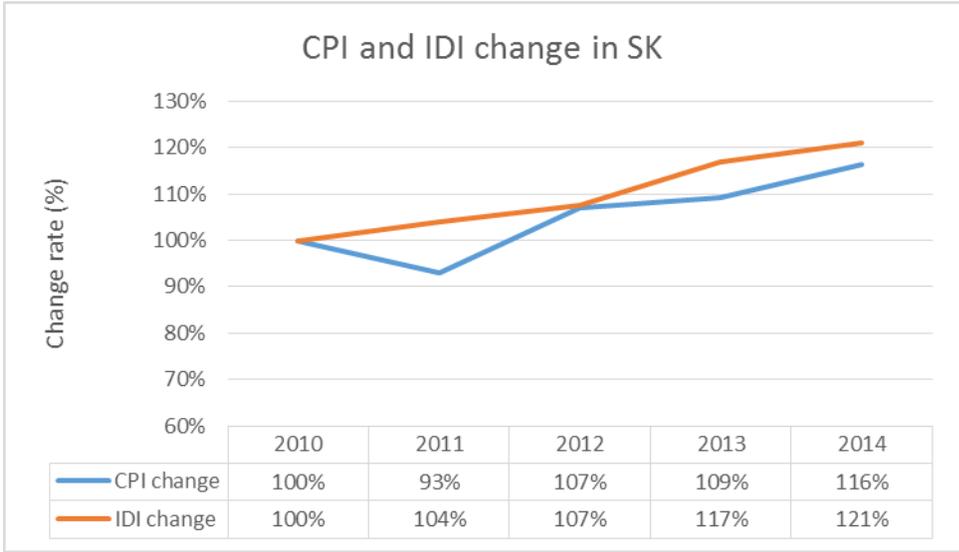
PICTURE 4. Source: Juhász (2016)

CPI and IDI change in HU	2010	2011	2012	2013	2014
CPI change	100%	98%	117%	115%	115%
IDI change	100%	104%	110%	118%	123%
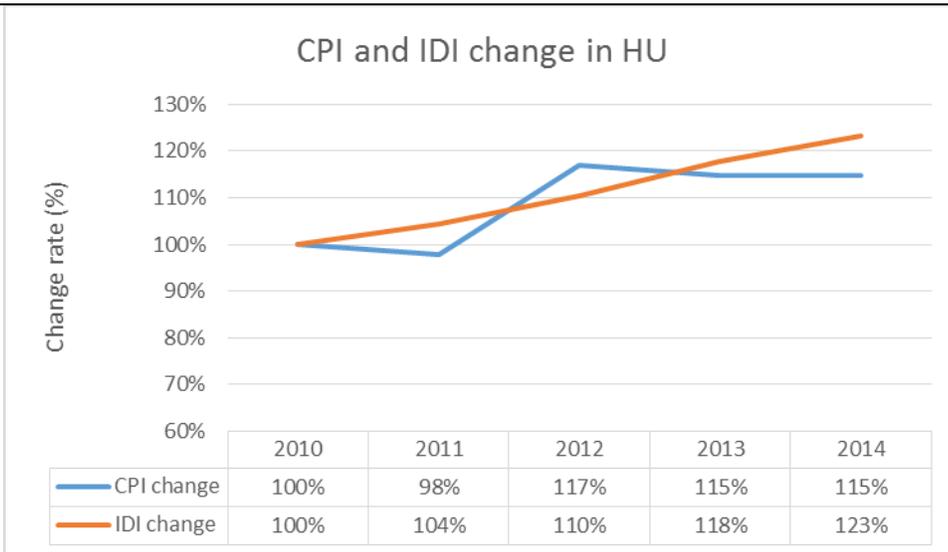
PICTURE 5.Source: Juhász (2016)

Hungary as a 'plugged in' country basically has a traditional public service broadcast network as well as a commercial broadcast media market in both television and radio sphere, and a more than 170 years old public print media. Beside this, new media (a variety of online and mobile info-communication technologies) means a fast growing part of media use. Media usage patterns, however, show a quite different structure in different generations and socio-culture groups (NMHH 2014). Television as the generally most important source of information about public life events and news has a presence of 95% in the whole Hungarian population's media use. In comparison, internet users are only a good 60% of the population, and 49% use social networking systems at least once a week (Eurobarometer, 2015: 9.). The younger the media user is the most likely he has a stable practical knowledge and set of skills in social media and mobile technology.

Summary and considerations for moving forward

In Hungary, there are only a few published researches more or less attaching to the topic detailed here, moreover all of them is rather quantitative. Among others, a research report about youth and corruption in Hungary by Transparency International (2012) claims that more than 80% of young people aged 15-29 years think that honesty is important property, but it's not paid off. What's more, although they know about corruption cases due to the media, their majority claim that this phenomenon does not appear in their everyday life. A kind of gap between media representation and individual experiences can be recognised here. Another research from 2013 was aimed at exploring the knowledge about corruption in higher education system in Hungary. Its results (Transparency International 2013) outlines that only a minority (ca. 20%) of the students in higher education is interested in news about corruption. This provoking number raises the question: is there any correlation in media consuming habit and attitude towards corruption? (About the ethical considerations of media literacy and their impact on the above-detailed

three corruption factors see Bokor [2016].)

Merging these considerations detailed above, social science can put an important question into the focus of media studies: What kind of relations may be explored between media usage patterns and generations' attitude towards corruption? A further study is required to point out the possible correlations, which has a necessity to clear the definition of corruption in the head of people and to map what they see as corruption as well as what they think about this. Basing on the results we will be able to map how media can influence their attitudes towards different misuses of commonwealth.

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FILM AND MUSIC VIDEO PRODUTION FOR YOUTH DEVELOPMENT	VOGT, TOM
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Abstract: In Augsburg, Germany we started up our first University-Community Links project (http://uclinks.berkeley.edu/research) in the winter of 2004, working with predominantly Turkish and Russian youth and families. With funding from a "valuing diversity" award from the Körber Foundation (www.usable.de), we are now also working with three additional schools and two community centers in the Augsburg area. On the university side, I meet with my students at the beginning of each semester, and introduce them to The UC Links story and the basic principles of Participatory Action Research, starting with the crucial ideas of learning through active participation, designing for sustainability, and writing good field notes. We read chunks of John Dewey's *Democracy and Education*, *Experience and Nature* and *Art as Experience*, all available to students in both German and English, as a way to historically ground our 'learning communities' approach to integrating theory, practice, and the promise of educational technologies.

After an initial face-to-face meeting, I then podcast all of my subsequent lectures, so that the university students have the time to actually go out into the schools and community centers and work with local youth. We use 'digicampus' (www.digicampus.de), a Moodle-like interface, to coordinate ongoing activities, reserve video equipment, share field notes, and openly discuss podcasted lectures and reading materials. Our student field notes function both microgenetically, showing how concrete learning scenarios play out in real time during our project work, and macrogenetically, showing how the projects themselves develop institutionally over comparatively longer stretches of time. Our "Begleitstudium" (literally meaning "accompanying study" but functioning more like an "independent study") enables students to continue working in the projects for up to three additional semesters after taking the original seminar (see http://begleitstudium.imb-uni- augsburg.de). This helps us to form 'Project Coordinator' positions for highly motivated university students and to develop new projects in the Augsburg area. Our project work with local schools and community centers consists of twelve, one and a half hour afternoon sessions per semester, capped off by a 'film and music video party' at the end of each semester, where we celebrate our joint creativity with parents, teachers, social workers, and school principals.

In order to understand the lived experiences, social realities, and human potentials which drive such projects, I think it is very important to look closely at the processes involved. So, for this reason, I offer here a concrete description of the first music video that we made with eleven to fourteen year old youth in the Königsbrunna area, a suburb of Augsburg, about a 10 minute drive from the university campus.

Introduction

Thank you for this opportunity to speak about film and music video production, our international network of research projects know as University-Community Links, and our empowering Participatory Action Research framework. I teach a 'Learning Communities' Seminar at the University of Augsburg, in the southern part of Germany, about a 45 minute drive away from Munich. My seminar is closely connected to an international and interdisciplinary research network know as University-Community Links, where we create and sustain win-win partnerships between universities and community institutions such as community centres, youth clubs, and schools (see http://uclinks.berkeley.edu/research).

In Augsburg, we started up our first UC Links project in the winter of 2004, working with predominantly Turkish and Russian youth and families. With funding from a "valuing diversity" award from the Körber Foundation (www.usable.de), we are now also working with three additional schools and two community centres in the Augsburg area. On the university side, I meet with my students at the beginning of each semester, introduce them to The UC Links story and the basic principles of Participatory Action Research, i.e. learning through active participation, designing for sustainability, and writing good

field notes. We read chunks of John Dewey's *Democracy and Education* and *Art as Experience*, all available to students in both German and English, as a way to historically ground our 'learning communities' approach to integrating theory, practice, and the promise of educational technologies.

After this initial face-to-face meeting, I then podcast all of my subsequent lectures, so that the university students have the time to actually go out into the schools and community centres and work with local youth. We use 'digicampus' (www.digicampus.de), a Moodle-like interface, to coordinate ongoing activities, reserve video equipment, share field notes, and openly discuss podcasted lectures and reading materials. Our student's field notes function both microgenetically, showing how concrete learning scenarios play out in real time during our project work, and macrogenetically, showing how the projects themselves develop institutionally over comparatively longer stretches of time. Our "Begleitstudium" (literally meaning "accompanying study" but functioning more like an "independent study") enables students to continue working in the projects for up to three additional semesters after taking the original seminar (see http://begleitstudium.imb-uni-augsburg.de). This helps us to form 'Project Coordinator' positions for highly motivated university students and to develop new projects in the Augsburg area

Engaging Youth in Film and Music Video Production

Our project work with local schools and community centers consists of twelve, one and a half hour afternoon sessions per semester, capped off by a 'film and music video party' at the end of each semester, where we celebrate our joint creativity with parents, teachers, social workers, and school principals. In order to understand the lived experiences, social realities, and human potentials which drive such projects, I think it is very important to look closely at the processes involved. So, for this reason, I offer here a concrete description of the first music video that we made with eleven to fourteen year old youth in the Königsbrunn area, a suburb of Augsburg, about a 10 minute drive from the university campus.

We started off the Königsbrunn site by using digital storytelling (Hull 2005) as a way for participating youth to tell us about themselves, their school, their heroes, and, above all, as it turned out, Sido, a German rapper (see www.sido.de). Through this initial activity, we knew that using pop culture, and music, especially, would be a good way to establish connections, because the kids were, to put it in a nutshell, completely fed up with school. As one of the university students, Kathrin Stangl, expressed it in her fieldnotes,

Ich bin der Meinung, dass man über Musik oder Sport die Kinder gut. Erreichen kann, wofür sie sich begeistern können und (ganz wichtig!) das nichts mit der Schule zu tun hat. (KS/19.05.2010)

(I am of the opinion that one can reach the kids through music or sports,things which they enjoy and, (very importantly!) things that have nothingto do with school.)

After a couple of sessions with digital storytelling, we moved on and did some brainstorming with the kids about what kind of films or music videos they wanted to make. As is often the case, things got split pretty much along gender lines. The seven young girls in the project all wanted to create a music video, while the boys were more interested in doing 'a Kung Fu Movie'.

The music video that we produced is entitled "Respektier mich!" ('Respect me!'), and tells the story of a young girl who has to prove to herself and others that she is a good enough soccer player to play with the boys. With a little help from her teacher, she gets her chance and scores a goal as the final whistle sounds. Here are the lyrics of the song, which the kids and university students wrote together, in the original German and translated into English:

‚Respektier Mich!' – a music video by the 5D-Königsbrunn team

First Verse:	English translation

"Guten Morgen, Fußballwelt   Good morning soccer world,
Du bist das, was mir gefällt!   You are what turns me on!
Ab ins Bad, ich zieh mich an,   Into the bathroom, I dress myself,
jetzt sind andre Zeiten dran.   now is a different time.
Früher wurd ich nicht gewählt,   Before, I wasn't chosen,
hab bei jedem Spiel gefehlt.   couldn't play in any of the games.
Jungs waren immer so gemein,   The boys were always so mean,
in kein Team kam'n Mädchen rein.   no girls were allowed to play.
„Hallo ihr, ich bin noch frei!"   "Hey you guys, I want to play!"
„Vergiss es, du bist nicht dabei"   "Forget it, you can't play"
Ganz alleine stand ich da,   All alone, I'm standing there,
keiner sagte zu mir ‚ja'   nobody says 'yes' to me.
Heute bin ich mit dabei,   Today I'm playing,
schieß ein Tor und auch mal zwei.   scoring a goal and sometimes two.
Denn auch Mädchen können zocken,   So girls can also kick the ball,
und im Fußball richtig rocken.   and in soccer really rock.

Chorus:

Hey, respektier mich,   Hey, respect me,
so wie ich bin.   just as I am.
Akzeptier mich.   Accept me.
Denkst du nicht   Don't you think
Das macht Sinn.   it makes sense?
Gleich, das ist doch,   Equal, that's indeed,
was wir sind.   what we are.
Zusammen stark,   Together strong,
seht ihrs nicht? Seid ihr blind?   don't you see? Are you blind?

Second Verse:

Große Pause, bin allein   During recess, I'm alone,
das will ich nicht, das kann nicht sein.   I don't want this, it can't be.

Als der Lehrer mich so sah,	As the teacher saw me so,
wurde es ihm plötzlich klar.	it was suddenly clear to him.
„Das ist einfach ungerecht,	"This is simply unfair,
ihr wählt nur nach dem Geschlecht.	You are choosing only by gender.
Seid doch zu den Mädels fair,	Be fair to the girls,
oder fällt euch das so schwer?"	Or is that so hard for you?"
„Mädachenfußball, was'n Scheiß	"Girl's Soccer, how ridiculous,
Ihr könnt was? Bringt uns den Beweis!"	Can you play? Then show us!"
Der große Traum zum greifen nah,	The big dream so near,
Bald bin ich ein Fußballstar.	soon I'm a soccer star.
Nach der Halbzeit wieder vor	After halftime, running ahead again,
Kurz vom Schlusspfiff endlich: TOR!	before the final whistle, finally: GOAL!

Chorus:
(same as above)

Teamwork: As Sociogenesis

The thing that I'd like to illustrate at this point, is that there are always multiple levels of teamwork going on simultaneously. At the most immediate human-interaction level, the activity of practicing and performing a dance together is another interesting example of the social construction of embodied intersubjectivity, i.e. coordinating one's own actions while, at the same time, adjusting one's actions to fit with the actions of others, or, to use Dewey's terms, engaging in a "contemporaneous response to a thing as entering into the other's behavior, and this upon both sides" (Dewey 1925, 179). The 'thing' involved here, music, is a very special kind of boundary object (Boesche 1997) where rhythm, harmony, melody, and social energy flow together and function in an aesthetically holistic way (Blackmann 2008, Sullivan 2001). This robust form of intersubjectivity, common in team sports, can unfortunately be lost in multimedia learning projects if the computer screen itself comes to dominate instead of human interactions.

Then, there is also the ethical aspect of the song, this demanding of respect, which gets its life, in part, through the efforts of the school's principal, Michael Ettel, who entered the song in a state wide contest about breaking through gender stereotypes (see, in German, www.rollenbrecher.de).

The most important form of interaction in our projects, however, is always that between the youth and the university students. The social and cognitive development of both university students and school aged youth is largely constituted in, for, and through the human interactions which they create together. Consider, for example, Raffaela Benz, who was into her third semester of working in the project and, consequently, got to know the kids on a more personal level. With her Mac laptop and *Garage Band* in hand, Raffaela took the initiative and the time to talk with the kids in some depth about their favorite songs and styles of music. Together, they tried out different beats, and then voted on which ones they liked best.

In the beginning, some of the girls refused to work with each other, because they had differing 'fine

distinctions' of musical tastes and very different ideas about what was cool and what was not cool. Julia, for example, the most talented singer, wanted to sing a love song expressing the tender remorse and pain of being dumped by her boyfriend. She was not persuaded by an explicit argument that the point of the contest was to show how strong young girls can be. Somehow, though, through the processes of working together with the university students, clapping together to different beats and continuing to work on the text, she finally agreed that it would be better to sing an upbeat song about a girl who wanted to play soccer with the boys. This proved to be the major breakthrough in terms of team spirit. As another university student, Julia Dashevska, put it in her fieldnotes,

> Endlich waren wir alle sehr stolz über die geleistete Arbeit, vor allem
> darüber, dass es uns gelungen ist, die doch komplexe Problematik
> der Geschlechtergleichstellung in den Song einzubauen; die Mädchen
> scheinen sich sehr wohl zu fühlen, das sie gar nicht mehr aufhören
> wollten, was uns gezeigt hat, dass es ihnen Spaß macht und sie
> mit dem Text identifizieren können. (JD/23.05.2010)

> (Finally we were all very proud over our achievements, especially
> that we were able to address the complex problem of gender
> equality in the song. The girls appeared to feel very good about
> themselves and didn't want to stop showing us that they were
> having fun and that they could identify with the text.)

In the actual shooting of the video, another one of my students, Jens Hansen, proved to be very gifted in being able to see what was necessary to capture on video, what could be edited out later, and how to communicate all of this to the kids in an informal way. He would just say things like – "Michelle, da bleiben und einfach einen Tur scheißen" ('stand over there and kick the ball toward the goal'), etc. He also put in tremendous amounts of time finishing up the video editing under pressure, because we had to complete everything by the end of the semester.

Madeleine Schuster, also into her third semester with the project, created a DVD cover on her own initiative, so that each child could go home with a DVD in their hands. Perhaps most rewarding of all, however, was that, to the surprise of many of the university students, the young girls worked overtime on their dance moves and memorizing the lyrics of the song by heart. In other words, they too, like the university students, rose to the challenge. To enable this, the school's partnership with the local youth club (www.youzbrunn.jimdo.com) came into play, because it provided the dancers with additional time for practicing on a stage *with* a dance instructor. University student Ahmed Dinari expressed his surprise this way,

> Als die Kinder uns zeigten, was sie geschrieben haben und was sie
> für eine Choreographie studiert haben, war ich sehr positive überrascht,
> da ich schon Zweifel hatte, ob sie tatsächlich in der Lage sind,
> den Text zu schreiben. (AD/09.05.2010)

(As the children showed us what they wrote and the chore-
ography that they mastered, I was very surprised in a positive way,
because I was doubtful if they had the ability to actually write the text.)

In the end, everybody's efforts paid off, because the entire dance team was invited to perform live in the state's contest finals in Nürnberg, about a two hour bus ride from the school. At this point, the parents got involved by making pom-poms and soccer uniforms for the girls to dance in. In their live performance of 'Respektier mich!', the dance team finished fourth out of the ten final teams, won some prize money for their school, and, more importantly, took home memories to last a lifetime (see www.myheimat.de/koenigsbrunn/kultur/sonderpreis-fuer-die-mittelschule-sued-beim-rollenbrecher-wettbewerb-d1194399.html).

Happily, our project work is supported by an empowering Participatory Action Research (PAR) framework. Historically speaking, this means

TABLE 1 THE HISTORICAL FOUNDATIONS OF PARTICIPATORY ACTION RESEARCH

Team Sociogenesis vs.	The Procrusteans
Dewey vs.	Plato
Vygotsky vs.	Descartes
(later) Wittgenstein vs.	Positivism

Building on John Dewey's *Quest for Certainty* (1923), this is essentially Richard Rorty's historical bird's-eye-view from which we can see Dewey's life and work as "a vision of a new kind of society" in which "culture is no longer dominated by the ideal of objective cognition but that of aesthetic enhancement" (Rorty 1979, 13). This has particular implications for linguistic development, i.e. endorses a view of language as social action.

TABLE 2 LANGUAGE AS SOCIAL ACTION

Team Sociogenesis: Language as social action	Hello» and »good-bye
Dewey: Language as a tool of tools	meaning in the making »the museum myth of meaning
Vygotsky: The Protean nature of meaning making and the preponderance of sense (last chapter of *Thinking and Speech*)	contextual approaches »methodological individualism
(later) Wittgenstein: 'Language games' within 'forms of life'	varieties of holisms »Cartesian reductionism

By combinig PAR with educational technologies, social media included, we are able to create and

sustain the kind of inter-institutional, functional systems necessary to respond to our postmodern challenges. I would be especially interested in creating such win-win partnerships or two here in Prague, where we could work together for the common good.

From a Pedagogical Point of View

In conlusion, we think that these kinds of activities and ways of connecting theories and practices are examples of win-win partnerships between universities, schools, and community centers. As you can probably imagine, film and music video production, in particular, involves the kind of organized chaos (Dewey 1899) in which learning communities thrive. On the university side, my students are constantly telling me how much they appreciate the opportunities to connect social learning theory to concrete educational practices. At the schools and community centers, we see a positive transformation of youth motivation levels and forms of engagement through authentic literacy, language learning, media competencies, and learning to work together. We are continually developing the projects at local, national, and international levels (e.g. www.livingknowledge.org), and look forward to your questions, comments, and also, hopefully, some flexible, open, and sustainable forms of cooperation.

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Youth and media

CONTRIBUTING TO WIKIPEDIA AS AN ASSIGNMENT FOR UNDERGRADUATE STUDENTS	REIMERS GABRIEL Quality and Usability Lab Technische Universität Berlin, Germany NEOVESKY, ANNA Digitale Akademie, Akademie der Wissenschaften und der Literatur, Mainz, Germany

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Key words: Learner Generated Content, Wiki, Active Learning, Wikipedia.

Abstract: Wikis are widely used in teaching to engage students in active learning and create learning resources in form of learner generated content.

Usually classes or courses create their private wiki, which students fill with content created in the context of the course.

At TU Berlin we had about 120 students of the course "Introduction to Media Informatics" create public domain content on the official Wikipedia.

Contributing to Wikipedia was one of 13 homework assignments, which were rewarded with bonus points for the written exam. Tasks were: correcting errors or adding missing sources to existing articles as well as creating new content like images or text paragraphs.

The students were free to contribute content on any topic as long as it was somehow related to the field of Media Informatics

Before the assignment was given out at the start of the semester, students were surveyed on how much they use and trust Wikipedia as well as how confident they perceived themselves to contribute to Wikipedia.

The main finding was that students are not very confident in their ability to create valuable content on Wikipedia. The students also reported that they found the assignment too work intensive and did not know where to start. Despite the possibility to earn bonus points for their final grade, only about 20% of the students handed in the Wikipedia assignment.

All in all, the assignment was not very popular among students and did not yield the expected engagement. From that experience we conclude that the tasks were too open and unspecific. While students were interested in contributing to Wikipedia, much more guidance should have been provided on how and what to contribute.

Introduction

Worldwide, Wikipedia is the 6th most visited website. Different from many other sites, the content is not provided by an institution, but by volunteers. The English Wikipedia has currently over 28 million users who are registered with a user name. About 130,000 have edited the Wikipedia in the last 30 days. In addition, there is a large number of contributions from unregistered persons. About one quarter of the Wikipedians is under 18. In all age groups, men are the vast majority of editors (87%). About 30,000 of them are considered active users with several edits per month. (Simonite 2013, Wikipedia 2016)

In a survey in 2007 on motives for the participation, most people stated "fun", "ideology" and" values", with" career and social aspects being the least frequent motives. (Nov 2007) Nevertheless, the Wikipedia community is shrinking. Since 2007, it has shrunk by over a third. (Simonite 2013) In the German Wikipedia, there were about 1000 active authors in 2007, in 2016 only about 850. (Herbold 2016).

Wikis have been used in teaching for several years and studies show increased engagement and

collaboration among students. (Wheeler 2007, Coutinho 2007, Woo 2011). However, in most use cases wikis are used mostly to foster collaborative writing and not to create knowledge databases for a broader audience. Usually blank wikis are created for a single course and the collected information is not made public. Especially for university courses we consider the students' knowledge to be more than sufficient for creating valuable public content on wikis. Sarah Guth at the University of Padua examined whether for wikis in education, public is better. (Guth 2007) In her study undergraduate students edited two wikis, one public and one semi-public (accessible for students only). Guth concludes that while students were more intimidated by the public wiki, they also gained a greater sense of collective ownership and knowledge sharing.

To counteract on declining numbers of editors the Wikimedia Foundation launched the Wikipedia Public Policy Initiative (WPPI) in 2010. The initiative worked with policy classes at US universities to make contributing to Wikipedia part of their course activities. Lampe, Obar et. al. did a survey among participating students (2012) and found that 72% of the students prefered the Wikipedia assignments over traditional course work. Also 4% of the students edited Wikipedia even after the class ended, which is a much higher value than the 0.00002% average returning editors on Wikipedia.

The chair of the Quality and Usability Lab of Technische Universität Berlin is offering the class "Introduction to Media Informatics", which is the compulsory class for first semester students of the "Media Informatics" program. In previous years we noticed that students copy a significant portion of the homework assignments directly from Wikipedia or at least use Wikipedia as their primary source. So, one thing we wanted to examine is the students' attitude towards Wikipedia. Especially to what extent they consider Wikipedia as a trustworthy source and how confident they feel to contribute knowledge themselves.

To have students get a greater sense of how Wikipedia content is being created, we wanted them to contribute own content. As the course covers a wide field of topics from computer science and media theory, we assumed there would be plenty of possibilities where students can extend or correct existing articles.

Conditions and Study Setup

This study was conducted in context of the course "Introduction to Media Informatics" during the winter term 2015/16. The course had about 130 students in the beginning and about 100 who took the exam, which is a natural dropout rate for computer science classes at TU Berlin.

The course participants were mostly first semester students in the program "Media Informatics". Some students (ca. 20) joined from higher semesters in "Computer Science" or "Computer Engineering". The

course gives an overview of basics in Computer Science like information encoding, data compression, media formats and web technologies as well as foundations in human computer interaction like modalities and perception. The curriculum consists of 2 hours lectures and 2 hours of practical exercises per week. In addition to the exercises students were given 13 graded homework assignments, which were required to be completed in teams of two.

Achieving 33% of the homework points was a prerequisite for the written exam at the end of the semester. Points that exceeded 33% were rewarded as bonus for the exam. A maximum of 10 percentage points in bonus could be earned that way if students have completed 100% of the homework. So each homework assignment was worth about 1 percentage point bonus for the exam. 12 homework assignments were regular question and answer word sheets due every week. 1 was on editing Wikipedia, given out at start of semester and due just before the exam, so the students had about 13 weeks to complete it.

The Wikipedia assignment contained 4 tasks:

- - Add two missing sources in an existing Wikipedia article (20%)

- - Improve an existing Wikipedia article by fixing typos or making language clearer (20%)

- - Expand a Wikipedia article by a self-created graphic or photo (30%)

- - Create a new article or expand an existing article by 1-2 paragraphs (30%)

Part of the very first homework was to complete an online survey about their attitude towards Wikipedia. To get an unbiased picture, students were only told about the Wikipedia assignments after the survey was completed in the second week of the semester.

Students' attitude towards Wikipedia

During the first week of the semester, students were rewarded with 10 out of 100 points of the first homework for filling out an anonymous online survey on google forms. With 129 participants, almost all students filled out the survey.

In the online survey, we first wanted to know whether students had contributed to Wikipedia before. 116 (89.9%) reported to have never contributed own content to Wikipedia. Another 10 (7.8%) said to contribute once per year or less. 3 participants contribute multiple times per year. When asked about editing existing content 12 (9.3%) reported to do so regularly (multiple times per year or more often).

We then gave the participants several statements on their attitude towards Wikipedia and asked them how much they agreed or disagreed with these statements on a scale from 1 (= totally disagree) to 5 (= fully agree). The full results of these items are displayed in Table 1.

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As we had expected, the majority of participants considered Wikipedia a trustworthy source. 54% (fully) agreed on the statement "In General Wikipedia is a reliable source for me." (see Fig. 1) They also seemed confident in judging how trustworthy specific content is as 51% (fully) agreed on "I can estimate

In general Wikipedia is a reliable source for me.
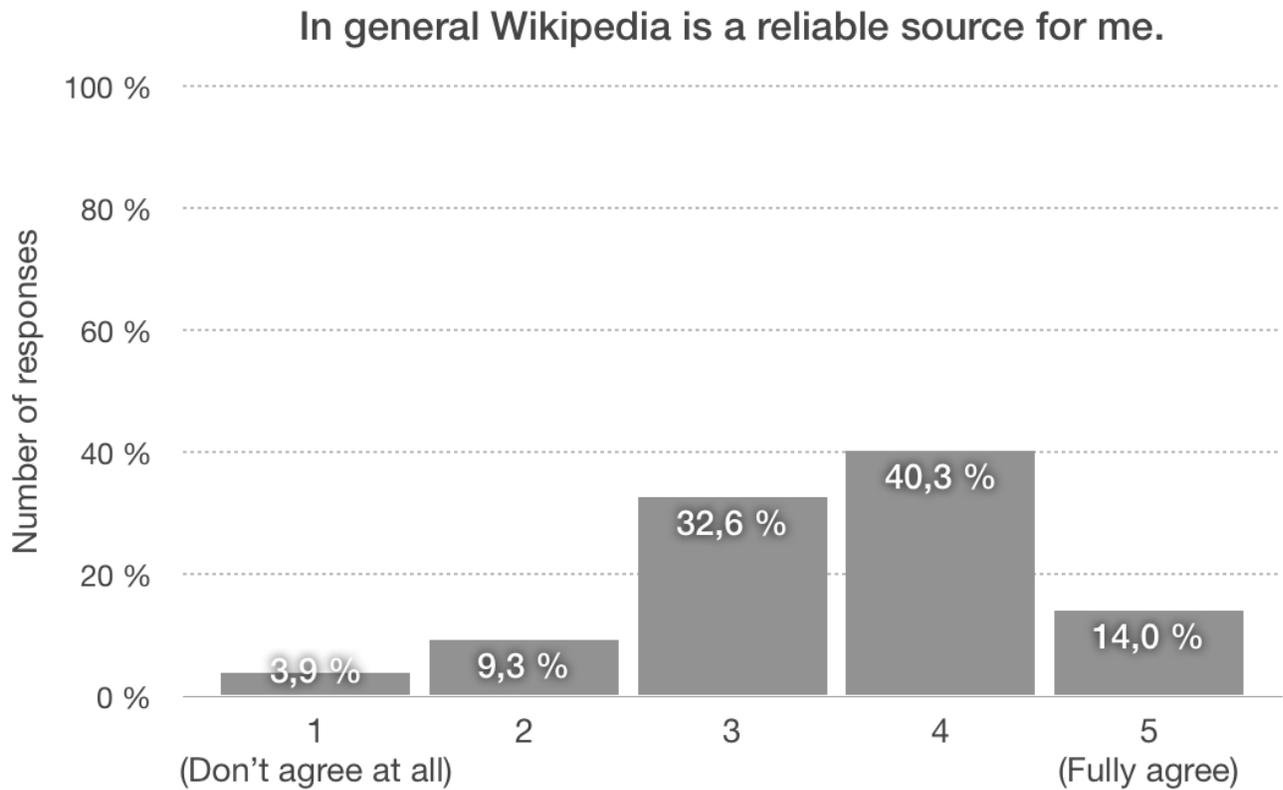
FIGURE 1 WIKIPEDIA AS REALIABLE SOURCE

how trustworthy Information on Wikipedia is."

Also 48% of participants (fully) agreed to "Statements in Wikipedia articles relevant for me are sufficiently proved with references." with only 29% (totally) disagreeing on that. Still a majority of 56% (fully) agreed to "validate statements on Wikipedia using other sources".

When asked about their confidence in making own contributions to Wikipedia, however, participants were more cautious. Only 15% (fully) agreed to "feel competent to contribute own content to Wikipedia". The majority of 57% (totally) disagreed with that statement. (see Fig. 2) They felt slightly more competent "to complete content on Wikipedia […]". 28% (fully) agreed to that statement with 41% (totally) disagreeing.

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I feel competent to contribute own content to Wikipedia.
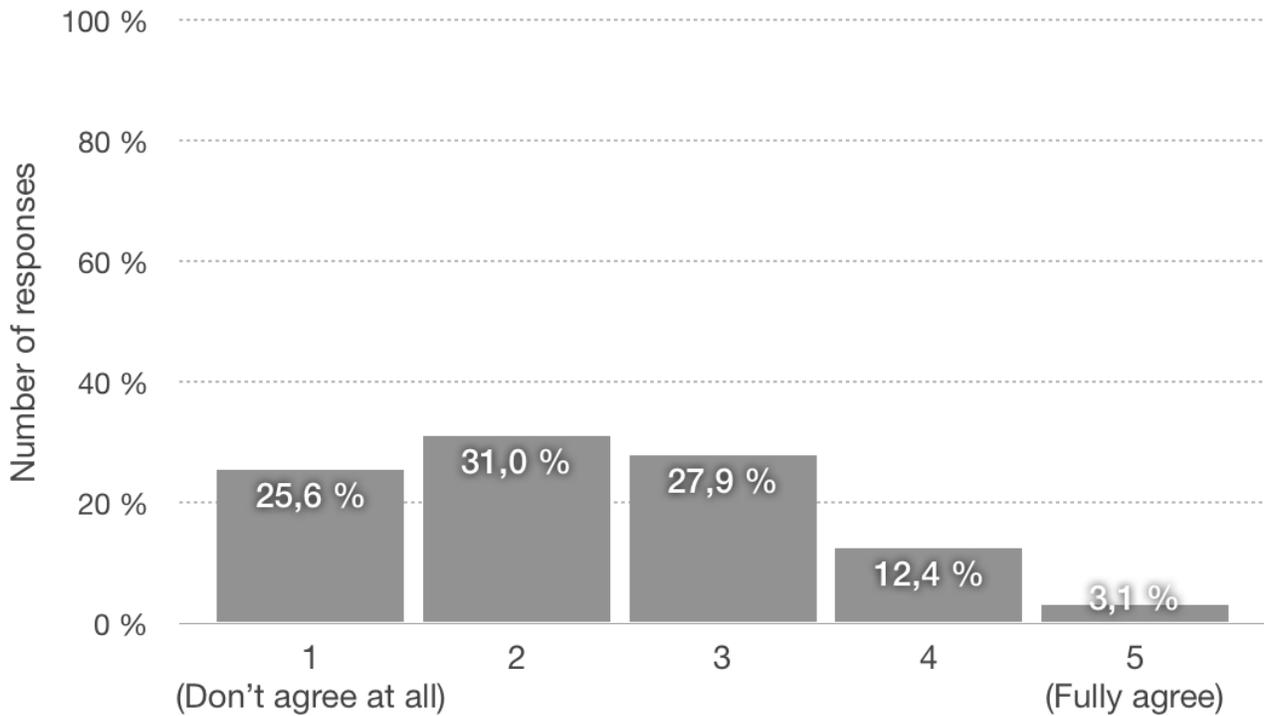
FIGURE 2 I FEEL COMPETENT TO CONTRIBUTE OWN CONTENT TO WIKIPEDIA

TABLE 1. RESULTS OF THE ONLINE SURVEY						
Statement	**1**	**2**	**3**	**4**	**5**	**Mean**
In general W. is a reliable source for me.	4 %	9 %	33 %	40 %	14 %	3.5
I can estimate how trustworthy information on W. is.	5 %	12 %	33 %	46 %	5 %	3.4
W. articles relevant for me are written by experts.	6 %	12 %	50 %	24 %	7 %	3.1
W. articles relevant for me are sufficiently up to date.	2 %	7 %	35 %	40 %	16 %	3.6
W. articles relevant for me are sufficiently detailed.	2 %	16 %	30 %	41 %	11 %	3.4
Statements in W. articles relevant for me are sufficiently proved with references.	3 %	16 %	33 %	36 %	12 %	3.4
I validate statements on W. using other sources.	7 %	15 %	23 %	23 %	33 %	3.6
I feel competent to contribute own content to W.	26 %	31 %	28 %	12 %	3 %	2.4
I feel competent to complete content on W. myself.	20 %	21 %	31 %	19 %	9 %	2.8
Other users can contribute more to W. than I can.	2 %	8 %	30 %	33 %	27 %	3.7
All I could contribute already exists on W.	11 %	20 %	36 %	24 %	9 %	3.0
Note: Questions originally in German. Translated here by the author. Participants where asked "How much do you agree to the following statements"? For each statement item a Likert-Scale was given with values from 1 (totally disagree) to 5 (fully agree).						

So, while students had much confidence in the quality of Wikipedia content, they did not feel qualified enough to make own contributions. We hoped to change that impression by having them edit Wikipedia as a homework assignment throughout the semester.

Reception and results of the assignment

Almost all students participating in the exam (ca. 100–110) handed in each of the 12 regular homework assignments. The Wikipedia assignment, however, was only handed in by 41 students.

We also asked students to fill out another survey on their attitude towards Wikipedia at the end of the term when all assignments were finished. This survey included the same questions as the one from the beginning of the semester and we hoped to see a change in attitude as a result of the active engagement with Wikipedia content. Unfortunately, only 23 students filled out the survey of which 65.2% had actually completed the Wikipedia assignment. Because of the small sample size, no statistically relevant comparison with the results from the first survey can be drawn.

However, the survey had a free form field "How did you like the Wikipedia assignment" which gave some qualitative feedback. That anonymous, qualitative feedback reflected what students had also reported in person during lectures.

Some students said they enjoyed the homework. One student said "I have learnt a lot about Wikipedia and judge information on Wikipedia more critically than before." Even though several students liked the idea to "encourage contributions on Wikipedia", the majority of participants was not happy about the assignment. Those who completed it said they did so only for the bonus points but did not enjoy the task. Three participants described the task as "pointless". The main complaints were (together with some representative answers in the free form field of the survey):

1. Finding articles where content can be added is too hard / time consuming
2. "Very lavish: 1. Finding a username […] 2. Finding parts that are not described, yet […] 3. Creating photos [for things] that have no example, yet […] 4. Searching references that have been forgotten […]"
3. "Alone searching for erroneous/incomplete articles took way too long, so I did/could not do anything."
4. "Often [my] knowledge is already present on Wikipedia."
5. The restriction to content relevant to their field of study was to limited
6. "It is hard to find content that is not yet edited if it needs to be related to the topics of Media Informatics"
7. "To make getting started on contributing easier, it would make sense to allow other topics requiring

less know-how and limiting impact of wrong […] entries."

8. "If it's only about getting started with Wikipedia, the topic should not matter."

9. Not enough time

10. "There was just no time for that throughout the semester because of the other assignments and courses"

11. "At the end [of the semester] I spent too much time preparing for the exams to work on the assignment"

12. Restrictions and negative feedback from Wikipedia system or editors

13. "[…] when having a 'fresh' account you usually get hindered by Wikipedia on uploading images/graphics"

14. "Someone decided that my article would not be complete, yet, and moved it to a sub-page of my account. […] That demotivated me quite a bit."

Conclusion

This study had two aims. First, we wanted to evaluate what attitude students have towards Wikipedia and how competent they feel to make own contribution. Second, we wanted to see, if giving out Wikipedia editing as a homework assignment would be a meaningful task for students.

From our experience in that course and from the feedback we received, we draw the following conclusions and recommendation:

About 90% of the students reported in the survey that they don't feel competent to make contributions to Wikipedia. Even though state-of-the-science content is taught in the course, students feel like they don't know enough about their own field of study. It is important to give students confidence in their knowledge. Often they actually know more than what is written on Wikipedia.

While we provided links to the Wikipedia documentation, it was hard for students to understand the editing process and the quality standards for Wikipedia. We think it would be much easier for students if their instructor directly explained the important aspects to them. Also having all students set up an account in class and editing in the sandbox with their instructor, would probably have them take a big hurdle already.

The most fundamental aspect that we missed was that it was very hard for students to find articles on Wikipedia that can be improved. For future courses we would not make the task open anymore but would provide a fixed list of articles that we know lack content. Providing more scaffolding by giving out individual articles to work on would not only reduce the students' time effort but also makes it clear that the instructor is convinced they can provide valuable contribution to that article based on what they learnt in the course.

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We are still convinced that, especially in university teaching, it is more useful to have students contribute to a wide-public wiki like Wikipedia than to closed individual wikis. We overestimated students' motivation, self-confidence and willingness to work on such an open topic assignment but with more guiding and scaffolding we are sure that having students edit Wikipedia not only fosters their knowledge and make them more critical in picking sources but also benefits a wider public.

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THE ROLE OF MOTIVATION IN HIGHER EDUCATIONAL GAMIFICATION PRACTICE – EXTENDING THE ISSUE

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Abstract: Gamification is a popular method for motivating students in contemporary education and didactics. Some teachers saw it as a remedy (Huotari and Hamari 2012), others claim that gamification has to be carefully planned (Sheldon 2011) before applying it for low students' engagement problem (Laskowski and Badurowicz 2014). Therefore, gamification started to become a commonly accepted teaching tool, because it is based on the most well-known motivational method: playing games (McGonigal 2013). However, it has not been proved yet that gamification has positive effects (Dicheva and Dichev 2015; Robertson 2010; Nicholson 2012 etc.). As far as we can see, contemporary gamification practices focus mostly on gamifying rewarding techniques (scores, points, badges etc.), but they do not discuss the inner motivational possibilities of gamification. In our work we will discuss the elements of motivation concerning gamification practice including the possibilities of external and internal motivation tools. We will claim at first that long-term inner engagement – thus positive effect, including Flow-experience – could be reached by gamification in higher education practice *only if* certain games and game elements based on their *motivational nature* are classified and selected. At second, we will argue that extrinsic and intrinsic incentives are equally important for motivation if we fit them to the different personal needs, aims and goals of each student. Thus engaging all students in the same level is not a meaningful goal in higher educational practices, even with the tools of gamification. In order to confirm our hypothesis, we will conduct an analysis based on the wide range of motivation theories and approaches which discuss the power and effects of motivation in human activity (Vallerand, Gauvin, Halliwell 1986; Deci, Vallerand, Pelletier, Ryan 1991; Deci and Ryan 2000; Csíkszentmihályi 2001; Garris, Ahlers and Driskell 2002; Richter, Raban and Rafaeli 2015; etc.).

Introduction[1]

Intuition suggests that today's students, even when studying their chosen scientific field, are under-motivated in higher education. Even though students have got the opportunity to choose their specialization, thus their lectures and seminars as well, and these seminars are especially built up in accordance with the main interest of students, they are not really motivated to attend their courses or begin interaction with their teachers. Thus, teachers face with the everyday problem of engaging students (Ntoumanis 2001; Lee and Hammer 2011; Biggs and Tang 2007; Illés, Szabó and Szemere 2015; Dicheva, Dichev, Agre and Angelova 2015; etc).

This paper focuses on increasing students' motivation and engagement in higher education with the special tools and methods of gamification. Gamification is "[...] the use of game design elements in non-game contexts. This definition is related to similar concepts such as serious games, serious gaming, playful interaction, and game-based technologies." (Deterding, Khaled, Nacke and Dixon 2011, 1). Although there are debates on theorizing and applying gamification, we will not discuss this problem in this article. To mention shortly, we refer to gamification in an extended sense applied by Laskowski: "By definition, gamification means using the mechanics and techniques known from various kinds of games (including board games, role-playing or computer games) in order to increase user's involvement in performing various types of activities in non-gaming context, especially if those activities are considered boring or

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routine" (Laskowski 2013, 373). There are numerous scientific areas, including education that started to use gamification practices (El-Khuffash 2013; Richter, Raban and Rafaeli 2015). According to several authors (Sheldon 2011; Huotari and Hamari 2012; El-Khuffash 2013), gamification as a teaching tool could serve as a solution to the problem of under-motivated students. However, the positive effects of gamification have not been proved yet (Robertson 2010; Nicholson 2012; Dicheva and Dichev 2015).

The nature of motivation has got several types according to different students, learning aims and goals, in short personalized learning (Deci and Ryan 2008; Abbott 2014). Though a wide range of motivation theories exists (for e. g. Deci and Ryan's Self-Determination Theory – SDT, Csíkszentmihályi's Flow Theory etc.), gamification does not seem to discuss deeply the role of motivation itself in the process of teaching and learning. Richter, Raban and Rafaeli (2015) have already tried to fill this gap by proposing to link gamification to motivation theories. Other authors (McDonald 2010; Robertson 2010; Wu 2012 etc.) emphasize that there is an urgent need "[...] for developing gamification systems that create intrinsic motivations rather than replacing them with extrinsic rewards (points and badges) [...]" (Richter, Raban and Rafaeli 2015, 22).

With respect to this debate, the aim of the study in this article is to discuss the motivational possibilities of gamification including the extrinsic and intrinsic features[2] as well in order to develop gamification practice in higher education. We claim at first that long-term inner engagement – thus positive effects, including Flow-experience – could be reached by gamification in higher education practice *only if* certain games and game elements based on their *motivational nature* are classified and selected.[3] At second, we argue that extrinsic and intrinsic incentives are equally important and motivating if we fit them to the different personal needs, aims and goals of each student. Thus engaging all students in the same level is not a meaningful goal in higher educational practices, even with the tools of gamification.

This hypothesis is in contrast with several approaches, such as Dewey's opinion about student motivation and engagement: "If genuine interest is not captured, any inquiry that results will be an externally motivated one certain to result in poor focus and haphazard conclusions. This problem is the child's, not the teacher's. It is a waste of time and energy for the teacher to simply pronounce on what problem the student will begin with, if the student hasn't come to see this problem on, and as, his or her own." (Johnston 2014, 2422). It is similar to those views which focus on the benefits of the organization meant "[...] increasing the organization's bottom line in the short term" (Nicholson 2012, 5), instead of focusing on student-centered approaches.

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[2] For more details about extrinsic and intrinsic motivation see Section 1.
[3] We refer to motivational nature as the amount of opportunity in games for individual choices "[...] to engage in an activity and the intensity of efforts or persistence in that activity" (Richter, Raban and Rafaeli 2015, 24).

Our hypothesis also contradicts those standpoints about gamification which claim that "[...] if too many external controls are integrated with the activity, the user [i. e., student] can have negative feelings about engaging in the activity. To avoid negative feelings, the game-based elements of the activity need to be meaningful and rewarding without the need for external rewards" (Nicholson 2012, 2). We claim that external rewards in gamification, as a part of extrinsic motivation, are also required, but it is essential to take into consideration under what circumstances (students' needs, teaching and learning environment, the size of the learning groups etc.) we intend to apply them. In short: extrinsic and intrinsic dimensions of motivation are complement to one another according to students' purposes.

Our method is a secondary research based on the extension and reinterpretation of the role of motivation in gamification. We analyze the international literature about the relation of gamification and motivation from a critical point of view, offering a new conceptual framework.

In the first section we will discuss different students' motivational needs based on Deci's and Ryan's Self-Determination Theory (2008). Then we will give a short summary of the main characteristics and application of gamification in education. The central part of our paper is focusing on our motivation-based classification of gamification, where we discuss the issue of problem-solving, rewarding, feedback-giving practices and the role of Flow regarding students' needs. With this above-mentioned investigation we aim to justify our hypothesis. We hope that our research will play an important role in the development of motivating students in higher education with the help of gamification approach.

1. Difficulties of motivating students regarding extrinsic and intrinsic aspects

"Motivation and assessment both play a large part in student learning in higher education [...]" (Fry, Ketteridge and Marshall 2009, 9). There are several fields and approaches which discuss motivation (Vallerand, Gauvin, Halliwell 1986; Deci, Vallerand, Pelletier, Ryan 1991; Deci and Ryan 2000; Ntoumanis 2001; Garris, Ahlers and Driskell 2002; Biggs and Tang 2007; Richter, Raban and Rafaeli 2015; etc.). Regarding these theories, here we refer to motivation as a compelling force (external or internal) which triggers students' activity. Unfortunately, many teachers who teach in a higher educational environment do not have much formal knowledge about students' learning practices, aims and needs. Although the lecturers perceive that different generations have different learning styles and habits, there is a tendency which shows that some of the teachers are not aware of these changes, thus they do not reflect on them properly. (Fry, Ketteridge and Marshall 2009) This is a highly organization-centered approach which does not handle the individual goals and intentions of students that are more complex and

diversified in the case of higher education than that of secondary education. The former is about adults[4] who are genuinely motivated to continue their study and that is fully their own individual free choice.

Fortunately, in diametrically opposite of the above mentioned attitude, there are teachers in the academic sphere who started to emphasize student-centered approaches in their teaching practices. They argue that what "[...] is important about teaching is what it helps the learner to do, know or understand. [...] The rationale for the choice of teaching and assessment methods needs to consider how students learn, and the make-up of our student intake, rather than infrastructure or resource constraints, or inflexible 'requirements'" (Fry, Ketteridge and Marshall 2009, 24). They are teachers with the "desire to achieve: the motivated learner" (Garris, Ahlers and Driskell 2002, 444). One of their purposes in their own courses is to engage and activate students in a high level with different kinds of teaching tools, for instance with the method of gamification. They intend to make students "enthusiastic, focused, and engaged [...] enjoy what they are doing [...] persist over time [...] self-determined, driven by their own volition rather than external forces" (Garris, Ahlers and Driskell 2002, 444). Thus it seems that for them "the most potent motivators are internal" (Fry, Ketteridge and Marshall 2009, 14)[5]. But it is so hard to make students that motivated (Garris, Ahlers and Driskell 2002) and this is not an accident. According to our hypothesis, engaging all students in the same level is not a meaningful goal in higher educational practices, even with the tools of gamification. We do not think that all students should carry the above mentioned kind of characteristics of a motivated learner. "Humans have needs and desires that are universals and cross generations, demographic, cultures, and genders" (Beza 2011, 7), but special needs and purposes must also be considered, particularly in the case of student motivating practices.

If we intend to take in account the personalized learning, we should take a closer look on the two main aspects of motivation, namely extrinsic and intrinsic motivation, with respect to education. Students' "behavior can be extrinsically or intrinsically motivated" (Garris, Ahlers and Driskell 2002, 444). Extrinsic motivation is an instrumental-based engagement, a kind of self-expressional activity triggered by external factors to achieve certain goals. (Vallerand, Fortier and Guay 1997; Oláh and Bugán 2006). In gamification we regard these factors as rewarding systems with points, levels, badges, status, virtual goods, trophies etc. In this case students' volition is to accept and complete challenges, reach further levels on leaderboards in order to get higher status in a competition (Bunchball Inc. 2010; Lee and Hammer 2011).

Intrinsic motivation means performing tasks and activities derived from the inner intention of the student. This is a self-rewarding system where the students doing tasks only for the inherent pleasure and

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[4] We refer to adults as persons who are over 18 years old and study in the system of higher education, and not in the sense as Malcolm Knowles uses the term 'andragogy'. See more about this latter in Fry, Ketteridge and Marshall (2009).
[5] Although this statement of Malcolm Knowles is originally one of the five principles of andragogy (Knowles et al. 1984), we find that it is pretty much compatible with our conception of higher education students.

enjoyment of activity (Oláh and Bugán 2006). The "[...] primary factors that make an activity intrinsically motivating are challenge, curiosity, and fantasy [...]" (Garris, Ahlers and Driskell 2002, 444). In the background of intrinsic motivation, the following motives could be aiming at knowledge acquisition (learning, understanding etc.), progression and construction (sense of efficacy, challenge, goal-orientation), stimulation and going through an experience (Vallerand 1997).

It can be seen that the relation of extrinsic and intrinsic motivation is quite complex. In this respect, Deci and Ryan (2008)[6] created a comprehensible theory called Self-Determination Theory which "[...] encompasses both intrinsic and extrinsic motivation on a continuum from internal to external motivation" (Richter, Raban and Rafaeli 2015, 24). SDT differentiates the following three types of motivation: intrinsic motivation, amotivation and extrinsic motivation. This latter includes external regulation, introjected regulation, identified regulation and integrated regulation (See Figure 1) (Deci and Ryan 2000; Oláh and Bugán 2006; Richter, Raban and Rafaeli 2015).

FIGURE 1. SELF-DETERMINATION CONTINUUM SHOWING TYPES OF MOTIVATION WITH THEIR REGULATORY STYLES, LOCI OF CAUSALITY, AND CORRESPONDING PROCESSES
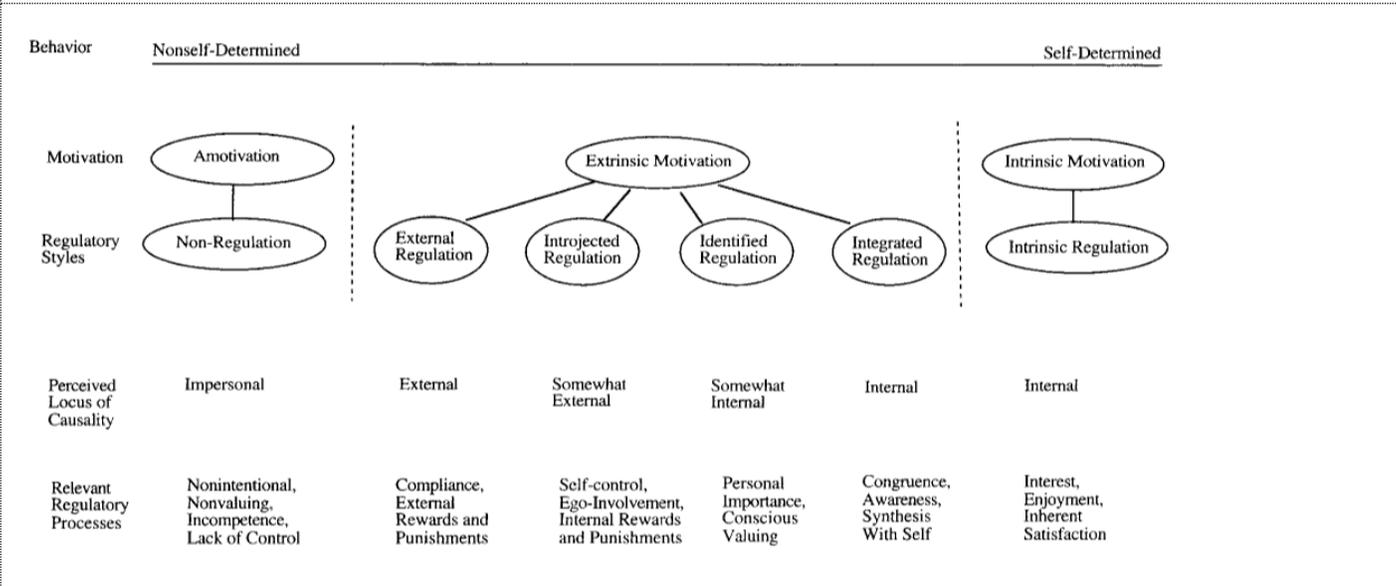
Source: Deci and Ryan 2000, 72

Regarding the effects of extrinsic and intrinsic motivation, "both intrinsic and extrinsic motives play a role in determining learner behavior" (Garris, Ahlers and Driskell 2002, 444). Cameron and Pierce (1994), conducting a meta-analysis of the effect of extrinsic rewards, found that the undermining effect of extrinsic motivators on intrinsic motivations was minimal and it had no consequence for educational policy. However, when Deci, Koestner and Ryan (2001) did their own research about this issue, they found that "[...] verbal rewards tended to enhance intrinsic motivation [...] and neither unexpected tangible rewards

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[6] The original 1985 SDT has been extended and applied by several scholars, for instance Vallerand, Gauvin and Halliwell 1986; Deci, Vallerand, Pelletier and Ryan 1991; Nicholson 2012; Richter, Raban and Rafael (2015) etc.

nor task-noncontingent tangible rewards affected intrinsic motivation, expected tangible rewards did significantly and substantially undermine intrinsic motivation, and this effect was quite robust" (Deci, Koestner and Ryan 2001, 15).

As we stated in our hypothesis, extrinsic and intrinsic incentives are equally important and motivating if we fit them to the different personal needs, aims and goals of each student. To fulfil this requirement, we should take Csíkszentmihályi's Flow-theory (2001) into consideration which "represents the feeling of complete and energized focus in an activity, with a high level of enjoyment and fulfillment" (Chen 2007, 31). As Csíkszentmihályi states, Flow means "the satisfying exhilarating feeling of creative accomplishment and heightened functioning" (Csíkszentmihályi 2000, xiii). Intuition suggests that some teachers think about Flow-experience as a remedy, because they believe that this will also mean long-term engagement. In contrast, we think that making students reach the Flow could be quite fascinating and it is worth working on it, but it must be taken into consideration that engaging all students in the same level is not a meaningful goal in higher educational practices, even with the tools of gamification. In short, according to the above-mentioned claim, "[...] there is indeed reason for teachers to exercise great care when using reward-based incentive systems" (Deci, Koestner, Ryan 2001, 2).

2. Applying game elements in the service of supporting education

With no doubt, gamification "has been a rising technology trend since 2010. Its growing popularity is stemming from the belief in its potential to foster motivation, behavioral changes, friendly competition and collaboration in different contexts [...] it has been applied in various domains including marketing, healthcare, human resources, training, environmental protection and wellbeing. One key sector where gamification techniques are being explored is education." (Dicheva and Dichev 2015, 1).

If we intend to go deeper in the discussion of gamification, it is better to go back to the roots and start from the notion of game itself. According to Huizinga, game is a "voluntary activity [... that] requires player to play it in a specific time and place and do it according to the established order and rules" (Laskowski 2013, 373). Defining game as a whole is quite difficult because in order to do so, we have to divide game into its building elements and examine its major features. As Huizinga claims, game is primarily a "free activity", and it is also "unnecessary" (Huizinga 1995:14), because we play games only if we feel the need and desire to do so. It is not a physical need, an obligation or a task to do, but a kind of 'exit' from ordinary life (Huizinga 1995). But the realization of 'just' playing does not exclude the seriousness of doing so. During playing, we forgot the activity of playing itself and this makes us feel joy (Huizinga 1995).

From the above-mentioned, a very essential conclusion also follows that "games are not only for children [...] adults also spend a significant amount of time with playing games" (Illés, Szabó and Szemere 2015, 48). This happens so because games "are enjoyable, and interactive and learners respond naturally to

this type of dynamic" (O'Riordan and Kirkland, 2008, 2). Moreover, in connection with playing games, a question arises "what if we thought about them as a platform for inventing the future of higher education?" (McGonigal, 2011 cited by Buck, 2013). As O'Riordan and Kirkland (2008) have already stated: if game "is an effect and engaging learning tool for children, there is no good reason why it should not work for engaging and developing learning in adults" (O'Riordan and Kirkland, 2008, 1).

After all that has been said, it is time to make a step forward and include the method of gamification into the discussion. As we have already stated in the Introduction, we apply the method of gamification in an extended way, such as Laskowski (2013) defined it. With the method of gamification, we can change the nature of tasks for the players/gamers/users or in our case: the students by offering them a specific structure of rules, rewards, achievements, competition and feedback. Teaching and learning within this framework could be a highly motivating experience that has got a strong – although disputed – effect on the person. Since gamification is a young and constantly changing field under progression, it is not surprising that there are many debates around its definition and conceptual framework.

In this study we do not intend to develop a concept of gamification or a categorization of different type of games, game elements and methods of gamification in detail but only those which are relevant to higher education. However, there are some parts of the debate which we cannot leave out of the discussion. According to Monu and Ralph, "three broad research streams are evident: definitions, effectiveness, and design" (Monu and Ralph 2013, 6). The first refers to the questionable relationship between gamification and serious games. Usually the literature about gamification makes a distinction between gamification and serious games, where the purpose of gamification is not to educate, but just free-time entertaining activity, while serious games is "to train, investigate, or advertise" (Breuer and Bente 2010; Muntean 2011; Susi et al. 2007 cite Richter, Raban, Rafaeli 2015, 22) and they" include learning content such as: science, history, languages, health skills, etc." (Younis and Loh 2010, 7).

Besides "[...] although various game design elements are recommended for non-game contexts, the relationships between each element and overall effectiveness is unclear" (Monu and Ralph 2013, 6). This point is quite important regarding the popular endeavors of involving gamification practices into educational systems. The whole concept of applying gamification in education – in our case especially in higher education – depends on having proper and deep knowledge about the motivating force, effects and usefulness of game elements on teaching and learning practices. Last but not least, game design processes are also vexed in the academic discourse because of the "[...] starkly different descriptions" (Monu and Ralph 2013, 6).

Aware of the debate about the concept of gamification and its criticism, it is important to mention that Werbach and Hunter distinguished three types of gamification from a business- and organization-centered perspective: internal gamification (for improving productivity within the organization), external

gamification (for improving relationship and loyalty between the organization and its outsider customers), and behavior-change gamification (Werbach and Hunter, 2012). From these this latter is the most important for us, because it "[...] can involve anything from encouraging people to make better health choices…to redesigning the classroom to make kids learn more while actually enjoying school" (Werbach and Hunter, 2012, ch. 1 cited by El-Khuffash 2013, 10). From this distinction, it can be seen that not all form of gamification is useful and applicable successfully in higher education.

However, while "the definitions of gamification have slight variations in the literature, overall they seem to agree on the fundamentals. [...] The idea of gamification is not to create a complete game, but to take certain aspects of games to drive user engagement and motivation" (El-Khuffash 2013, 16). Here, from a pedagogical point of view, what is important for us from the features of gamification is the so-called PBL triad, namely Points, Badges and Leaderboards used in gamification practices (El-Khuffash 2013, 11). Students can get points "whenever they accomplish something the system [teacher] is trying to encourage them to do. Points keep score, provide immediate feedback, create a sense of progression and provide valuable data [...]" for teachers (El-Khuffash 2013, 10). Werbach and Hunter (2012) define badges as achievements, as "[...] a chunkier version of points" (Werbach and Hunter, 2012, ch. 1 cited by El-Khuffash 2013, 10), while Zichermann and Cunningham refers to them as "visual points system" (Zichermann and Cunningham, 2011, 56). Badges are visual representations marking the successful completeness of an actual achievement. The third issue here is the leaderboards which show the order of the players/students relatively to each other. In connection with this latter, it is essential to note that there are debates about the application and effects of them, because "while they can be incredibly motivating, providing a user with a goal to accomplish, they can also be demotivating, causing users [students] who are very behind from the top to stop using the system [doing the tasks]" (El-Khuffash 2013, 11).

Beyond the PBL triad, there are other game elements which play an important role in gamified systems, and which are important from the perspective of motivating students as well. Some of the best known are the followings: *Levels* can refer to the user's status in a system and also progress what shows the user position in a system; *Challenges and Quests* are puzzles and tasks that require effort in order to solve them (Werbach and Hunter, 2012), based on point systems and focus on motivating users to accomplish even more difficult tasks; to participate a *Competition* means for users that they may compete with each other to the end winning or losing, and it also can determine "who can accomplish certain tasks quicker, better, etc." (El-Khuffash 2013, 12); *Cooperation* allows "users to work together and collaborate to accomplish certain tasks" (El-Khuffash 2013, 12); *Narrative* is an ongoing and consistent storyline (Werbach and Hunter 2012), being "perhaps one of the most overlooked aspects of games" and "one of the most powerful tools to engage users to complete a game" (El-Khuffash 2013, 12).

These incentives and reward mechanisms are efficient for engaging students, but they should be carefully chosen and students' needs and purposes should also be taken into consideration, because this is the only way we can achieve positive effects on them.

Gamification and its fundamentals having been discussed, we can say that "gamification in education refers to the introduction of game elements and gameful experiences in the design of learning processes". Beyond supporting learning, rewarding and motivating, gamification and its methods concern with learning related to "attitudes, activities and behaviors such as participatory approaches, collaboration, self-guided study, completion of assignments, making assessments easier and more effective, integration of exploratory approaches to learning, and strengthening student creativity and retention" (Caponetto et al., 2014, cited by Dicheva and Dichev 2015, 1). And not the least, application of game elements helps to improve students' activities and engagement.

Summing up this section, we can say that gamification is an interesting and rapidly developing trend and area with full of potential in education, that "— if applied correctly — may have a positive impact on both improving user experience and his commitment into performing the task" (Laskowski 2013, 376). Of course gamification is not a solution for all issues of engaging and motivating students in higher education. As Laskowski notes "implementing gamification mechanisms [...] should be carefully deliberated, especially in selecting the elements of the process which should be gamified" (Laskowski 2013, 376). Thus, following his suggestion, we can argue that "gamification cannot be limited only to applying points, badges and/or leaderboards to any process. In order to get the desired effect, the gamified factors should be implemented as the cohesive elements of the whole application, supplementing — not replacing — its base functionality and goal" (Wolpe 2013 cited by Laskowski 2013, 376). Despite all this, we it can be reasonably argued that "gamification may be able to motivate students to learn better and to care more about school" (Lee and Hammer 2011, 1) even in higher education.

3. Engaging students in higher education: the relation of gamification, motivation and Flow

As we have already seen in the previous section, several opinions underline the positive effects of gamification in educational environments. Useful features of games such as engagement, motivational force and participation improvement seem obvious, although "current empirical research remains inconclusive on these assumptions. Educational contexts in which gamification may be particularly useful have not been identified yet. However, this does not mean that gamification cannot be used with success in learning contexts." (Dicheva and Dichev 2015, 7-8). As we claimed in our hypothesis, long-term inner engagement – thus positive effects, including Flow-experience – could be reached by gamification in higher education practice *only if* certain games and game elements based on their *motivational nature* are classified and selected. Moreover, if extrinsic and intrinsic incentives to different personal needs, aims and goals of each student were fit then a better student engagement could be reached. The ground for these

statements is that it is not necessary to engage all students in the same level, because making students perform equally well is not a meaningful goal in higher educational practices. Intuition suggests that the reason behind the questionable scientific confirmation of gamification in education is the uncleared relation of motivation, gamification and learning environment. This exists especially in the case of different aims and goals of teachers, organizations (for e.g. universities and colleges) and students. Thus, as Dicheva and Dichev also nail down: "Only continued theoretical and rigorous empirical work in differing gamification settings and across different learning contexts will enable us to establish a practical, comprehensive, and methodical understanding of gamification in education" (Dicheva and Dichev 2015, 7-8). However, this theoretical and methodological fuzziness does not mean that there is insufficient research on the field of gamification. The problem – as Figure 2 shows – is that the great majority of publications born on the topic of gamification since 2010 focused only on practical issues, such as the application of game elements, creating games and game designing. It has been only the last couple of years (from 2014) that the theoretical background of gamification started to get into focus.

FIGURE 2. WORK DISTRIBUTION BY YEAR OF PUBLICATION [BLUE: WORKS ON THE APPLICATION OF GAMIFICATION. RED: WORKS ON THE THEORIZATION OF GAMIFICATION]
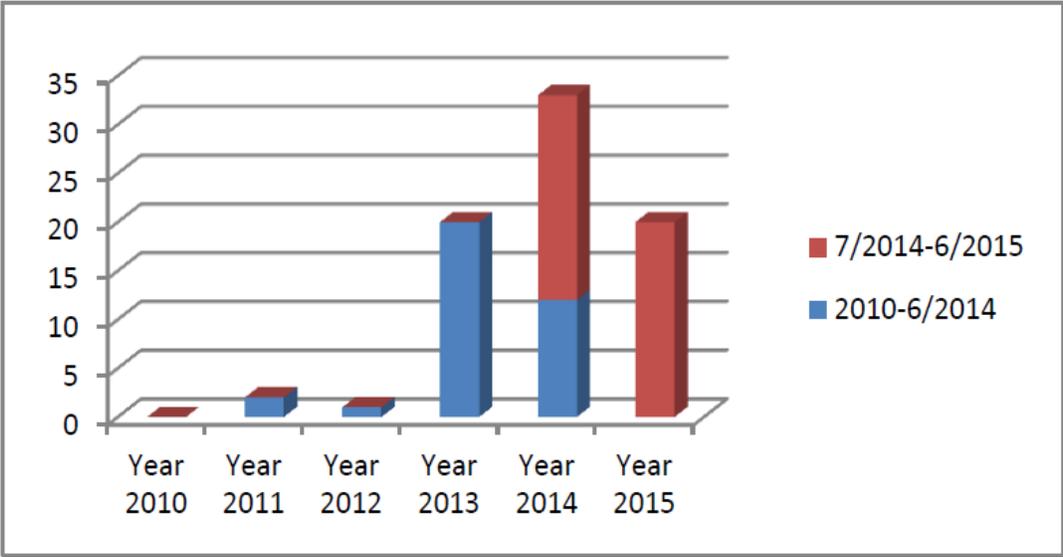
Source: Dicheva and Dichev 2015, 2

To follow up the debate, we claim that gamification carries positive effects, and it is worth to apply game elements in education, but in order to do so, different game tools should be assigned to different aspects of motivation. It can be seen that the PBL (Point, Badges, Leaderboards) triad – which is one of the fundamental elements of gamification, as we have already mentioned in the previous section – is a problematic issue from a motivational point of view. "The vast majority of gamification implementations only focus on these three game mechanics without understanding the meaning behind them, or why users should care about gaining points" (Werbach and Hunter, 2012 cited by Khuffash 2013, 16). This means that education – thus higher education too – only cares for the scoring system of gamification and leaves

itself behind the game. However, the former should be as important as the latter, or in some cases directly more dominant, according to students' aims and goals. "Unfortunately, education in its current state is an example of bad gamification in the sense that certain game elements do exist like grades (points) and classes (levels) but so far they fail in terms of engaging students" (Beza 2011, 10).

Beside of these problems of the motivation force and effects of the PBL triad, there is a debate about extrinsic and intrinsic motivation. As we have already discussed it, extrinsic motivation means that "the learner engages in the activity because he or she desires the outcome and values it as important" (Deci and Ryan 1985 cite Garris, Ahlers and Driskell 2002, 444), while intrinsic motivation means that "the learner engages in an activity because it is interesting or enjoyable" (Deci and Ryan 1985 cite Garris, Ahlers and Driskell 2002, 444). Emphasizing that "it is still not clear what effect these mostly extrinsic game mechanics have on intrinsic motivation and how exactly they affect motivation, both positively and negatively" (Bielik 2012 cite Richter, Raban, Rafaeli 2015, 23), our research also refers to the problem of effectiveness of extrinsic and intrinsic motivation regarding the tools of gamification to engage students. "Csikszentmihalyi's flow and the Cognitivist Self-Determination Theory both argue that for creating long term change, intrinsic motivation is more effective however the PBL triad is inherently an extrinsically motivating factor. This is complicated by the fact that extrinsic motivations can uncover and create intrinsically motivating factors" (Werbach and Hunter 2012 cited by Khuffash 2013, 16). Now, what we intended to do with our analysis is to revise the role of extrinsic rewards and intrinsic motives in the case of gamification and their effectiveness of student learning activity. "Moreover, the idea of using game mechanics and dynamics to drive participation and engagement mostly by using extrinsic motivation is worth examination because research suggests that using an extrinsic reward may have a significant negative effect on motivation by undermining free-choice and self-reported interest in the given task (Bielik 2012; Deci 1972)" (Richter, Raban and Rafaeli 2015, 23). Research proved this negative effect (Dicheva and Dichev 2015), but "a recent study of badge systems suggests that negative aspects are mostly attributable to poor design" (Antin and Churchill 2011; Bielik 2012 cited by Richter, Raban and Rafaeli 2015, 23).

It can be seen that "[...] the issue of reward effects on intrinsic motivation is extremely important for educators [...]" (Deci, Koestner, Ryan 2001, 2). Not just the rewards, but every tool what is used by gamification is important. Although Deci, Koestner and Ryan did not handle the issue of using gamification as a method to motivate students, their results are essential for us. They indicate that instead of focusing on rewarding system, it is more important to emphasize more that "[…] how to facilitate intrinsic motivation [...] to develop more interesting learning activities, to provide more choice, and to ensure that tasks are optimally challenging" (Deci, Koestner and Ryan 2001, 15). In our viewpoint these results are not in conflict with the concept of applying game elements, moreover they let us think that the

concept of using gamification could be the tool of developing more interesting learning activities. But in order to do so properly, we should examine the motivational features of the actual students.

Not all students are engaged in the learning activity, even if they study what they have chosen. There are students who are not just under-motivated but unmotivated, or even demotivated. A question arises, where the lack of motivation stems from. Knowing what kinds of mechanism take place in unmotivated students could help teachers choosing the most appropriate motivational tool (which can be external rewards, game elements or game itself as well) in order to engage students. The lack of motivation can be demonstrated with a belief regarding some kind of action or person (Oláh and Bugán 2006). According to Oláh and Bugán (2006), this approach can be divided into beliefs concerning the lack of capacity, strategy, effort and inability. Regarding this conception of applying gamification tools, we can state that the unmotivated student may feel that s/he is not capable to work with these tools, or does not have the proper strategy for completing the task. But what is more likely is that students do not make enough effort, because they could do the task but do not see the reason behind doing it. Students would also think that doing a task with a gamified tool is not serious enough. Of course it should not be forgotten that students may also believe that their efforts do not lead anywhere. From this approach it may be understood easier the under-motivation and demotivation of students in the cases when teachers apply the inappropriate elements of gamification in education.

According to Rose and Meyer (2002)'s theory of Universal Design for Learning (UDL), there are "three strategies to creating content for a wide variety of learners. The first strategy is to think about different ways to present the content of learning – the "what". The second strategy is to think about providing different activities for the learner to explore and demonstrate mastery of content – the "how". The third strategy is to give learners different paths to internalize content and become engaged and Motivated – the "why"" (Rose and Meyer 2002, cited by Nicholson 2012, 3).

SDT (Self-Determination Theory) divides the extrinsic motivation into four levels (Deci and Ryan 2000). This is a process of progressing extrinsic motivation into intrinsic motivation. The first level called *external regulation*, which is the lowest level of self-determination, where motivation is fully controlled from the outside. The next level is the stage of *introjected regulation*, where rewards and punishments are internalized controlled by pride or shame. The *identical regulation* is the level where the individual is able to consciously appreciate the importance of the act, and so s/he does. And finally the stage of *integrated regulation*, when the action is a fully integrated part of the person's inner character (Oláh and Bugán 2006). It will require us to be aware of these above, if we intend to apply the tools of gamification for motivating students properly in higher education. And with this idea it may be decided what kind of tools of gamification should be used to activate intrinsic motivation.

Nevertheless, it should not be forgotten how easily intrinsic motivation can turn into extrinsic as well. Teachers should carefully select extrinsic rewards, incentives and gamified tools to motivate students, because an internally motivated student would lose his/her genuine interest and engagement (Oláh and Bugán 2006) towards a learning activity and would do the task just because of the rewards. Several authors argue that gamified tools work like external rewards, and thus there is little chance to increase intrinsic motivation (Nicholson 2012, Zichermann and Cunningham 2011, etc.). Critics claim that in many cases those who apply gamification "are not aware of the potential long-term negative impact of gamification" (Nicholson 2012, 1), and emphasize the fact that "one you start giving someone a reward, you have to keep her in that reward loop forever" (Zichermann and Cunningham 2011, 27).

After all, we are aware of different natures of effectiveness of gamified tools (which can be the PBL triad and the game itself as well) on motivations, and we do not intend to state that there are more and less good reward systems. Different reward mechanics motivate differently, and they affect on extrinsic and intrinsic motivation differently. Let's take a closer look on how different gamified tools – distinguished by their motivational nature – play a role in engaging students, not to forget Flow-experience, which is one of the most powerful motivating powers that can make someone to be engaged in an activity.

Now, imagine a continuum with the following extremities: on one side there is the absolutely unmotivated student and the highly motivated student on the opposite side. In both cases, students could possibly reach the Flow Zone, but it is not a necessary purpose. Teachers should maneuver between these two points with the help of gamified tools, in accordance with students' individual goals. It means that there are students who are unmotivated to do a task or complete a course, and they do not have genuine aims to reach, except for getting a mark and getting over the course. In their case rewarding is more important than the task or knowledge acquisition itself, thus it is beneficial expedient to motivate them in an extrinsic way, for instance with external game elements and reward systems, such as the PBL triad. This method is based on immediate feedback that also means advancing on the leaderboards, getting higher status and a better place in the hierarchy etc. Although it is a short-term engagement, it could also result in Flow experience (i.e., creative accomplishment), because students could exit from boredom and enter the exciting activity of gaming. Of course, this happens only if the game is entertaining and offer enough challenges for this student. Hence, we claim that if we pursuit this method, we could make unmotivated students actively participating in the course and doing the tasks. Remember that in their case this is all what is intended to reach. If these students get into the Flow Zone, it is icing on the cake. But to be careful, this kind of Flow can be delusive, because it does not imply engagement in the task or the course but only the game itself. If teachers do not perceive this difference, they will draw the wrong conclusions.

Now, if we look at the opposite side of the motivation continuum, we find students who are already highly motivated in participating the course, doing the tasks, getting good marks, i.e., acquiring

knowledge. In their case, problem-solving and the task itself is much more important than the rewards. Intuition suggests that even in their fighting for good marks the main purpose is to complete the task, gathering new and new knowledge and satisfy their thirst for knowledge. Thus they require explanation-based feedback, because from that they could learn more and they better help their improvement. These students are – we may say – the ideal students for every teacher. But regardless how highly motivated they are, if they are not offered carefully planned and professionally built up educational materials and courses fitting to their level of knowledge and abilities then they could be bored on the one hand, and frustrated and anxious on the other. Thus, although it seems at first that teachers have got easier job if teaching genuinely motivated students, but it is also essential to maintain their motivation that means slower but long-term engagement. In their case, reaching Flow Zone is an opportunity as well – but only if serious and enjoyable tasks made colorful by game elements can be offered to them, fitting their abilities, needs and goals, and prevent them from anxiety and frustration. If teachers' judgments are wrong regarding this latter, then students will lose their enthusiasm so that they could even get demotivated.

Regarding the motivation continuum, there is one more important thing to mention, namely the knowledge-level of students. It makes a difference when a student is a novice in a topic/in a course/in higher educational system, etc. It is easy to see that they have different abilities, aims and goals, and the depth of their interest is probably also disparate. Figure 3 shows the location of Flow Zone compared to anxiety and boredom, and also the relation of hardcore and novice students in the light of challenges and abilities.[7]

FIGURE 3. FLOW ZONE FACTORS AND DIFFERENT FLOW ZONES ACCORDING TO DIFFERENT PLAYERS
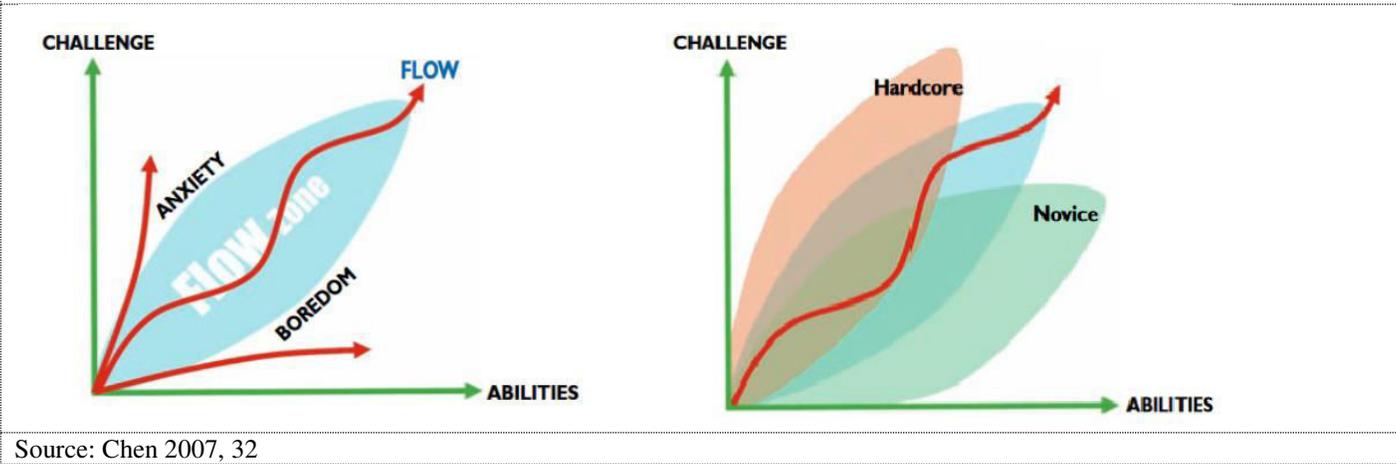
Source: Chen 2007, 32

Our concept in short extends the theory of gamification, as well as Sweetser's and Wyeth's statement claiming that if "players do not enjoy the game, they will not play the game" (Sweetser and Wyeth 2005, 1). If students do not enjoy learning activities, doing tasks and participating in courses, they will not be

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[7] In his paper Chen (2007) talks about the main features of Flow Zone and his figure serves only as an explanation to them, but we found that this figure could help us to represent our extended ideas about gamification, motivation and Flow in the case of student engagement in higher education.

engaged either – and it is especially so in higher education. This engagement may concern different kinds of rewards, games, gaming tools or learning activities themselves, depending on their student motivational role.

Regarding this, we claim at first that long-term inner engagement – thus positive effects, including Flow-experience – could be reached by gamification in higher education practice *only if* certain games and game elements based on their *motivational nature* are classified and selected. At second, extrinsic and intrinsic incentives are equally important and motivating if we fit them to the different personal needs, aims and goals of each student. Thus engaging all students in the same level is not a meaningful goal in higher educational practices, even with the tools of gamification.

Conclusion

As we discussed in our paper, teachers struggle with the problem of engaging students. This phenomenon is observable in higher education as well. Students, even when studying their chosen scientific field, are often under-motivated in higher education. Even though they have got the opportunity to decide on their learning field, thus also their lectures and seminars, they are not really motivated to attend their courses or begin interaction with their teachers and each other, even if these courses are designed in accordance with their main interests.

Having this problem as a departure, in our study we examined the relation of gamification, motivation and Flow in connection with engaging higher education students. Analyzing the relevant literature, we offered a new concept of selecting tools of gamification on the basis of the role and importance of different kinds (i.e., extrinsic and intrinsic) of motivation and their effectiveness on students. We discussed some major problems of short and long term engagement and the rewarding system, such as the PBL triad and other gamified tools or game itself. We claimed that *we could reach* long term inner engagement – thus positive effects, including Flow-experience – with gamification in higher education practice, *only if* we classify and select certain games and game elements based on their *motivational nature*. The first section of our paper was about the discussion of different students' motivational needs based on Deci's and Ryan's Self-Determination Theory (2008). Then we gave a short summary of the main characteristics, application and importance of gamification in education. The major part of our paper focused on our motivation-based classification of gamification, where we discussed the issue of problem-solving, rewarding, feedback-giving practices and the role of Flow regarding students' needs. By this above-mentioned investigation we aimed to justify our hypothesis. We hope that our research would serve an important role in the development of motivating students in higher education with the help of gamification approach.

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GAMIFICATION AS AN ELEMENT OF ACTIVE LEARNING IN HIGHER EDUCATION	SOSNIUK OLEH Faculty of Psychology Taras Shevchenko National University of Kyiv, Ukraine OSTAPENKO IRYNA Institute of Social and Political Psychology of the National Academy of Pedagogical Sciences of Ukraine, KROK University (Kyiv), Ukraine

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Abstract: Article is devoted to the problem of usage of game technologies in educational practice. Main objective is to define opportunities and restrictions of usage of game technologies as means of improvement of active learning in higher education. Authors consider main barriers to further implementation of gamification in educational practice (barriers to adoption, barriers to design and development, barriers to sustainability; barriers to innovations). Authors analyzed the potential of game approaches and estimated possible risks of their usage in educational practice. They admit that soft-gamification, context-gamification and sandbox-gamification approaches are the most suitable for usage in active learning. Hard-gamification approach is the most risky and organizationally difficult because it demands additional technical providing. Authors encouraged to use integrated solutions of Evidence-Centered Design (ECD) approach for overcoming barriers by using gamification in education. ECD concept includes three main elements (Content Model, Evidence Model, Task Model). Case study from educational practice is presented. According to their own experience with this approach, authors have come to conclusion, that the combination of ECD elements really provide a framework for: 1) specifying the knowledge and skills to be explored; 2) the tasks that can engage students in regard to that knowledge and skills; 3) useful information (the data and evidence) and ways of its interpretation to make inferences about the students' aptitudes. Authors admit that ECD offer a powerful tool for improving the design and opportunities in learning games.

Introduction

One of the notable trends in education is to use various technologies to enhance learning. Many researchers have noted the special role of gamification as an element of active learning (Klopfer, Osterweil, Salen, 2009). Gaming technology was chosen as the object of our study and subject is the features of their usage in educational practice. The aim of our study is to identify opportunities and restrictions on the usage of gaming technology to enhance learning. The focus of our analysis is not accidental, since gaming technologies are the driving force behind the transformation of traditional research methods and approaches.

According to Werbach and Hunter we consider gamification as the usage of game elements and game-design techniques in non-game contexts (2012). These researchers with McGonigal (2011), Zichermann and Linder (2010) became active popularizers idea of total gaming technology implementation in practice.

At the current moment the main advantages of using gaming technology to improve learning are: intensification of feedback in interaction with students; creating of additional motivation of students and the better view of tasks; simplification of educational procedures for students; increase the level of students' satisfaction from learning.

The process of implementation has been quite successful. But there is much critics of this approach too. We think, that their arguments deserve attention. Eventually, this is the only way to make a decision

whether you should use gaming technology in education or not and, if yes, to determine the limits of its usage.

Main barriers to the implementation of gamification in educational practice

The most detailed analysis of the barriers to the implementation of gamification in educational practice has been done by researchers from Massachusetts Institute of Technology (Klopfer, Osterweil, Salen, 2009 18-19). Researchers have identified **four types of barriers:**

1. *Barriers to adoption* (Curriculum Requirements; Attitudes; Logistics; Support for Teachers; Assessment; Evidence; Uses of Games; Limited View; Social and Cultural structures).

2. *Barriers to design and development (*High development costs; Development Process; Playtesting in schools; Limited Sources of funding).

3. *Barriers to sustainability (*Gamers are fickle; Speed of Change; Maintenance and Support).

4. *Barriers to innovation* (Limited Data; Limited Pedagogical Paradigms; Limited Research; Limited Ambition).

Some barriers can be prevented by a proper choice of approach to gamification. To do this, we need to know the potential of game approaches and accurately estimate the possible risks of their usage in educational practice.

For example, *soft-gamification* and *context-gamification* approaches are the most universal and safe. These approaches can be used in active learning with equal success.

Hard-gamification approach is the most risky and organizationally difficult because it demands additional technical providing.

Sandbox-gamification approach has not completely opened its potential in the field of education. In future this approach has good prospects for usage in active learning (especially with social networks and specially organized educational communities).

Some of these barriers can be overcome if we use the power of social media and online resources (from Google Drive and Dropbox to Storyboardthat, Thinglink, iSpring Suite etc.). But in most cases we need integrated solutions to overcome barriers to the use of gamification in education**.**

Evidence-Centered Design (ECD) conception
However, if we recall the famous aphorism of Robert Kirchhoff: "Nothing is more practical than a good theory" (Agassi 1967, 30-37), would be entirely appropriate to apply to one of such theories. In this case, we mean Evidence-Centered Design (ECD) conception. ECD has become particularly popular among learning games designers, because it offers a powerful conceptual design framework that can be used to

create scenarios of educational games and collect assessment data in many types of formats - including digital games.

ECD was developed at the Educational Testing Service (ETS) by Robert Mislevy, Russell Almond and Janice Lukas (Mislevy, Almond and Lukas 2003). According to MIT researchers this approach to constructing educational assessments focuses on measurable evidence of a student's learning (Groff, Clarke-Midura, Owen, Rosenheck and Beall 2015, 5-8). This explains the popularity of ECD. As a result, there has been an increase in the application of ECD across the learning game community (Conrad, Clarke-Midura, Klopfer, 2014 37-59).

ECD concept consists of three main elements (Figure 1):

FIGURE 1. MAIN ELEMENTS OF EVIDENCE-CENTERED DESIGN (ECD)

Evidence Model
describes potential observations and behaviors of students that would give evidence of their ability

Content Model
(aka Student Model) defines the knowledge/skills

Task Model
describes aspects of situations that are likely to evoke and provide such evidence
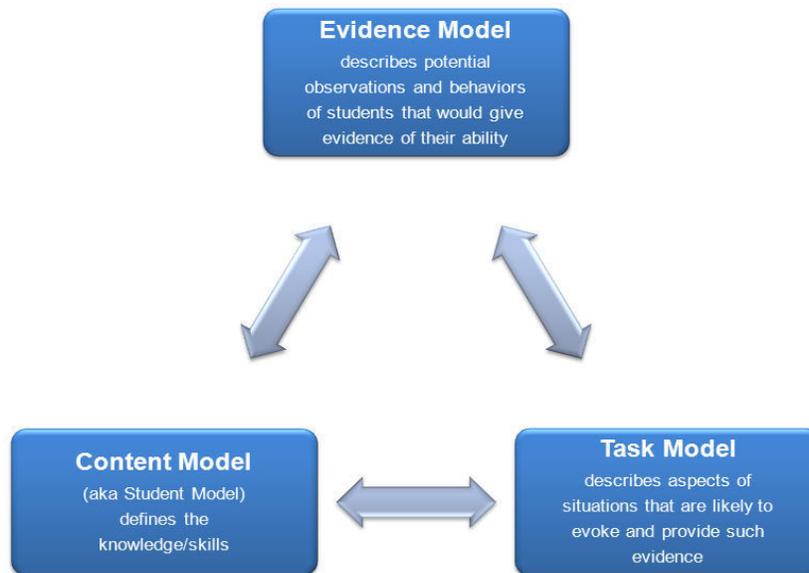
Source: ORIGINAL ILLUSTRATION CREATED BY THE AUTHOR ACCORDING TO
Groff, J., Clarke-Midura, J., Owen, V.E., Rosenheck, L., Beall, M., 2015

Together these elements create a feedback loop for an ongoing learning experience (Groff, Clarke-Midura, Owen, Rosenheck and Beall, 2015, 5-8). Also these elements of ECD can be used more informally as universal design frames for learning games and experiences.

Case study from educational practice

We have experience of using this approach to create Web-quest for students (Master Degree) of Faculty of Psychology of Taras Shevchenko National University of Kyiv. Short scenario of Web-quest is present below:

Introduction. Dear colleagues. You are invited to perform a task in Web-quest, which will enlarge understanding of the opportunities of the systemic psychological knowledge in the field of management psychology. Tasks of Web-quest will need a creative imagination and persistence in the independent

information search. Web-quest envisages two stages. After each stage you will need to prepare relevant presentation materials. The maximum score for each task execution is 5 points, for 2 stages - 10 points. There will be further evaluated your participation in group work. The maximum additional score - 5 points. Good luck!

PRELIMINARY STAGE. *Introduction to roles.* Imagine that you are employed by a company which is engaged in business consulting. In this company you can perform various professional roles. Choose one of them: *Expert Verifier* **-** a specialist in detection of lies; *Expert Communicator* **-** a specialist in the field of business communication and negotiations; *Business Coach* **-** a specialist in organization and conducting business training; *Coach* **-** a specialist in individual and group work aimed at professional and personal growth; *Organizational psychologist* **-** a specialist in the organization of human resources and business processes. **Working process.** After you have chosen a professional role, you can start the first task.

1 STAGE. By using separate links and search activity, please look for information about key competences, knowledge and skills that should have: expert verifier, expert communicator, business trainer, coach and organizational psychologist.

Working process. After the information search, prepare presentations or interactive poster.

Depending on professional role you have chosen, the presentation materials should reflect: 1) key competence of the expert; 2) basic directions of specialist's work. Additionally, you have to define: *for expert verifier* – the indicators (external features) of lies; *for expert communicator* - methods of the development of communicative competence; *for the business coach* - methods of improving of psychological readiness for negotiations and professional growth of managers; *for coach* - methods of personal and professional development of managers; *for organizational psychologist* - methods of improving the efficiency of interaction between top managers, middle managers and line managers.

The term for preparation of presentation materials of the first stage - 2 weeks. On completion interactive seminar will be organized. Your works will be evaluated by your colleagues. After this online group discussion for the reflection on the achievements of the first stage will be done.

2 STAGE. In the second stage, you'll see a short film "A techie against the humanitarian."

Working process. During the screening, depending on the selected professional role you will have to: *for expert verifier* **-** identify movie characters which told lies and formulate advice on what to do in such situations in the negotiations; *for an expert communicator* **-** identify the specifics of communication problems of the movie characters and offer a program for development of communicative competence for them; *for the business coach* **-** identify problems in the psychological readiness to negotiations of movie characters and offer for them appropriate educational / training program; *for a coach* **-** define the

characters who need coach's care first of all and offer for them a program of personal and professional growth; *for organizational psychologist* **-** identify what inefficiency teams of negotiators is caused by and propose measures to improve the efficiency of interaction between top managers, middle managers and line managers in these situations.

Please make a presentation. The term for preparation of presentation materials of the second stage - 2 weeks. On completion it will be organized interactive seminar. Your works will be evaluated by your colleagues. After this it will be done online group discussion for the reflection on the achievements of the second stage.

FINAL PART. The group reflection. The final group on-line discussion for the purpose of reflection of achievements in the passing of Web-quest, organized by a technique "Reflexive square" (Figure 2):

FIGURE 2. SCHEME OF "REFLEXIVE SQUARE"

What happened?
Which expectations came true and which did not?
What do you like/dislike?

What have you done?
What result did you achieve?
What new have you learnt?
What have you understood?

What do we need to consider?
What should we pay attention to?

What difficulties have you faced?
What couldn't you do? Why?
What problems have arisen?
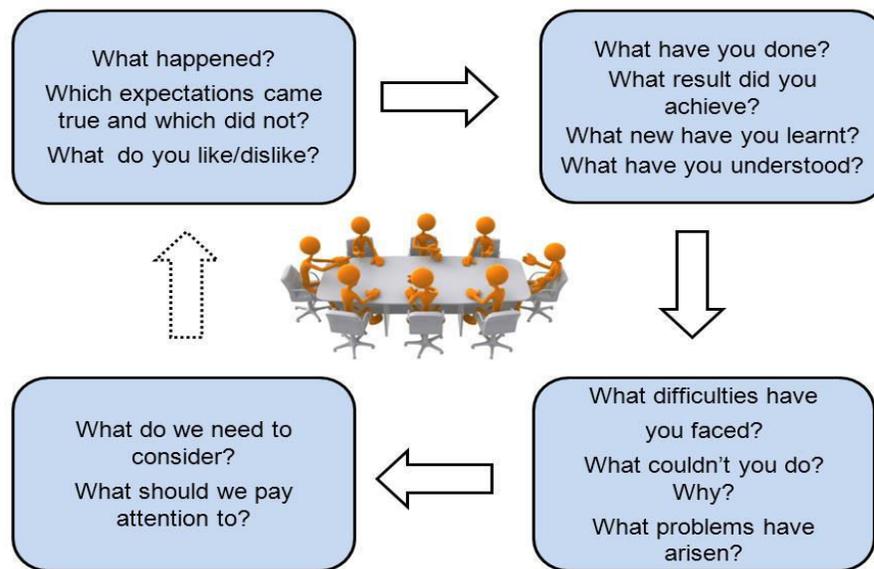
Source: ORIGINAL ILLUSTRATION CREATED BY THE AUTHORS

Conclusions

The process of implementation has been quite successful. However, there are barriers to further implementation of gamification in educational practice. Researchers have identified four types of barriers: barriers to adoption, barriers to design and development, barriers to sustainability; barriers to innovation. Some barriers can be prevented by a proper choice of approach to gamification. To do this, we need to know the potential of game approaches and accurately assess possible risks of their use in educational practice. S*oft-gamification*, *context-gamification* and *sandbox-gamification* approaches are the most suitable for usage in active learning. *Hard-gamification* approach is the most risky and organizationally difficult because it demands additional technical providing. Some of these barriers can be removed if you

use the power of social media and online resources (from Google Drive and Dropbox to Storyboardthat, Thinglink, iSpring Suite etc).

We need integrated solutions to overcome barriers to use of gamification in education. This is possible through the use of an Evidence-Centered Design (ECD) approach. ECD offer a powerful lens for improving the design and opportunities in learning games. ECD concept consists of three main elements (Content Model, Evidence Model, Task Model). According to our experience with this approach, we can say that the combination of ECD elements really provide a framework for: 1) specifying the knowledge and skills to be explored; 2) the tasks that can engage students in regard to that knowledge and skills; 3) useful information (the data and evidence) and ways of its interpretation to make inferences about the students' ability.

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READING FROM SCREEN – ABOUT THE PROBLEM OF DEVELOPING ONLINE EDUCATIONAL TEXTS REGARDING THE SPECIAL WAYS OF ONLINE READING STRATEGIES	KRISZTINA SZABÓ Doctoral School of Philosophy and History of Science Budapest University of Technology and Economics, Hungary

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Key words: Online Educational Texts**,** Online Text Comprehension, OnlineReading, Digital Literacy

Abstract: Teaching reading and text comprehension have a significant role in every educational system. The whole learning process is based on reading literacy skills which is a problematic field in contemporary digital environment. The constant changes of reading habits, methods and platforms and the strong tendency of reading from screen show that we should rethink the types of text and materials to be read, taught and learnt. There are so many efforts to create modern digital educational materials and new, but still printed textbooks and workbooks all over the world. Even though the embedded links, videos, animations and enormous amount of pictures, these interactive materials are still and mostly based on texts, therefore based on reading. In my paper I will focus on the nature of online educational texts and the connected reading strategies. I claim that on a first level we will have to understand more deeply the online reading mechanisms, if we aim to create and involve online text and teaching materials into educational practices. In order to do this we need to consider the following four points: the phrasing and informativity of online educational texts; the design of online educational texts regarding text comprehension, reading literacy skills and reading strategies; the special technological features and guiders of online texts; and the factors of motivation and engagement during online reading. Methodologically my ongoing research is a secondary research based on the related contemporary literature and research reports of online and digital reading. Developing our theories of online reading and texts comprehension could help to create and design proper educational materials in a long run.

Introduction

The headway of using digital devices in everyday life is undoubted, not as much the wide range of questions and problems of involving them into modern educational practices. Starting from the observation of students who come and lie with digital tools in hand such as smartphones, tablets, notebooks and laptops, researchers and teachers found it kind of trivial to integrate these devices into teaching and learning. However, it is necessary to pin down that it is one thing to have the habit of using digital platforms regularly, but using them well, knowingly and for the purpose of teaching and learning is another thing. We are not native digital users yet – even not the so called Z-generation, means the generation born in the ages of 2000s. This contradicts Marc Prensky's theory, which claims that nowadays children are "Digital Natives [...] who are all "native speakers" of the digital language of computers, video games and the Internet" (Prensky 2001, 1). But the issue here is not this simple. As Caroline Myrberg and Nina Wiberg put it, children "need to get used to a new type of medium" before they "can use it to its full potential, and feel comfortable doing so" (Myrberg and Wiberg 2015, 53). This means that "children are used to the technology, but that is not enough to master the art of digital reading" (Myrberg and Wiberg 2015, 53).

Those educators who are aware of this disparity started to conduct variant researches in the fields of education, literature studies, psychology, information technology, neurology, cognitive sciences etc. These researches mainly focus on the nature of reading (and writing, as well) as fundamental and indispensable accompanying processes of learning (Hsieh, Dwyer 2009; Hocks 2003; Mangen, Walgermo, Brønnick 2013; Baron 2015; Chen 2015 etc.) Being that the significant part of knowledge acquisition is based on

written sources, it is essential to understand how students – whether they study in primary, secondary or higher education levels as well – read and comprehend these print and digital contents. Vice versa, as Naomi Baron refers to this issue: "Our notion of education is going to change, and our notion of what reading is about will alter as well" (W1).

In this paper I will focus on the natures, special features of digital, especially online texts regarding the creation of online educational materials. **In my hypothesis I claim** that on a first level we will have to understand more deeply the online reading mechanisms, if we aim to create and involve online text and teaching materials into educational practices. In order to do this we need to consider the following four points: the phrasing and informativity of online educational texts; the design of online educational texts regarding text comprehension, reading literacy skills and reading strategies; the special technological features and guiders of online texts; and the factors of motivation and engagement during online reading.

Methodologically my ongoing research is a secondary research based on the related contemporary literature and research reports of online and digital reading. **In the first section** of my paper I will describe the nature of online texts, regarding their inert order and connection with additional visual elements, and discussing their main features. **As a second step** I will give a short selection of reading strategies that will show the significant discrepancy of online and offline reading. **Thirdly**, I will discuss the above mentioned four points of my hypothesis, thus the applicability of online texts for educational purposes with the consideration of the changes and features of online reading and text comprehension.

My aim with this paper is to show the complexity of creating teaching materials with taking into account the changes of online reading processes. I believe that developing our theories of online reading and texts comprehension could help to create and design proper educational materials in a long run.

The nature of online texts

Defining the nature of online text as well as online text itself seems to be a very hard and complex task, and it causes controversies among researchers. These debates are rooted in two well-demarcated questions. **The first** is about whether we can regard and treat non-printed texts (meaning digital and online texts) similar to printed text. **If the answer is yes**, then reading from screen is just a simple platform-shift, a necessary but natural technology change that does not touch deeply the nature of text itself. In this case the classical frameworks of reading literacy and text comprehension should work mainly unaltered and – apart from minimal modification – they do not need major revision. But **if the answer is no**, and reading from screen means a significant and essential change in the nature of texts, then we should revise our literacy theories, including reading strategies and comprehending mechanisms, too. **The second** problematic question rises directly from this above mentioned statements, claiming that before describing the features of reading digital and online texts, we should agree the definition of these kinds of texts. It may sounds

kind of trivial, however giving exact definition of digital and online texts is not an easy task – and this problem occurs also in the case of printed texts, too. "Although nearly all text linguists are in agreement that the notion 'text' is the natural domain of language, they vary in their views on what constitutes a text" (Al-Amri 2007). According to linguists, printed text as a linguistic unit "will be defined as a communicative occurrence which meets seven standards of textuality". (W2, 589) These standards (or principles in the terminology of De Beaugrande 1995) are the followings: cohesion, coherence, intentionality, acceptability, informativity, contextuality and intertextuality (W2). Chart 1 below shows a summary about these principles.

CHART 1. THE SEVEN STANDARDS OF TEXTUALITY

THE SEVEN STANDARDS OF TEXTUALITY	
Cohesion	Network of lexical, grammatical, and other relations, a kind of „sticky tape" which provides links between various parts of a text, thus linking ideas one another with semantic markers.
Coherence	Network of conceptual relations which underlies the surface text throughout descriptions and sequences of situations, and marks the causality and time in the construction of the text.
Intentionality	The author's purposes and goals of influence or rhetorical devices such as persuasion, instruction, request, information, commands, questions and suggestions based on agiven plan.
Acceptability	The receiver's attitude and recognition is that a text is cohesiveand coherent regarding also the supplement information and the social activity of the text is fulfilling.
Informativity	New information for the benefit of the reader, including information transfer and revealing new information.
Contextuality	A particular social or pragmatic context where text is relevant in a given time or in a context that influence readers' interpretation.
Intertextuality	Refers to the fact that all texts contain traces of other texts, and they are connected to each other by a linking system which lies among text and other texts.

Source: Original chart of the author based on De Beaugrande1995; W5; W6

In the theory of Beaugrande and Dressler (1981) "text cannot be considered a text unless it meets these seven standards" (W2). Analysing these standards of textuality is beyond the purposes of this paper; however what is important here is that there is agreement in the fundamental definition of text, that refers to text as 'what is written' (W2).

Before we go any further, it is necessary to narrow the focus, and talking about especially and solely **online texts**. This is an important step, because in my research I refer to digital text in a wider meaning which includes every kind of digitalized texts (for i. e. E-books), while **I consider online texts as** texts which are to be accessed and read on the World Wide Web. This distinction helps us to keep the focus, to

set aside from the simple platform-shifting theory already mentioned before, and to grab the main and outstanding differences of online and print/offline reading.

Now continued to working with the notion of online texts it immediately appears that they are much more than something written. Rather they are something written *and* drawn, visually designed and edited, linked and embedded into the online space. Online texts include sidebars, graphic organizers, pictures, gifs, animations, pictograms and linked references, even embedded videos and interactive panels (See Figure 1 and 2). Online texts are hypertexts (Bolter 1991; Bolter 2001; Pullen 2006; Cull 2011), thus always 'vivid' and multifunctional, and be able to change according to readers' intentions.

FIGURE 1. EXAMPLES FOR GRAPHIC ORGANIZERS, SIDEBARS AND OTHER EMBEDDED VISUAL ELEMENTS INSERTED INTO ONLINE TEXTS

Source: Original montage of the author based on the illustrations of Pullen 2006; W3 and W4

One major feature of these above is that the "multimedia nature and computer interface of the Web enables it to offer the reader more assistance in finding the information they need than print documents can" (Bastek 1994-2012). Including but not limited to, here are some important peculiarities of online texts (Bastek 1994-2012):

1)URL's –Web addresses

2) Site Maps

3) Search

4) Frames

5) Functional Areas: Headers, Footers, Side Bars, Menu bars, Tool bars and Forms

FIGURE 2. PRINT VS. ONLINE READING
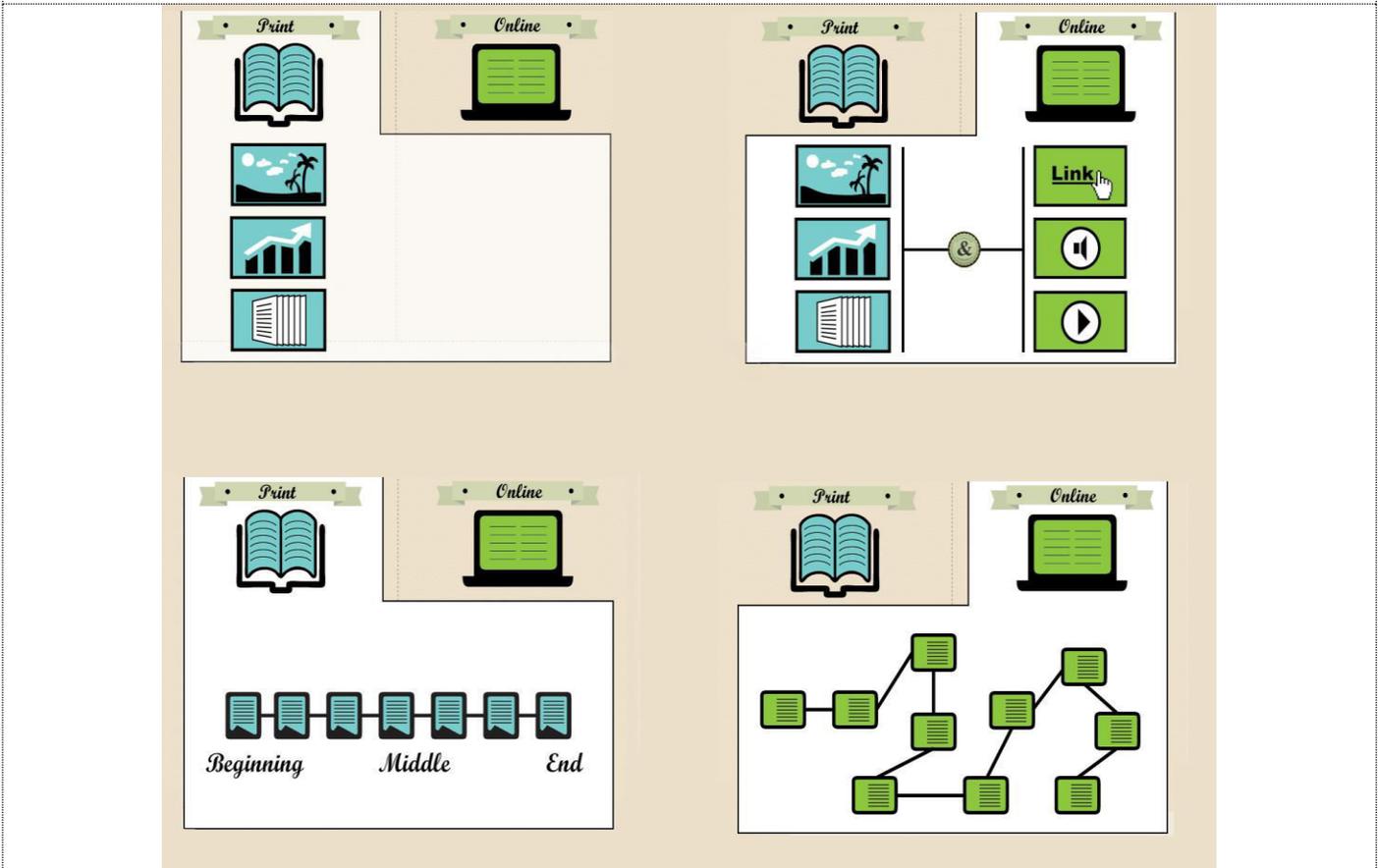
Source: Original montage of the author based on the slideshow ofW9

Regarding De Beaugrande's (1995) above mentioned seven principles it is questionable whether they could provide a valid and sensible framework in the case of online texts as well. As far as I can see, in the case of online texts cohesion, coherence, contextuality and intertextuality should be reconsidered at first place, because visual elements and text extension have strong influential force in the process of constructing meaning on a semantic level. As many researchers have already concluded (Adler et al 1998; Hocks 2003; Mangen, Walgermo, Brønnick 2013; Baron 2015 etc.), the nature of online texts requires constant activity from readers, meant that jumping between text sections, shifting from one site to another, zooming in and out and surfing with the help and guidance of links. It follows from this non-linear, fragmental way of reading (Aarseth 2004; Bearne et al. 2007; Hillesund 2010) that it is much harder **at first** to define and describe text itself and **at second** to pursuit their inner conceptual arc, thus comprehend their meaning. Concerning the other three principles, namely intentionality, acceptability and informativity

they are also should be revised, because the online nature of text and the required constant activity of readers significantly involves and modifies them.

This urgent need for reconsidering the conceptual framework of classical text linguistic and reading literacy, regarding the uncertainties and hitherto unknown features of online texts will be significant, if we like to put theory into practice and make surveys for reading literacy in order to develop reading skills, text comprehension and educational materials. One example for this is the Organisation for Economic Co-operation and Development (OECD)'s Programme for International Student Assessment (PISA) that provides reading competency test in every three years for surveying children literacy skills in nineteen countries. In their guide titled *PISA 2015 Draft Reading Literacy Framework* (OECD 2013) PISA they formulated a methodological framework which, at first sight, deals (or should deal) with the above mentioned question. This guide is an important and instructive document for us because it is aimed to serve the basement of the survey which tends to say something relevant about how children read and comprehend texts. Thus the framework is supposed to work with modern, up-to-date notions however; it is surprising that in their text definitions they do not discuss the above mentioned principles of text. PISA2015 ushers the notion of fixed texts[1] and dynamic texts[2]. In their concept the former are the ones which "usually appear on paper in forms such as single sheets, brochures, magazines and books but tend to appear more and more onscreen in PDFs and e-readers" (OECD 2013, 15). The latter, namely dynamic texts "only appear onscreen. Dynamic text is synonymous with hypertext: a text or texts with navigation tools and features that make possible and indeed even require non-sequential reading" (OECD 2013, 15).

Although these definitions are clear, PISA2015 framework terminology do not go deeper in distinguishing, describing or making comparison between these above mentioned text types – neither in the way of De Beaugrande's seven principles, nor other essential and detailed inner features of texts (See Figure 3).

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[1] These are in my terminology called digital texts.
[2] These are in my terminology the online texts.

FIGURE 3. READING LITERACY 2015 TERMINOLOGY

Reading Literacy 2015 Terminology

Mode: this refers only to the delivery channel. The following distinctions are made:

  Paper-based: items delivered on paper

  Computer-based: items delivered on computer

Medium: In 2009 a broad classification was made between features of print and electronic texts. For 2015, the classification is kept but renamed as '**text display space**':

  Fixed-text: is the term for what was previously called 'print medium text'. As this type of text is now presented on screen for PISA 2015 the term 'print' no longer covers the phenomenon.

  Dynamic-text: is the term for what was previously called 'electronic medium text'. As 'print-medium' texts are now also presented on screen, the term 'electronic' would now apply to both text display spaces, therefore it has been updated.

Digital Reading: The terms 'digital reading assessment' and 'electronic reading' are retained for historical purposes to refer specifically to the 2009/2012 optional domain.

Note: This new terminology is intended as provisional and for use only in 2015 when items previously delivered on paper and classified as 'print' will be delivered onscreen. The purpose is to make a clearer distinction between the mode of delivery and the features of the classification previously known as 'medium'. In 2018, when Reading Literacy will once again become the major domain, both the framework and these terms will be revisited and updated.

See: OECD 2013, 3

PISA2015 seems to handle texts just in the concept of display-shift, and thus they claim that "with the advent of new electronic devices (such as e-readers, tablets and smartphones) for presenting texts that would have been presented only on paper in the past, the presentation of fixed 'print' texts on screen in an assessment situation is no longer a violation of authenticity. In other words: both 'print-medium' and 'electronic-medium' texts can be consumed onscreen" (ECDD 2015, 15). Moreover, they pin down that for "2015 the terminology has been updated to 'fixed-text' and 'dynamic-text' to distinguish between delivery mode and the space in which the text is displayed (hereafter referred to as 'text display space'), regardless of whether it is printed or onscreen. It is important to note, however, that the constructs of the 2009 Framework remain unchanged" (OECD 2013, 3).

Although I am aware of the fact that PISA2015 is not intended to establish a brand-new and theoretically complete framework for reading, whether we talk about print, digital or online reading, I felt it necessary to give PISA2015 as an example for showing that there are still many problematic and confusing parts in the discussion of the fundamental points of online texts – even in the case of an international and widely accepted survey. I think that if PISA tests aim to get data about children literacy skills in order to develop educational text and materials, then they should make their theoretical framework up-to-date. Otherwise their results will not be interpretable, relevant and useful for developing online educational materials.

Without going deeper into definitional problems, linguistic approaches and methodological questions of PISA-surveys it clearly follows form the above that reading and text comprehension "is not only decoding

and summarize anymore but a much more complex process" (Szabó 2015, 167). Even so, as Mark Sadoski and Allan Paivio put it: in reading the term decoding is "theoretically imprecise. The term recoding is often preferred because it indicates concerting the printed form to the spoken form without necessarily comprehending, as the general definition of decoding implies (i. e., to decode a message)" (Sadoski 2004, 16). In the next section I will give a summary about some recoding/reading strategies for the case of online reading.

Reading strategies in the online space

As there are many definitional and conceptual questions and problems around the nature of online text, there are also disagreements about online reading and text comprehension itself. According to Murnane, Sawhill and Snow "a new definition of literacy is required" (Murnane, Sawhill, Snow 2012, 6), and it is urgent need for updating, reconsidering and arrange the theories of reading strategies. It is beyond the limit of this paper to give a detailed and complex selection of all the existing theories of reading strategies, but it is essential to present a short summary about some of the "mini-theories" which "may account for complementary and even mutually supportive aspects of reading comprehension" (Rapp and van den Broek 2005, 276). For the sake of simplicity and transparency I will give this summary about reading strategies in Chart 2.

CHART 2. AN OVERVIEW OF READING STRATEGIES

AN OVERVIEW OF READING STRATEGIES	
Memory-based perspective	"Each word, phrase, or concept that a reader processes triggers an automatic spread of activation to other, related words and concepts in memory for the text read so far and background knowledge. In this account, the reader has little or no control over the information that is activated at any point during reading." (Rapp and van den Broek 2005, 276-277).
Constructivist Reading Theory	Readers make their meanings about the text during an active, constructive process quasi independently from the intention of the author.
Process-driven Reading Theory	Concentrates only on reading and contents separately. "describe how cognitive activity fluctuates during reading, how working-memory limitations or textual features influences such cognitive activity, and so on" (Rapp and van den Broek 2005, 277).
Product-driven Reading Theory	The product-driven research which is about the notion of text representation in the memory, while a relatively shallow process of reading concentrates on reading information, summarizing paragraphs and identifying the main idea of a text (Murnane, Sawhill and Snow 2012, 6-7).
The Simple View of Reading	"Reading comprehension depends on accuracy and speed of word reading and oral understanding of the words to be read" (Murnane, Sawhill and Snow 2012, 7).
Schema Theories	Reading is a process when a reader's knowledge is updated by "integrating information encountered in text with information already stored" (Murnane, Sawhill and Snow 2012, 7).
Dynamic Text Comprehension (DTC) Theory	Tries to mix the best parts of the "mini-theories". DTC is complex, complementary, flexible and open. Its central model called "Landscape model of reading", which replicates mental text comprehension processes of hypertextual, complex and fluidly connected digital reading. It indicates that during the reading process we understand a text first with the help of the latter content we read. Then we connect these items of information to the next reading section and we make a mental representation based on the newly read text. After that readers give their previous information and knowledge to the new mental representation to get the full meaning of that part of the text. And then this whole process goes on from the beginning (Rapp and van den Broek 2005, 277).

Source: Original chart of the author based on Szabó 2015, 168-170.

This short summary is just a narrow part of the existing reading strategies which try to capture the essence of reading methods. Although I think that this short overview serves a good background for the next step, namely the presentation of **online reading strategies**. As the Colorado State University phrasing in their guide titled *Reading the World Wide Web*: "When reading the Web you have strong Critical Reading skills. When reading online we use clues from the text to decode messages just as we do when reading print. Web documents use many of the same clues you'll find when reading print and a few new ones. Knowing what these new clues are and how to Web readers use them can make your online reading experience more enjoyable and more productive" (Bastek 1994-2012). This latter seems to strengthen the fact that for reading online it is not sufficient to get used to handle the World Wide Web (meant being 'Digital Natives' in Mark Prensky's terminology), but more important to know how to use it properly in order to comprehend its contents.

Debbie Abilock shows a great example for online reading strategy in an animated video/slideshow titled *A "think aloud" to model reading online* (W7). In her video she presents us step by step how she reads and comprehends a selected content of a website. She claims that "reading online is a dynamic interplay between reading comprehension and information literacy strategies" (W7). Figure 4 shows how Abilock summarizes the main points of reading online.

FIGURE 4. ONLINE READING STRATEGY

+ Skim
+ Snatch and grab
+ Use prior knowledge of content and medium
+ Summarize
+ Question
+ Infer
+ Hypothesize
+ Synthesize
+ Identify purpose
+ Analyze point of view
+ Gather and organize data
+ Assess accuracy

Source: W7
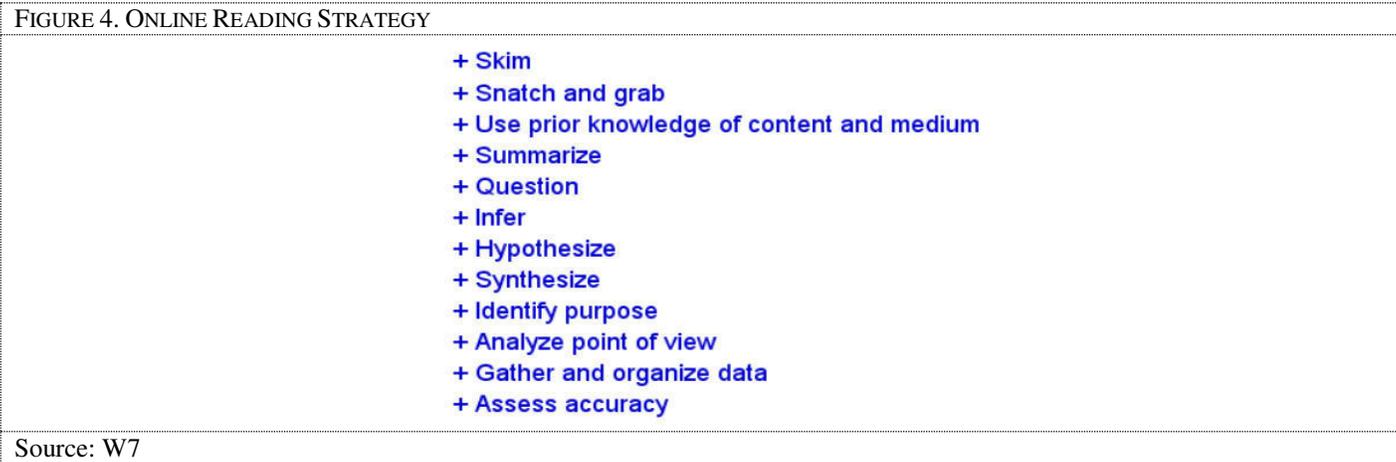
In their study Pei-Hsuan Hsieh and Francis Dwyer (2009) summarize the following three online reading strategies, which are worth to mention here:

1) Rereading strategy: it is a pedagogical tool which helps students in meaning acquisition and obtaining their favourite reading sections. Rereading strategy could be time consuming, but also improve comprehension and retention of ill-structured information.

2) Keyword strategy: using keywords to comprehend the whole text. Researches show that students obtain higher scores in comprehension if they discussed keywords before reading.

3) Question and answer (QA) or question-answer relationship (QAR) strategy: can develop meta-cognition awareness of readers, and help to increase comprehension by answering questions related to the chosen text.

In their research Anette Adler et al. (1998) found that reading online covers a "broad spectrum of activity" (Adler et al 1998, 243), which consist of quick glances to identify documents; skimming; reading to remind; reading to learn; reading to edit text; reading to search or answer questions; reading to self-inform, and reading to support listening or discussion. Chart 3 below shows how Lisa Wen Chun Chen (2015) summarized the top ten frequently used online reading strategies based on her conducted research.

CHART 3. THE TOP TEN FREQUENTLY USED ONLINE READING STRATEGIES

The top ten frequently used online reading strategies

I use reference materials (e.g. an on-line dictionary) to help me understand what I read on-line. *(Support strategy)*

I use context clues to help me better understand what I am reading on-line. *(Global strategy)*

I try to get back on track when I lose concentration. *(Problem solving strategy)*

When I read on-line, I guess the meaning of unknown words or phrases. *(Problem solving strategy)*

I use tables, figures, and pictures in the on-line text to increase my understanding. *(Global strategy)*

I try to guess what the content of the on-line text is about when I read. *(Global strategy)*

I paraphrase (restate ideas in my own words) to better understand what I read on-line. *(Support strategy)*

When on-line text becomes difficult, I re-read it to increase my understanding. *(Problem solving strategy)*

I think about what I know to help me understand what I read on-line. *(Global strategy)*

I scan the on-line text to get a basic idea of whether it will serve my purposes before choosing to read it. *(Global strategy)*

Source: Chen 2015, 74

To sum up, I agree with the notion that "sketching out this range of reading activities has a general message for designers of digital reading devices which is that it is vital to understand precisely what is meant by supporting "reading"" (Adler et al 1998, 243). Thus in the next section of my paper I will turn the applicability of online texts for educational purposes.

Using online texts for educational purposes

In their concept the previously mentioned draft of PISA2015 distinguishes **educational text**, and refers to it as a text which "is usually designed specifically for the purpose of instruction. Printed text books and interactive learning software are typical examples of material generated for this kind of reading.

Educational reading normally involves acquiring information as part of a larger learning task. The materials are often not chosen by the reader, but instead assigned by an instructor. The model tasks are those usually identified as "reading to learn" (Sticht 1975; Stiggins, 1982)" (OECD 2013, 13). Now creating and using online texts, which are also educational texts for educational purposes seem to be a complex task. Thus **I suggest taking into consideration four points or steps** in connection with this issue.

The first is about the phrasing and informativity of the online text in order to fulfil the chosen educational purposes. In this sense it has to be solved the problem of intelligibility, clarity, adequacy, seriousness and sufficiency of the online educational text. Moreover, as Mary E. Hocks puts it, Audience Stance (i. e. the ways readers invited to participate in online texts), Transparency (i. e. the ways online texts related to established conventions) and Hybridity (i. e. the ways online text combine visuality and verbality) are also should be taken into consideration (Hocks 2003).

Secondly, it is important to be aware of the design of online educational texts regarding text comprehension, reading literacy skills and reading strategies at the chosen level. At this step it is essential to teach children the adequate, proper and effective way of reading online, which is a hard task. "Comprehending in the new medium may require some new training and practice to receive the full benefits" (Korbey 2014, 2). Figure 5 shows the screenshot of the project *Into the Book* as an example of an online initiation for teaching different kinds of online reading strategies for children.

Source: W8

In connection with the issue, Naomi Baron draws attention that during online reading "how easily users can become distracted. The fact that on screens we don't read long, connected texts is leading people to write differently, and once they write differently, mainly in shorter texts, our expectations as readers are going to change [...] so it becomes this snake chasing its own tail phenomenon, whereby we're going to change the notion of what it means to read and also write. If you write longer prose, are people going to read it?" (W1). As Kretzschmar et al. found in their comparative research about reading print, e-book and tablet, "all participants [...] preferred reading on paper" (Kretzschmar et al. 2013), and those who read on paper have significantly better scores on tests, than the others who read online. According to Mangen, Walgermo and Brønnick (2013) "this is because paper gives spatio-temporal markers while you read. Touching paper ad turning pages aids the memory, making it easier to remember where you read something. Having to scroll on the computer screen makes remembering more difficult" (Mangen, Walgermo, Brønnick 2013).

The third point to consider is about the special technological features and guiders (i. e. Site Maps, Searching System, Frames, Headers, Footers, Side Bars, Menu Bars, Tool Bars and Forms, embedded

links, videos and other visual elements) of the online reading material. "The hybridity of the Web interface allows [...] to swap different kinds of media – texts, pictures, sounds, links, data sources, and citations – in and out of the various sections of the screen and pop up windows" (Hocks 2003, 641). This means that the more familiar conventions are borrowed from print texts, the more they will be transparent and manageable for readers.

The fourth is the issue of factors of motivation and engagement which are essential during learning. It is not enough that children regularly surf on the Internet, thus Web is a familiar environment for them, because they mainly use it for entertaining and keeping in touch with their friends. For using online texts for educational purposes without the risk of distraction it is essential to built in special motivational elements to the texts. As Mark Pennington claims, it is "pretty clear that good readers are active readers engaged with texts" (Korbey 2014, 1). But these engaging elements should not be excessive, because "the very 'richness' of the multimedia environment [...] may overwhelm children's limited working memory, leading them to lose the thread of the narrative or to process the meaning of the story less deeply" (Korbey 2014, 2). Thus the whole learning environment of reading materials is important, regarding learning strategies as well. It is beyond the limit of this paper to talk about detailed the existing learning strategies, but it seems to clear that the chosen learning strategy is in strong connection with the learning material and reading strategy, too. Chart 4 shows a summary of online reading strategies for educational purposes based on the research of Esther Usó-Juan and Mª Noelia Ruiz-Madrid (2009) in which we can discover learning strategies as well.

CHART 4. LIST OF READING STRATEGIES

Strategy (Str)	Description of Strategy*
Str1=Identifying a purpose for reading	The reader defines a purpose for reading a given text.
Str2=Having a general look at the text to know what type of text you are going to read	The reader examines the headings and subheading to have a previous idea about what the text is going to be about.
Str3=Previewing/ Predicting	The reader examines a text before reading by looking at portions of the text and then predicts what the text is going to be about.
Str4=Asking questions	The reader asks questions of the text or the author of the text.
Str5=Checking your prediction	The reader notes whether his prediction was correct or incorrect.
Str6=Finding answers to a question	The reader notes whether the question posed by himself/herself has been answered.
Str7=Connecting text to background knowledge	The reader connects information on the text with his previous knowledge about the particular content.
Str8=Summarizing	The reader reiterates what a portion of text is about by restating the main ideas.
Str9=Connecting one part of the text to another	The reader connects the part of the text being read at that moment to text that was read previously.
Str10=Paying attention to text structure	The reader thinks about his knowledge of text structure and uses that knowledge to comprehend the text.
Str11=Rereading	The reader rereads the text for a purpose.
Str12=Looking up a word in a dictionary	The reader looks up a word in a dictionary to help him understand what he reads.
Str13=Guessing unknown words in context	The reader guesses unknown words to help him understand what he reads.
Str14=Other (e.g. "underlining", for those students who read in print or "highlighting in colours" for those who read on screen).	The reader underlines/highlights information to help him remember it.

*Note. The strategies taken from Janzen and Stoller (1988: 256) follow the description provided by them.

Source: Usó-Juan, Ruiz-Madrid 2009, 67

The list of points which should be taken into consideration during creating online educational texts could be continued almost – with a little exaggeration – endlessly, especially if we consider that "reading occurs more frequently in conjunction with writing than it does in isolation. Thus [...] writing is an integral part of work-related reading" (Adler et al. 1998, 248). In her research Catherine C. Marshall (1997) examined students' marking on educational-level textbooks. She found that during reading for educational purposes they constantly made several marks which help them to understand, remember and memorize the texts. Figure 6 below summarizes these marks.

FIGURE 6. CHARACTERISTICS OF ANNOTATIONS WRITTEN ON THE BOOKS

Characteristics	Within-text	Marginal or blank space
Telegraphic	Underlining; Highlighting Circles and boxes around words and phrases	Brackets, angle brackets, and braces; Asterisks, and stars; Circles and boxes around whole pages; Arrows and other deictic devices to connect within-text markings to other marginal markings
Explicit	Brief notes written between lines, especially translations of words in foreign language texts	Short phrases in margin; Extended notes in margin; Extended notes on blank pages in the front of the book; Problems worked in margins

Source: Marshall 1997, 135

From all the above issues the following questions arise: what is the purpose of using online educational texts for learning if:

a) several researches indicate that students have problems with comprehending these texts?

b) in order to use them properly additional efforts should be taken for acquiring online reading skills?

c) students regularly make annotations and notes for aid themselves to understand and memorize the information, thus they prefer using print texts?

d) they originally carry the risk of distraction?

I claim that at this point it is hard to answer these questions and further research required. What is clear is that there will be always room for print text in educational practices, but the effectiveness of involving online educational texts properly into regular learning practices will be seen. At present we can detect a strong tendency in education aiming to catch up to the development of modern technological devices and students reading habits. As Mary E. Hocks put it: "When designing digital [online] documents and also seeing how people use and interpret them, our students can then see themselves as active producers of knowledge in their discipline" (Hocks 2003, 652).

Conclusion

In this paper I focused on the special features of online texts and reading strategies regarding the the purpose of creating online educational materials. **In my hypothesis I claimed** that on a first level we will have to understand more deeply the online reading mechanisms, if we aim to create and involve online text and teaching materials into educational practices. In order to do this **I suggested to discuss four points** namely: the phrasing and informativity of online educational texts; the design of online educational texts regarding text comprehension, reading literacy skills and reading strategies; the special technological features and guiders of online texts; and the factors of motivation and engagement during online reading. In my paper **I also discussed the nature of online texts** regarding their inert order and connection with

additional visual elements, based on the related contemporary literature and research reports of online and digital reading. **I gave a short selection of reading strategies** in the online space and showed the significant discrepancy of online and offline reading as well. **Then I discussed the applicability of online texts for educational purposes**, with the consideration of the previously mentioned four points. **I finished my paper with the statement that** there will be always room for print text in educational practices, but the effectiveness of involving online educational texts properly into regular learning practices is doubtful. At present we can detect a strong tendency in education aiming to catch up to the development of modern technological devices and students reading habits, thus I believe that developing our theories of online reading and texts comprehension could help to create and design proper educational materials in a long run.

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Country cases

INNOVATIVE EDUCATIONAL TECHNOLOGIES IN HIGHER SCHOOL TEACHING AND LEARNING	YANA DIACHKOVA Faculty of Economics Taras Shevchenko National University of Kyiv, Ukraine

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Abstract: At the contemporary stage of higher education system's development in Ukraine, plenty of ideas in education drift along, find purchase with the right crowd, and as long as they present a more engaging method of learning than traditional schooling, are hailed as innovative. This is a fallacy that stands directly in the way of true innovation in ed-tech. And another sad fact is that educational products are judged against criteria that are much harder to pin down, so they can often get away with just being different. Teaching practice however shows efficient ed-techs that augment our natural ability to learn and improve students' results. Nowadays blended learning, instructional Internet resources, BYOD (bring your own device) policies etc. are being implemented into the process of the prospective specialists' professionally oriented competence development. These trends are significantly affecting higher education and show the need for technology that improves the quality of teaching via digital and online media. From short-term to long-term, in more and more Ukrainian higher educational establishments a number of different technologies, students will benefit from, are put into practice. And the aim of the given paper is to explore them and highlight all the benefits. Institutions implement different ed-tech, but the purpose is to open up the world as one big global arena. That is why it is of a crucial importance to define the impact of technology on learning process and on quality of higher education in general. In order to find out the efficiency of innovative technologies in educational process, the pilot training was held, the results of which are depicted in the article. As a result, the implementation of instructional internet resources proved its paramount efficiency and flexibility for both teaching and learning.

Introduction

The requirements for both basic and professional proficiency level in the process of prospective specialists training are increasing. Expansion of international cooperation at the level of all branch structures of national economy resulted in radical changes in the field of education that pulls out difficult tasks in relation to the increase of students' mobility, more effective international communication, easier access to information and deeper mutual understanding. The English language teaching and learning became of a crucial importance for higher educational establishments of Ukraine. English for specific purposes (ESP) is of a primary importance for prospective specialists' professionally oriented competence development. The above-mentioned makes communication technologies of the Internet being very important for modern higher education. It is difficult to overestimate the advantages of these technologies; in fact they contain extraordinarily powerful potential and open wide possibilities for the development of prospective specialists' professionally oriented competence. The use of new information technologies, such as Internet resources and blended learning, for example, not only provides individualization and differentiation of the process of teaching taking into account the capabilities of students, their language proficiency level and their inclinations, but also enriches students' sociocultural competence. Internet resources are necessary for effective organization of educational process filling it with high quality educational and methodological materials (Polozhennia 2012). And it goes without saying that their implementation into the language teaching process is of a primary concern for educators.

The **aim** of the article is to highlight the potential of innovative educational technologies (ed-tech), to reveal their advantages by displaying practical results of their implementation into the process

of English teaching, and to define the impact of technology on learning process and on quality of higher education in general.

It is necessary to point out that for the vast majority of industries, innovation is a straightforward concept: a product exists, it does something, and an innovator makes it do that thing better. Simple to comprehend, harder to achieve. The crucial assumption that defines "innovation" is that the new product works. But in fact, many educational products do not work; plenty of ideas in education drift along, find purchase with the right crowd, and as long as they present a more engaging method of learning than traditional schooling, are hailed as innovative. This is a fallacy that stands directly in the way of true innovation in ed-tech in Ukraine. From the other perspective, scores of times teachers do not deeply understand the technology and its appropriate usage therefore the implementation of it might be not pretty much successful or beneficial for their learners.

Nevertheless, all mentioned above stimulates scholars and teachers to look for the way of cultivation of ed-tech innovation. First of all, it is vitally important to recast the ed-tech as a tool for achieving a specific function. Focusing on particular outcomes is the best way to see what works and what does not. The purpose of narrowing the focus is to be able to cull honest results and judge outcomes as objectively as possible. And most importantly, it is necessary to recognize that the world of higher education is enormous enough that any improvement we make to it is hugely consequential. A tremendous amount of money is spent on education, and the market for effective learning is so large, that even an improvement that looks minuscule can represent a revolutionized area of skills training. That is why it is essential to define the impact of technology on learning process and on quality of higher education in general.

Reflecting the experience in the area of study and implementation of innovative instructional Internet resources and interactive ed-techs into the process of the prospective specialists' professionally oriented competence development, I would like to point out the technologies that Higher Education needs to adopt in order to keep up with the trends and elaborate on some of the challenges higher educational establishments might run into. There are three important trends that could be applicable to the system of higher education of Ukraine, could considerably affect it and show the need for technology that improves the quality of teaching. They are not revolutionary new already, but the system of our higher education is significantly improving them and applying them for sometimes very specific purposes (i.e. the English language communicative competence in speaking development, critical thinking development, discussion skills practicing etc.). These are the technologies, students will benefit from:

- BYOD (bring your own device) policy;
- blended learning;

- instructional Internet resources.

Each ed-tech requires more detailed consideration.

BYOD Policy

The popularity of BYOD (bring your own device) policies reflects the contemporary lifestyle and mode of getting things done. With classrooms extending to students' laptops, tablets and even their phones, higher schools are looking for ways to use constantly changing technology to augment learning. It is also important to note that BYOD policies reduce the overall spending on technology matters. The policies were adopted from corporations which have a set of rules governing a corporate IT department's level of support for employee-owned PCs. For higher educational establishments it is a way out for the solution of the problem connected with the lack of technological resources for all the students. It makes practical classes more vivid and informative and also facilitates both teacher's work and students' activities. BYOD programs call for two critical components: a software application for managing the devices connecting to the network and a written policy outlining the responsibilities of both the university and the users (teachers and students).

Writing a BYOD policy forces educational establishments to think things through before they suggest their students' using their own smartphones, laptops and tablets on the university's network. Questions that must be settled by the university's management during the planning stage include: Which web browsers should teachers and students use? Which security tools offer the best protection for the range of devices that will be allowed to connect to the network? What level of support is IT department expected to provide? To make sure nothing is overlooked, it is important to get input from the staff and students across the university.

Currently more and more universities are giving free access to the internet for both students and teaching staff. But it is sometimes impossible to rely on it for 100 % as there appear some technological problems interrupting a class and distracting a teacher. That is why working out the BYOD policy is a topical issue for the educational establishments nowadays.

Blended Learning

It is a term increasingly used to describe the way e-learning is being combined with traditional classroom methods and independent study to create a new, hybrid teaching methodology. In Ukraine there is a very solid background for promoting blended learning (BL), that represents a much greater change in basic technique than simply adding computers to classrooms; it implies, in many cases, a fundamental change in the way teachers and students approach the learning experience. It has already produced an offshoot in many European countries – the flipped classroom – that has quickly become a distinct approach of its own. It is a model in which students watch or listen to pre-recorded lectures over the Web, on their own time rather than during class. It liberates instructors to finally make real connections of the teachers with the students. By focusing that valuable face-to-face classroom time on

exercises that put the lessons learned during lectures into actual practice (doing the homework at university), instructors are supporting the part of the learning process (the "doing") that students really retain.

Anyway, Ukraine is widely adopting BL: the approach is put into practice by many universities and schools of the country. BL has emerged as a hybrid innovation that is a sustaining innovation relative to the traditional classroom. This hybrid form is an attempt to deliver "the best of both worlds" – that is, the advantages of online learning combined with all the benefits of the traditional classroom. For these very purposes more and more Ukrainian universities are implementing education software helping teachers and trainers create and deliver effective online learning environments used by millions world-wide. The most popular educational platform is **Moodle.** It is free and open-source software learning management system written in PHP and distributed under the General Public License (Moodle 2016). Developed on pedagogical principles, Moodle is used for BL, distance education, flipped classroom and other e-learning projects in schools and universities. We develop our own courses, download them into the platform and closely cooperate with students. Our site (access mode: http://egw.unicyb.kiev.ua/moodle/) functions as a technological tool in e-learning system of the Taras Shevchenko National University of Kyiv.

The main feature of BL is that when a course takes place partly online and partly through other modalities, the various modalities are usually connected. In other words, what the students learn online informs what they learn face-to-face, and vice versa. Furthermore, if students have control over their pace, this control often extends to the entire subject that is blended, not only to the online-learning portion of the coursework. At the same time, prospective specialists get constant feedback from the teacher and continue improving their knowledge and skills.

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Intructional Internet Resources

</div>

Among the variety of instructional Internet resources, the most effective model of the Internet use in educational process is the WebQuest (WQ). Sharing the experience of WQ's fruition during the English language classes, it is necessary to give its definition. **WebQuest** is a means of professionally oriented English language competence in speaking development, that contains professionally oriented project task that: 1) is based on an analytical study of certain problems in the professional field, 2) has a clear logical and compositional design, 3) is performed using the selected information resources of the Internet, and 4) is aimed at results obtained during the business game. WQ includes references to texts and multimedia materials of the Internet, a question to every section, argumentation of an opinion on a debatable question under consideration, a general debatable question. This instructional Internet resource allows organizing a speaking interaction within the limits of a general debatable question that motivates students to speak, to comprehensive study the issue to be able to reason their own position out.

Having experienced the practical usage of WQs in the English teaching process, I would like to point out that the implementation of short-term interdisciplinary WQs with a role-play component is very much effective. A short-term WQ, as a rule, is typically designed for one week or a week and a half. Such short-term individual research will allow a prospective specialist to focus on the rapid and optimal achievement of the result because the process of mastering the English language at higher school envisages interdisciplinary connections. I also deem it wise to use individual and pair WQs for complete realization of prospective specialists' communicative intentions during the English-language interaction in different communicative situations and roles.

After completion of the short-term WQ a prospective specialist is able to analyze the material, to transform, interpret and use it in order to create presentations of his own web page and website. To further improve their professionally oriented competence as well as the English speaking competence, the WQ fulfillment results should be presented orally or demonstrated on the computer with subsequent dramatization in the process of a role-play, which will take place during the discussion of specific problems or issues in order to achieve the truth.

Introduction of the WQ, organized on a definite educational material, positively influences the process of study and English teaching respectively, and promotes interest of prospective specialists to the study due to the novelty of educational material, its educational value, and its orientation to creativity of every student. The value of the use of a short-term individual WQ is that, as a teaching tool, it promotes permanent and regular practice during both class and out-of-class work (preparation for speaking, providing supporting materials etc.). WQ promotes the exchange of experiences between students about their own learning strategies, providing them at the same time with the supporting materials to use these strategies.

The efficiency of the implementation of blended learning and short-term individual WQs in the English teaching of prospective specialists was proven by me through the pilot training, which lasted from 19.09.2015 till 20.12.2015 (56 classroom hours). English-speaking teaching of future specialists using the WQ as a teaching tool was the *object* of the pilot training. The students were taught to produce monologues-convictions. The *aim* of the pilot training was to study overall effectiveness of the implementation of BL and a short-term individual WQ into the process of a foreign language teaching. The first year students of the Faculty of Economics of Taras Shevchenko National University of Kyiv were chosen to participate in the pilot training (35 students of 3 groups). They studied ESP using Business Advantage textbooks (Intermediate).

As the pilot training was introduced into the individual work of the students, the *flex model* of BL was used. The on-line platform delivered all the information. The teacher (the author of the article) provided on-site, as-needed support through in-person tutoring or small group sessions. And the results of the pilot training give reasons to believe that the implementation of a short-term individual WQ in

the process of BL is effective for the prospective specialists' professionally oriented competence and English language competence in speaking development.

I want to introduce the comparative analysis of preliminary evaluation of the students' professionally oriented English language competence in speaking (hereinafter, competence) level of development (before WQ fulfillment) (**Test 1**) and evaluation (**Test 2, 3**) of prospective specialists' competence level of development as a result of the pilot training (Table 1). Evaluation was carried out according to the following *quality criteria*: theme correspondence, richness of content, speech coherence, speech fluency, linguistic accuracy, correspondence of communicative behavior and compliance of an uttering to the style of speech. *Quantitative criteria* were speaking tempo and volume of uttering. In the total estimation of the prospective specialists' English-speaking the part of each criterion was equal (11 points).

TABLE 1. FINAL SCORE ON THE ABOVE SCALE WAS CONVERTED TO A FOUR-POINT SCALE MARK:

Points	Mark
99 – 90	A
89 – 70	B
69 – 60	C
59 and less	F

Student №	Test 1 (points)	Test 2 (points)	Test 3 (points)
S 1	54	63	71
S 2	62	63	70
S 3	73	77	89
S 4	74	86	98
S 5	79	89	95
S 6	81	93	97
S 7	56	68	77
S 8	69	86	87
S 9	68	71	77
S 10	55	60	64
S 11	69	73	88
S 12	58	69	76
S 13	60	72	79
S 14	73	79	86
S 15	91	96	98
S 16	78	84	90
S 17	94	97	99
S 18	77	83	90
S 19	63	80	88
S 20	90	90	97
S 21	75	89	94
S 22	78	83	91
S 23	51	69	75
S 24	57	68	73
S 25	57	70	74
S 26	64	70	76
S 27	74	74	88
S 28	70	81	89
S 29	76	87	92
S 30	81	90	93
S 31	84	91	97
S 32	92	93	99
S 33	88	90	95
S 34	79	87	93
S 35	85	90	96
The average score of the group	**72,4**	**80,3**	**86,9**
Increase in points		**7,9**	**14,5**

Table heading: TABLE 2. THE RESULTS OF THE TESTING OF STUDENTS' COMPETENCE LEVEL OF DEVELOPMENT BEFORE AND AFTER THE PILOT TRAINING

Conlusion

The results of two tests show significant increase in dynamics, confirming the effectiveness of the teaching tool. Consequently, the use of a short-term individual WQ facilitates the prospective specialists' competence development, giving them an opportunity to find a solution to the problem, to

discuss the solution with colleagues, to identify the truth through the comparison of different views. The Internet resources, in turn, provide the access to almost inexhaustible base of professionally and personally important information and allow approaching maximally an educational English language communication to the real one that provides teaching in context.

As a conclusion it is necessary to point out that an accurate combination of modern innovative ed-techs augments the process of learning, makes classes more flexible and efficient, facilitates teaching process and provides an excellent background for the prospective specialists' professionally oriented competence development.

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Abstract: The assessment of students is one of the most sensitive issues in teacher's work. Based on practice, teachers use different forms of the assessment in student knowledge and skills. Among them is through their evaluation of portfolios.

Electronic portfolios same as portfolios in general, qualifies as an instrument which serves to document the student's work including knowledge and their practical skills, which have achieved over a period of time in the various subjects.

This paper analyses the importance of e-portfolios in the evaluation process of the teacher's assessment work with students during the teaching and learning process. Also it presents the way of organizing portfolios and portfolio transition from printed to electronic portfolio.

This paper research was done using the quantitative methodology.

Questionnaires were drafted through which in order to collect different opinions from teachers about the importance of e-portfolios.

Research was conducted with 20 teachers in three elementary and middle schools of Prishtina.

The data outcome from this research will serve as a best practice for other teachers who have not yet begun the implementation of E-portfolios of their students, Faculty of Education as pre-service teacher training institution and Ministry of Education so they can address the importance and benefits of using the e-portfolios.

Introduction

Using of e-portfolios or digital portfolios, same as general portfolios has become a very useful tool in now days at different kind of works and everyday life. E-portfolios have developed from paper-based portfolios and are being increasingly used internationally throughout the education system for students at primary, secondary and tertiary levels; as well as for teachers. Within education they are used as tools for learning, assessment and professional development. They can also be used for interviews, employment and career development beyond the education setting (Pickard 2015).

Technology is among the most important tools in the development of modern societies. The use of technology is one of the necessary skills that individual must have. This has become inseparable part of our everyday life. With introducing of new era of technology like smart phones, tablets and other digital media, our lives, our communication and networking with one another have changed dramatically (Beka 2014a). There for the transition from portfolios to e-portfolios or digital portfolios is considered a normal development.

Different scholars have been defining the e-portfolios in different ways. The term "e-portfolio" is most common, but terms such as Digital Portfolios or Personal Learning Portfolio (PLP) are also used. There is no one absolutely correct model, approach, or definition of an e-portfolio. The definitions and descriptions above provide guidance to the typical range of digital portfolio functions and use (Munro 2011).

Mainly the definition of e-portfolios is related to the usage and purpose. According to McAlpine, there are features that e-portfolios share: an organized collection, comprised of digitized artifacts, seeking to

provide an authentic record, related to an individual's status, particularly associated with learning, although may cover other areas (2005). Another definition is the one established by the (US) National Learning Infrastructure Initiative 2003: "a collection of authentic and diverse evidence, drawn from a larger archive representing what a person or organization has learned over time on which the person or organization has reflected, and designed for presentation to one or more audiences for a particular rhetorical purpose". (Barret 2005).

The (US) Northwest Evaluation Association offers a similar definition: A purposeful collection of student work that illustrates efforts, progress, and achievement in one or more areas [over time]. The collection must include: student participation in selecting contents, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection) (Barret 2005).

In Barrett's definition: an electronic portfolio uses electronic technologies as the container, allowing students/teachers to collect and organize portfolio artifacts in many media types (audio, video, graphics, text); and using hypertext links to organize the material, connecting evidence to appropriate outcomes, goals or standards (Barret 2005).

For years schools have kept samples of children's (often best) work in a folder and this was often referred to as a portfolio. Other schools encouraged children to build-up, working, and maintain their own paper portfolio. An approach such as this encouraged students to become more engaged, reflective and responsible for their own learning. Done well over a period of time, it also resulted in students growing to view the teacher as more collegial than authoritative or didactic. Digital portfolios have evolved from this type of (paper) portfolio. Despite (frequent) comments that e-portfolios are similar to paper portfolios with a change of media, they are in fact quite different (conceptually and technically) and have a large number of distinguishing properties and associated advantages (Munro 2011).

Now day's e-portfolios are widely used in teacher's work both for students' assessment and for their own personal development. As we explore portfolios in education, it is natural to focus on uses and experiences of portfolios as a means of student assessment and portfolios that capture the learning process (Barret 2005).

Barret (2003) goes further and provides a wider perspective on understanding portfolios. He gives additional description on e-portfolios by other authors, explaining: "…In their synthesis of "Portfolio Research: A Slim Collection, "Herman and Winters (1994) note the following: Well-designed portfolios represent important, contextualized learning that requires complex thinking and expressive skills. Traditional tests have been criticized as being insensitive to local curriculum and instruction, and assessing not only student achievement but aptitude. Portfolios are being heralded as vehicles that provide a more

equitable and sensitive portrait of what students know and are able to do. Portfolios encourage teachers and schools to focus on important student outcomes, provide parents and the community with credible evidence of student achievement, and inform policy and practice at every level of the educational system."

These authors go on to discuss the lack of empirical evidence to support these claims. Joanne Carney (2001) noted in the literature review for her dissertation that the research literature on portfolios has not changed much in the seven years since Herman & Winters published their article. Collections of writing are considered here as a special case of a class of new performance assessments known as "portfolio assessments". Although models of portfolio assessment differ, it is common practice that students' classroom work and their reflections on that work are assembled as evidence of growth and achievement. The goal is to produce richer and more valid assessments of students' competencies than are possible from traditional testing. However, little is known regarding the capacity of portfolio assessments to support judgments that are valid for large-scale [assessment] purposes (Barret, 2005). Regarding the usage of portfolios for the assessment and evaluation of students work McAlpine list several benefits that are provided by using portfolios:

- Increasing the validity of the assessment, increasing the accessibility of the assessment by allowing recording forms,
- Increasing the reliability of verification, improving the assessment process, speeding up the appeals process (McAlpine 2005).

While everyone is aware of the rapid evolution of technology, not everyone is aware of the new and different ways in which people are using the technologies in teaching, learning, and communication; and the emerging pivotal role of the digital portfolio in a learner's education and life. An important role in teacher education in Kosovo or any other country is developing the key competencies for the teacher educators and student teachers (Beka 2015). Many efforts are done through the Ministry of Education and its partner to enhance the usage of technologies in teaching and learning. Developing ICT competencies for on service and pre service teacher has been set up as a goal in education strategies of MEST.

Certainly the developments in technology have influenced the education field as well, particularly in teaching and learning. Easy access to information which is available in modern world is a privilege that past societies lacked. Today with the technology development and globalization impact people from all over the world have access to information almost in real time (Beka 2014a).

For better understanding it is also necessary to think of the use of an e-portfolio as an approach, or method, or support structure to teaching and learning. (Crow, 2011).

The use of digital media enables students to record and collect digitized artifacts including text, audio, video, and multimedia that represents their ideas, learning experiences, expressions and reflections – here the e-portfolio is somewhat like a digital briefcase. The global contemporary developments have influenced our country as well. Kosovo even though a small and developing country has been influenced by new trends of social media. Having a quite young population with average age of 28 Kosovo's population is very active in social networks and usage of new media for work, study or just for fun. This is true particularly for the urban areas. Students are using social media to share and exchange information among themselves as well as to stay connected (Beka 2014a)**.** Since they are using technology and social media, they should be encouraged to use their skill in preparing their e-portfolios which will them to improving the quality of their professional development. Beside the usage of social media the use of portfolios is becoming more and more attractive and required in teaching and learning, career development or business development. Our education institutions are seeing the benefits of e-portfolios in students' assessment and teachers' professional development. Our educational system has had to deal with survival, recovery, preparation of plans and programs, professional training of teachers, preparation and implementation of the reformed literature. This was a matter of very broad and deep change to face, in order to reform the education system in Kosovo (Beka 2014b).

But despite these changes in curriculum, education in Kosovo continues to be challenged as teachers are not prepared for implementation of this curriculum. Changes are mainly partial and as such they lead to incomplete implementation of the curriculum in schools. A difficult challenge to overcome on the implementation of the curriculum remains the methodology of teachers' work in classrooms (Beka 2013). Most sensitive part of the implementation of the curriculum is the use of ICT, not only to present various topics, but also to make the evaluation of the student's portfolios. Teachers should be prepared to use the benefits of technology enabling the students to use the digital platforms for their professional development.

Youth's education consists in their professional preparation which they gain in pre university education and in the higher education. Internship is considered a crucial part of studies for every young man and woman. This strengthens even more their professionalism and makes them more competent in a given fields. Internships are not important to students only. Internships are important to University and to the Labor market. Interaction between the University and Labor market should be closed and tight one. They should be partners that assist and supplement one-another in developing and improving quality of work in preparing the youth for the labor market (Beka & Nikoçeviq 2012b). An important role in professional education of youth, evaluation and assessment of their achievement can be done through the use of e-portfolios. This can be true also for the assessment of internships and evaluation of student's professional practice. There for the Faculty of Education, together with other faculties of the University of Prishtina are

considering new methodologies of improving student's assessment and their evaluation, during their studies and their internships.

"The University of Prishtina and its Faculties have started to encourage further development of procedures and skills to prepare students for internship and strengthening their connection with employers through the University Career Development Center (CDC) which is considered a bridge between students and the labor market" (Beka & Nikoçeviq 2012a). As part of this new procedure is the usage of student's e-portfolios as a tool during their internship and for their future potential employment.

However the power of the e-portfolio comes from the underlying support structure and process – the interaction between students, peers and teachers as the specific views evolve and the student's learning is created, shaped, expressed, and owned (2011).

E-portfolios, same as portfolios in general s demonstrate knowledge, skills, and aptitudes in three broad areas: Professional knowledge – referring to the type of knowledge a teacher is expected to know about subject matter, child development, learner psychology, cultural understanding, curriculum documents and education systems, and professional understandings behind different approaches to teaching. Professional practice – referring to personal experience of different practices associated with teaching such as planning, assessing learning, analysis of teaching experiences, creating productive and safe learning environments and the ability to create meaningful connections to within schools, community and home. Professional commitment – referring to the professional attitude of teaching as a life-long career with ongoing connections to professional groups and organizations to develop teaching ability, sustained and worthwhile connections with peers and community members, and ongoing practice of teaching as an ethical practice (Stanford & Hopper 2010).

A key advantage of using an e-portfolio as an ongoing, accessible record of professional development activities controlled by the teacher, is the potential for demonstrating growth over time (Barret 2000). Beside the advantages for supporting the process of professional learning and growth, using an e-portfolio system for learning, self-assessment and reflection, and for interaction with other teachers can be expected to enhance the quality of teaching, and consequently, to impact the learning and learning achievements of students. At the same time, issues regarding some technical and pedagogical aspects of using e-portfolios in teacher professional development are still unresolved. Therefore, introducing an e-portfolio component into a program for professional development can significantly strengthen its potential for a positive impact on teachers' competencies; professional growth and teaching practice, but also can pose difficulties in terms of technical implementation and pedagogical integration. In the case of the program for teacher professional development Intel Teach – Advanced Online, the initial design included e-portfolio functions supported by the online platform of the program, however, these functions were not explicitly recognized

as components of an e-portfolio. The most recent development of the program is focused on providing an open source solution and aims to organize the professional development process through a Moodle-based online platform integrating an e-portfolio system. The implementation of this goal however is related to various obstacles, questions and expectations (Todorova, Arati & Osburg 2010).

The purpose of creating a Portfolio is to collect student's work. These works could demonstrate student's effort, progress, and learning. Besides student's work, its creation also includes self-reflection writing, content planning and design of assessment rubrics. Portfolios can be used for many different purposes, especially as an assessment tool for student's learning. Portfolio assessment was to utilize portfolio as an evaluation tool to inspect the progress and outcome of student learning. The data in a portfolio, collected and organized by the learner, was requested by the teacher according to the teaching objectives and syllabus. Lee (2001) argued that portfolio assessment changes the traditional concept of teaching where the class teaching uses student-centered approach. Student portfolio, designed and created by the learner, collects information on certain topics, which demonstrates the learning process and outcomes of the learner. It also serves as a tool for teacher to assess student's learning process and outcomes (Chi-Cheng Chang, 2010). Some easy to achieve school-wide objectives in implementing e-portfolios with students:

- To establish student-led communication among students, staff and parents

- To establish a school-wide PD programme for staff

- To establish student reflection as learning practice at all levels

- To improve staff and student information technology skills

- To increase parental involvement and have well supported home learning

- To create an archive of student work artifacts and reflections

- To improve learning effectiveness and management (Munro 2011).

With all those different objectives of the usage of portfolios we can see that e-portfolios support or can be used in different kind of teaching and learning methodologies. One of the ways that a teacher can get to know his/her students is by involving them into different activities in the classroom by incorporating the cooperative learning approach. Cooperative learning has been used in schools around the world for several decades. The methods of cooperative learning have proved valuable for several reasons. Cooperative learning allows students to learn actively, even in large classes. Learning experts tell us that in order to learn, students must act and communicate. But in classes of 60 or more, the amount of time any one student can talk is very limited Cooperative learning techniques allow every student in the class to participate for much of the time, but they organize the activity of many students at once so that the activity

will be productive and not chaotic (Beka 2014c). In a situation like this usage of portfolio will help the teacher to better and faster get to know his/her students through their portfolios.

There is a pedagogical aspect of using portfolios as well. Munro has explained those pedagogical benefits by putting together opinion of different author on the topic: "Traditional linear, teacher directed approaches to learning don't fit well with student owned and directed learning. A learner-centric interactive approach highlights constructivism and connectivism as more relevant. Some specific pedagogic benefits of e-portfolios have been identified as:

  • Authentic learning, where learning is more meaningful when it is linked to real world experiences; (Buzzetto-Moore, 2008)

• Experiential learning, where 'learning is by doing' rather than through telling;

  • Competency-based education, where instruction is outcomes-based using electronic portfolios as part of student learning outcomes-based performance assessment where assessment may include higher order skills; Cooper & Love, 2007)

• Lifelong learning, where learning is directed by the individual and guided by the individual's interests; (Venezky & Öney, 2004).

Autodidactism, where learning is self-taught, self motivated and self-directed where students take responsibility for their own learning (Cooper and Love, 2007). (cited by Munro, 2011).

The students' e-portfolios allow a way of mapping progress, counseling where appropriate, and celebrating those that exceed expectations, as well as noting where the program connects or does not connect to professional standards for qualification in the teaching profession. In this way the e-portfolios creates insight on "learning how to teach," creating a self-renewing program (Stanford & Hopper 2010).

In our teacher education program the e-portfolios was used for students to systematically collect evidence on how learning experiences (assignments, task, related life experiences, field experiences) shaped their 'becoming' as teachers, enabling them to begin the task of recognizing and shaping their identity as 'teacher'. For each piece of evidence, students were asked to reflect on why the particular piece of evidence or artifact was chosen, what they have learned from including and reflecting on the artifact, and how the artifact contributes to their understanding of teaching and learning as they continue to shape their teaching identity (Stanford & Hopper 2010).

While we use e-portfolios it's important to ensure consistency of e-portfolios across the school allowing for flexibility in individual classrooms, ensure analysis in learning stories is succinct, with a link to fuller version if required, interoperability with Classroom Manager: we need key assessment to be viewable in

our e-portfolios, parent buy in, understanding and being active partners in their child's learning (Munro 2011).

On the other hand the e-portfolios are great for: archiving, hyper-linking to evidence, Meta cognition, Storytelling…telling about the learning journey, publishing, collaborating, online conversations, online feedback, anywhere anytime access, interaction between peers, teachers and parents.

Research outcomes

This paper research was done using the quantitative methodology. Questionnaires were drafted through which in order to collect different opinions from teachers about the importance of portfolios, in specific e-portfolios. Research was conducted with 20 teachers in three elementary and middle schools of Prishtina. Selection of teachers is done randomly and it involved teachers from different subjects. 28.89% have been teaching elementary grades 1-5, and 70.99% were teaching different subjects of lower secondary classes.

CHART. 1 TEACHERS SURVEYED HELD BY FOLLOWING SUBJECTS
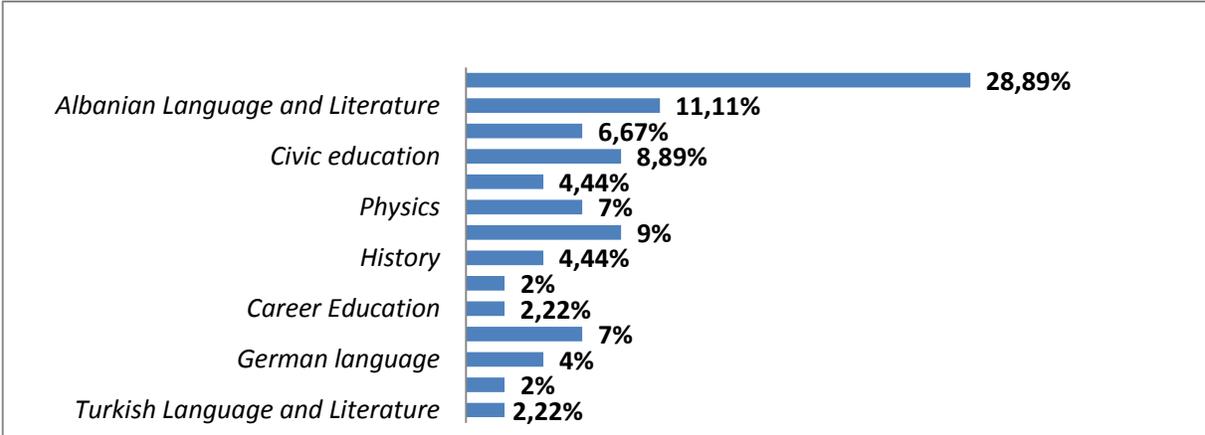
Through this research it was found that teachers in schools of Prishtina, have begun to apply portfolios as a means in which they follow the continuous education of children. About 95% of them practice consistently portfolios. This rate implies that the teachers have come to realize the importance of portfolios in their work with children. Only 5% of them do not practice or lack of knowledge about the portfolio.

3% 2%

■ Yes   ■ No   ■ Not stated

95%
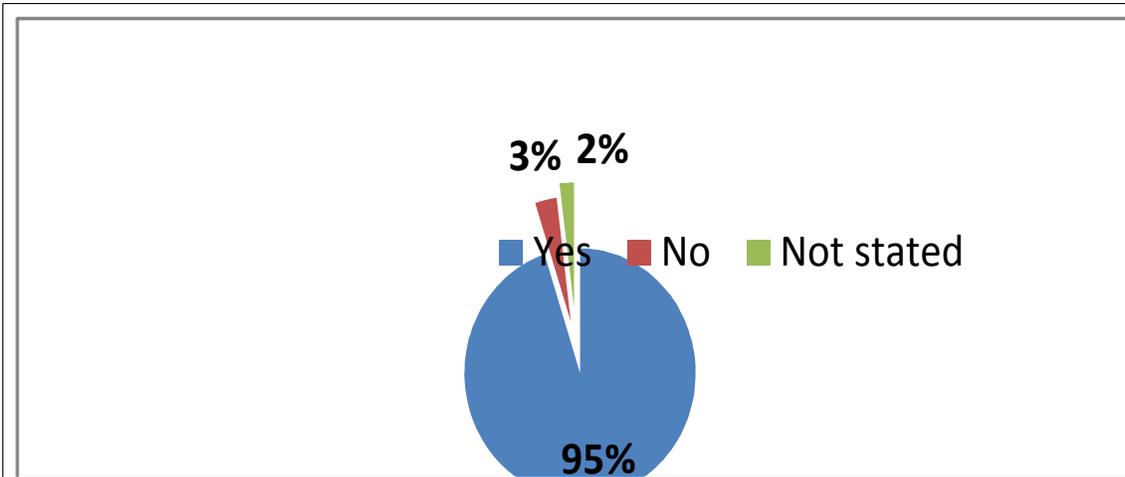
However, during the research it was noted that electronic portfolios are used less than portfolios. Only 18% of teachers have been able to apply the collection of students' works using technology. This means that to this group of teachers and their students using of technology is not a problem. 25% of teachers use two types: portfolios and e-portfolios. This can be considered as a process of transition from working with portfolios to digital ones. While, on the other hand, 55% of teachers continue to work only with portfolios.

CHART. 3 SURVEYED TEACHERS DURING THE WORK WITH STUDENTS

■ Electronic Portfolios   ■ Traditional Portfolio   ■ Both of these   ■ Do not use

2%

18%

25%

55%
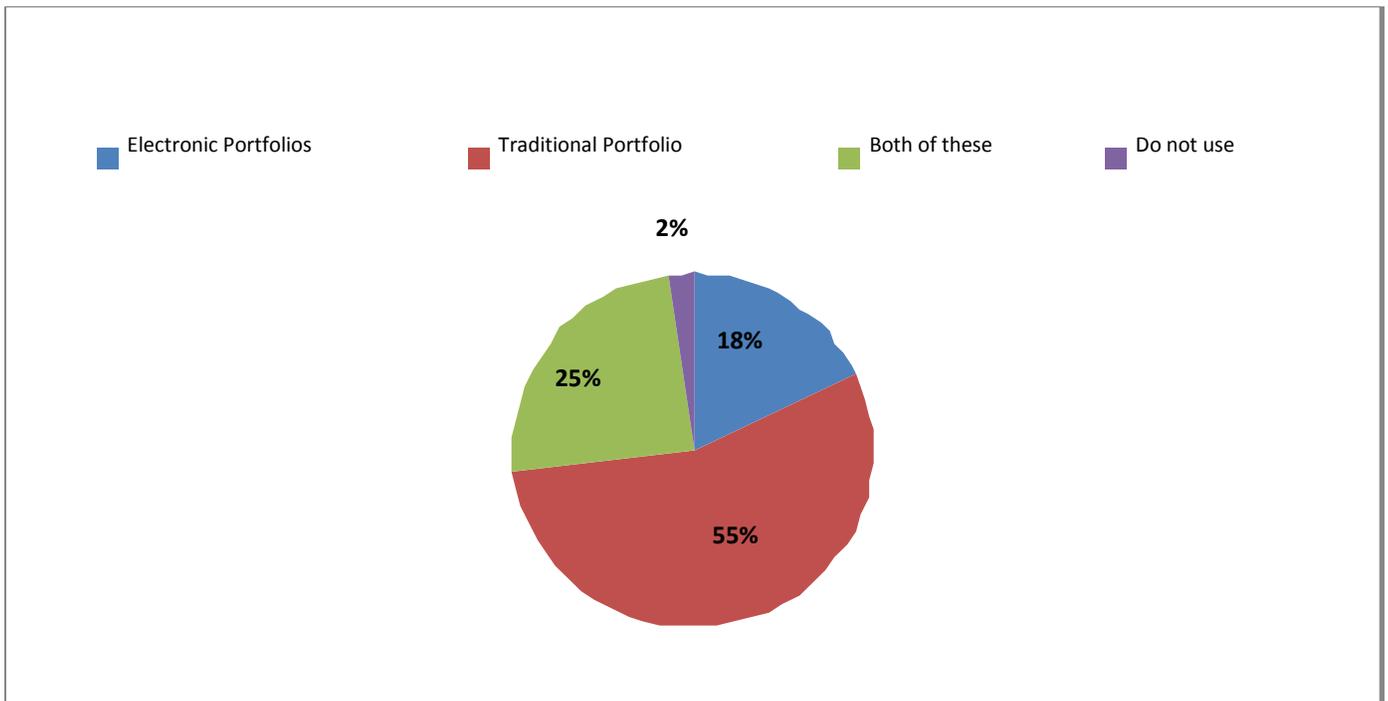
CHART. 4 DOES THE PORTFOLIO HELPS YOU TO IMPROVE YOUR WORK AS TEACHER
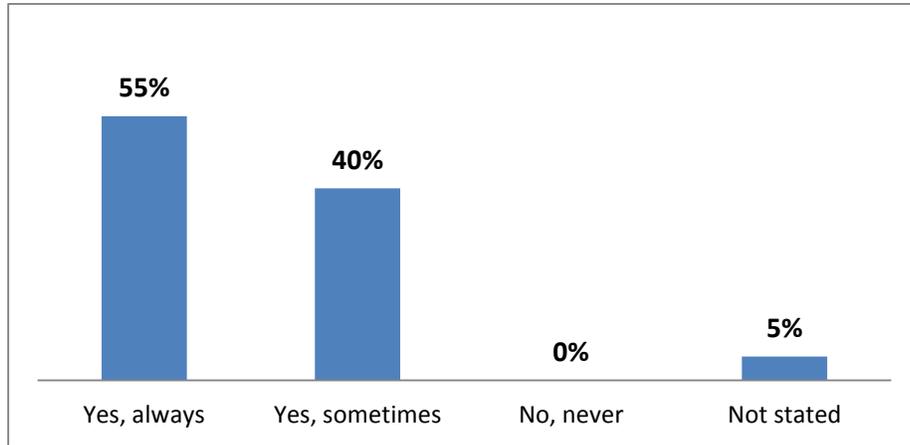
Although a significant percentage of teachers continue to use portfolios, and not e-portfolios, their reflections on the effect of portfolios is very positive. They see this instrument as a good way of raising the quality of their work. About 55% have confirmed this. About 40% of other teachers see only certain cases improve the quality of teaching, learning and assessment. And these percentages of teachers are those who also practice portfolio of electronic portfolios. Application of these two types of portfolios complicates the work of teachers and students and can directly influence the de-motivation of learning to use the technology for professional development.

CHART. 5 HOW DOES THE PORFOLIO HELPS YOU TO FOLLOW THE CONTINOUS DEVELOPMENT OF THE STUDENTS?
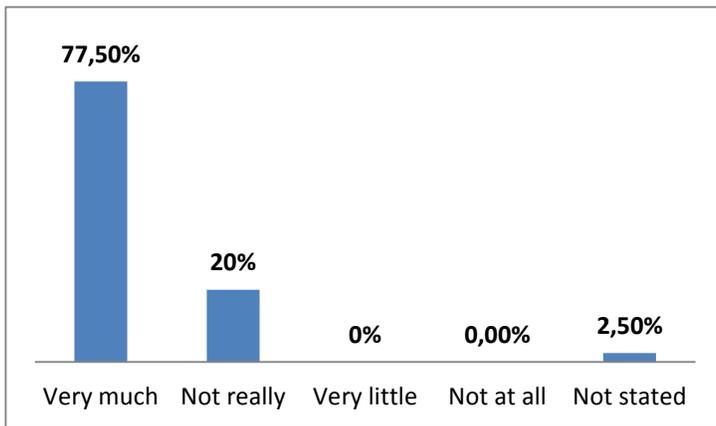
About 77.50% of teachers, who apply assessing students through portfolios, see as very important and useful way continuous assessment through portfolios. Formative assessments are considered the most suitable to measure the gradual development of students. It gives them the opportunity to make self-evaluation of the work that they do, to create a plan of their professional development and to invest more efforts in the areas where they are not satisfied with their work.

Surveyed teachers responded:

5%

8%

Yes   No   Not stated

87%
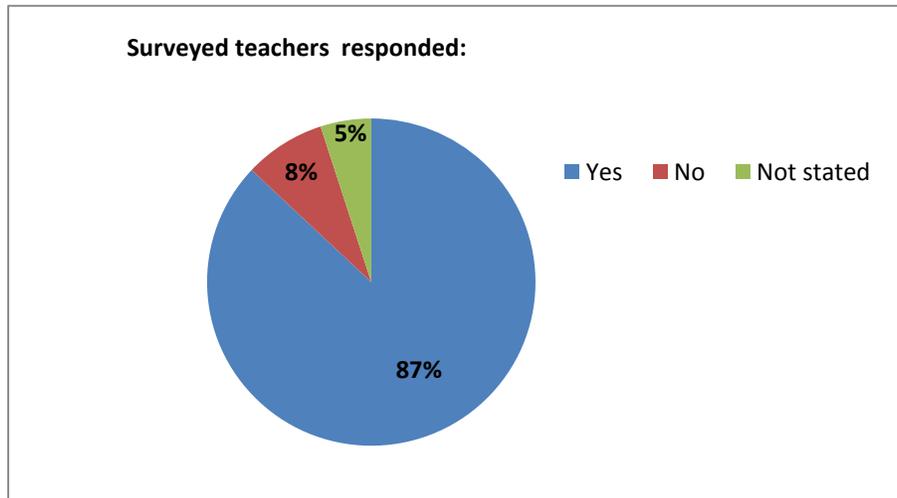
The whole focus of researchers in the field of education lies in the fact to facilitate the work of teachers. Therefore the application of methodologies of teaching, learning or assessment, should have the same purpose.

Although the application of new methodologies not always is greeted with enthusiasm by teachers, research outcomes, can be a way for them to be convinced of the importance and efficiency of usage of the new methodologies.

It is very encouraging to teachers who apply the use of electronic portfolios, to notice that their job is easier, more manageable and more efficient. This is testified by statements of 87% of teachers, who support the use of electronic portfolios.

Conclusion

Based on this research, it was concluded that teachers have begun to apply formative assessment, by using portfolios and electronic portfolios. Although the percentage of teachers is not very high, the fact that they have started to apply portfolio assessment form is very encouraging.

It was also noticed, reluctance on the part of teachers who are not ready to make bigger steps, willing to use technology in the teaching process. As a compromise, these teachers have started to use both portfolios and electronic portfolios. Using both forms simultaneously, it can be more difficult to manage. Since the concentration and energy of teachers will be divided in two. Therefore, this causes even more trouble and problems at work.

It's encouraging the evaluation results of teachers related to the benefits of electronic portfolios. They are aware that it helps them in their continuous teacher professional development, as they are starting to deal with problems from different points of view. In order to ask students to work based on technology, they had initially to develop their professional skills on using the technology. There are also positive

reflections on improving the quality of students' work. Through this type of work, with e-portfolios, they achieve to develop a professional working plan, reflect about their work, develop more skills in the use of technology for professional development and have a clear review of their work.

Finally, Faculty of Education of the University of Prishtina, need to incorporate into their curricula, e-portfolios, in order to prepare future teachers with professional competence so they can be more creative and productive at work.

Recommendations

Based on research results our recommendations are:

• Promoting the use of electronic portfolios

• Helping teachers to organize their work, using technology for facilitating the process of collecting tasks/projects and improves the time management since it takes less time for teacher to do students assessment.

• Sharing of experiences between teachers, in order to reflect the result of the application of electronic portfolios to teachers who are not willing to rely completely on digital work but continue using portfolios.

• Undertaking more research regarding the outcome of the work of teachers who use the portfolio. Publication of these data will be the opportunity to influence and encourage, other teachers, who continue to apply summative assessment.

• Presenting the benefits of application electronic portfolios

• Practicing the usage of electronic portfolios should be introduced as part of the Faculty of Education curriculum, so pre service students will have the necessary knowledge and experience in how to prepare and managed electronic portfolios. This will help them to be competent to assist their future students.

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ANALYSIS OF ICT AND SOCIAL MEDIA TOOLS IN USE OF THE UNIVERSITY STUDENTS IN TURKEY: APPLICATIONS FOR ONLINE TUTORING	IRYNA SEKRET

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Abstract: With a rapid development of ICT tools designed to enhance the quality of online tutoring in the framework of the university education and an abundance of practices of implementing social media for learning purposes, it is essential to consider the real situation of ICT tools implementation in teaching practice, namely social media, in different geographical regions of the world.

Due to the fact that nowadays the role of social media in formal education is highly disputable, it is essential to analyse ways of implementing social media, attitudes of the education stakeholders towards its value and significance in case of in weaving social media tools into the system of the ICT supply for the purposes of online tutoring.

The urge of the study is caused by economic, technological and educational issues. Among them is the evaluation of ICT tools potential to enter the educational market and to insure their acceptance among students and teachers. Another one is adapting new teaching techniques to the conditions of online tutoring where implementation of new ICT tools is caused by objective necessities to optimise the technological provision of the online learning. To add to the mentioned is a need to overlook ICT tools and social media in teaching practice in different institutions to promote and facilitate establishing educational collaboration and joint learning programs. The situation of implementation of social media tools in the formal education turns to be a complicated issue due to the general educational policies in different countries, internal codes of teaching and communicating in the institutions, cultural specifics and personal attitudes towards such medium of communication and its significance for online learning.

Considering the problem outlined, the study is aimed to focus on the analysis of ICT and social media tools in use of the university education in Turkey in order to elaborate theoretical applications for the social media implementation in the framework of the formal online tutoring.

The paper reveals findings on the current situation of ICT and social media in Turkey based on the statistical data, provides insights own the specifics of ICT an social media use for learning purposes. The study sheds the light on the students attitudes towards social media in formal education, activities and types of communication which are conducted via social media for learning and educational purposes. The data were collected with a specially designed questionnaire.

Based on the data obtained and analysis of the other case studies theoretical applications on the implementation of social media tools in online tutoring are presented. Considering results of the research it can be stated that implementation of social media tools can be beneficial for enhancing interactivity of online tutoring, if the purposes of their usage are clearly formulated for all participants, ethics of behaviour and communication via social media is defined in the pre-course instruction, learning activities, discussions and social media channels for communication are clearly regulated.

The value of the research is in providing insights into the specifics of ICT and social media for learning purposes in Turkey with further considerations on enhancement of online tutoring in terms of facilitating communication and raising the interactivity of learning. The results of the study can foreground designing comparative studies among countries for elaborating strategies to overcome communicative and technological barriers in establishing international educational consortiums aimed to provide online tutoring services with implementation of social media tools.

Introduction

With a rapid development of ICT tools designed to enhance the quality of online tutoring in the framework of the university education and an abundance of practices of implementing social media for learning purposes, it is essential to consider the real situation of ICT tools and, namely, social media implementation in teaching practice of different geographical regions of the world.

Due to the fact that nowadays the role of social media in formal education is a highly disputable issue, it is essential to analyse ways of implementing social media, attitudes of the education stakeholders towards

its value and significance in case of in weaving social media tools into the system of the ICT supply for the purposes of online tutoring.

The urge of the research is caused by different economic, technological and educational reasons. Among them is the evaluation of ICT tools potential to enter the educational market and to insure their popularity among university students and teachers.

Another one is adapting new teaching techniques to the conditions of online tutoring where implementation of new ICT tools is caused by objective necessities to optimise the technological provision of the online learning.

To add to the mentioned is a need to overlook ICT tools and social media in teaching practice in different institutions for the case of establishing educational collaboration and joint learning programs.

The situation of implementation of social media tools in the formal education turns to be much more complicated due to the general educational policies in different countries, internal codes of teaching and communicating in the institutions, cultural specifics and personal attitudes towards such medium of communication and its significance for online learning.

Considering the problem outlined, the study is aimed to analyse the usage of ICT tools and namely social media in use of the university education in Turkey in order to elaborate theoretical applications for the social media implementation in the framework of the formal online tutoring.

In the context of this research social media is regarded as the collective of online communications channels dedicated to community-based input, interaction, content-sharing and collaboration. Social media tools, therefore, include websites and applications dedicated to forums, blogging and microblogging, social networking, wikis, etc.

The paper reveals findings on the current situation of ICT tools in the university education of Turkey, social media use in the university community in Turkey, attitudes of the students towards social media in formal education, activities and types of communication which are conducted via social media for learning purposes.

The significance of the research is in providing insights into the specifics of ICT tools and social media use for learning purposes in Turkey with further considerations on the enhancement of online tutoring with provisions of social media tools to facilitate communication and raise the interactivity of online learning.

Methods of the Study

The research was conducted with the application of the following methods:

- a. Literature review aimed to analyse recent case studies of implementing ICT tools in education of

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Turkey.

- b. Analysis of the official statistical database on usage of social media in Turkey.

- c. Observation over the educational processes in universities of Turkey and analysis of the teaching practices.

- d. Interviewing experts in ICT area on advances in the educational sector.

- e. Surveying university students on their online practices for learning purposes and use of social media (Sekret 2015).

The collecting data from the university students was conducted with a specially designed questionnaire (Smyrnova-Trybulska et al 2014) in its section concerning online learning activities and social media.

The survey was conducted among 86 university students in the age of 20-25 years old. The data collection occurred in the south-east of Turkey, therefore, the results are conditioned by the local educational practices and attitudes.

Results of the Study
1. ICT tools in Education of Turkey

According to recent economical and statistical analysis, Turkey has been strongly affected by technological advances which impacted all sectors of the economic structure of the Turkish society. As Tınmaz et all (2011) state, with a population of 73.7 million, with a quarter of the entire population ranging between 0 and 14, Turkey invests considerable efforts in developing ICTs for educational and economical requirements. ICT tools are highly integrated within the society via such e-solutions as e-government, e-tax and e-accounting applications, etc. Social media tools are highly popular among the Turkish population which brought Turkey to be announced on the top-ten list of mostly Facebook-using countries in the world Tınmaz et all (2011).

Statistical data revealed that in 2015 Turkey follows the leading industrial countries in a number of the internet users (Chart 1).

CHART 1 NUMBER OF INTERNET USERS IN SELECTED COUNTRIES
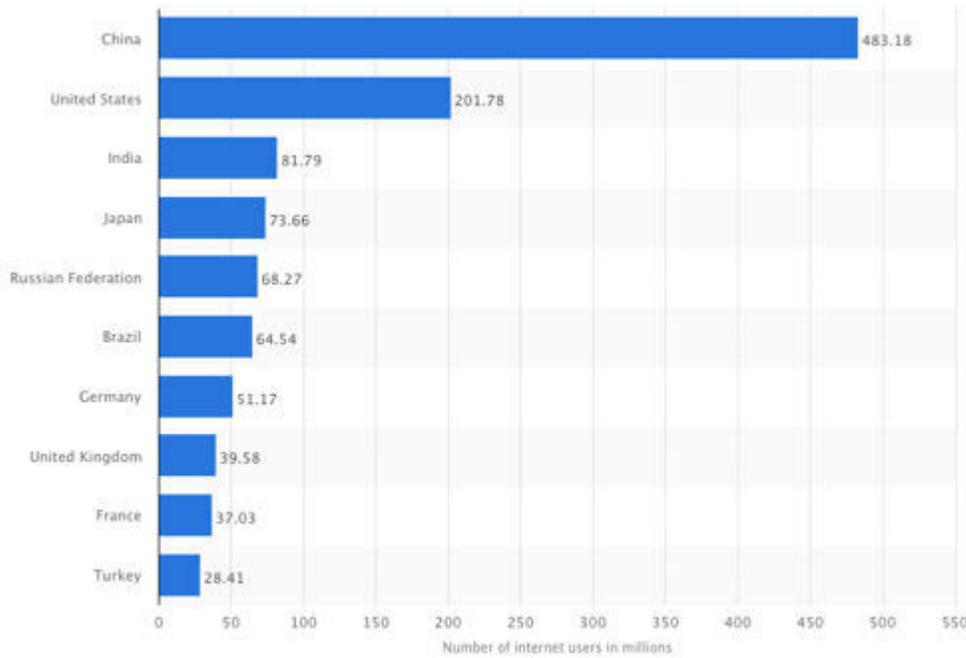
Source: data from Number of internet users in selected countries as of May 2015 (in millions)
http://www.statista.com/statistics/271411/number-of-internet-users-in-selected-countries/ accessed on the 18th of May 2016

Due to the statistic calculations, 52 percent of the Turkish population were active social media users during the 4th quarter of 2014. Chart 2 represents he data on the most popular social media among the Turkish population. According to the statistical data on 2014, the most popular social media tools following Facebook are WhatsApp, Facebook Messenger and Twitter (Chart 2).

CHART 2 PENETRATION OF LEADING SOCIAL NETWORKS IN TURKEY AS OF 4TH QUARTER 2014
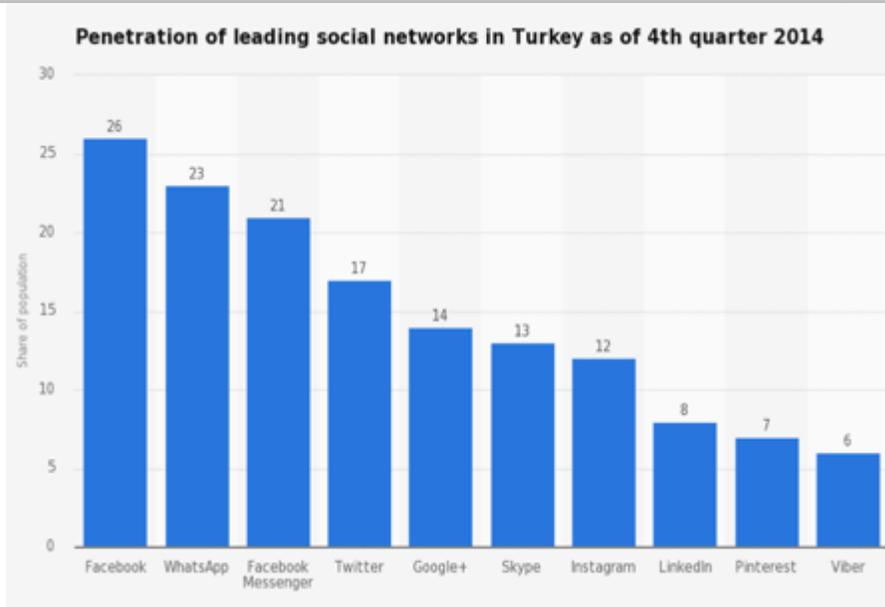
Source: data from Penetration of Leading Social Networks in Turkey as of 4th quarter 2014
http://www.statista.com/statistics/284503/turkey-social-network-penetration/ accessed on the 18th of May   2016

Referring to the latest statistical data on the Internet use in Turkey, the following should be noted:

• Internet users are around 42% and it is forecasted to rise above 47% in 2017.

• In 2017 the number of potential internet subscriptions will triple.

• Turkish firms find 46% of new business markets and customers through the Internet.

• Facebook users - over 40% of the population in the beginning of 2013.

• The average Internet user is spending 32.7 hours online per month (Information and Communication Technologies on the Road to 2023).

Analysing the situation of ICT tools implementation in the context of the higher education it must be noted that Ministry of National Education (MoNE) and the Higher Education Council (HEC) are aimed to realise the following targets:

• Installing and completing ICT infrastructure;

• Training teachers and students in ICT;

• Developing e-Contents;

• Realising E- Government implementations;

• Monitoring the implementation of ICT tools in the context of the education and supporting continuous development in the area.

• Considering the ICT implementation in primary and secondary school national strategies cover training measures and research projects for ICT in schools, e-inclusion, and digital/media literacy (Sekret, 2014).

Central steering documents regard all ICT learning objectives at secondary education level except for using mobile devices and social media tools, and at primary level for using a computer, and searching for information.

In teaching practice ICT is used as a general tool for facilitating demonstrations different subjects and as a tool for specific tasks. In schools technical support is provided in all ICT hardware and software areas, except for mobile devices and e-reader books. Students and teachers are expected to use ICT for complementary activities in all subjects, except for the arts. At the same time, there are No central recommendations on the use of ICT for the purposes of the student assessment. Public-private partnerships for promoting ICT are encouraged for private ICT funding and teacher training.

2. ICT tools implementation in Universities

ICT tools have become an indispensable part of the teaching and learning routine in a way of lecturing,

searching for learning materials, using open educational resources, communicating, and sharing information.

Implementation of ICT tools in higher education is a sound foreground for establishing collaboration between higher education institutions from different countries, developing research consortiums and international projects.

Within a few years most universities in Turkey established centres of the distance education with a provision of online courses and turning traditional teaching into online tutoring.

Internet presence of the university and the traditional face-to-face teaching is enhanced with ICT tools in the following aspects:

1. The university represents itself in Internet through the official website which reflects the status of the university, vision and mission of the educational establishment, structure of the university with its schools, faculties and departments. The website is usually presented in the Turkish and English languages, in some cases, depending on the region, the Arabic version is supplied too. The information in foreign languages can differ from the original Turkish language, and the level of presenting information as for its completeness on the pages of the website can vary as well.

2. LMS systems are embedded in the university website and accompany the educational process in: a) registering students for the course; b) monitoring their attendance; c) collecting the bio information on the students and their instructors; d) entering grades for the midterm examinations and finals; e) informing the students on their grades and passing/falling the course; f) uploading syllabuses of the course and teaching materials (optional).

3. Optionally some instructors use other LMS systems for creating virtual course spaces in order to share learning materials, upload presentations, links on other resources, share administrative information. Students upload their assignments in the virtual class environment where they are graded by the instructor, and also can be discussed by their peers. Students may share their reflections on the face-to-face sessions, ask questions, initiate discussions, respond to the questions of the instructor and the peers. Quizzes can be administrated in the virtual environment of the course as well. Most popular additional LMS systems used by the instructors on their own initiative are Moodle (https://moodle.org), Schoology (https://www.schoology.com), EasyClass (https://www.easyclass.com), etc.

4. Some instructors start using social media tools as additional instruments to the LMS systems reporting on: 1) possibilities to reach the students quicker via social media, 2) assurance that information reaches all the participants of the course, 3) an ability to receive immediate feedback from the students, 4) options to organise instant messaging / video connection individually or in mini group, 5) favourable

conditions to initiate discussion and get the students' opinions.

5. The most common ICT platform for providing online courses by universities is Adobe Connect (http://www.adobe.com/products/adobeconnect.html).

6. Universities represent themselves in social media through official pages, and post information on the coming events; faculties and departments can establish a page in the social media but this tendency is not regular; in most cases academicians individually open social media accounts to maintain connections with the students to make announcements, share urgent information on the course and organisational issues;

7. Students are active in establishing virtual groups in social media to share information on the content of the course, to inform on updates or discuss their learning experiences; in such cases instructors are rarely members of such groups, therefore the students are more confident to share their views more openly.

8. Each university has their corporative email system for centralised e-mailing from the university administration, faculties and departments, notifying about events, obligatory procedures, deadlines, sharing congratulations, etc.

9. The university can introduce their inner policy as for the usage of social media tools banning some of them or allowing its usage in a limited number of its options, for example, messaging via a certain social media tool can be allowed while video connection is restricted or banned.

10. Lecturing is conducted in the form of PowerPoint presentations; Internet is used to refer to extra resources like YouTube videos, iCloud depositories containing learning material, Wikipedia to refer to the encyclopedic data;

11. Students submit their home assignments via e-mails to their instructors, also they may address to their instructors with questions on the course routine or other issues under concern.

3. The Survey Data and Their Analysis

Analysis of the data obtained with the questionnaire shows that social media pages of the universities are the prime source of information on updates about social events and organisational issues in comparison to the official university website or personal communication between students are teachers (Chart 3).

Where from do you learn about planned university events and activities most often?

- From teachers
- From students
- University Website
- University page in social media
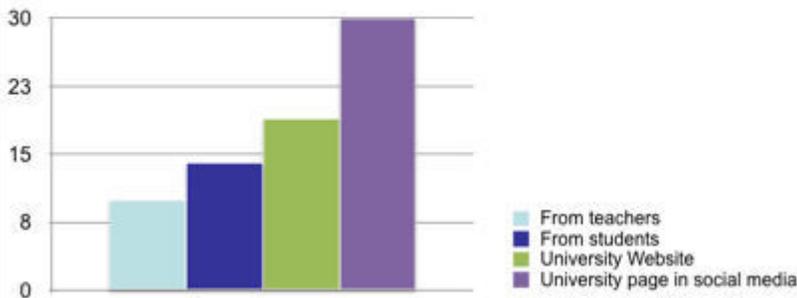
Social media pages are proved to be informative sources which are followed by the students but not involving them to reflect actively on the events or discuss the learning process or organisational issues. Even if the posts are intended to evoke discussions the majority of the students prefer passive following (Chart 4).

CHART 4. STUDENTS' BEHAVIOURS IN THE SOCIAL NETWORKS WITH THE REFERENCE TO THE UNIVERSITY / FACULTY PAGE

How do you use the social networks pages of your university (faculty)?

- Just reading and watching
- Commenting
- Adding one's own content
- Rarely or almost never use
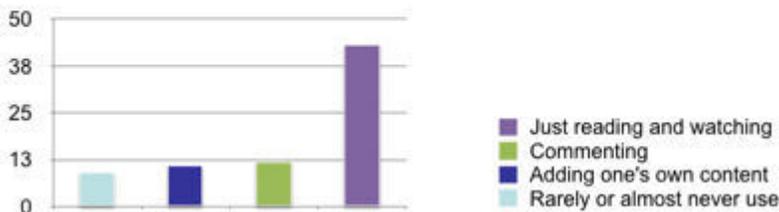
When posting on their own social media accounts students are purposed to demonstrate their achievements mostly to their peers (Chart 5).

CHART 5. PURPOSES TO POST ON LEARNING ACTIVITIES IN THE SOCIAL MEDIA

What are the main purposes of reflecting your studying activities on your personal pages in social networks (awards, achievement, participation in activities, studies)?

- Show my achievements to other students
- Show my achievements to potential employers
- Show my achievements to teachers
- Not showing my student's life in social media
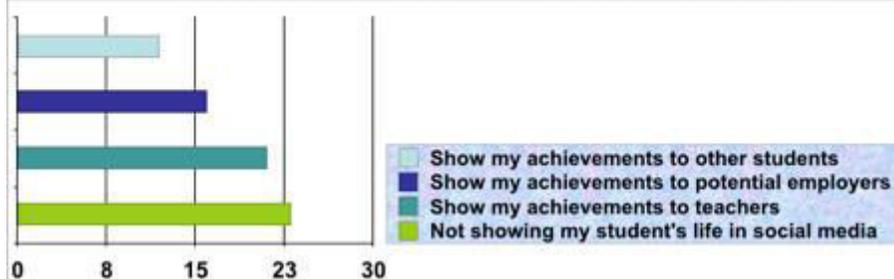
Together with that it should be noted that joining the instructors' accounts is more dominating among the students in the eastern parts of Turkey, while in the western regions students are reluctant to add their university instructors to their personal accounts. They tend to maintain a distance between their social

media account and official university life. The accounts are kept more private and opened for their peers. It is an evidence of the students in the western regions to keep their privacy and not to mingle it with the official university settings and teachers.

The students can join the instructors' social media accounts following their other peers' example, or if the invitation is initiated by the instructors. They notify that following the instructors' social media accounts motivate them in their learning, and they are interested to follow posts on their instructors's life and professional achievements (Chart 6).

CHART 6. STUDENTS' ATTITUDES TO THEIR INSTRUCTORS' POSTS IN SOCIAL MEDIA

How important for you are your teachers' activities on the university site (department) and the university of pages in social networks?

☐ Activities of other students are more important for me
■ It is interesting to follow what teachers do
■ Teachers' activities motivate my activities
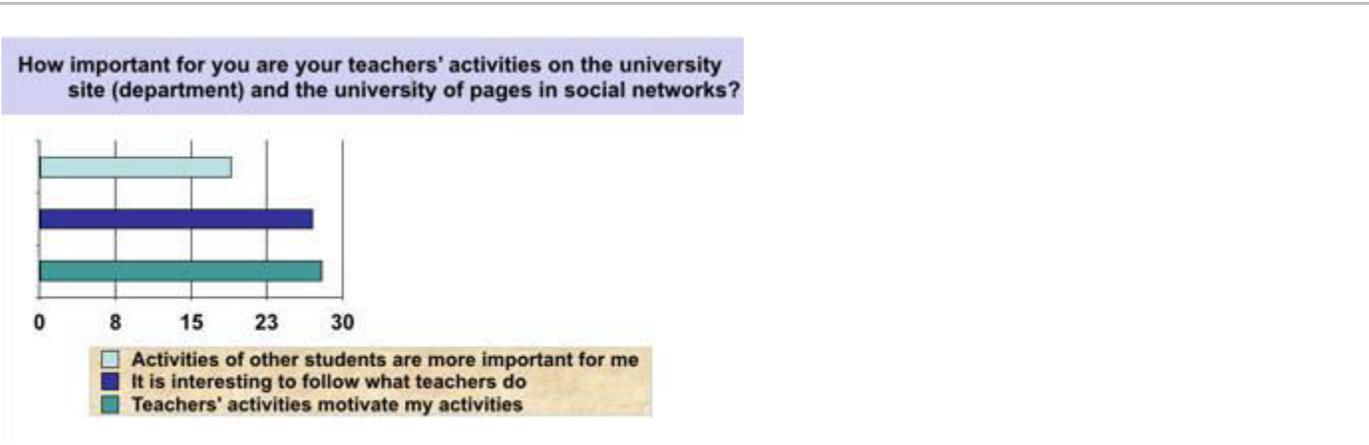
When reflecting on the information which is posted on the university website the students prefer references to the resources which can be reached in Internet from where they can benefit in their learning (Chart 7).

CHART 7. REFLECTING ON THE INFORMATION FROM THE UNIVERSITY WEBSITES

Which sections of information for students on the University website (faculty) do you consider as the most important?

☐ 1. Information about job
■ 2. Invitation to social events
■ 3. Resources for distant learning
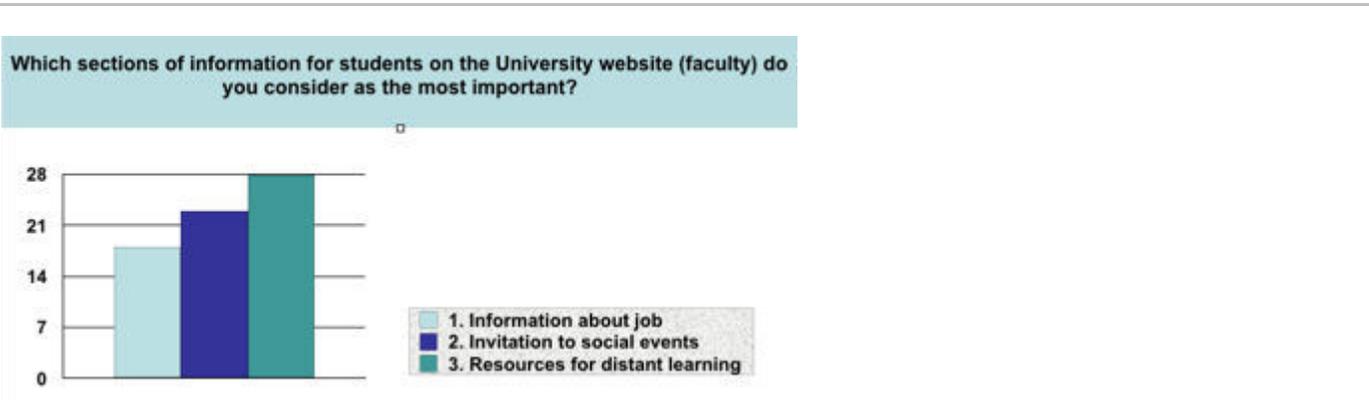
They are eager to follow the updates on events of the social life, such as concerts, entertainments, trips, also the information on the exchange programs, abroad internships. At the same time students are active in organising social activities themselves, sharing information, inviting participants via social media pages and groups.

Maintaining accounts in social networks, students' behaviour vary from being a "spectator" (a

dominating strategy) to being involved in more than three virtual groups (Chart 8).

CHART 8. STUDENTS' BEHAVIOUR IN SOCIAL MEDIA
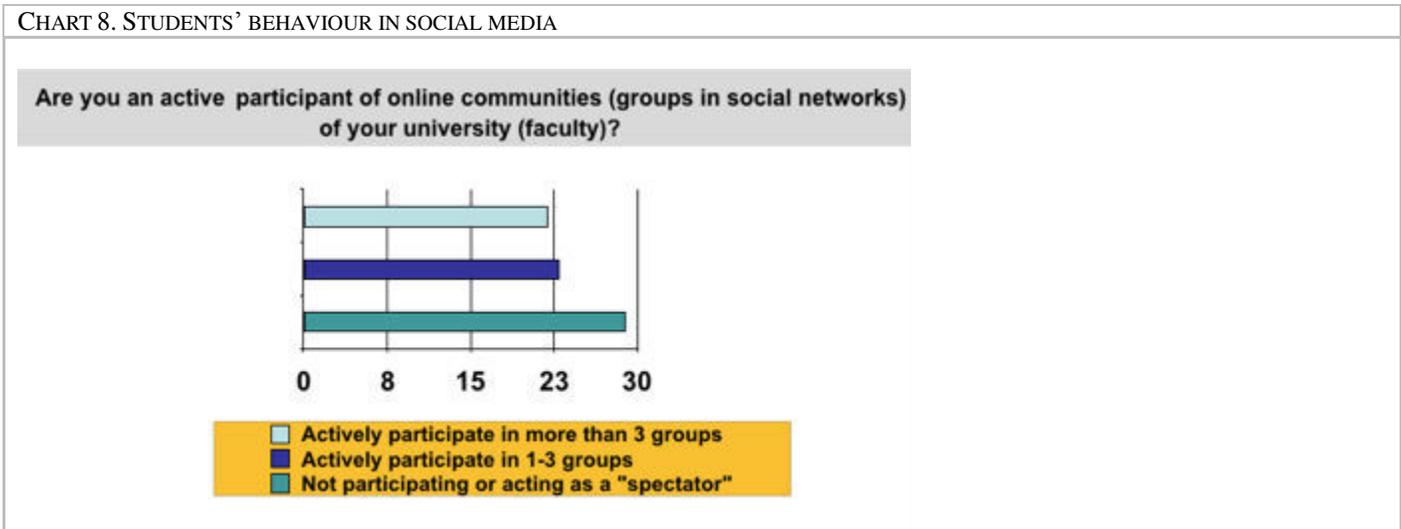
Despite the fact that participation in social networks among the university students in Turkey is high, there must be indicated as well that a considerable number of students when interviewed responded that they use social media tools selectively. For example, some reported that they closed their Facebook accounts considering it as:

destructive from their main activities in life;

disturbing due to the great amount of messaging and invitations for 'friendship' from unknown people;

conflicting with their views of ethics of behaviour and communication, referring to the Facebook usage as something ethically inappropriate.

They remain firm in their decision to withdraw themselves from Facebook but being active in other social media, like Instagram or Twitter.

Applications for Online Tutoring

Considering high popularity of Internet and social media in Turkey it can be stated that implementation of social media tools may have strong potential to be effective to enhance interactivity of the formal online tutoring and establish dialogical learning among its participants through integration of social media tools.

Altogether, regarding existing discrepancies in attitudes towards social media tools which are conditioned by the cultural, educational and ethical background it is advisable to take into consideration the following issues.

First of all, at the preparatory stage of implementing social media in the context of the formal online tutoring it is recommended to consider students' preferences and attitudes to social media in order to choose a platform shared by all the learners, and to identify clearly aims of implementing a social media

tool, activities, which are going to be conducted within LMS or social media platform.

The outline of the course, its content and learning activities should be designed in the account of the learners' educational, demographic and cultural background. With this concern it is advisable to understand mainstreams of using social media among Internet users in a certain place and culture.

If the decision is positive about implementing social media in the framework of the online course, the platform should be selected regarding learners' preferences and, the number of social media channels of communication should be limited in order not to confuse the students, and not to make them feel lost in the stream of information and discourses.

To facilitate the access to the social media platform and not to overburden the learners with the issues of signing or logging in/out, it is advisable to incorporate the social media platform into the official LMS of the course.

In order to avoid frustration and intimidation for the students in joining the social media platform it is recommended to provide a brief pre-course instruction as for the strategies of behaviour in social media environment, and tips on keeping the learning community and environment apart from their personal space. The leaners can be advised to settle their learning/professional profiles in the social media platform in order to preserve their privacy.

Considering the remaining controversy in different social and cultural communities as for the role and value of social media it remains preferable to implement social media tool as a complimentary to the main LMS platform of the course. At the same time, clear explanation of the purposes of implementing social media tool in learning, distinct identification of activities which are going to be conducted via social media platform and benefits for the learning outcomes, will increase the learners' engagement and lower their frustration to communicate in the social media environment.

Conclusions

Taking into account the results obtained during the study the following conclusions can be drawn out.

Internet is used first of all for the learning material search and communicating with friends via social media where Facebook, WhatsApp and Facebook Messenger are prevailing as tools for connection.

Although the university students in Turkey are active participants of social media, their learning activities and events of their university life remain less represented in social media. They are more inclined to publish posts on their spare time and leisure activities.

The students prefer following news and updates on the university's pages in social media in a role of spectators rather than being active commenters on the posts published.

They are interested in their teachers' life in social media, eagerly following updates concerning professional issues, leisure activities, information referring to the subjects of their learning.

Communication with teachers is conducted mostly personally, the social media-mediated interaction is on the 4th place after e-mailing and phone. Exchanging of files/assignments with teachers occurs in most cases via e-mail, social media is 2nd on frequency of usage.

Considering the implementation of social media tools in the format of online tutoring it is required to account on the students' educational, demographic and cultural background, and to understand mainstreams of their behaviour in social networks.

Social media tools are effective in terms of enhancing interactivity, and establishing conditions for dialogical learning. Therefore, the implementation of social media tools is beneficial if the purposes of their usage are clearly formulated for all participants, ethics of behaviour and communication via social media is defined in the pre-course instruction, learning activities, discussions and social media channels for communication are clearly regulated.

To obtain an overall idea of the status of social media in the country more studies in other areas should be conducted due to the significant discrepancies between local economies, cultures and ways of communication in different regions of Turkey.

The results of the study can foreground designing comparative studies among countries   for elaborating strategies to overcome communicative and technological barriers in establishing international educational consortiums aimed to provide online tutoring services.

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THE USE OF NEW TECHNOLOGIES IN IBERO-AMERICAN CLASSROOMS: DEMYSTIFYING UTOPIAS	Sandra Guevara Betancourt, Mari Carmen Caldeiro Pedreira Facultad de educación ciencia y tecnología Fecyt Universidad Técnica del Norte, Ecuador

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Abstract: The current media and technological situation have conditioned the education reality throughout history but specially now. The presence of multiple digital devices and tools involves a shift in pedagogy, that apart from including new didactic teaching tools, tries to meet the expectations and needs of a digital society. It requires a student´s interaction with others, an understanding of the information conveyed, and an ability to produce adequate audiovisual contents. Beyond a data input, they must be able to build knowledge, develop critical and reflective autonomy, and participate actively in school; consequently, in society. In this sense, this paper analyzes existing didactic teaching tools and educational interactive applications in Spain, Chile and Ecuador; where, the institutions create regulations that require training in ICT, however, depending on the case every achievement is different. Therefore, the aim of this work is to review a current situation and propose conducive alternatives to improve different realities.

Introduction

The evolution of information and communication technology ICT has given rise to important changes not only in the communication but also in the pedagogical field. Nowadays, it is hard to conceive education without the use of technological tools, which facilitate work and foster interaction and communication among students from different geographical and cultural areas. As Longworth (2005) mentioned, they require a lifelong training, an academic formation reachable to the familiar community; as well as a set of training agents, who despite of not having teaching as a mission, condition to the individuals who have not been trained autonomously, but especially those in younger ages. Media and different technological devices, currently, exert a lot of power on the receiver, conditioning his thinking and acting.

Therefore, not only in Spain but in Ibero-America as well, there is a huge number of applications and teaching tools that seek to link technological reality and pedagogy, in this regard the Ministry of Education and Spanish Science, "MEC", on its website has portals that provide educational information about different areas of interest related to education, educational opportunities, regulation, educational resources or applications for centers management. Also, it refers to the associations and supranational organizations task of carrying out their assignment in the field of education, communication and new technologies. Then, this country has work groups such as the Communications Office within the Autonomous University of Barcelona, or Andalusia Communicate Group with over 25 years of experience. They arduously carry out a strenuous training duty, linked to the literacy issue and to the development of critical citizenship awareness. A task whose basis lies in the development of media literacy as the fundamental linchpin of the scope in media autonomy (Caldeiro, 2014). A scope that is possible with a collaborative effort among all the training actors, in this regard, the training a person gets at an early age and continues in school; being finally complemented in the society. Nowadays, the hypermedia context requires a training of citizens, the one that is part of a multiscreen society and its own cultural baggage, where the receiver's eye must not only capture but discern reality from fiction, be critical and request for the veracity of a perceived

audiovisual content. In the technological context of the last decades of XX and early XXI centuries, where a horizontal communication predominates, there is an urge for the «emirec» scopes referred by Cloutier (2001) also recently known as «prosumer» (Sánchez-Carrero & Contreras, 2012). Given this situation and to achieve such goals, it is necessary a supplementing school involvement, as previously mentioned, the task of the family and society in general.

At the current time, the presence of multiple technological devices at school is not enough, the tools are necessary but not sufficient to achieve the emission of critical judgment. We need the legislative endorsement of both national and educational institutions with training but trainers' interest too. From early ages the use of new tools fosters creativity, expressiveness and encourages social interaction. This is a situation that allows the integration of students in the school because, if the school is not adapted to the hypermedia context, it provokes the development of a digital and communication gap. Nowadays children, also called «natives » (Prensky, 2001) or «digital residents» (2011), are born with devices in their hands and that is why they learn to manipulate intuitively, a situation that becomes a routine and entails continuity in the academic field. Digital tools are not meant to nullify the other teaching materials but being used as a teaching supplement that is neither exclusive, nor conceived as pernicious.

A lifelong learning corroborates the work philosophy we have been referring to, and the same that has been set out in the first decade of XXI century by the Commission and the European Parliament, when in 2009 Literacy Recommendations were issued, guidelines that are committed to progress and conjugated with the use of traditional tools. This requires the development of expertise using means for the application of a communicative citizenship, as those proposed by (Cerbino & Belotti, 2016) who marked a precedent for designing models of teaching integration with ICT in the classroom (Area, Hermandez & Sosa, 2016). Paradigms that must follow the pedagogy of autonomy (Freire, 2004) showing some examples of what every teacher should know and understand. At agreeing with this author, pedagogy must seek synergy between teaching and learning.

1. A digital society with ICT

Digital tools foster creativity, freedom of expression, development and autonomy of active and democratic citizenship which must be part of this current universe. Beyond the transmission of content, ICT disseminates stereotypes, values, behaviors and models that alienate and condition the passive, uncritical and inactive receiver. In order to overcome the situation of digital technology and alienation in a Spanish context, the telephone foundation (2016) has launched a manual that provides schools with tips to be part of this new change, promoted by new technologies. In this sense, it aims to show how and what to teach in the digital society; It also provides guidance to the innovative teacher, since innovation is not synonymous of reform but guide and enable new ways of training in the hypermedia era. It is a moment in

which the contents are disseminated immediately and sometimes without contrasting. A diffusion that involves the development of critical competence (Caldeiro & Aguaded, 2015) based on content development according to the dimensions of the critical reception, autonomous development and creativity.

Regardless of the continent or country we currently refer to, and as Freire (2002) mentions: education must go together with a change, a modification where the teacher, the greatest exponent of the educational process, must undergo a remarkable evolution from the role of knowledge transmitter, characteristic of traditional pedagogy. Nowadays and according to the constructivist pedagogy, any teacher must possess certain knowledge, develop skills that allow its transmission through teaching to others. In a technological society the teacher becomes a guide that, according to Cabero (2001), is a facilitator who beyond transmitting knowledge should teach a set of existing tools and strategies, so that students have access to knowledge. Then, in the digital society the ICT not only streamlines the communication and fosters interaction among users from different geographical locations, but also allows the generation of knowledge and research. Thanks to new tools the user can develop a critical capacity and is capable of producing knowledge creatively, at the same time, cultivating the production of contents that are axiological and aesthetically appropriate.

Therefore, the multiscreen context and technological tools appeal to an inexcusable use of online learning and training, as ways to train educators in this multimedia society. In the current context, it is unlikely to continue teaching using means from the last century, today virtuality should be used to train. In this sense, e-learning, distance education or massive open online courses also known as MOOC are introduced. They are learning ways of interactivity and virtuality seeking firstly to train with the latest tools, and secondly to help learners manage their time at will.

The access facility to contents is one of the advantages and drawbacks of these modern training systems, thus, with a simple Internet connection and with a fixed time the students can be trained without attending physically to school, or having to do it at a particular time. Moreover, this new system makes it possible the contact between students from different geographical locations, and their interaction promotes the generation of knowledge in a broader and complete way. Besides, the cost is relatively cheap while it only requires a device with Internet connection and additional material is not necessary. The open access makes information available just with a single click, all of this has a number of drawbacks, this system involves the presence of critical people, able to analyze contents conscientiously and with a set of competencies that train them to discern information and true contents from the ones that are not. Also, this type of training requires a greater number of hours for the teachers to assist possible students' queries; on the other hand, distance learning in any of the forms set out above, requires more dedication from teachers in charge, who

should be interested in knowing whether his students learn or not; that is to say, teachers must not only be aware of the cognitive learning but also the technological and axiological one (see Table 1).

In general, we can say that digital tools are a step forward in terms of the training aspect because it facilitates learning at broadening the schedule in which students can learn more; however, they require not only cognitive but axiological and technological training. Depending on where the online learning takes place, the results may differ. At this point, the question about the usefulness and functionality of online training arises. According to the cultural and educational context being referred, it is necessary to establish guidelines for the use and adaptation not only of contents, but of technological tools and a pedagogical value.

TABLE 1. ONLINE TRAINING AND USE OF DIGITAL TOOLS, ADVANTAGES AND DRAWBACKS IN A TECHNOLOGICAL SOCIETY

ADVANTAGES	DRAWBACKS
To broaden the schedule of access to contents To allow greater interaction and dialogue among students To encourage participation and foster knowledge worldwide, regardless of the geographical area, or availability in teachers' schedules To facilitate updating of contents and materials To facilitate learner's autonomy	They require technical knowledge to use education ICT They require longer number of hours from teachers to address inqueries It requires autonomous forging skills and critical competences

Source: The authors

3. Didactic usage of technological tools within an Ibero-American context

Given that the receiver's intelligence must be adapted to the logical and orderly comprehension of audiovisual contents, it is convenient to explain the level of inclusion that ICT has in Ibero-American classrooms. In this regard, there is a reference highlighted by Rodriguez & Carnota (2015), where they perform a deep analysis about the inclusion of technology in America, the authors focus interest in the technological aspect and specifically into the computing field. Besides, they refer to the teachers' training, especially along the last half time of XX century. The task may be limited to the interaction between student and subject matter, in order to understand the concept better. In this sense, the proposal is fostering artificial intelligence that encourages reasoning, a main feature of human beings, and allows solving problems. A resolution that focuses on education in the XXI century to prepare individuals ready to perform in a digital society where besides reproducing contents they must know how to apply them properly.

Taking into consideration that educating is not only transmitting knowledge, a demanding need to train students in competences is proposed by the DeSeCo Report (2001). This formation aims at an integral training of the professional who develops a set of skills to survive in the current digital world. It is about training on the daily performance, emphasizing in those students' weaknesses.

At the beginning of this research, we highlighted the importance of knowing the real situation in the Ibero-American classrooms. Therefore, we will take as reference Spain, Chile and Ecuador, three countries

that made up the Euroamerican Inter-university Network «Alfamed», which works in the media literacy development whose first objective is to diagnose the situation of other countries apart from the mentioned above, such as Portugal, Argentina, Brazil or Mexico, to subsequently analyze the data and design tools and strategies like the ones elaborated in Spain between the years 2011-2015 in the frame of the research Proyect I+D: EDU 2010-21395-C03.

Regardless of the data shown in the Alfamed Network research carried out as a priority, after having interviewed to different schools in the rural and semi-urban area in Chile, it concludes that although they do not have proper training, teachers have technological resources already included in their daily work, also they begin their training thanks to the work carried out by the foundation of media literacy, innovation and educational inclusion "Mediabus" that works together with the School + and aims to foster interaction and collaborative work in different rural and digital schools. This foundation aims to develop, with the available means and teachers' knowledge, critical thinking, creativity, participation and reflexivity. In this sense, there are remarkable similarities between the task developed in Spain, in the field of a research project on media literacy, and the work of the Mediabus foundation of Chile, due to the fact everybody pursues a common goal: using ICT as a communication tool, learning and scope of critical awareness.

Meanwhile in Ecuador, a country where the economic investment in education has been extreme in the last years, there is a slow takeoff that contributes with the mentioned objective. A takeoff that favors the provision of digital resources in some schools and universities. In this sense, it is important to highlight the fact that Internet is not only used as a means of occasional and sporadic communication but as a way of communication and work, established in the most prestigious universities in the country. Despite the difficulties that could anticipate to the geography of the country, reality shows important advances that favor the digital training of future professionals of a hypermedia society. Thus, the Ministry of Education webpage includes the National Plan for Good Living which includes ICT among its priorities, so it has digital tools aimed at children of all ages, parents and teachers. It is globally appreciated how new digital tools and technology grab much of the interest of governments from different Ibero-American countries, who focus their interest in the comprehensive training of citizens in general.

4. Conclusions and future research

The need to demystify utopias and analyze different realities is justified by the current digital situation and the urgent need to implement strategies that threaten the development of the digital gap and users' training, both immigrants and digital residents.

In this context, the application of tools and strategies is proposed to empower the common citizen to become media citizens (Gozálvez, 2013), able to communicate and give critical and autonomous judgments. In this regard, it is essential to prepare young children in knowledge to see the contents that

screens disseminate, as stated by (Perez-Rodriguez, Delgado-Ponce, Garcia-Ruiz & Caldeiro-Pedreira, 2015). Teachers must assume, as part of a professional responsibility, master the media literacy to implement appropriate teaching strategies. In this sense, parents have to develop the same competences to promote the achievement of that objective.

In short, literacy in different sectors of the population and in different countries aims to empower citizens to become an active audience, able to reflect. To do this, in Spain there are different tools that the Ministry of Education itself has developed during recent years, and other initiatives such as those carried out by the Communicate Andalusian Group that based on the research project about media literacy, and together with the University of Valladolid and Pompeu Fabra have designed a repository that provides links to audiovisual and multimedia materials, related to Media Education, which have been recommended by over 1000 experts and professionals in the Hispano-American field.

A space where professionals from any field of expertise can find materials and resources in open access, oriented to demystify the utopia and include classroom materials, resources and strategies to foster critical thinking in the users of digital media and technology tools.

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BENEFITS AND LIMITATIONS OF PRACTICING THE OPEN EDUCATION CONCEPTS IN THE CHANGING EDUCATIONAL SYSTEMS- THE MACEDONIAN CASE	DEAN ILIEV Faculty of Education University "St. Kliment Ohridski" Bitola, Republic of Macedonia

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Abstract: The research paper is trying to find and stress the attitudes and perceptions of the student teachers and the experienced teachers about the open education concept.

By using survey it is measured the acceptance of the open education concept for the actual and the upcoming teaching staff, their fears and doubts in the development of the education system in the future influenced by this concept. The positive impact of the open educational concept is also researched.

The sample of the research is random, in which 202 students from the Faculties of Education have been asked as well as 241 experienced teachers employed as all class teachers in the primary schools.

The results of the research are gained by using quantitative procedures.

Findings show that the respondents mainly find that the open education concept will have negative effects on the changes in the educational system, which confirms the main hypothesis of the research. Certain number of benefits and limitations in using open educational concept in the changing educational system are identified in the answers of the research sample.

Introduction

The importance of having appropriate education in one hand means that you have to adopt yourself on the current settings and to do what the system need. The most imprortant thing is to adopt the settings on your internal energy, needs and motives. Both things mean that you are on the right road for your success and the success of the society. Having more and wide opportunities and possibilities in educational sense, means deeper and essential satisfaction of the individuals, groups and community.

As it is stated from Peters A. M. and Britez G. R. „Openness is a concept that has come to characterize knowledge and communication systems, epistemologies, society and politics, institutions or organizations, and individual personalities". (Peters and Britez 2008, 3) The acceptance of this definition is not strongly connected with the distance education, which is based on the "…rapid advances in information and communications technology"(Arinto 2016, 162)

„New pedagogy" treats this question like "... framework of learning collaborations between teachers and teachers, students and teachers, students and students, students and society, thus aspiring towards a deeper insight into core learning objectives through information and communication technologies (ICTs)". (Ramdass and Masithulela 2016, 2) The authors continue that the " Information and communication technologies may be recognised as a support service that offer facilitation and collaboration that enrich the learning experience through record keeping, tracking student progress, timely discussion, and feedback during the learning experience".

Very famous and appropriate description of the term open education is given by the features: "Opening education to more people; open admissions; multiple open channels; open curriculum; open access; open participation; open accreditation; open cooperation, resources and staff sharing; learner oriented; diminish

the dependency of learners; the ultimate learning "environment" is the learner himself; new roles for teachers; individuality of learning and form of education permanente". (Wedemeyer 1973, 3)

Our understanding of the term Open education is very close to the founders of this movement Barth and Rathbone for whom "is a way of thinkingabout children, learningand knowledge." (In: Katz 1971, 4). Going further, we can come to the meaning of the "open education" associated with "…informal schools, integrated day, open classrooms, activity-centered education, British Infant School, and less often, child-centered education, humanistic education or free schools" (Katz 1971, 2). This is also the acceptable for our perception of the term "open education". We have to strengthen in building the UNESCO`s "global classroom". For those purpose it is important to develop and engage professionals in curriculum development which will create the dimensions of learning convenient to all stakeholders, diversified programmes in order to answer the needs and possibilities of every individual. The importance of building legislation which will support and encourage the individuals to take part into learning processes, establishing institutional network is also necessary for fully recognized quality of open education.

This paper is the answer of the UNESCO to the open invitation of the institutions and individuals to be examined how open and distance learning can effectively help meet today`s urgent education and training needs…" (UNESCO 2002, 16).

Methodology of the research

The research question was inspired by the experience of the researcher in dealing with the creation of the school curriculum, participating in the creation of the competences of professional and career development of the teacher, being member of the bodies which create decisions about accreditation of the study programmes, etc. The research question was: What is the perception of the possibilities of the open education concept which is being practiced in the Republic of Macedonia? The subject of the research is the identification of benefits and limitation of the open education concept in the Republic of Macedonia. According to this we set the main hypotheses of the research: There is a similar perception of the realization of the open education concept in the Republic of Macedonia between experienced and student teachers which is quite different from the theoretical established bases of the open education. For that purpose, we have selected the random sample of the research, which is structured from:

- Student teacher: 202 studied on the three Faculties of Education in the Republic of Macedonia in the third and fourth (final) years of study and

- Experienced teachers: 241 (All class teachers in primary schools in the Republic of Macedonia with the experience of more than 5 years as a teacher)

By using questionnaires we asked them for their attitudes and perceptions about the practicing of the open education concept in the Republic of Macedonia.

The questionnaire for the student teachers was with 8 open questions and that one for experienced teacher was with 8 open questions and 1 closed question.

Results

By selection of one category (Strongly disagree; Disagree; Agree and Fully agree) for every given statement, the experienced teacher and student teacher were asked to present their perception about the *openness of the study programme for primary school teacher*. The statements were given in a positive sense. According to calculation of the frequency, average and standard deviation of the answers of every given statement, we can see that: (See Table 1)

Table 1. OPENNESS OF THE STUDY PROGRAMME						
I understand that the study programme for primary school teachers:	Experienced teachers		Student teachers		Summary	
	χ	σ	χ	σ	χ	σ
Gives opportunity to select an optional subject programmes that fit the needs and interest of the student teacher	1,170	0,523	2,010	0,879	1,553	0,822
Creates possibilities to create individual student direction for taking competences through study programme	2,502	0,902	1,292	0,553	1,950	0,972
Instead of formal, can be organized as a non-formal activity	1,050	0,312	1,030	0,242	1,041	0,282
Creates satisfaction of the motives for all stakeholders whose aims are to become teachers	2,199	0,934	1,842	0,671	2,036	0,844
Creates satisfaction of the state educational policy	3,154	0,692	3,198	0,545	3,174	0,630
Creates satisfaction of the local community educational needs	1,286	0,602	1,312	0,722	1,298	0,659
Develops competences of future teachers relevant for all proposed educational contexts and educational situations	2,286	0,813	1,837	0,737	2,081	0,811

- pondered values of averages shows that for both samples of the research, the study programme for primary school teachers create satisfaction of the state educational policy (3,174);
- the lowest pondered values of averages (1,041) is about the statement that the study programme for primary school teachers Instead of formal, can be organized as a non-formal activity;
- The values of standard deviation for every statement is in range of <1, and the lowest value has the statement the study programme for primary school teachers Instead of formal, can be organized as a non-formal activity (0,282) and statement the study programme for primary school teachers creates satisfaction of the state educational policy (0,63).
- The biggest difference among the perception of experienced and student teacher is in the statement The study programme for primary school teachers creates possibilities for creating individual student direction for taking competences through study programme 1,21.

Also, by calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be noticed that the higher percentage of the answers given for every category refers to the category strongly disagree, (experienced teacher 44,221% and student teachers 50,354%). We can also notice that there is no difference in order of selecting categories by the experienced and student teachers. (See Table 1.1)

Table 1.1 OPENNESS OF THE STUDY PROGRAMME											
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	746	464	293	184	712	368	255	79	1458	832	548	263
%	44,221	27,504	17,368	10,907	50,354	26,025	18,034	5,587	47,017	26,830	17,672	8,481

By selection of one category (Strongly disagree; Disagree; Agree and Fully agree) for every given statement, the experienced teacher and student teacher were asked to present their perception about the *openness of the educational system for professional development of the teachers*. The statements were also given in a positive sense According to calculation of the frequency, average and standard deviation of the answers of every given statement, we can see that: (See Table 2)

Table 2. OPENNESS OF THE EDUCATIONAL SYSTEM FOR PROFESSIONAL DEVELOPMENT OF THE TEACHERS						
I understand that the educational system offers:	Experienced teachers		Student teachers		Summary	
	χ	σ	χ	σ	χ	σ
Enough legal opportunities for professional development of the teacher	3,332	1,005	2,426	0,899	2,919	1,059
A range of courses which satisfy teacher motives	1,440	0,749	1,733	1,014	1,573	0,892
A possibilities to attend in-service training courses based on individual needs	1,166	0,588	1,421	0,768	1,282	0,688
A possibilities to attend in-service training courses based on institutional/classroom needs	2,191	0,833	1,847	0,862	2,034	0,864
A possibilities to attend in-service training courses based on state priorities	3,133	0,693	3,094	0,568	3,115	0,639
A possibilities to attend in-service training courses without any payment	2,510	0,664	1,361	0,740	1,986	0,904
A possibilities to attend in-service training courses by paying on their own	1,220	0,544	1,594	0,804	1,391	0,701
Possibilities for diversified institutions for in-service training of teachers	1,759	0,929	2,020	1,005	1,878	0,973
Possibilities for realizing individual professional development plan	1,394	0,744	2,203	0,966	1,763	0,943

- pondered values of averages shows that for both samples of the research, the educational system is open for the professional development of teacher if the in-service training courses are based on state priorities (3,115) and that the educational system offers enough legal opportunities for professional development of the teacher (2,919);

- the lowest pondered values of averages (1,282) is about the statement that the educational system offers possibilities to attend in-service training courses based on individual needs and the values of the statement (1,391) for the statement that the educational system offers possibilities to attend in-service training courses by paying on their own;

- The values of standard deviation for every statement except of one 1,059 about offering enough legal opportunities for professional development of the teacher is in range of <1, and the lowest value (0,639)

has the statement the educational system offers possibilities to attend in-service training courses based on state priorities and the value of the statement the educational system offers possibilities to attend in-service training courses based on individual needs (0,688);

- The biggest difference among the perception of experienced and student teacher (more than 1) is in the statement the educational system offers a possibilities to attend in-service training courses without any payment

Also, by calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be concluded that the higher percentage of the answers given for every category refers to the category strongly disagree, (experienced teacher 44,813% and student teachers 42,629%). We can also notice that there is no difference in order of selecting categories by the experienced and student teachers. (See Table 2.1)

Table 2.1 OPENNESS OF THE EDUCATIONAL SYSTEM FOR PROFESSIONAL DEVELOPMENT OF THE TEACHERS											
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	972	483	421	293	775	499	374	170	1747	982	795	463
%	44,813	22,268	19,410	13,509	42,629	27,448	20,572	9,351	43,817	24,630	19,940	11,613

On the same way of expressing the perception, the experienced teachers were asked to present their perception about their *motives for learning*. According to calculation mentioned before, but now to mark one of the three categories (Rare, Common and Dominant), it is noticeable that according to the teachers, guiding and dominant motives of the teachers for learning are External "state based" motives (Those which arise from the priorities of the ministry) with the value of average (2,747) and "Emancipatory" motives (Those which are connected with keeping the working place) with the value of average (2,585). The pondered values of averages of Classroom based motives (Those which arise from the classroom needs) (1,519) shows that the teacher doesn`t base their motives on the classroom needs. (See Table 3)

Table 3. MOTIVES OF TEACHERS FOR LEARNING					
Guiding motives for teacher in-service learning are:	Experienced teachers				
	Rare	Common	Dominant	χ	σ
"Emancipatory" motives (Those which are connected with keeping the working place)	11	78	152	2,585	0,578
Classroom based motives (Those which arise from the classroom needs)	155	47	39	1,519	0,757
External "state based" motives (Those which arise from the priorities of the ministry)	16	29	196	2,747	0,567

By selection of one category (Strongly disagree; Disagree; Agree and Fully agree) for every given statement, the experienced teacher and student teacher express their perception of the *openness of the primary school curricula*. The given statements are defined in a positive way. Using already presented ways of data calculation, it can be seen that: (See Table 4)

Table 4. OPENNESS OF THE PRIMARY SCHOOL CURRICULA						
I understand that primary school curricula:	Experienced teachers		Student teachers		Summary	
	χ	σ	χ	σ	χ	σ
Gives opportunity to be changed according to the needs of the classroom	1,510	0,805	1,787	1,067	1,637	0,944
Gives opportunity to be changed by the pupil	1,195	0,507	1,386	0,770	1,282	0,647
Gives opportunity to be changed by the teacher	1,266	0,535	1,238	0,557	1,253	0,545
Gives opportunity to be changed by the local community	1,178	0,452	1,228	0,534	1,201	0,492
Gives opportunity to be realized out of the timetable and school year schedule	1,253	0,649	1,629	0,920	1,424	0,807
Gives opportunity to the pupils to react over the content, goals and objectives of the curricula	1,133	0,490	1,203	0,632	1,165	0,560
Gives opportunity to the parents to react over the content, goals and objectives of the curricula	1,203	0,469	1,292	0,596	1,244	0,533
Gives opportunity to the pupils to react over the activities in the curricula	1,452	0,942	1,361	0,632	1,411	0,816
Can be realized through non-formal activities	1,315	0,583	1,431	0,843	1,368	0,716

- Pondered values of averages for the statements shows that their range is from (1,165 to 1,637). In this sense, that mens that the teachers are not agreed with the given statements;
- The values of standard deviation for every statement is in range of <1, and the lowest value (0,492) has the statement The primary school curricula gives opportunity to be changed by the local community.
- There are no big differences among the perception of experienced and student teacher in this question.

By calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be noticed that the dominant answer of the positive given statements was Strongly disagree. (See Table 4.1)

Table 4.1 OPENNESS OF THE PRIMARY SCHOOL CURRICULA												
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	1734	317	67	51	1350	291	104	73	3084	608	171	124
%	79,945	14,615	3,089	2,351	74,257	16,007	5,721	4,015	77,351	15,250	4,289	3,110

Following the ways of expression their perception and the ways of calculating and analyses the results we have arrived to the opinion about the *computer based learning as a resource for open learning of teachers*. According to that, we can see that: (See Table 5)

Table 5. COMPUTER BASED LEARNING AS A RESOURCE FOR OPEN LEARNING OF TEACHERS						
I understand that computer based learning of teachers can be used because of:	Experienced teachers		Student teachers		Summary	
	χ	σ	χ	σ	χ	σ
A positive legal base of it	3,627	0,689	2,757	0,978	3,230	0,939
The high quality of the computer infrastructure	1,519	0,825	1,564	0,906	1,540	0,863
The high quality of the Internet network	1,390	0,766	1,421	0,735	1,404	0,752
Having the high quality learning programs for teachers	1,593	0,779	1,208	0,494	1,418	0,691
Taking care about the legal obligation for using ICT in the realization of the teaching	3,917	0,276	3,614	0,613	3,779	0,485
The improvement of the teaching and learning	1,610	0,882	1,337	0,585	1,485	0,773

- pondered values of averages of the statement for both samples show that the dominant and agreed statement of teachers is that *computer based learning as a resource for open learning of teachers* can be used because of taking care about the legal obligation for using ICT in the realization of the teaching (3,914) and because of A positive legal base of it (3,627);

- Far from the perception of this statements, according to the pondered values of averages of the statement are the rest of statements with the pondered values of averages of the statement is in range of (1,404 to 1,54);

- the values of standard deviation for every statement is in range of <1;

- the results show that there are no big differences among the perception of experienced and student teacher if this question.

As about the previous question through calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be noticed that the dominant answer of the positive given statements was Strongly disagree. (See Table 5.1)

Table 5.1 COMPUTER BASED LEARNING AS A RESOURCE FOR OPEN LEARNING OF TEACHERS												
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	624	234	153	435	618	201	188	205	1242	435	341	640
%	43,154	16,183	10,581	30,083	50,990	16,584	15,512	16,914	46,727	16,366	12,829	24,078

The results about the perception of the *computer based learning as a resource for open learning of pupils* are similar with the previous one. According to that, we can see that: (See Table 6)

Table 6. COMPUTER BASED LEARNING AS A RESOURCE FOR OPEN LEARNING OF PUPILS						
I understand that computer based learning of pupils can be used because of:	Experienced teachers		Student teachers		Summary	
	χ	σ	χ	σ	χ	σ
A positive legal base of it	2,963	1,060	2,817	1,072	2,896	1,068
The high quality of the computer infrastructure	1,963	0,995	1,569	0,743	1,783	0,910
The high quality of the Internet network	1,627	0,898	1,262	0,522	1,460	0,772
Having the high quality learning programs for pupils	1,838	0,627	1,252	0,518	1,571	0,649
Taking care about the legal obligation for using ICT in the realization of the teaching	3,743	0,644	3,114	1,086	3,456	0,928
The improvement of the teaching and learning	2,207	0,959	1,772	1,009	2,009	1,006

- pondered values of averages of the statement for both samples show that the dominant and agreed statement of teachers is that computer based learning as a resource for open learning of pupils can be used because of taking care about the legal obligation for using ICT in the realization of the teaching (3,456) and because of A positive legal base of it (2,896);
- The lowest pondered value of averages of the statement has the statement The high quality of the Internet network (1,460).
- the values of standard deviation for every statement is close to 1, and the lowest value (0,649) has the statement Computer based learning of pupils can be used because of having the high quality learning programs for pupils;
- the results shows that there are no big differences among the perception of experienced and student teacher if this question.

As about the previous question through calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be noticed that there are no big differences among the categories with the leading place of the category Strongly disagree. (See Table 6.1)

Table 6.1 COMPUTER BASED LEARNING AS A RESOURCE FOR OPEN LEARNING OF PUPILS												
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	423	394	271	358	602	247	167	196	1025	641	438	554
%	29,253	27,248	18,741	24,758	49,670	20,380	13,779	16,172	38,563	24,116	16,479	20,843

One of the questions which is set in a provocative and direct way was the question about the *main characteristics of the openness of the Educational system in Macedonia*. By selection of one of the four categories mentioned before the experienced and student teachers were expressed their perception. According to that it can be seen that: (See Table 7)

Table 7. CHARACTERISTICS OF THE INSTITUTIONAL OPENNESS						
I understand that the main characteristics of the openness of the Educational system in Macedonia can be described through:	Experienced teachers		Student teachers		Summary	
	χ	σ	χ	σ	χ	σ
The number of the Universities in the country	3,402	0,897	3,500	0,798	3,447	0,855
The number of Faculties which are dispersed all over country	3,108	0,608	3,198	0,653	3,149	0,631
The number of study programs opened and active all over country	3,282	1,008	3,302	0,971	3,291	0,991
Having higher institution close to your born place	3,021	0,770	3,817	0,528	3,384	0,779
Having possibilities to choose study program	3,299	1,019	3,243	1,079	3,273	1,047
Having possibilities to become a student without any qualification	3,456	0,783	3,381	0,789	3,422	0,787
Having possibilities to study as full time and part time student	3,523	0,820	3,455	0,821	3,492	0,821
Having possibilities to become a student for being eligible to participate in EU project	3,378	0,899	3,911	0,348	3,621	0,752
Low scholarship for a lot of students	2,224	1,184	2,475	0,991	2,339	1,107
High percentage of students having scholarship	2,133	1,252	2,748	1,275	2,413	1,299
Social measures for engaging students into study	3,432	0,760	2,975	0,876	3,223	0,846

- The most of the statements have the pondered values on the agreed site. Instead of the statement Low scholarship for a lot of students (2,339) and High percentage of students having scholarship (2,413), all of the others characteristics like The number of the Universities in the country, Having possibilities to study as full time and part time student, Having higher institution close to your born place, Social measures for engaging students into study, Having possibilities to study as full time and part time student and Having possibilities to become a student without any qualification is perceived as *characteristics of the openness of the Educational system in Macedonia.*
- Except of the three statements with the values of standard deviation above, but close to 1, the other is in range from 0,631 to 0,991, which shows the high level of cohesion in the perception of the teacher about this question.

By calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be concluded that the high percentage of the answers refers to the category Fully agree and are ordered similar according the values in the answers of experienced and student teachers. (See Table 7.1)

Table 7.1 INSTITUTIONAL OPENNESS												
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	321	328	729	1273	169	287	534	1232	490	615	1263	2505
%	12,109	12,373	27,499	48,020	7,606	12,916	24,032	55,446	10,055	12,621	25,918	51,406

The perception of *the quality of the open educaton product* in Republic of Macedonia was in the focus of the interest, too. The results received according to calculation of the frequency, average and standard deviation of the answers of every given statements, shows that: (See Table 8)

Table 8. THE QUALITY OF THE OPEN EDUCATON PRODUCT						
I see that the open education products in my country can be described as:	Experienced teachers		Student teachers		Summary	
	χ	σ	χ	σ	χ	σ
Achieved Diploma without exact competences	3,290	0,924	3,064	1,063	3,187	0,996
Achieved Diploma based on competences	2,739	1,044	3,535	0,874	3,102	1,048
Achieved knowledge without any official validation	2,183	1,070	2,406	1,078	2,284	1,079
Achieved knowledge with an official validation	2,448	1,119	2,550	1,160	2,494	1,139
Achieved knowledge for personal satisfaction	1,838	1,150	1,842	0,977	1,840	1,075

- pondered values of averages of the statement for both samples (3,187 and 3,102) show that the dominant quality product from the open education are achieving diploma with exact competences and Achieved Diploma based on competences.
- For the teachers, Achieving knowledge for personal satisfaction (with the pondered values of average of the statement 1,840) can`t be recognized as product of the open education system.
- The biggest difference of the perception of the experienced and student teachers is in the perception of the product Achieved Diploma based on competences (based on the average- 0,796)
- Almost all of the values of standard deviation are in a range (from 0,996 to 1,139) which shows the relative balanced perception among the teachers.

By calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be seen balanced dispersion of the marks of the teachers with the difference of 11,964 % of the answers. (See Table 8.1)

Table 8.1 THE QUALITY OF THE OPEN EDUCATON PRODUCT												
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	353	223	303	326	243	195	215	357	596	418	518	683
%	29,295	18,506	25,145	27,054	24,059	19,307	21,287	35,347	26,907	18,871	23,386	30,835

The perception of *the possibilities to have better open education*.in Republic of Macedonia was also researched. The results received according to calculation of the frequency, average and standard deviation of the answers of every given statements, shows that: (See Table 9)

Table 9. POSSIBILITIES TO HAVE BETTER OPEN EDUCATION						
I believe that better open education possibilities can be established if:	Experienced teachers		Student teachers		Summary	
	X	σ	X	σ	X	σ
I can choose the program of study which corresponds to my perception of education of teacher	3,494	0,956	3,327	1,063	3,418	1,010
I can choose partners in the learning process	2,942	0,979	3,188	0,887	3,054	0,946
I can make a decision about the curricula	2,722	1,157	2,748	0,985	2,734	1,082
I can make a decision about the time of learning	2,506	0,870	2,629	0,806	2,562	0,843
I can make a decision about the resources for learning	3,378	1,003	3,639	0,616	3,497	0,859
I can create my own resources for learning	3,315	0,968	3,257	0,935	3,289	0,954
I can choose the educator	2,730	0,891	3,094	0,830	2,896	0,883
The self-directed learning can be recognized as opportunity to open education	2,477	0,855	2,564	0,959	2,517	0,905
The results of non-formal learning will be validates as those achieved through formal learning	2,859	1,049	2,752	1,075	2,810	1,062

- Pondered values of averages of the statement for both samples for all of the mentioned statements are perceived positively by the teachers. Those values are in the range of 3,497 to 2,517.

- The most agreed possibilities which correspond to the open education, according to the teachers, are making a decision about the resources for learning and the possibilities to choose the program of study which corresponds to my perception of education of teacher.

- Having the possibility to recognize the self-directed learning as opportunity to open education is a statement with the lowest pondered value of the average (2,517), but is also agreed by the teachers.

- The values of standard deviation are in a range (from 0,843 to 1,082) which shows the relative balanced perception among the teachers for this question.

By calculating and analyzing the frequency and percentage of the categories (Strongly disagree; Disagree; Agree and Fully agree) it can be conclude that the high percentage of the answers refers to the category Fully agree. (See Table 9.1)

Table 9.1 POSSIBILITIES TO HAVE BETTER OPEN EDUCATION												
	Experienced teachers				Student teachers				Summary			
	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree	Strongly disagree	Disagree	Agree	Fully agree
Σ	270	430	638	831	149	405	521	743	419	835	1159	1574
%	12,448	19,825	29,414	38,313	8,196	22,277	28,658	40,869	10,509	20,943	29,069	39,478

Discussion

Having in mind the analysis of the results about the perception of the experienced and student teachers about the openness of the study programme for primary school teacher we can conclude that: the mentioned statements were provocative enough for the sample to give marks for all of them. There are no essential differences between the perception of the student teachers and experienced teacher about the openness of the study programme. There is a domination of the disagreement with the positive given statements which shows they are unnoticeable and non-existing.

This shows that the study programme for teachers doesn`t have the characteristics which are theoretically described in the theory of Open education, such as: having opportunity to select an optional subject programmes that fit the needs and interest of the student teacher, creating satisfaction of the local community educational needs, etc.

Having in mind the analysis of the results about the perception of the experienced and student teachers about the openness of the study programme for primary school teacher we can conclude that: the openness of the educational system is usually seen as a state matter, and it is strongly defined with the legislation. It is so far from the theory, but also from the individualization of the professional development of teacher related to the range of courses, courses without and with payment and differentiation of the possibilities of realization of the personal development plan.

The mentioned in this context lead us to the conclusion that experienced teachers based their motives for learning on the motives which don`t arise from their perception and experience in the classroom, but the motives are primarily for keeping the position as teacher and "blinded" following the state regulations. That is not a characteristic which can be treated as a contemporary in the light of Open education.

The perception of the experienced and student teachers about the openness of the study programme for primary school teacher lead us to the conclusion that the experienced and student teachers are unique in the negative perception of the openness of the primary school curricula. That means that there is no any openness of the school curriculum for the opportunity to be changed according to the needs of the classroom, to be changed according the stakeholders (pipils, parents, teachers, local community).

From the analyses of the results for the perception of the experienced and student teachers about the computer based learning as a resource for open learning of teachers we can conclude that the student and the experienced teachers are unique in their perception. That perception is quite positive and visible as Taking care about the legal obligation for using ICT in the realization of the teaching and a positive legal base of it. Also, the teachers are unique about the invisibility of the using computer based learning because of the quality of computer infrastructure, quality of Internet network, and improvement of the teaching and learning. This also means that only the legal base and the infrastructure are not good enough to say that the Open education concept in Macedonia is correct.

From the results of the question about the computer based learning as a resource for open learning of pupils it can be seen the similar perception of the teachers. Computer based learning as a resource of open learning of pupil is seen based on legal obligation for using ICT in the realization of the teaching and a positive legal base of it. The teachers are also unique in perception of the quality of computer infrastructure, quality of Internet network, and improvement of the teaching and learning, as a non recognized resource for open learning.

From the analyses of the results about the perception of the experienced and student teachers about the main characteristics of the openness of the Educational system in Macedonia we can conclude that for the teachers included in the sample recognize the characteristics which present the measures of the state and the government for establishment of" a picture" of openness of the educational system in the Republic of Macedonia. It realize picture of the openness of the educational system having in mind the state and governmental political objectives, without taking care about the core characteristics of the open education concept.

The analysis of the results about the perception of the the quality of the open educaton product in Macedonia lead us to the conclusion that achieving diploma is in the focus of the most of the teachers, which is quite equal with the formal and compulsory education. Through this result we can see the problem in perception of the product of the current open education setting in the Republic of Macedonia. The knowledge is been put aside from the perception of the teachers.

The analysis of the results about the perception of the the possibilities to have better open education in Macedonia take us to the conclusion that all mentioned statements as choosing the program of study which corresponds to my perception of education of teacher, choose partners in the learning process, choosing the educator, making decisions about the curricula, the time of learning and the resources for learning, can be measures which if are implemented, will successfully influence better open education in the Republic of Macedonia.

Conclusion

The perception of experienced and student teacher about practicing the Open education concept in the Republic of Macedonia shows that the main role of organizing and realizing have the State and the Government. A lot of characteristics of the open education in Macedonia have got the adjective „govermental".

From the answers of teachers some benefits can be identified, which arise from the measures of the country, such as: Creating satisfaction of the state educational policy, possibilities to attend in-service training courses based on state priorities, Enough legal opportunities for professional development of the teacher, A positive legal base computer based learning, Taking care about the legal obligation for using ICT in the realization of the teaching, A huge numner of Universities, Faculties, study programs and Higher education network.

The limitation of the measures in the Republic of Macedonia in order to practice the Open education which are visible and marked by the teachers are: not having opportunities to individualize study programme for teacher, not having diversified institutions for in-service training of teachers and possibilites to realize individual professional development plan, lack of possibilites to attend in-service training courses based on individual needs, being motivated for learning from "Emancipatory" motives and

External "state based" motives. Also the closeness of the school curricula, Diploma oriented learning and not having sense for the educational needs of the stakeholders can be identified as limitation in the realization of the concept of Open education in the Republic of Macedonia.

From this research we realize that the education in the Republic of Macedonia had to focus to overcome the limitation and create a learner based and oriented open education.

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Key words: Internet, teaching, learning, primary education.

Abstract: Since we live in society in which effects of the globalization are most notable, we have to take into consideration the fact that obtaining openness of the institutions in many stances is the key to success and prosperity. Knowing the importance of the Internet nowadays for multidimensional communication among different subjects in the educational process, the focus of this paper is on the use of the Internet in the teaching and learning process in the primary education in R. Macedonia. Surveys for teachers and learners were conducted, and descriptive statistics was used for the analysis. The results brought us to a conclusion that the teachers integrate ICT into the process of teaching and learning, but they point to the fact that there are many gaps in the use of the internet, especially in the teaching and learning Macedonian language and literature. The main obstacle is that they are lack of educational resources in Macedonian language, which can be a real issue, especially with the students in lower grades. On the other hand, they feel satisfied with the effort of the Ministry of Informatics Society of Macedonia regarding the digitalization of the school books that are approved to be used in schools. Additional aspect of the acknowledged gap in the usage of the Internet is that the teachers don't have knowledge and facilities to use this resource with the students with special educational needs. The majority of the teachers aren't in the position to enjoy what the open education offers in global frames, nowadays, because they don't have the necessary skills to do so, they are either less proficient in English, and either they do not have the needed level of media literacy and knowledge.

Introduction

Education, all around the world, puts ICT with all of its dimensions as the main focus of interest, in the past two decades. This is a narrow area and the proof of its endless opportunities lies in production of different ideas, practices which have been detected through education theory and practice. This means that we have to identify all of the available ways and paths for using ICT in order to raise educational efficiency and quality. The process of globalization has been recognized in this segment of human life as well. It is reasonable fact, simply because the most common educational questions are the same all over the world. Education is constantly in the process of identifying, searching for ways, methods by which many of thorny questions, and painful spots in education will be solved or overcome. Referring to the process of using ICT in education the same questions arise, but at the same time, we also reconsider the widespread attitude that if we do not use ICT in education automatically, then we will lose step with something that is modern, trendy, something which offers closure to the open problems.

The last decade is known as a period of intensive recognition of the societal and educational needs, but also of the arisen opportunities that the ICT offers in the frames of the educational system of Republic of Macedonia. The first step was made by obtaining computer for every student in elementary and secondary school for the purpose of increasing efficiency in the totality of the educational process, increasing of the degree of computer usage and Internet, and improving IT skills of the professors and the students (MIO, n.d.). In addition, in the frames of the project Macedonia Connects, the entire country was provided *with a broadband wireless network through a single technology deployment, by connecting all 460 of the nation's schools (as well as 70 other sites, including dormitories, hospitals, and NGOs) to the Internet.* (Hosman,

2010). As a result of this action, R. Macedonia was identified as a first nation to provide a computer for every student, in the media (NComputing, n.d.; Canonical, 20 November 2007; PR Newswire, Jun 07, 2010; Intel, 2010). This trend continued with awarding students at Universities with vouchers for subvention their purchasing of personal computers (Metamorphosis: Foundation for Internet and Society, 23th November 2007; МИОА, 12 November 2012; МИОА, 27 March 2015). The fact that every student would have a computer in front of him only for himself was seen as modernization of the process of teaching and learning, as innovative access that bring Macedonia near to the European trends, i.e. a step that will enable teachers to implement new approaches in the teaching process. It was also seen as support for the students with special educational needs, i.e. for the gifted and talented, but also for the students with learning difficulties of different kind. It was expected that the motivation and creative abilities of students will be increased, the traditional way of working will be put behind, and all school work will be fulfilled with new spirit. Rationality was also many times mentioned, but they also talked about developing informatics competences as necessary features of the new time and a new mankind.

There were also critical points made at the time of the implementation of the educational change on national level, and afterwards. The skeptics argued that the availability of personal computer for every student automatically does not guarantee that the quality of teaching will be increased. Their comments were going beyond this consideration: the computers in front of every student may become an obstacle if it distracts the students' attention. This was massive and nonrational investment, according to the opponents, and they envisioned some practical problems with network maintenance and the support from the aspect of financial condition of our country. In addition, they argued that social problems may result, i.e. in the case of bad management of the process of teaching and learning with ICT, may weaken the students' social skills. The process of learning may be reduced on pure formality which will grow into alienation. They were concerned about the fact that the expansion of the life in front of the computer will worsen the social life in the society. They emphasized one more point: teachers were not well prepared for using ICT in the classroom, which introduces more complications (Живановиќ, 2010). Another study shows that even three years after the implementation of the change, that was top-to-bottom in nature, there were still teachers that didn't use ICT in the classroom, but did use technology for the purpose of lesson planning, and becoming familiar with new information. One of the obstacles that is emphasized is the lack of IT supporters in schools and ICT administration (Hosman, Cvetanoska, 2010).

The second step was seen in the organization of the teacher training workshops for the purpose of developing basic IT skills among the primary school teachers (MCEC, n. d. a,b), at the beginning, and afterwards - organizing teacher training workshops for integrating ICT in the process of teaching and learning in primary education, problem-based learning with IT, and connecting teachers with the E-schools

project (Education Development Center, June 30 2008). Prior to organizing workshops for primary school teachers, there were teacher training workshops organized for university professors that work at the faculties for initial training of teachers, thus it was influenced on the teacher preparatory level first, and then – on the teachers themselves.

The third step was in a direction of taking curricular intervention by introduction the obligatory, as well as elective subject named Information Communication Technology, or different variants of naming that subject (UNICEF, n.d., 2). Since 2015, there is a new curricula for students in primary school for the year 2015/16 (Биро за развој на образованието, 2015a,) in which Working with a Computer and Basics of Programming continued to be included as obligatory school subjects – the former in the grade 3, and the latter in the grades 6 and 7. According to the plan for the students in the year 2016/17, Working with a Computer and Basics of Programming is obligatory school subject for the students in grades 3 and 4, and Informatics – for the students in grades 6 and 7 (Биро за развој на образованието, 2015b).

The fourth step was known as the phase of development of educational software and e-resources for providing support for the teaching and learning in primary school level: the e-text books (www.e-ucebnici.mon.gov.mk), ToolKit, the portal for e-educational resources (http://www.skoool.mk/) which holds educational resources mainly for the natural sciences.

The fifth step was also a curricular intervention regarding the implementation the ICT in every school subject - teachers have an obligation to plan 30% of the lesson per year with the support of the ICT. All of this steps have their base in law regulative, i.e. strategic documents about all of the initiatives planned on the part of the Government of the Republic of Macedonia (Министерство за информатичко општество, 2010; Commission for Information Technology, 2005; Ministry of Labour and Social Policy, 2014). The government of R. Macedonia is determined to take further steps in continuing the practice of open society development by supporting ICT in education (Government of R. Macedonia, n.d).

Methodology

The main subject of this research is to find out how much Internet as educational resource and didactic tool for teaching and learning is used and integrated in primary schools and what are the modes of using Internet as resource for teaching and learning. The sample was random selected and was consisted of 150 teachers in primary schools in three cities in Macedonia in Pelagonia region with several small villages nearby: Bitola, Prilep, and Ohrid. We have conducted survey with questionnaires that consisted of Likert scale with 23 items with the purpose of identifying the level of agreement with the statements that are addressing issues related to the integration of ICT in the classroom, especially using of the Internet in the teaching and learning process. Questions address issues like: the maintenance of the Internet connection in schools, support on macro level (support provided by the state) and on micro level (support provided in the

frames of the primary school), basic and advanced ICT skills, foreign language proficiency as a precondition for the use of the Internet, applications that the teachers use in the classroom, availability of the e-resources, the purpose of using Internet for teaching and learning, and students with special educational needs and the use of the Internet. Teachers had to choose only one answer depending on their prior working experience related to the integration of ICT in the classroom. Data analysis was made by using descriptive statistic method.

Results and Discusion

The first item was about the statement that schools have Internet access at any time of the day. 13% of teachers strongly disagree, 46% of them do not agree, no one was neutral, 34 % agree and 7 % strongly agree with the statement, meaning that that 59% of the teachers claimed that here is no constant Internet access throughout the working day.

The next statement was about claiming that maintenance of the Internet network is on a satisfying level 12 % of teachers strongly disagree, 36 % do not agree, 3 % are neutral, 42 % agree and 7 % strongly agree, meaning that teachers have opposite attitudes regarding the satisfactory level of the Internet connection.

14% of teachers strongly disagree, 55% do not agree, 2% are neutral, 11% agree and 18% strongly agree that there is necessary support for using Internet opportunities at the national level, meaning that they don't feel that they have the needed top-down support. It is expected that further investigation on this issue will bring interesting and useful results for improving the ICT social contexts.

The majority of teachers feel that they don't have the necessary support for integrating ICT in the classroom at the school level (10% of teachers strongly disagree, 58% do not agree, 3% do not have any opinion, 14% agree and 15% strongly agree).

The next statement was that there is a need for organizing workshops for teachers for the purpose of developing basic ICT competences with which 46% strongly disagree, 11% do not agree, 4% are neutral, 28% agree and 11% strongly agree, on the other hand - 4 % strongly disagree, 23 % do not agree, 12 % are neutral, 45 % agree and 16 % strongly agree that there is a need for organizing workshops for teachers for the purpose of developing advanced ICT competences. These results are going into the wide spread opinion, which is supported by the research in this area (Hosman, Cvetanoska, 2010) that the teachers have basic IT skills, but they are not familiar enough with the different modalities of integrating ICT into the teaching and learning process.

19% strongly disagree, 13% do not agree, 0 % neutral, 34% agree and 34% strongly agree that there is a need for organizing workshops for teachers for the purpose of developing skills for using Internet as an educational resource for creating and using teaching materials, which is highly related to the previous

question in the manner that it accentuates the need of the teachers to have more advanced ICT skills and skills for integrating ICT in the classroom.

The majority of teachers don't feel confident in speaking English language, which puts forward the need of improving their foreign language skills (the statement was about claiming that the main obstacle for using Internet opportunities for teaching and learning is the lack of sufficient knowledge of English language among teachers. 15 % strongly disagree, 17% do not agree, 0 % neutral, 46% agree and 22% strongly agree).

14% strongly disagree, 16% agree, neutral, 44% agree and 26% strongly agree with the statement that the main obstacle for using Internet opportunities for teaching and learning is the lack of educational resources developed on the teaching languages - Macedonian, Albanian, Turkish, which corresponds to the envisioned need of the teachers for having workshops for developing educational resources.

The majority of teachers agree (91%) that the initiative of the Ministry of Informatics Society and Administration of R. Macedonia about the digitalization of the school books and text books (www.e-ucebnici.mon.gov.mk) is positive step towards creating e-schools and schools that make education more approachable.

Teachers don't feel that they have skills for integrating Internet in the classroom with students with special educational needs (56% strongly disagree, 23 % disagree, 9 % are neutral, 12 % agree, and 0% strongly agree with the following statement: "I can use Internet opportunities with students with special educational needs in the classroom"), and the majority of them (83 %) agree that they need special support on this issue due to the variety of cases that can emerge in the teaching and learning practice.

15 % strongly disagree, 27 % do not agree, 0 % have no opinion, 39 % agree and 19 % strongly agree with the statement that teachers use YOU TUBE as a source for teaching and learning.

11 % strongly disagree, 19 % do not agree, 3 % have no opinion, 53 % agree and 14 % strongly agree that teachers use the Digital vocabulary of the Macedonian language in the teaching and learning process, and the majority of the teachers that agree with this statement are elementary teachers and Macedonian language teachers.

0 % of teachers strongly disagree, 9 % do not agree, 0 % neutral, 68 % agree and 23% strongly agree that teachers use Power Point for teaching most of time when they integrate ICT in the classroom. Because the majority of teachers agree with this statement, and with the statement that YouTube is very exploited in the classroom, we can say that the method of demonstration have been used in conjunction with using ICT in the primary school classroom. The latter can lead us to conclusion that most of the time when the students are using ICT for learning are considered to be passive listeners and observers, instead of being

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active participants in the process of learning by doing, problem-solving, and research, which was the primarily set goal on the national level.

2% strongly disagree, 24% do not agree, 5 % neutral, 47 % agree and 22% strongly agree with the next statement that integrating Internet into the teaching process is the most efficient for introducing students into new knowledge.

13% strongly disagree, 33% do not agree, 1% neutral, 38% agree and 5 % strongly agree that using of the Internet is the most efficient for creating activities for implementation of previously gained knowledge.

0% of teachers strongly disagree, 12 % disagree, 1% neutral, 53% agree and 36% strongly agree that using of the Internet is the most efficient for creating activities for extending and deepening, students' knowledge.

4 % of teachers strongly disagree, 22 % disagree, 3 % neutral, 42 % agree and 29 % strongly agree that using of the Internet is the most efficient for creating activities for developing ICT skills among students.

17% of teachers strongly disagree, 20 % do not agree, 23 % neutral, 30 % agree and 12% strongly agree that using of the Internet is the most efficient for creating activities for developing creativity and critical thinking skills.

24% of teachers strongly disagree, 18% do not agree, 29% neutral, 15% agree and 14% strongly agree that using of the Internet increases students' motivation for school work during class time.

23% strongly disagree, 31% do not agree, 19% neutral, 17% agree and 10% strongly agree that using of the Internet helps in providing sustainability of the acquainted knowledge.

17% of teachers strongly disagree, 25% do not agree, 39 % neutral, 13 % agree and 6 % strongly agree that using of the Internet helps in developing self-management learning skills among the students.

Conclusion

Internet access, and maintaining the network are real problematic points. Teachers agree that this aspect of situation is not on the satisfactory level. This means that the pure fact of having a computer for every student in the classroom doesn't mean a lot without internet access and maintaining the network.

The necessary support for using Internet opportunities is not on the satisfactory level neither on national or school level. We cannot expect successful implementation in schools without fulfilling these two conditions. Teachers can do a lot, but they really need a support in terms of ICT administration staff and counseling in the process of integrating ICT in the classroom.

The teachers' perception is that they have developed basic ICT skills, and they need additional training activities for the purpose of developing advanced ICT skills and skills for integrating ICT in the classroom,

especially skills that will enable them to use the Internet as an educational resource for creating and using teaching materials.

They have a self-objective perception about their English language skills, i.e. they are aware about the weakness regarding this issue. They consider the lack of proficiency in English language to be a great obstacle for using Internet opportunities in the process of teaching and learning, and mostly because there is a lack of educational resources developed on the teaching languages - Macedonian, Albanian, and Turkish, which opens new fields of research interest – what exactly do they need regarding the educational resources.

YouTube, Digital vocabulary of the Macedonian language and other e-learning materials are frequently used in classroom. In addition, teachers use PowerPoint application in Microsoft Office mainly, and they use it every time when they are integrating ICT in the teaching process.

It is very interesting to underline the teachers' opinion that is coming from their experience regarding the objectives of using Internet. High percentage of them agree that using of the Internet is the most efficient for acquainting students with new knowledge, and extending and deepening students' knowledge, but there are many of them who disagree that suing of the Internet is the most efficient in creating activities for implementation of acquainted knowledge.

There are several points that we can put forward about the effectiveness of using Internet opportunities. The majority of teachers have no opinion regarding the statement that using of the Internet helps in developing creativity, critical thinking skills, sustainability of acquired knowledge, and self-managing learning skills on the part of the students, which is quite unexpected. This result makes us to think that the teachers have no or little experience with integrating the Internet for the purposes as stated before. In addition, the majority of them agree that using of the Internet helps in developing ICT skills on the part of the students.

There is much to be done yet. First of all, R. Macedonia has all the legislations that give support to creating open society with open schools, but there is a lack of providing help and support on more practical level in order to make the real educational change that will influence the teachers' attitudes and their willingness to cope with the new situation, and to make them to come out of it more successful and knowledgeable then they have been before. The system should provide sustainability of the projects that were intended to make big educational change regarding the use of the Internet by providing additional financial, and technical support for the purpose of maintaining the infrastructure, and support in terms of increasing human resources in managing IT systems in schools and the processes of integrating ICT in the classroom. If the technical support is on satisfactory level, and if there is stable Internet connection, then

the schools can participate in the process of networking with other schools in the country, or in the region, or elsewhere in the world (video-conferencing, social networks, educational networks, blogging, e-publishing, e-mail,…). This is a century of open mindedness, which enables sharing experiences, knowledge, and thoughts. Since the teachers play the significant role in the process of creating open education, the educational change of ways of communicating in the global society should adopt bottom-to-top approach in order to be fully employed. Teachers are the ones that have to develop awareness of the importance of the life-long learning in the area of ICT, thus they are expected to be more willing to try new methods of teaching that includes using of Internet as a resource of knowledge and support for the learning processes.

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THE SELECTED RESULTS OF THE QUALITATIVE RESEARCH OF THE LMS MOODLE USE BY THE STUDENTS OF FACULTY OF EDUCATION AT PRESOV UNIVERSITY IN PREŠOV	BURGEROVÁ JANA ADAMKOVIČOVÁ MARTINA Faculty of Education University of Prešov, Slovak Republic

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Key words: Research, Focus groups, LMS Moodle, User experience.

Abstract: The presented paper completed within the KEGA 013PU-4/2015 project presents the selected results of qualitative research conducted on the premises of Faculty of Education at University of Prešov. The aim of the research was to gain the students' view on various aspects of e-learning, with the emphasis on LMS Moodle, reflecting their own user experience. The data were gathered through the focus groups. From the gathered data, key areas were identified, which the students perceived as problem areas as well as those perceived as supportive for work with LMS Moodle. Subsequently, some measures were proposed and implemented into practice in order to improve the realization of e-learning at Faculty of Education at University of Prešov.

Introduction

Introduction. The University of Prešov has already been providing e-learning courses for several years. In fact, the Faculty of Education at University of Prešov is a something of a ground-breaker in the e-learning area, having used Moodle as an electronic support system of classroom education since 2005. Within the pre-research we had conducted in November 2011 on the sample group of 36 teachers (73,47% of the team selection) at the Faculty of Education at University of Prešov, which monitored the level of LMS Moodle use, we have come to the following findings:

- ✓ The most common part of the e-learning courses were study materials designated for self-study, tasks focused on the individual work of students and continuous or final tests.

- ✓ Communication tool Chat was used by only 8% of LMS Moodle users.

- ✓ Communication tool Discussion Forum was used by 32% of LMS Moodle users.

- ✓ Cooperation tool Wiki was not used by a single user.

- ✓ Only 44% of teachers within LMS Moodle environment expressed an opinion that students' current educational needs within the e-learning courses are being met (Burgerová and Adamkovičová 2014).

The e-learning courses designed this way do not, however, take into account such important aspects of education as collective motivation of students, communication, cooperation and interaction of education participants and do not reflect the full potential of Web. Internet as we knew it is gradually transforming into the form generally referred to as Web 2.0 or even Web 3.0. This phase can be generally termed the (social) constructive phase. From the previous form of the World Wide Web, the Web 2.0 differs mostly in creation of space for the community production and sources sharing, where the user leaves the role of the passive receiver and begins to get involved as a co-creator of its dynamic content (Zounek a Sudický 2012).

For these reasons, too, did LMS Moodle become the subject of the qualitative research, including its potential to support communication and cooperation in e-learning. We also thought it would be interesting to discover how is the use of LMS Moodle seen by the generation Y, which is considered highly skilled in technology and open to accepting electronic innovations in education. (Schroer 2015).

<h3 style="text-align:center">Qualitative research – focus groups</h3>

The presented paper focuses on the selected parts of the qualitative research conducted via focus groups. It was part of the mixed design research where we used the quantitative approach to measure the influence of LMS Moodle tools on the subjective evaluation of e-learning course from the students' point of view. The qualitative approach helped us to approach the given topic in all its complexity.

The Focus Group Method is a typical representative of the qualitative research procedures. Its basis lies in a group interview with the selected participants. Focus Group serves as a research method which helps to obtain data by means of group interactions that originate spontaneously and take place in a debate on a predetermined topic (Maněnová 2012). The topic of the discussion is therefore always chosen by the researcher who afterwards introduces it to the group. The focus of the discussion is usually defined more freely, so that the group discussion can develop in several directions. The focus groups are effective at researching the areas where group phenomenon is for some reason important (Patton 2002). Within the scope of our qualitative approach, having implemented the focus groups, we managed to identify some key areas of e-learning education from the students' point of view. From the gathered data, key areas were identified, which the students perceived as problem areas as well as those perceived as supportive for work with LMS Moodle.

<h3 style="text-align:center">Research report of the focus groups</h3>

Interviews with the respondents were conducted in two groups of five students in the second year of Master study program. These students took the subject Didactics ICT in Primary School which included an e-learning course. The focus groups' discussions were moderated. The discussion transcript was made from the recording. The resulting data corpus was subsequently analysed. In the next step, the technique of open and axial coding as a part of anchored theory was used (Strauss a Corbinová 1999). The research was conducted in the course of January and February 2014.

Main objective of the focus groups: to identify the key areas of electronic learning from the students' point of view.

Our intention was to gain the students' views on the various aspects of e-learning, with the emphasis on LMS Moodle, reflecting their own user experience. From the gathered data, key areas were identified, which the students perceived as problem areas as well as those perceived as supportive for work with LMS Moodle. *The questions asked within our focused groups were oriented towards LMS Moodle, we did not*

ask about the particular e-learning course the students were evaluating within the quantitative part of the research. This approach enabled us to see the big picture in all its complexity.

The students see LMS Moodle environment as a supportive tool of traditional classroom education, a sort of *"archive" of learning materials* - which, although positive, is still far from fulfilling the e-learning ambitions.

How do you see LMS Moodle?

It's great that we have the learning materials in Word and PDF formats, that we can print them.

I view the subjects' syllabus and literature there.

Moodle saves my time, I can look through the materials at home, the literature we can get, topics covered… all on one heap.

I go there before the exam period and I print the materials for my exams.

It's a great learning aid.

When asked **"Describe your experience with LMS Moodle"**, the students reacted by identifying some problems they perceive regarding LMS Moodle and which can be divided into three basic categories: LMS Moodle versus *technical infrastructure*, LMS Moodle versus *administrative support*, LMS Moodle as a *learning environment*.

Within the scope of technical infrastructure, the main problem was identified as the instability of the system, which caused it to crash in the busiest periods (exam periods, testing) and technical limitations of the server when downloading the materials. These problems caused the students to see LMS Moodle as unreliable and as a result they prefer to use alternative ways of education management (Facebook, group Gmail).

At the time of conducted research the statements were influenced by the technical condition of the system that was at the time indeed slow. Its technical condition is at present up to the standards.

Sometimes it is so slow.

The system tends to crash, sometimes fails to sign-in.

I resent the fall-outs just before the exams. Once the system crashed just as we were downloading the materials before the exam. Moodle can't deal with the onslaught then.

Testing presents another problem. Until it loads the tasks, our time limit's up.

I remember Moodle crashing. Shouts were heard… Is it working for you? It's not working for us. When we needed it most, it was most likely to crash.

I did not perceive any fall-outs. But then, my laptop is so slow I probably wouldn't have noticed it anyway. ☺

To make us use Moodle without replacing it with Gmail and Facebook, it would have to be 100% reliable and not keep crashing.

In the area of *administrative support*, the students pointed out the problems with several accounts they had created within the system. Some students, who kept forgetting their logins and passwords, repeatedly created new accounts with different mail addresses which led to forgetting their registration data all over again. As a result, some students began to lose interest in entering the system or, as an alternative, started to enter the system under the registration data of other users. Using the login of one user, who downloaded the required materials and sent it in a group email to all the rest, was common practice.

I use it, but under my classmate's name and password, I don't remember my own.

One of us goes there, downloads a PDF file and sends it to our group email.

I have to keep memorizing passwords, I'm losing patience.

I am aware of the password problems, we had to keep changing it in the course of our studies, capital letters and stars were required...

I don't know when it was but once I had to change my password, because it wouldn't take my old one and then I couldn't remember either one.

In this context the students also pointed out the number of systems within education management they have to deal with and which require them to use various registration data, which is complicated and confusing for them. They suggested a unification of accesses, or alternatively the interconnection of these systems. This problem is solved at present by implementation of IDM server which generates only one password for several systems.

It would be nice if we had one login and one password.

We have MAIS, Moodle, Pulib, EZP, we have group mail; they want us to use smail.unipo.sk, then I have a private email, not to mention accesses into computer classrooms.

We have to click our way through the systems, it's wasting our time, I don't remember the passwords right, there's too much of it.

I have written down all my registration data on an A4 sheet, otherwise I wouldn't stand a chance.

As for the access to LMS Moodle, the students pointed out the lengthy path to it through the main site unipo.sk. They would welcome the possibility to access LMS Moodle through one click from the main university website, as well as into MAIS system.

There could be a shortcut to Moodle, e.g. from Facebook, or from the website of PF PU (Faculty of Education, Prešov University). So that we don't have to click our way through 'unipo', PF PU, education.

I don't want to click on six tabs. I bookmarked the link on my PC, but it's still a problem when I'm not on my PC.

The last dimension in the area of administrative support addressed to by the students was the *user support*. The students would welcome some sort of induction training for the work with LMS Moodle, similar to one that had been provided for the work with MAIS. This training is partly provided during the school registration. We believe that this is not a very suitable time for it, as students are overwhelmed by the sheer volume of information then provided. The occasional and erratic use of LMS Moodle, which does not allow for the routine user habits to develop, is also considered a problem.

I have a friend who has just commenced her studies and has already been instructed on Moodle use. They must have forgotten about us in the first year.

In our first year we were just told: You've got it in Moodle.

The teachers merely told us: Here and here will you find the materials, nothing less, nothing more.

In our first year, we didn't even know how to spell it (Moodle), let alone what to do with it.

Moodle should have been explained to us in the same way as MAIS was.

When we don't use Moodle regularly, it's easy to forget.

Within the study area, the students highlight LMS Moodle as a great study support which serves them primarily for amassing and storing study materials. They listed no prominent drawbacks of LMS Moodle as learning environment. They considered it sufficient and did not expect more of it.

Concerning LMS Moodle and its educational aspect, a few opinions were expressed, pointing out the out-of-dateness of materials in some courses and the chaotic methods of their updating.

The teacher says, go look it up in Moodle, and suddenly we find out that it's the same stuff we had already done in the third year.

It would be good to know when the teacher makes some changes in the materials he/she uploaded in Moodle. I found out just before the exam, that the materials had been altered.

We should be sent some kind of notification that something new has been uploaded. Someone should inform us about it. I don't view those materials every day and I don't compare the versions, so I may not spot the change.

We have decided to include into the topic of LMS Moodle as educative environment also the category of the *teacher professionalism* in e-learning education, which the students perceived as lacking in support.

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We would welcome a higher level of involvement in using LMS Moodle on the part of the teachers, in other words higher user competence of the teachers. Teacher's personality and his/her competence in using the particular tools, as well as in providing the required support, are perceived as critical in accepting LMS Moodle as an alternative educative environment complementing the traditional classroom education.

Some of the teachers don'-t know the keys, the name of subjects keep changing… We ask them and they say: try the password tennis or ice-hockey… :-)

If the teachers were more active, so would be we.

When I want to use it before the exam period and I want to look up a subject, I find that there are teachers who don't even have their syllabus uploaded. How do they expect us to use it, when they don't use it either.

It's necessary to teach the teachers, too, how to communicate in Moodle. It can't be that I leave him 10 messages there and he tells me I should have written him an email.

The students' answers to the question: '**How do you think an ideal Moodle should look like?'** could be categorized into the following groups: *design, Moodle, Moodle structure, Moodle services.*

As for the LMS Moodle design, the opinions varied. One part of the questioned group liked the design and wouldn't wish to change it, while another part could envision a more clearly arranged, colourful, attractive, and interesting design. However, they do not consider it an important issue which would have any impact on the purpose itself. Some students would change the design of LMS Moodle completely, as they feel it should reflect the school's specialization.

I don't mind the way Moodle looks. The important part is if I find there everything I need.

It could look like Facebook.

As we are on the premises of the Faculty of Education, the visual should be corresponding to it, appropriately more colourful, appealing and engaging. As if it the children were the ones to view it.

It would be great to distinguish the subjects or classes with different colours, make it more attractive and to include icons and animations.

The design is so impersonal. You can't even tell we are at Faculty of Education.

The students' opinions on LMS Moodle structure were more unanimous compared to their views on design. They find the arrangement of courses according to classes and semesters satisfactory. Too many courses, however, many of which are allegedly inactive and unavailable, make for much poorer orientation. The problem with poor orientation in student news and notices resonated repeatedly as well.

The division of courses is very clearly arranged, I got used to it.

The teachers could update the selection of courses regularly and delete those that are no longer available. It's a muddle.

They told us at the student office: You've got it in the Moodle notices. But we couldn't find it.

The structure division by classes could remain as it is, but it is problematic to find notices for the students.

The subject that are no longer taught are not available anymore, they should be taken down.

There are subject with similar names, it's confusing me.

The structure suits me, although it is sometimes hard to tell, in which class a particular course is.

The group came up some very interesting ideas concerning the services that would, according to the students, make LMS Moodle an attractive learning environment. Having analysed the individual statements, we would like to note that in this context, attractive meant useful.

One of the features perceived as useful for the students would be a *forum for students' practical training*, within which they could share their knowledge and experience regarding not only the logistics of the practical training (e.g. problems with the number of lessons taught), but also their creative ideas and initiatives that would serve as a useful aid for preparing their teaching lessons. The forum could also serve as a place for discussion of the problematic areas with the training teachers, or with the teachers of the particular subject didactics. Last but not least it could provide space for documenting the experience from the practical training in the form of photo-documentation and short videos.

It would be great if we could discuss some issues about our practical teacher's training. Last time we had a problem with the number of hours during our continuous training. They didn't add up. So we posted it on Facebook and then each of us could share her experience, how the hours are counted in her training school.

If we could post our ideas there, like in a database, every one of us is good at something.

If there were pictures and videos, Moodle would be more attractive.

Yes, to see how it went in other schools, to see the experience of my classmates, I would like that.

Another potential service of LMS Moodle according to the respondents could be the creation of a *graduate forum,* which would offer similar advantages as the forum for student's practical training, providing the possibility to make use of various benefits, even after completing the university study.

There is a portal on www.zborovna.sk, where the teachers share their experience, but it is so strange and unfamiliar there. If it was possible to have something like that in Moodle even after graduation, we

could stay in touch with our classmates, training teachers and our school teachers (if they were interested). That would be really helpful for our teaching beginnings.

We could encourage each other. After all, in school it was all just "make-believe", now in real life it will all be for real.

Students would welcome a space for group forum in LMS Moodle. Study groups, with the exception of personal meetings at seminars and lectures, have no available space for education management. Although they do use the group email of the study group created on webmail gmail.com, they find it unreliable and impersonal.

We use Gmail when we discuss some school stuff within our group, but it sometimes happened that one of us deleted something.

The other day some students were bickering there, it was so ridiculous to read.

In the Sent folder I noticed that some classmates wrote to the teacher and didn't sign their names. They made so many grammar mistakes. I was ashamed that it casts me in a negative light, too.

When one of us writes something to the teacher without her signature, the teacher can't know who it is sent from.

It's a real shame when someone sends a loutish email to a teacher from our group mail. What is the teacher going to think of us all?

Group education management is managed by the individual study group in a separate for this reason created group on Facebook. This method is however not considered completely problem-free either.

Therefore the students would consider it a great contribution of LMS to be able to create a separate enclosed study group within LMS Moodle, which would enable them a reliable communication concerning only school activities.

Conclusion

Within the scope of technical infrastructure, was as the main problem identified the *instability of the system* which in the busiest periods (exam period, testing) caused the system to crash. For that reason students used alternative LMS for learning purposes, such as the social network Facebook, or the Gmail services, which they considered safer. They resented, however, the interference in their private sphere. From the psycho-hygienic aspect, the students found that a distinct disadvantage. At present this issued has been solved by changing the original server where LMS Moodle operated for a more efficient one.

The students also pointed out the number of systems within education management they have to deal with and which require them to use various registration data, which is complicated and confusing for them. They suggested a *unification of accesses*, or alternatively the interconnection of these systems. This

problem is solved at present by implementation of IDM server. As for the user support, it would be useful to consider some sort of induction training for the work with LMS Moodle, similar to one that they had been provided with for the work with MAIS.

LMS Moodle could be enhanced by the *Forums for students' practical training*, where they would have the opportunity to exchange and share knowledge and experience regarding not only the logistics of the practical training (e.g. problems with the number of lessons taught), but also their creative ideas and initiatives. Another service might provide the creation of a *Graduate forum* which would offer similar advantages as the Forum for practical training, with the possibility to use the benefits even after graduating the university (note: such forum is already run by the Faculty of Education of Prešov University – Club of graduates).

LMS Moodle could also offer a space for the *Group forum* which would be designated for management and logistics of study groups. That way the students wouldn't have to use group Gmail, which they view as unreliable and impersonal, or Facebook, which could then serve strictly for private use.

Last but not least we would like to point out the significant influence of the teacher's personality which in the context of accepting new tools impacting the character of communication and cooperation in e-learning, is perceived as critical.

We realize though, that the expectations and demands we place on the professionalism of the teachers in the traditional education, as well as the e-learning system support by LMS administrators, are in our circumstances often unreal, since e-learning requires high professional commitment of the teachers, often sacrificing their personal time in the process.

In the future should therefore the attention of the managements and the responsible aim to create the mechanisms and implement the measures to provide the teachers adequate support in their efforts for higher quality e-learning education (realization of additional training focused on creation of e-learning courses, administration, management, as well as the evaluation of training with the electronic support in LMS Moodle, etc.)

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TECHNOLOGY IN THE CLASSROOM AND THE PREPARATION OF TEACHERS	FATBARDHA GJINI, JOHANA MYFTIU Faculty of Education Sciences University Aleksandër Xhuvani, Elbasan Albania

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Abstract: The educator's role in teaching is multidimensional and dynamic. Coping with the world of technology in today's society is a challenge for education in school and for the teacher. To make effective use of technology in the classroom, a teacher's work preparation requires well thought strategy so that it does not become an end in itself. This will work if the Faculties of Education will pay attention to the theoretical and practical training of future teachers. The aim of this study is to identify how much the relevant curricula and teaching materials of relevant subjects meet the needs for the proper education students - teacher in this regard, how able they are to integrate and use the benefits of technology in teaching objectives in the different subjects, are enabled to redefine their role in the classroom aided by technology, will be central to promote a facilitator of learning as central and active role of pupils. Theoretical foundations of rational use of technology in teaching are found in constructivism. Viewing technology as an important tool in education, Education Faculties should approach more frequently and correctly the technology education programs, with specific objectives adapted to the respective fields, so that the students-teachers, gain practical skills, experience and habits for integrating technology into teaching

Introduction

New technologies represent a challenge and great opportunity for the development of educational systems worldwide to prepare individuals for today's society and future, to interact successfully in the information space network (Sanhueza 2005). The ICT integration impact in education depends first on the application in practice by teachers. In this context, the formation of teachers for pedagogical integration of ICT is a priority challenge of society. This research study has as main focus the students' level of preparation for the teacher to integrate ICT in teaching and learning. We have interviewed students, professors and teachers. We have analyzed formation programmes from the Faculty of Education to see the link between them and ICT integration. We have collected information about these programmes from official reports of government authorities and international organizations, from publications in scientific journals, from curricula, from teachers, paying special attention to the advantages of ICT and deficiencies in teacher education. Analysis and discussion of results are followed by recommendations and conclusions, which will serve for achieving future improvements.

General context for the ICT at school

The global developments and recent changes in science, technology, culture, economy, and politics require new concepts and reflection over the role of education and schooling systems. The role of the school is changing, from that of spreading knowledge to that of organizing it, able to form active citizens that can perceive societal problems and act to solve future challenges (Gjini 2008). To realize such a mission the school must favors among other things, the systematic integration of ICT, to be able to exploit the new possibilities that it affords for discovery and education (Karsenti 2002). The use of technology is a rapidly advancing trend. The efforts to integrate in-formation technologies in education are important both for the teacher and for the student, in order to establish a better and more modern relationship with knowledge. The preparation of teachers for integration of ICT in the classroom cannot be limited just to

the learning and free use of technology, but what is required, are changes in pedagogy, in the conceptualization of schooling, both in relation to teaching and to learning. Using new technology tools in the classroom puts the teacher in font of challenges that require an effective match between teaching and learning. A teacher that has been well trained in relation to technology during his own education at university, will be able to integrate much more easily and professionally the new technologies in the educational activities that he will develop in the classroom.

Experience will be key, but also the practice of search and discovery of new tools and methods. In our Albanian experience, we observe gladly that pupils have a great attraction to use computers, internet, smart phones, etc. Often their abilities exceed those of their teachers. Despite this seeming disadvantage, the role of the teacher is very important in relation to guiding the pupils' interest to-wards active learning; towards the acquisition of real knowledge; for critical thinking, especially to avoid the mechanical blind absorption of ready-made information, without processing. In this perspective, the roles of teacher and pupil need modification. Application of information technologies in teaching offers several advantages. It increases vastly the amount of information available, the range of topics and educational resources, it fosters conceptual and perceptual abilities in the users, and helps in increasing the quality and up-to-dateness of information. Information technology helps pupils in their learning, in their writing, in their mathematical and abstract skills, in communication, in problem solving, in team work, in information search and filtering. In the recent years, despite the various difficulties, the educational policies in Albania have paid special attention to the equipment of schools with computer labs and internet access. Systematic efforts have been made to train teachers in their knowledge and use of information technologies. Yet, there are many challenges that remain, which we also address in our study: What is the current state of teachers' training in relation to the pedagogic integration of ICT in the education faculties at university? Are the curricula structured in such a way to assist students to be competent to realize teaching activities based in these technologies? What is the impact of ICT training on teachers' formation? What are the factors that are hindering the pedagogic integration of ICT? What are the needs and the most promising strategies for basic and continued training of teachers?

Current situation on ICT implementation in Faculties of Education

In the general context of teachers and head of schools development in the implementation of ICT, we can assess that this process has been evolving. The aim was to equip teachers with the basic ICT skills. ICT standards have been designed for teachers who give classes of ICT, schools administrators, as well for teachers in general. According to a recent report (Raporti 2013, ALTRI) all teachers who give ICT classes and school administrators are trained on the application and implementation of ICT. From the latest report

of IZHA[*] in 2016 for the test results for training teacher's needs, emerges that in a national level 64% of teachers have a satisfactory knowledge and skills, but there is need for improvement. Some of the issues that the Ministry of Education and Sports (MAS) has identified are:

- The lack of coordination and cooperation between training agencies (about 51) Regional Directories of Education (DAR) and schools to offer proper training

- The lack in the foreign professional literature and publications related to the professional development, in order to have the best foreign and national experience

- The lack of on-line training

- A minimal involvement from the Institutes of Higher Education to the teacher's preparation and their process of qualification

This situation appeals for reflection to all Faculties of Education. We state that teachers get an insufficient education in ICT pedagogic integration in these faculties. Since many years now, in Albanian universities curricula is included a general knowledge about ICT in education. In all the study programmes of 'Professional master' at the University of Elbasan it is introduced the subject Technology of communication and information in education. This subject has about 35 teaching hours of study (comprising together lessons and seminars) and even though in the teaching programmes[†] there are some classes of lab, in reality the digital lab and tablets are missing. It is not sufficient just to integrate teaching technology in methodical disciplines. The increasing number of students (about 2500) is not followed by an increase in computer laboratories (3*32 computers) where every student can have the possibility of internet access.

From the one hand buying computers is one thing, indeed a basic necessity. However integrating new technology in school is another thing, typically more demanding. Thus, without fulfilling these two requirements, we cannot justify ICT impact in teachers' formation from a pedagogical point of view, or expect that ICT brings a value added to the initial education of future teachers.

Methodology

The used methodology is empirical, by combining qualitative and quantitative methods. The approach of the research is exploratory, descriptive and comparative. We have used:

1. Primary data (primary research) - data collected from questionnaire, interviews face-to-face and focus groups

2. Secondary data (secondary research) - data collected from previous studies and by reviewing

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[*] Instituti i Zhvillimit të Arsimit (Institute of Education Development)
[†] Often their content need to be updated.

the literature

Study population

The total number of the study population is 418 students, professors at the university and teachers in secondary schools in Elbasan. We had only 347 master students in Education in these main fields: Foreign language, Mathematics and Physics, Biology and Chemistry, Informatics, History and Geography. Among them 254 female respondents, and 93 male respondents; 43 are professors at the faculty of Education, and 28 are respondents from two secondary schools.

Study instruments and techniques

Primary instruments used in this study are: reviewing the literature, questionnaires with open/closed questions, focus groups, unstructured interview, other studies in a national level regarding the teacher's professional education, reports and policies from the Ministry of Education and Sport, studies implemented by IZHA and other departments at the faculty of Education at the University 'Aleksandër Xhuvani' Elbasan. The questionnaire, as an instrument of this study, was applied to master students (preparing to become future teachers). Our main goal was to understand how the study programmes, their professors, the school environment and technology helped them in achieving the right skills and capabilities to respond to future challenges. We have used statistical packages to analyze the data, and present some results.

Results from students' questionnaires

We have found through the question *"Do you have access to information and communication tools at the faculty?"* that 48% of students have an open access regarding information and communication tools at the faculty. The remaining 52% of the students answered they do not have access to these tools at the faculty.

To the question *"Do you have access to information and communication tools at home?"* the answers are reversed compared to the first one. 52% of the respondents do have access to these tools at home, and only 48% do not have access at home.

We have asked students about the importance of use of technology in class (refer to figure 1). 43.2% of students[*] respond that the use of technology in class is very important, 47.7% respond that is important and the remaining 9.1% respond that is not that important.

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[*] Here 29% of the respondents are students of the foreign languages field, and 71% are others
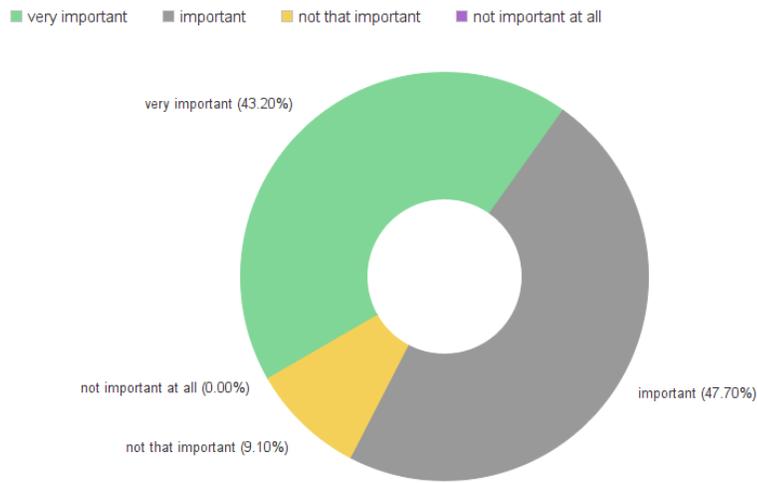
To the question *"Do you get general knowledge or specific knowledge on ICT on the subjects you follow at school, that help you in becoming a future teacher?"* 56% of respondents agree they get only general knowledge, and 44% of them answer that they get only specific knowledge related to ICT.

We can find some answers about the advantages of using ICT in class as well. 27.5% have an incentive to learn more, 14.5% respond that ICT helps students in building an independent knowledge, 35.9% of them agree that the use of ICT makes the learning process easy and more productive. 22.1% of respondents agree that the use of ICT stimulates creativity in students.

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Advantages of using ICT in the classroom
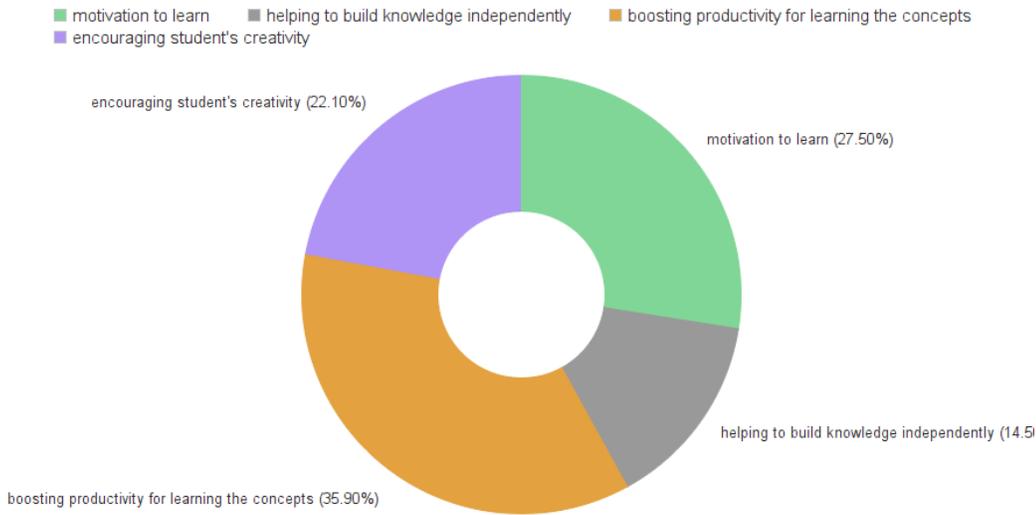
We have asked the students the following question *"Do professors at the faculty offer instructions models on how to use ICT in compliance with the learning pedagogy and psychology?"* Almost 47% of respondents agree and the remaining 53% disagree. Students come mostly from the Foreign Language department, Mathematics, Informatics, Biology and Chemistry for the subject of scientific research and Psychology).

Another question in the questionnaire relates to university lecturers and how they use ICT tools in the classroom (during the pedagogical practice). We are quite impressed by the answers. 33.4% of students claim that professors use ICT tools only for power-point presentations to share slides. 35.7% claim that university lecturers use ICT on their Physics subject to demonstrate results of experiments (mostly Physics and Chemistry students). The remaining 30.9% claim that their professors do not use at all ICT tools during the lectures.

Making use of ICT tools in practice

■ General information (presentations, etc)　■ During Physics classes (experimentations)　■ Don't make use of ICT tools

Don't make use of ICT tools (30.90%)

General information (presentations, etc) (33.4

During Physics classes (experimentations) (35.70%)
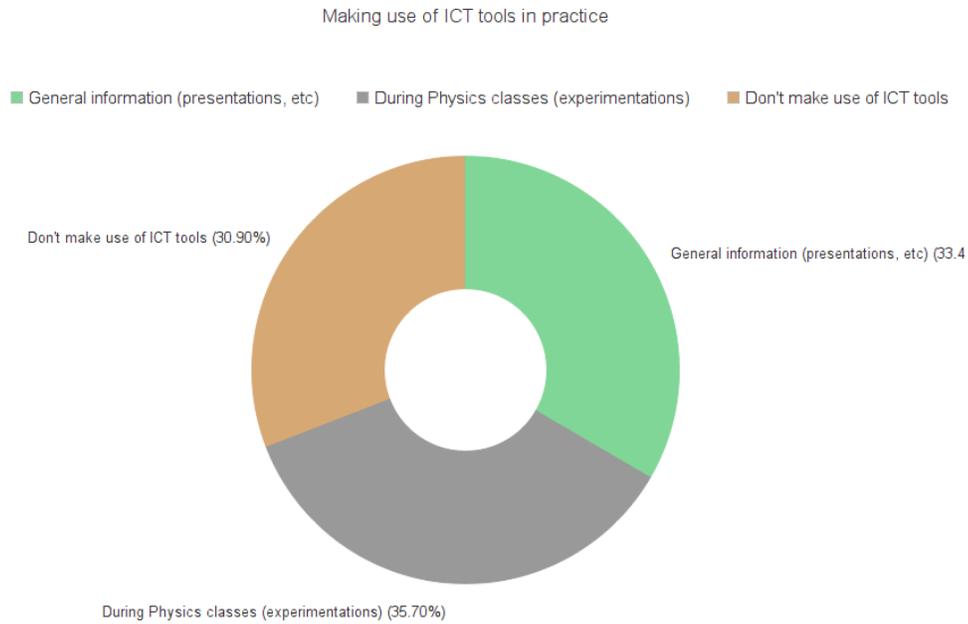
In order to understand better the situation, we have asked students how they explain why ICT tools are not used properly at the faculty. Here below we are presenting some reasons that students give for the non-usage of ICT at the faculty. 20% of them answer that professors do not have the right skills and that they are not so prepared in this field. 53% blame the faculty environment, and the lack of enough logistic tools. 27% respond that in the faculty specific programmes are missing, limiting the availability of specific teaching methods through the use of ICT.

Besides the questionnaire, in this study we used another instrument (the unstructured interview) with four students of four different departments (Foreign Languages, History and Geography, Mathematics-Physics and Informatics). During the interview[*] students were asked about their opinions on the advantages of including ICT at the university. The focus-group was very efficient, it was held with a group of professors of different fields. During the discussion we asked them for their own experiences, and some deficiencies in their work.

The discussion was focused mainly in these issues:

- According to teaching programmes, to what extent ICT is represented in specific fields?

- What are the advantages on the technological environment at the faculty?

- Are professors capable to integrate (link) the content of scientific subjects to the pedagogy of using

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[*] During the interview there was accomplishment of all ethical duties.

ICT?

From the questionnaires results, we notice that most of students studying foreign languages, appreciate as very important the role of ICT in teaching. This shows that their professors assess this education instrument, giving practical situations in the classroom by demonstrating how, where and when ICT can be used with efficiency. This conclusion is reinforced by professors in these courses as well, because of their training in using ICT tools. Results, related to students[*] who take specific knowledge and practical skills to exploit ICT in specific subjects, show that they take general knowledge in software usage, but they are not familiar with the pedagogical aspects in their proper fields. This is considered as a lack in their professional education. Another interesting fact that we notice from the answers about the ICT usage advantages is that students per se are aware of the importance of an efficient ICT usage in order to become successful. The academic staff of the Faculty of Education should take into consideration this approach, as a motivating factor in preparing students (future teachers) by using this professional educative instrument. According to the question of professors' models, we notice that in most part of the study population, except for students in foreign languages and Mathematics-Physics and Informatics, students do not get the right models; in order to be prepared for this aspect of their future profession. In the vocational formation of students (teacher to be), professional practice at school has an important role. As we can notice from the responses, in general professors are not well trained to integrate ICT in function that students can build knowledge according to their areas of study. According to the question on how much is the faculty of Education preparing its students toward this direction, most of respondents state that mainly there is a theoretical aspect in knowing these tools. The gaps in this direction are linked to the insufficient work of professors, to the lack in specific programmes and mostly to the lack of right environment and logistics related to ICT tools.

During the discussion in the focus-group with professors emerged some ideas and problems and there was exchange in experiences

It was emphasized the idea for an efficient implementation of ICT in the faculty. Firstly it is necessary to create digital laboratories in accordance to the total number of students. According to professors in many study programmes there are not planned lessons for teaching in the laboratory, but only lectures and seminars. Even in some study fields where they are integrated, the laboratory and relevant tools are still missing, so students need to go in another faculty (if they have the possibility). The thematic of lectures and seminars in these disciplines need to be updated, because it is not implemented knowledge in

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[*] Who are studying subjects related to informatics and technology

technology such as Network 2.0 and etc. that are already installed in high schools[*].

Conclusion

The objective of this study was to identify factors which affect the formation of the teachers regarding the integration of ICT. The period of formation in the faculties of education is very important for the development of competencies of future teachers, who will prepare generations even after 20 years. According to (Chai et. LIM 2011) challenges for the integration of ICT at school are now focused on teachers formation. If teachers will agree to transform their practice by using ICT as a powerful cognitive tool, several solutions will be offered to current education problems (Karsenti 2002). The integration of ICT affects future teacher in many aspects i.e. technological, psychological, social, cultural, and institutional.

They will have an impact in university curriculum and in the organization of transversal competences and techno-pedagogy.

The use of ICT is necessary for future teachers and their professional development opportunities. If teachers are more experienced on ICT and more exposed towards the pedagogical practices of ICT integration in university training's, the more likely they will be using them in future. The efficient use of ICT by teachers and students in their field of specialization and in their pedagogical practice for searching, explaining, sharing information, solving problems, creating exchange networks will increase at the end the efficacy of teaching and learning. Students should adopt ICT and use them to learn, to evaluate and critically think of the data collected through the networks. They should also become aware of the advantages, limitations and risks of ICT (Karsenti 2007).

Recommendations

The real and effective technological dimension in professional preparation of teachers in faculties of education, according to the field of study, is a necessity and a challenge.

The focus of students' professional development, in addition to the general preparation should be the integration of ICT in specific disciplines. Future teachers should be able to decide why, when, where and how to use ICT in accordance with the learning objectives of each course.

Working together in groups, in schools or even beyond, with other teachers who teach the same subjects, in order to improve teaching based on ICT, and to exchange and share experiences.

Despite the results achieved, pedagogical integration of ICT remains a priority in the professional training of teachers in Albania. All actors involved in the formation of teachers need to work together, in a

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[*] Students attending this university will be giving classes in these high schools

coordinated and well planned way, to support future teachers in mastering of competencies in accordance with the required standards, in particular for the integration of ICT in school.

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Open education

WIKI AS COLABORATIVE LEARNING: MOLDOVA EXPERIENCE	TATIANA CHIRIAC
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Abstract: Over the last years an increasing number of information technology tools have been successfully adopted and implemented in education. Many of these technologies are oriented to cover basic didactic needs like course description, teaching materials, learning activities, evaluation tasks, recommendations and utility resources and so on, mainly demonstrated to be efficient and helpful for students. Here I discuss about a plain and easy to learn technology that became more accessible due to growing number of sites, namely wiki. In my opinion wiki is a good and great tool created to highlight the potential of the web 2.0 services and offered to give teachers and students a place to organize a collaborative and constructive learning environment. The most important feature of a wiki is its possibility of group collaboration. Cooperation within a learning group' members is asynchronous and everyone of this group can contribute to develop their wiki-space. A wiki should be used in education in different ways, but the emphasis has to be put on class projects (writings, presentations, distance learning, researches, debates, discussions etc.). In such way teachers will encourage collaboration and cooperation between students, develop active learning, produce attitude, skill, self-respect and motivated learning. In our digital times, every teacher might choose to use a wiki (or another innovative technology) in its course, because the impact of technology on students is obvious and observable and most of them are using social networking applications to create groups and enhance their process of learning.

The article draws on the study and experience about the possibilities of Wiki as a Web 2.0 tool that could be used in content creation, as teaching methods and learning collaboration in school communities, performed at the course „Servicii Web 2.0" (Web 2.0 Services) at Pedagogical State University of Chisinau.

Introduction

The main idea of the usage of Web 2.0 tools in education is knowledge sharing through simple and accessible cyber-environments. Today, there are many Web 2.0 technologies, also called Web 2.0 social services, which radically simplify the process of creating materials and publishing them on the web. In my opinion, one of the most accessible Web 2.0 open source technology applied in independent or group learning is wiki. Wiki can be characterized both as a teaching environment included into learning process and as a useful technology for the organization of student's collaborative learning – the first approach is aimed at the teachers, the second at the students. What I signify here? Actually, as a teaching environment, wiki is a tool that offers information for students like learning content and activities, evaluation tasks, etc. As a tool to build students' learning through collaboration and student-centred approach, wiki acts as a process of creation and working environment favourable to develop learning relations between teacher-students, students-students.

Considering wiki-technology a collaborative learning tool as revealed by Parker & Chao (2007) and Kinsey & Carrozzino (2011), it should be pointed to its technology of linking many useful pages, sharing research and taking part in collaborations. Also the experience of wiki implementation in the process of the students' learning contributes to develop independent research, solve problems and think critically.

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General aspects

The concept of wiki was introduced by Ward Cunningham (2002) as "the simplest online database that could possibly work"[1]. According to Webopedia[2] definition, wiki is "a collaborative web site comprises the perpetual collective work of many authors". Franklin & Harmelen (2007) presented wiki as "a system that allows one or more people to build up a corpus of knowledge in a set of interlinked web pages, using a process of creating and editing pages". Wagner (2004) defined wiki „a collaboratively created and iteratively improved set of web pages, together with the software that manages the web pages". It is plain to see from the above citations a precise definition of wiki does not exist, however it could be highlighted the general meaning of wiki, namely it is a collective site that allows users to edit any page or to create a new page, to view the constantly changing wiki content and to discuss appeared issues.

The most important particularities of a wiki are (Frossard et al. 2012):

- It can be used mainly as a source of information. On this line the most famous wiki is Wikipedia.

- It allows web documents to be written in common. Wiki page editing does not require additional setups in the Web browser.

- It can be used as a technology for collaborative environment in which students construct their knowledge. Members of a wiki group can develop topic associations between different pages.

- It supports hyperlink tool for cross-links between pages, in such way it allows to build the format of a nonlinear system environment.

- It uses a rich-text editor to modify the content via simple mark-up language (called wiki markup and is a simplified version of HTML).

The last years, different wiki platforms have been set up both public and commercial, those are MediaWiki, PBWiki, TikiWiki, DokuWiki, Wikispaces, OpenWiki, and others. There are many successful examples of wikis on the web. The most well-known wiki is Wikipedia, destined for creating a free encyclopaedia. Many other wikis are generally focused on specific topics for example Wiktionary, a free-content multilingual dictionary, WikiBooks, Wikinews and so on.

Approaches to Collaborative Learning on Wiki

As it was mentioned, wiki is an important Web 2.0 tool offering to the teachers and students, a cyber-place to organize collaborative and constructive learning environment. There is a very strong relationship between wiki technology and the concept of collaborative learning because a wiki itself implies the practices of making its content by joint activities of the learners' group. Collaborative learning is a concept

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[1] http://www.wiki.org/wiki.cgi?WhatIsWiki, last edited June 27, 2002, accessed on 27th Mar. 2016
[2] Online tech dictionary for IT professionals, educators and students http://www.webopedia.com/, accessed on 27th Mar. 2016

that suggests connected learning activities between members of a group in order to search for solutions, or meanings, or creating a product (Smith and MacGregor 1992). Collaborative learning activities are centered on students' research of the course material, communication and collaboration to achieve particular goals and to improve pedagogic efficiency. Here, it could be observed a significant transition from the typical teacher centered to student centered learning process. What actually is happening in a wiki classroom? First of all, teacher becomes a facilitator to deliver the information to students encouraging them to be independent and responsible in their learning activities, according to Alzahrani & Woollard, 2013. And second, the didactic activities practiced by learners help them to understand new knowledge and to gain valuable competences of working and learning collaboratively. Thus, collaborative learning is frequently presented on wiki when students work together to search for subject solutions.

A wiki could be helpful to suppliment a course in different purposes. According to the Center for Teaching of Vanderbilt University[3] some ordinary uses of wiki include:

- Collection of links relevant to the course.

- Collection of online significant course documents.

- Elaboration of glossary of useful terms or concepts related to the course.

- Creation of e-portfolios of student works and research projects to document student works.

- Collaborative annotated bibliographies to add summaries and critiques about course-related readings.

- Creation of knowledge management systems.

- Collection of historical data to build an encyclopaedic content.

- Writing collective reports and documents.

A wiki will contain collaboration activities between members' group as much as the teacher stipulates on wiki pages. Such activities could be diversified acording to the didactic scenario, for example projects, reports, literature review, debates, analysis of a new concept, problem solving, etc., and also sharing and editing documents, podcasting multimedia files, posting meeting agendas and schedules, statistical reports, group member contact information and communication.

Integrating Wiki into Classroom to Increase Student Collaboration

In order to highlight the potential of different Web 2.0 social applications and to encourage collaboration between my students, one of the subject studied during the course „Servicii Web 2.0"[4] was he topic „Crearea, editarea și utilizarea unui site wiki" (traslation from Romanian: „Create, edit and use a

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[3] Center for Vanderbilt University, Vanderbilt University https://cft.vanderbilt.edu/guides-sub-pages/wikis/, accessed on 27th Mar. 2016
[4] This course is performed for the first time within the Informatics Curriculum in the year 2016, semester II.

wiki site"). The content of the theme was explained, analysed and implemented into respective Moodle course over a period of a few hours according to the course learning program. This content covers materials about different open source wiki platforms, the process of planning, creating and editing a wiki site and the features of wiki that could be used as a constructive teaching & learning environment and a collaborative tool in school/bussines communities.

We have begun to examine a series of wiki platforms at our classroom, like MediaWiki, TWiki, PBWiki, TiddlyWiki, Wiki on Moodle and Wikispaces to compare wiki context tools and uses. Thus, for our purpose to implement a wiki site we have chosen to use Wikispaces (the education type) for the reason of its free service, as well for its characteristics: friendly interface, simple use and management of the content, possibility of editing wiki pages with style facilities for text formatting (eg. bold, italics, inserting tables, images, hyperlinks and media files), public access for the authorized members, attachment of different files, and the most important feature it represents a transparent and open workspace, which ofers free editing and joint working. So, in this academic year we set up a wiki „serviciiweb2", further design of which will continue next semester. Also I has planned and set up a wiki page on the Moodle course of the respective course as part of a group work activity where students can present some results of their investigations.

To familiarize students with the potential opportunities of wiki publishing and learning, it was established guideline to explore the common and collaborative uses of wiki. During this period, students have studied literature and published essays about wiki use on their weblogs, being also encouraged to read the works of each other. At our practical lessons the students was working in groups (also collaboratively) to learn and understand the specific tools of wiki: write and edit on a wiki page, change wiki settings, upload a file, create a new page and so on. In such way, reviewing students publishing and referring to general point of view of my analysis, it could be enframed some specific utilisations of wiki with a design to organize collaboration within a learning or business team. These could be: wiki as a platform to manage an academic course (useful teaching materials, task homework, source of information, student works), wiki as a theoretic or practic space to study and develop common projects and collaborative essays; wiki as an extension of the collaborative work on Moodle platform; wiki as a space to establish and manage conferences and exhibitions; wiki as a collective information management like Wikipedia, wiki as a help system, wiki as a centralized system of sharing resources.

Overall, the students were interested about the wiki for some reasons: it was easy to integrate with a wiki, the wiki is a tool of sharing ideas and a new enviroment (in our case) for them to express their writings. The most significant benefit of group-working on wiki is the students have a considerabil part in each other's learning to create and understand a topic/process/idea within a group, which could not

possibly realize alone. Another advantages are: the students learn to listen and to be open-minded, to cooperate, to respect their peers as co-learners/co-workers, to be both independent and responsibile to the group.

However, I have noticed some problems when planning collaborative activities on wiki at the mentioned course. Even there is a lot of literature about wiki planning and developing, in fact, practicing with wiki is not intuitive at once to all students. Another problem, usually working in team students like to self-select on account of friendship, which in my opinion is not the best solution, because often someone of them takes advantage of the others. Also, the best students prefer to work alone.

For my further steps I think to extend the number of learning time for collaborative using of wikis within the course „Servicii web 2.0".

Another goal is to explore the possibilities of implementing wikis in education taking into consideration the recommendations of our national policies, which point out about consolidation of didactic, functional and digital standards through the complementation of learning matters via information technology (Standarde de competente digitale pentru cadrele didactice din invatamantul general, 2015). I suppose a wiki is very useful information technology to support a large number of different didactic activities including distance learning, because a wiki is one of the environment that are free to all to become more digital literate.

Conclusion

Wiki can be very useful technology of students' collaboration and knowledge sharing. The basic advantage of using wikis in learning activities is that the technology is open source. The main force of a wiki is that it gives students the ability to work collaboratively on the same document. Wiki collaborative content development enables students to gain skills of profound understanding of how information is produced and distributed. I think wikis help students to improve their competences in collaborative online interaction and learning in the first place, but not to learn the course content. However, wikis begun to be popular among the teachers who look for communication, collaborative finding, editing and sharing of information, whereas that are essential features of the educational process.

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IMPLEMENTING OPEN EDUCATION RESOURCES TO NEWCOMERS	DUMBRAVEANU ROZA Faculty of Exact Sciences and Information Technologies State Pedagogical University "I.Creanga", Republic of Moldova

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Abstract: The paper describes some aspects of implementing Open Educational Resources by teachers in Moldova. Though teachers use web resources from the public domain, the concept of OER is new for them. The OER movement is at the very early stage: the level of awareness on availability and usage of OER is quite different among teachers and students, therefore clear guidelines and policies are needed, as well as dissemination of good practices for appropriate use of OER. The challenges on the implementation of OER are related to licensing and copyright matters, classification or types of resources, quality and evaluation criteria for resources, searching for open educational resources, pedagogical approaches of implementing OER into teaching and learning. These findings followed from the experience of teaching activities within courses for future teachers (bachelor and master degree levels), from continuous professional development activities (courses and seminars) for school teachers. The first initiatives for promoting OER within the academic community are listed: constituting the Coalition for Open Educational Resources in Moldova (march 2016), establishment of a repository of resources created by the university teachers, organization of trainings on OER, proposal of introducing of a course on OER for master degree students, proposal of collection and structuring of a library repository of relevant OER web sites. The recommendation is that universities should give orientation to teachers on the use of OER, encourage students on the use of OER by attaching their learning to web resources.

Introduction

The World Wide Web provides an immense opportunity for everyone to share, use, and reuse knowledge. With the advance of Internet connectivity, many teachers from universities and schools are incorporating web resources into their educational programmes for different reasons. This tendency, however, raises some challenges. It is critical to assure that digital materials are of high quality, relevant to the educational context and used in accordance with the intellectual property rights (Butcher, 2011, 2015). Open Educational Resources (OER) are parts of these materials that comprise the essential components of education: content and tools for teaching, learning, and assessment. Though the term OER was created by UNESCO in 2002 at the forum of Open Courseware for Higher Education in Developing Countries (Sabadie, J.M.A. et al. 2014), the level of awareness on availability and usage of OER is quite different among teachers and students from the Moldova's educational institutions. The national policy related to the implementation of ICT into education is outlined in the Education-2020 strategy document (Strategia de Dezvoltare a Educației pentru Anii 2014-2020 „Educaţia-2020", 2014), which includes a specific objective on the development of digital competences through the elaboration and implementation of digital educational content in the study process. The OER role is mentioned quite vaguely in the achievement of this objective with no explicit definition of the concept. The priority actions contain blurred statements related only to the use of some potentially OER (MOOC, Khan Academy). Accordingly, the policy documents and the stakeholders at the university level do not envisage activities which aim to promote OER in education. Under these circumstances the task of promoting the OER in Moldova lies on the initiatives of keen individuals. The paper is devoted to the state of the art on OER mostly at the

institutional level, to the activities realised so far and to the challenges on the implementation of OER to newcomers.

Awareness of OER

During many years the author was involved in different formal, informal and non-formal activities related to the implementation of Information and Communication Technologies (ICT) into education. The target groups involved in these activities were teachers from universities, schools and students, future pedagogues. One of the last events was the conference *Digital Resources in Education: Development and Implementation* organized in December 2015 at "I. Creanga" State Pedagogical University, where the author had delivered the presentation *Open Educational Resources*. Through the conference discussions and conversations in other contexts with academics, the same issues and questions came up:

a. What are the Open Educational Resources?

b. Where to find suitable resources for the teaching & learning activities?

c. Shall teachers & students trust the quality of all web resources?

d. What are copyright implications of using web resources in the classroom activities?

e. How can teachers protect the authorship of the developed resources?

These are a few of the questions that were raised concerning digital resources in general; teachers being worried about finding and rating the quality of education materials, about the intellectual issues linked to the elaboration and delivering to the students of own or mixed resources. The concept of Open Educational Resources seemed to be a novelty to teachers and students; even they used web resources from the public domain. Interviews and discussions with the university staff and with the master degree students of the pedagogic qualification profile (the majority being school teachers) revealed frequently barriers in the implementation of OER by newcomers:

- inadequate level of digital competences of the staff to develop the OER;

- low awareness on classification of digital resources;

- unaided awareness of the pedagogical approach envisaged by OER to be implemented in accordance with the needs of the learners;

- confusion between the terms 'open', 'free', 'no cost', as well as between the types of licenses;

- doubts about the acceptance by stakeholders of OER implementation into curricula and of adequacy of OER to curricula;

- lack of financial support for enthusiastic developers to elaborate open educational resources;

- availability of OER mostly in English or French and insufficient level of language skills of teachers in order to use them.

The situation is slightly different at the department of Informatics and Information Technologies in Education, to which the author belongs to. Due to the specific of the delivered courses, the teachers from this department use quite often the web resources including Open Educational Resources. The OER implemented by them into teaching are: open textbooks, tutorials, videos. Some of the department staff is involved as learners in courses delivered by **Coursera** portal (Coursera: The World's Best Courses) with the threefold aim: to learn the matters, to get acquainted with the pedagogical approach of the e-courses and to get experience on the used digital learning objects. There are two courses delivered at the master level – *Implementation of ICT in education* and *Didactics of ICT* – where an attempt is made to teach students how to use the learning objects, like audio and video files, simulations, games, blogs, tutorials in teaching & learning & assessment and some themes are devoted to copyright and plagiarism issues. A small group of teachers are involved in the elaboration of their own digital resources that are incorporated in their courses in the University Learning Management System MOODLE.

The potential of OER for higher education institutions is not only the use of single learning objects to be integrated into courses, but actually the possibility to adapt the content from the global resources to the needs of learners and to cover the existing gap in the quality resources (including textbooks) for the students. As for today, OER usage is more a random practice experienced by a few enthusiasts then an institutionalized one. A sustainable strategy is needed. The discussions with academics highlighted that without a pedagogic and strategic approach to promote OER, the implementation of open educational practices is not only difficult, but also not sustainable in the long term.

The OER status described at „I. Creanga" State Pedagogical University is common for other Higher Education Institutions as well as for schools. In April 2016, the Educational Centre ProDidactica organised a round table devoted to the OER concept with the participation of the representatives of the Ministry of Education, Directorates for Education, members of the newly created Coalition for Open Educational Resources (13 governmental and non-governmental organisations), university and school teachers (Goras-Postica, 2016). It was stated that the OER concept is new for Moldova and it was decided to promote the relevance of OER for the education by publishing a *Policy brief* document and by launching a contest for open educational resources. It is expected that this contest will impact the development of OER in order to include this issue in the educational policy documents.

Key Questions on OER Challenges

Higher education institutions in Moldova are facing a number of challenges: globalisation, brain-drain of both teachers and students, the need to update the curriculum to make it compatible with the similar

curriculum from other national and international universities, the demand to update the content due to knowledge, technological and research development. OER itself is one of these challenges, but may also be a sound strategy for individual institutions to meet them. As it was stated in the OECD report *Giving Knowledge for Free*, OER can be expected to affect curriculum, pedagogy and assessment. With thousands of open courses from internationally reputed higher education institutions available for free, and with the trend towards sharing learning resources, teachers will need to consider that students compare their curriculum with others and will be enforced to review and update their courses (OECD 2007).

OER could be implemented in courses in different ways depending on the types of OER, educational philosophy and pedagogical approaches adopted by the teachers. As the knowledge base is changed quickly, national educational authorities (both governmental and institutional) are not able to develop quality resources such as textbooks, tutorials, literature reviews due to human and financial shortage. Open textbooks and tutorials published elsewhere are good assets to be incorporated as sources of knowledge for students and for teachers as well. Nowadays, when thousands of books can be accessed online, in physics, mathematics, chemistry, biology, programming, management, psychology etc. it is easier than ever to synthetize the course topics. With the large choice of study materials available, choosing a textbook or a tutorial can cause problems: what is the best, what suits the learners' needs and abilities, how to make comparison as for content explanation, novelty, adequacy to learning outcomes, how to combine different styles of presenting the ideas, laws, concepts etc.

Learning objects as a type of OER are perceived as providing a new strategic opportunity to improve the quality of teaching and learning process. A learning object can range from a simple digital asset, such as a piece of text or an audio file, to a more complex learning resource incorporating a range of media and designed to support a particular learning activity. New approaches and reconsiderations of didactics are required in order to effectively implement learning objects in education and to transform this process into an educational practice. Many teachers are not yet ready or skilled enough to find the best use of learning objects. Usually, learning objects are available as single units without encapsulated learning activities inherent for the achievement of course learning outcomes. Learning design should include methods, tools and resources to support teachers in implementing, in a sound pedagogical way, the technologies and learning objects into educational practice.

OER are often difficult to find both for teachers and learners. Moreover, they may not be able to use them appropriately. Also, they are not able to assess whether the resources are relevant and effective. Teachers must be guided through self-development or through training on the use of different resources for education, including OER.

Besides the mentioned challenges, there is a disproportion between the provision of OER by itself and of literature on OER and its utilization. The two main interrelated reasons for this are: the vast majority of OER is in English, which creates the incentives for non-English users to play the role of consumers; the academics with less developed English language skills do not access these resources.

The author had made a series of web searches with the intention to explore the resources (in English and in Romanian) that could be studied to find the answers to the academics' questions on OER. These searches identified a rich output of systematic reviews, reports, policy documents, repositories, projects, surveys, initiatives and good practices on OER in English and only a very few in Romanian, else the language issue is determinant in the promotion and use of OER, especially for users with low English language skills. Even if resources are virtually available in terms of core content, the access is limited due to language barriers. The same reason limits the capacity of academics to find contents: therefore it is important to give those hints and commencement on classifying and findability of the OER.

Initiatives on promoting OER

The start-up impulse on promoting OER among newcomers, including institution stakeholders, could rely on several actions:

- Providing links to the most relevant OER information on the institutions' websites.

- Elaboration of a national website devoted to OER.

- Elaboration of an OER guide for academics and stakeholders in national language.

- Organisation of OER trainings.

These initiatives are subjects of discussions and decisions of the members of the newly created Coalition for Open Educational Resources in the near future. The accomplishment of the mentioned initiatives depends on the availability of funding, that is most probable the question of applying for a project. In this section only the matters to be covered in the OER guide that should be studied in the first hand by different educational actors, especially by newcomers, are considered. These can be structured in several categories:

1. Policies for OER.

2. Definitions and their implications for the implementation of the concept of OER.

3. Classification or types of OER.

4. Quality of OER.

5. Accessibility and licenses for OER.

6. Developers of OER.

7.   Repositories and search tips for OER.

The topics covered in each category are interrelated, so the boundaries between these categories should not be interpreted as breakup tags. Certainly, at the development of this guide, the collected materials will be used, reused and modified in accordance with OER definition and with learners needs. In brief, the main components extracted from studied resources that should be reflected in the OER guide are seen as follows.

The OER policy at the European level should be presented as guidelines for national policy. This policy is analysed in the project *Open Educational Resources Policy in Europe* that brought together a coalition of international experts, associated with Creative Commons (Creative Commons), to strengthen the implementation of open education policies across Europe. The project web site [oerpolicy.eu] reflects the current hot issues and debates on OER taking place at different events, trainings, forums that are of high interest for the stakeholders, decision makers, teachers and other users of OER.

The intellectual property rights are among the first questions about OER raised by academics. Lack of awareness among academics regarding copyright law refers both to the use of existing resources and to the own developed resources. The open educational movement and the copyright issues related to content in particular, are described in many web resources. In a digital world where users are used to copy/cut and paste, remix, reuse, open content licensing is a vitally important issue for developing a culture of sharing and reshaping knowledge as a professional ethics, especially in education. Open content licensing of digital resources is governed by the Creative Commons project, which describes different kinds of licences that may be linked to the each open educational resource. Creative Commons' licenses provide a way to permit controlled sharing of developed resources that is the most spread expression of the academics concerning their work. The scope of Creative Commons' licences, the barriers encountered in promoting intellectual policy, the role of different stakeholders, the practical assistance to institutions developing or intending to use and distribute open educational resources are to be described in the guide.

A concise but exhaustive overview of quality issues related to OER prepared by the European Foundation for Quality in e-Learning (EFQUEL) and presented in the report *State of the Art Review of Quality Issues related to Open Educational Resources (OER)* (Camilleri, Ehlers, Pawlowski 2014) is of great value for newcomers. The report devoted mainly to the quality assurance approaches of OER had demonstrated the complexity of the subject and had pointed out that the quality processes should involve two networks of users: the 'open' network of users, reviewers and teachers working together for quality improvement of resources, teaching and learning and the existing network in the publishing industry and in formal education. The report had mapped the role of different stakeholders (15 categories) in the process of the lifecycle of OER in the quality approaches.

A brief and explicit analysis of the OER definitions and their meanings as well as of the types of OER is made also in this report. The OER definitions share some universal commonalities having at the same time differences. The common features relate to the use and reuse, repurpose, and modification of the resources; to the free use for educational purposes by teachers and learners; to the types of digital media. The differences concern the nature (digital or non-digital) of the resources, the level of openness, the source of resource (either explicit educational or any with potential for learning).

A comprehensive hierarchical classification of OER types, based on literature research, is made in the mentioned report. The partition of different kinds of OER, together with examples of specific resources under the three categories – learning content, tools, implementation resources –- should be compulsorily presented in the guide for the newcomers' better understanding of OER types.

There are different search facilities allowing academics and learners to find relevant OER. Nonetheless, these tools are little known and should be characterised in the user guide. The search facilities include open educational networks (Open Education Information Center), special search engines (Find OER), database clouds (80 Open Education Resource (OER) Tools for Publishing and Development Initiatives) (OER knowledge cloud), open educational tools, OER projects' portals (OER projects) (Projects & Resources), and OER full courses/programmes (Online courses) (Open learn).

The author is very supportive of the idea of implementing Open Educational Resources into study programmes. The intention is to elaborate two course syllabuses: for master degree students and for continuous professional development of teachers. The initiative seeks to boost the academics interest in the process of discovery of valuable OER movement, by engaging faculty in the redesign of courses and degree programs through the replacement of proprietary textbooks and enrichment of study materials with open educational resources. There is the hope that over the next years, the Open Educational Resources movement will lay the groundwork for national adoption of OER Degrees.

Conclusion

The paper presents an attempt to describe the state of the art of emerging OER initiatives in the education space of Moldova. The awareness of OER among academics is at early stages and serious efforts are required to promote and implement the OER to the advanced stage of open educational practice. The existing initiatives are quite modest, rather bottom up, versus top down, individual driven versus institutional structured. Nonetheless, the international practices and the country educational needs prove that there is a growing necessity for all education institutions and policy stakeholders to get engaged in the OER movement.

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FACETS OF OPENNESS IN MOOCs – **A REVIEW**	CLAUDIA ZIMMERMANN Department of Sociology Karl Franzens University Graz, Austria ELKE LACKNER Academy of New Media and Knowledge Transfer Karl Franzens University Graz, Austria MARTIN EBNER Department of Educational Technology Graz University of Technology, Austria

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Abstract: Openness is an eponymous and hence essential feature of MOOCs, but the defining criteria with regard to what does and does not constitute openness are still subject of debate. Different definitions emphasize various aspects that extend beyond obvious characteristics such as open access to content and magnify issues like the licensing of resources, availability of digital technologies or devices as well as skills and competencies necessary for usage. The focus can be extended even further to include social and cultural factors as well. While MOOCs theoretically offer a higher level of openness when compared to traditional means of education, practice has shown that some groups are notoriously overrepresented. It has even been suggested that the growing body of OER may actually widen instead of bridge the gaps between different socioeconomic groups, because user statistics indicate that the typical well-educated MOOC participant already has good access to higher education, whereas those who lack formal education are also underrepresented in the use of OER.

This paper will review the insights on influences that compromise openness in MOOCs, and we will also present a case study from the Austrian MOOC platform iMooX (www.imoox.at) to illustrate the problem as well as discuss some strategies that might prove useful in alleviating the effects of social exclusion. We argue that there are several mitigating factors that warrant consideration in order to strengthen MOOC participation among educationally alienated groups and to encourage a more extensive understanding of openness.

Introduction

Openness or more specific *Open Education* are frequently used terms that are generally used to refer to licensed open educational content, sometimes also including open software. So-called *Open Educational Resources* (OER) are defined more precisely as learning and teaching content that is freely accessible and allows unlimited usage by others (COL and UNESCO 2011). OER not only guarantee free access, but they can also be republished without any additional costs (Geser 2007). One of the most prominent forms of openness in education nowadays are MOOCs (Massive Open Online Courses), which have been heralded as "remedies to educational disparities related to social class." (Hansen and Reich 2015, 1245). Among other favorable attributes, OER in general and MOOCs in particular carry the label of democratizing education, providing open access to educational opportunities for everyone. However, evidence from various OER providers strongly suggests that they fall behind on these expectations (Falconer et al. 2013; Dillahunt, Wang and Teasley 2014).

In this paper, we would like to explore the "openness" in MOOCs and encourage a broader application of the term to address issues that prevent some groups from participating in the educational experiences available. We begin with an overview of various definitions of openness and how the concept is linked to the phenomenon of the so-called digital divide. In the next section, the relationship between MOOCs and

openness is explored further. We then present our case study, the "Dr. Internet" MOOC, and a few select statistical results that are relevant to some parameters of openness, especially the educational level of the participants. Finally, we explain the measures that were taken (and failed) to attract a more heterogeneous group of learners, and we conclude with a few remarks on the next steps to improve the openness in MOOCs.

1.   On the Concept of Openness and the Digital Divide

Openness is a central component to various modern learning environments, and while the concept is widely used, there are several definitions of the term that each emphasize the importance of various aspects. These different definitions do not only influence the direction of debate, but also produce tensions when compared to the practicalities of fields like online learning, open universities and MOOCs, to name just a few. Lane (2009) provides an appealing definition of openness in the context of OER that focuses on four freedoms granted by openness: 1) the freedom from paying money to access and use the content, 2) the freedom to copy, 3) the freedom to re-use without asking permission and 4) the freedom to create derivative work (which does not include the freedom to make profits). This notion has some similarities compared to Wiley's (2009) "4Rs" that define the central characteristics of openness: Reuse, Revise, Remix and Redistribute. It is interesting to note that Wiley has already left behind the most intuitive marker of openness, which is educational content without monetary cost, and focuses heavily on openness ideals that are often subject to licensing issues. Schaffert and Geser (2008) have created a fairly comprehensive concept of openness in relation to OER that easily lends itself to practical use, due to its hands-on approach: open access (content is free of charge), open licenses (licensed for re-use, modification and repurpose), open format (designed for easy re-use) and open (source) software.

Depending on the definition of openness used, many MOOC providers are compromising one or more aspects of openness, to a varying extent. However, it would seem like these infringements might not be the most pressing issue when it comes to openness in MOOCs. In theory, it would be logical to assume that constantly improving digital technology combined with more or less open access to educational content would remove more and more barriers to education for an increasingly larger group of people, yet there is also a widespread debate on how these developments are actually contributing to a widening educational gap in the general population. Just because something is freely available does not necessarily mean that everybody is equally likely to make use of it, because some groups might still be affected by barriers that lie beyond the categories in the various definitions of openness.

One of the first barriers to participation in openness that has been considered is the matter of a digital divide in terms of availability and usability of suitable digital devices that are necessary to partake in open education. This concept of a digital divide has also seen various attempts of definition; the two most

prominent aspects that are usually addressed are those of an economic divide that is mostly due to purchasing power and restricts ownership of digital devices for some groups, and the usability divide (or usage gap) that refers to a divide in technology skills and competencies that are required to operate said digital devices (Lane 2009). However, skills alone are not everything, and it stands to reason that some groups do not necessarily lack the competence but rather the confidence in the sufficiency of their own abilities: "they do not feel included even when people are trying to reach out to them because they lack confidence in their competence to succeed – they feel disempowered." (Lane 2009, 4).

In fact, it can be argued that the main issues with open education are not about access to digital devices or the ability to use them, but really about far more complex social and cultural barriers to participation in any form of education (Cannell, Macintyre and Hewitt 2015). "In other words, it is the social and cultural factors that may be more important than the economic ones." (Lane 2009, 9). It is important to remember that the current OER strategies were developed and implemented in a world with unequally distributed educational resources, combined with unprecedented advances in the field of ICT. When looking at the historical term of openness in education, there are several factors beyond those economic and technological aspects which are mostly shaping the OER debate today (Peter and Deimann 2013). An extensive list of all known aspects that influence the participation in education would go beyond the scope of this paper, but there are several authors that provide a somewhat comprehensive overview (Lane 2009; McGivney 2000). We would like to single out a few items that are particularly relevant when it comes to openness in education:

Prior educational achievement. Qualifications in education function as access requirements for certain other educational resources, for example consecutive degrees at universities.

Physical circumstances. This comprises of several aspects that all influence the ability to participate in education; like geographical location (educational opportunities in remote areas are usually scarce) and physical location (a place where educational activities can take place in a manner that does not impede the process of learning).

Social, cultural and individual norms. We are all surrounded by a complex web of norms, attitudes and values that shape our decisions and actions. Each person is influenced by different factors depending on their social surroundings. With regard to education, some groups for example are affected by social norms that do not hold educational attainments in high regard, and thus decrease the likelihood of engagement in such activities. Cultural norms might have an influence on the attitudes regarding who is eligible for what kind of education and at what age. Individual norms generally stem from personal experiences and are related to beliefs about what educational goals are appropriate, achievable and useful for the person in question. This also includes attitudes about one's own capability, aspirations and the overall interest in

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education.

When looking at openness and particularly at openness in MOOCs, it can be seen that some of the above factors are definitely improved by educational methods that do not require proof of educational achievement in order to receive access to further education, or that do not place restrictions on the physical location of where the learning takes place. It is however equally visible that for the most part, social and cultural norms remain stubbornly untouched by technological developments and OER.

2. MOOCs and Openness

Compared to other means of distributing OER, MOOCs have received a tremendous amount of attention, from institutions of higher education as well as the general press. "[R]arely has higher education as a system responded as rapidly to a trend as it has responded to open online courses." (Siemens 2012, 5). There is an indisputable link between MOOCs and higher education, manifesting in an academic interest in MOOCs as an innovative instrument of learning and the implementation of MOOC platforms by many universities. Interestingly, the last few years have shown over and over again that the typical participants in MOOCs are disproportionately well-educated: "MOOCs have tended to attract individuals who have already benefited from access to higher education." (Cannell, Macintyre and Hewitt 2015, 65). It would seem that MOOCs in particular are not quite the helpful instruments of creating a world with more educational opportunities for everyone. In fact, there have been arguments that MOOCs are not actually widening access to education, but raising issues in terms of social exclusion: "the technological divide may be narrower but it is deeper – those not connected or not using these new technologies are being left behind at an alarming rate." (Conole 2012, 131). The ideal behind the OER movement was not just to offer free educational resources just for the sake of their existence, but for an increased uptake by learners and teachers, who, thanks to digital technologies, are able to procure an educational advantage far beyond anything traditional OER had to offer. And while the gap is closing (or getting "narrower") in terms of access to digital devices, the forces of social exclusion from education that have existed long before the internet came into existence are still well and just as effective.

So when looking at the educational status of MOOC users, what possible explanations are available? What factors are responsible for the dramatic overrepresentation of already well-educated participants? Several ideas come to mind. First, on the level of the individual, it would seem plausible to assume that not everyone shares an equally strong desire for the pursuit of knowledge and education; thus, people on a high educational level might have attained it by being more inclined to devote time and effort into educational endeavors, which is also something that makes them more likely to participate in rather informal learning settings, like MOOCs. Second, on the level of the MOOC, there are several things to consider: is the instructional design and the preparation of the content attractive to users from all

educational backgrounds? Through which channels has the MOOC and its platform been promoted and in what ways? If the platform is associated with a university: could this association be a potential drawback for some people who would not place themselves in the educational sphere of such an institution? The last aspect is already overlapping with third, the social level: as has been mentioned before, there are considerable social and cultural barriers to traditional education that can be assumed to play a similar role in MOOCs and other open technology-based forms.

If somewhat equal participation in open education across the spectrum of sociodemographic characteristics is a desirable goal, then these aspects need to be considered and addressed, with more research and with active strategies to counter them. This focus on widening access to OER beyond the scope of the economic and the usability divide has found its way into the concept of OEP (Open Educational Practices), which bears witness to the fact that open education is more than just the provision of OER, with the intention of "changing from a narrow view of educational practice which centres on the production of content, to a broader definition that encompasses all activities that open up access to educational opportunity" (Falconer et al. 2013, 7). This does not only call for an integration of ideological, practical and social aspects of OER, but also for a more interdisciplinary approach to limitations of openness in education (Cannell, Macintyre and Hewitt 2015).

3. Case Study: The "Dr. Internet" MOOC

This MOOC was selected as a case study because it has several interesting characteristics with regard to issues of openness. The conception and design of the "Dr. Internet" MOOC was part of an interdisciplinary research project that included three Austrian universities (the Karl Franzens University, University of Technology, and the Medical University, all based in Graz). Since the MOOC was created not just for educational purposes, but also to contribute to the research agenda (Zimmermann, Kopp and Ebner 2016), there was a mandatory questionnaire which participants had to fill in when first entering the MOOC. Additionally, the project and particularly the MOOC received quite a bit of attention from the (local) press, with several articles in popular print newspapers as well as online.

Description of the project. The "Dr. Internet" research cooperation was based on the mutual interest in online search behavior for health-related information. In addition to the MOOC, there is a sociological arm of study, which mainly focuses on interviews with general practitioners and a survey using questionnaires for patients, and a philosophical one that is concerned with ethical developments in this regard. The main objective of the project is to investigate how the increasingly common use of the internet to find medical information affects the doctor-patient relationship, and what risks and potential are involved with this practice. Recent experiences of general practitioners show that more and more patients visit their doctor's office with previously acquired medical knowledge, obtained from online sources like popular websites,

patients' forums etc. The acquired information can be extensive, but has often been found to be inconsistent and difficult to evaluate (Benigeri and Pluye 2003). Similar to the many-faceted problem of openness in education, data from the US has already indicated that access to health information on the internet is also characterized by a considerable digital divide that has serious implications for public health outcomes and for the potential benefits of improved online health communications (Brodie et al. 2000).

Description of the MOOC. As the core component of the research project, the "Dr. Internet" MOOC was designed to raise awareness for a critical yet productive approach to online health information. The participants were invited to assess and diagnose six medical case studies over the course of six weeks, all of which were presented in short videos where a patient exhibits or complains about various symptoms. After watching the videos, it was advised to use the internet in order to find information on potential diagnoses. We used a special quiz format to collect the users' opinions on possible diagnoses, where they had a chance to rate the likelihood of eight suggested solutions on a four-part scale ranging from "unlikely" to "very likely". While there are no right or wrong answers to this kind of quiz, the participants are able to compare their own choices with those of their fellow course users and with the results from a previously conducted survey among trained physicians. The conception of the MOOC thus encourages participants to question their search behavior on the Internet and to critically evaluate their skills in the context of diagnosing diseases.

The MOOC is hosted on the first and only Austrian MOOCplatform called iMooX" (www.imoox.at), founded by the Karl Franzens University and the Graz University of Technology (Neuböck, Kopp and Ebner 2015). All course materials on "iMooX" easily qualify as OER, meaning that all the MOOC videos are licensed under a Creative Commons License, so they may be accessed and used by anybody (as long as this is not done for commercial purposes). The MOOC has a set duration of six weeks (first run: 27th October – 6th December 2015, second run: 2nd May – 12th June 2016) during which the forum is open and moderated, all materials stay available after the initial MOOC and the research project have finished, so that future participants may still benefit from the course experience. The intention was to purposefully create a truly open MOOC that would attract a heterogeneous audience from all educational levels and engage them in an interesting learning experience.

4. Results

During the first run of the "Dr. Internet" MOOC, we had 370 registered participants, and 206 of those (56%) actually entered the course and filled in the compulsory questionnaire. The statistical results show that 62% of our participants were female; the average age was 39 years (minimum 15, maximum 75 years). About 58% of MOOC users were single, 32% married, 8% divorced, 2% widowed. The educational level of the participants was askew in the all too familiar way: 56% had completed university education, 33% a

high school leaving examination, 4% middle school, 5% had completed vocational education ("Lehrabschluss"), and 2% had undergone compulsory schooling. The data collected throughout the duration of the course also follow some of the patterns commonly seen in MOOCs (Colman 2013). Out of those 206 participants that completed the questionnaire in the beginning, only 28 people (14%) received a certificate for completing the course. When calculating the completion rate based on the 370 registrations, the result is 8%, which constitutes a quite satisfying result for MOOC standards (Khalil and Ebner 2014).

When comparing the initial group (n=206) with the small group of participants who officially completed the course (n=28), we can see that most sociodemographic characteristics barely change over the course of the MOOC. The gender ratio essentially stays the same with 63%women, the same holds true for age where the mean was 40 years. There is a smaller fraction of single (42%) and a larger one of married users (50%), which now makes it the dominating civil status. The percentage of divorced users does not change much (8%), but there are no more widowed participants. Regarding education, we get some small changes as well (see chart 1). The percentage of university-educated participants goes down to 46%, while those who completed high school increased their proportion to 46%, creating two equally strong groups. There were no more users with middle school education; the group with vocational education remained the same (4%), and those with compulsory schooling increased their percentage to 4%.

CHART 1. EDUCATIONAL LEVEL OF „DR. INTERNET" MOOC USERS AT START AND END OF THE COURSE
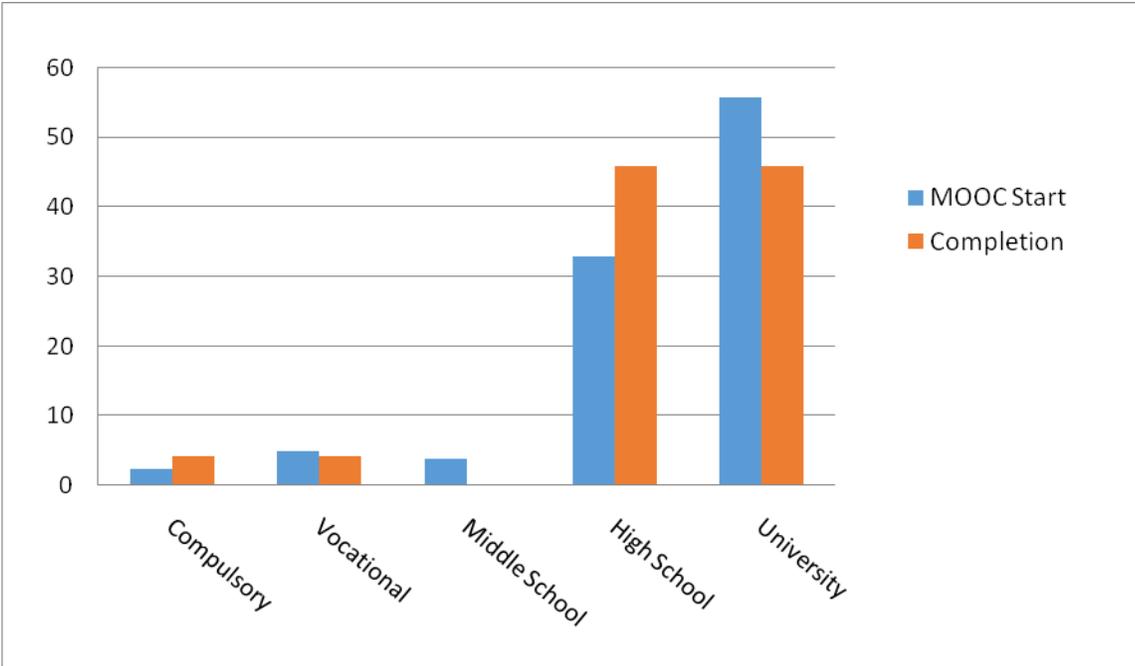
The insights gained from these numbers are limited by the very small sample size of the remaining MOOC users who completed the course, but we would like to point out a few tentative conclusions. Regarding educational levels, the big picture stays the same: when the two highest categories (university

and high school) are combined, they make up 90% of MOOC users, both at the beginning and at the end of the "Dr. Internet" course. There is only a small fraction of participants with lower educational levels, but they drop out at about the same rate as those with higher education.

5. Measures Taken and Lessons Learned

The design and the implementation of the "Dr. Internet" MOOC was set to accommodate several aspects that were perceived as potential issues for the openness of the course. First, the chosen topic of diagnosing diseases with the help of the internet did not require any prior education on the subject, so that people from all educational levels have the same starting ground from which to approach the content. Second, the tasks of diagnosing patients were focused on media literacy rather than knowledge gain, so the quizzes were designed in a way that they had no right or wrong answers and felt less like a test. Third, the topic itself appears to be fairly attractive in general and affects pretty much everybody who has ever wondered about the medical causes of physical symptoms, no matter what their educational level or social status. Preliminary results from the sociological arm of the (still ongoing) "Dr. Internet" research project indicate that over 80% of the patients surveyed in general practitioners' offices have used the internet for medical research at least once, so we are dealing with quite a widespread behavior. Fourth, the course and all materials were created in German language. While this obviously limits international course participation, it should help to increase participation among educationally alienated groups that do not possess sufficient English language skills. Fifth, since the topic generated enough interest from the press, the MOOC was promoted by several articles in print and online newspapers, among them a double-sided feature in the second most-read newspaper in Styria, Austria (called "Kleine Zeitung", 7th November 2015). Sixth, together with the course we developed an innovative concept for the moderation of the forum, which was monitored for 20 hours each day. This concept did not only include specific guidelines on how to handle potentially precarious questions on health and treatment, but also stimuli for debates so as to keep them open for everyone, and to generate an atmosphere that would allow the participants to ask any questions and discuss any problems they might have, without fear of being classified as undereducated or ill-informed.

Yet as we have seen from the participant statistics of the "Dr. Internet" MOOC, it would appear that all these measures did not really make a difference in truly "opening" the MOOC up to traditionally underrepresented groups. Instead of attracting a large and diverse crowd of users, we recruited a rather small and quite homogeneous group, which is very similar in its characteristics to those we have observed with other MOOCs on the iMooX platform (Neuböck, Kopp and Ebner 2015; Khalil, Kastl and Ebner 2016). The (academically) low-threshold but relevant topic, the accordance in language, and the publicity for the course failed to attract some of the targeted groups. The data does however suggest that there was at

least no further unproportional loss of less-educated participants once they had entered the course; in fact, it could be argued that the relatively high dropout among university-educated users attests to the fact that the course was constructed in a way that was not too challenging on an intellectual level (Colman 2013). Combined with a somewhat acceptable completion rate of 14% (or 8% depending on the mode of calculation), it could be stated that the design and content of the course was well-received.

Conclusion

Even though a few proactive steps to encourage participation across the whole educational spectrum were integrated in the design, development and implementation of the "Dr. Internet" MOOC, it was by no means enough to counteract the dynamics of social exclusion that MOOCs seem to be particularly prone to. Our findings confirm the results of other studies (Dillahunt, Wang and Teasley 2014; Hansen and Reich 2015): even though MOOCs have been credited with the potential to democratize education, they are not an effective instrument against educational disparities. To the contrary, they seem to deepen rather than bridge the gap, because those groups who already have a higher socioeconomic status, good access to higher education and employment are also able to gain additional educational benefits from MOOCs and Open Education.

Why is this happening? While we tried to summarize the most important hindrances of openness, from the digital divide to social and cultural barriers, there are bound to be other aspects not yet brought to light. Interdisciplinary research into more traditional barriers to educational opportunities is a good starting point to look for answers. It seems likely that any strategies to counterbalance these dividing tendencies will need to address complex matters far beyond mere design and licensing issues. Quite a few ideas have already been proposed: Dillahunt, Wang and Teasley (2014) recommend more research into the motivation that drives learners to participate in MOOCs, and to use these insights to create more incentives for those of underrepresented groups. Falconer et al. (2013) provide a long list of suggestions, among them the appeal to view OER as more than content, to promote digital literacy, and to conduct research into the OER practices of learners. Cannell, Macintyre and Hewitt (2015) would like to see a shift of focus to OEP that build on partnerships and social networks in order to promote educational opportunities. Bull (2012) reports on the beneficial outcomes of targeted OER initiatives that are characterized by specifically adapted content presentation and instructional settings in order to appeal to groups who have a hard time accessing higher education.

All of these suggestions involve a tremendous amount of work and cooperation and are not guaranteed to provide solutions. However, if we want MOOCs to realize their educational potential and to be truly "open", the effort is not only necessary but worthwhile.

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THE RISE OF MOOCs: DISRUPTING HIGHER EDUCATION IN UKRAINE	Anastasiia Syzenko Faculty of Economics Taras Shevchenko National University of Kyiv, Ukraine

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Abstract: For over ten years, our long-established systems of education have been transforming as a result of the digital revolution. Web 2.0, MOOCs, and numerous digital media now provide new collaborative and participatory education environments that create a multitude of new opportunities for benefitting from online technologies and promoting active learning. This paper explores the success of a new player in MOOCs, a Ukrainian online learning platform called Prometheus. Launched in 2014 by two enthusiasts with the aim of making popular Harvard and MIT online courses accessible for the mass of non-English speaking Ukrainians, this non-profit initiative grew quickly and soon began to develop its own customized online courses in collaboration with major universities, renowned educators, business professionals, and international foundations. With more than 200,000 registered users and almost 50 courses on entrepreneurship, IT and software development, civic society, gender studies, and even a course on how to create an online course from scratch, the platform is enjoying a growing popularity among users of different age groups from all over Ukraine. Moreover, it is also helping to address the pressing needs of professional re-training for the internally displaced people from the Eastern Ukrainian regions. The analysis of this platform's performance over a 16-month period demonstrates that there is a fast-growing demand for alternative education formats in this country. This paper also looks at global and local trends in education in an attempt to determine the role of digital technologies in transforming traditional education and decide whether MOOCs present a real threat or, rather, a not yet fully exploited opportunity for traditional academia.

Setting the Scene

The Fourth Industrial Revolution that we are currently witnessing has already disrupted numerous industries and it is not surprising that the broad field of education is also being affected. Despite being considered a rather traditional and slow-to-change monster, the area of education, especially the higher education, is nonetheless susceptible to this long-awaited change. Digital revolution is transforming not only what we teach but, most importantly, how we teach today. New formats in education are being continuously tested and trialed and we still seem to have no clear strategy or, at least, no unanimous stance with regard to the future of education. One of the reasons is, in my opinion, the fact that we lack understanding on what formats of education are going to yield better results compared to the existing model. Another one, possibly, is the difficulty in predicting academic and professional expectations of the younger generations and therefore, being able to meet these unknown needs. However, one thing is clear – academia is now on the brink of transformational changes. Not only in the most developed countries with the traditionally high standards of education and sufficient supply of both domestic and international students, but also in the less competitive countries, the issue of attracting and retaining students at universities is becoming a crucial one. And whereas some are losing students to the more prestigious universities, another threat has come in the form of alternative education formats, with corporate academies and MOOCs among those.

Distance learning, open educational resources (like the Khan Academy created in 2006), and ultimately massive open online courses (MOOCs) have been some of the most important milestones on the way to the digital revolution in education. A relatively new phenomenon, MOOCs were officially born in 2012 when

the Coursera platform, edX and Udacity became instantly popular among users around the world. In June 2014 the number of MOOCs reached 2600 which was a 327% growth compared to 2013. Free access, no pre-requisites or entry requirement for enrolment, unlimited number of places, and, ultimately, no responsibilities for the outcome, attracted a huge crowd of students of all ages, nationalities and professional backgrounds. The idea of studying for free and getting a certificate for a very small fee had been appealing to many. Another aspect – that of opening opportunities to those who were for some reason unable to get a university degree, also contributed to the new format's worldwide success. The whole idea of free, universal, global education accessible for all, the one Salman Khan, the founder of the Khan Academy, calls for is just as appealing today as it was in 2012 when he published his book The One World Schoolhouse: Education Reimagined.

The new digitally-enhanced phenomenon in education has been growing quickly and new developments followed with corporations, international organizations and governments joining the collaboration and offering more and more educational courses. Despite the fact that dissemination of MOOCs will never, according to scholars studying the issue, single-handedly account for transformation of higher education (van Dijk and Poell 2015, 2683), it already represents a marked shift from the only academia-based education towards a more flexible and more adaptable format where all the stakeholders have an opportunity to be heard. National online education platforms have been created around the world with a special focus on non-English speakers, governments are supporting free educational platforms, and employers are seeing more and more benefits from the variety of alternative qualifications. Overall, the system of education has undoubtedly been challenged today more than ever before and the changes we are witnessing now will have a dramatic effect on the principles of education of tomorrow. As any global phenomenon, its implications can be observed almost anywhere and this article explores a case of the Ukrainian MOOC platform called Prometheus.

Impact of MOOCs on Higher Education in Ukraine.

Higher education in Ukraine has experienced a series of fundamental changes over the last twenty years since the country gained its independence and became part of the Bologna Process and European Higher Education Area. The system, which heavily relied on the Soviet past, has long struggled with various challenges including adoption of international frameworks; dramatic revision of curricula; search of a balance between teaching and research; and overall quality assurance. Digitization seemed to be the system's least concern. Current drop in student numbers and the ongoing pressure to make Ukrainian universities more efficient, more competitive and, therefore, more accountable, are still key challenges that higher education is facing in Ukraine. Nevertheless, while the system is struggling, its users – the students, are becoming more and more demanding and harder to retain – which all calls for the revision of the academia's approach to the use of digital resources.

The idea of a national Ukrainian platform for online learning was born in 2014 and by the end of the year it was developed and launched online. At that moment there were only two people behind the initiative, Ivan Prymachenko and Oleksii Molchanovskii, who both worked on the conceptual and technological aspects of their idea. The initiative's primary ambition was not only to translate a number of popular courses offered by MIT and Harvard and make them accessible to all the interested Ukrainian learners, but most importantly to promote the culture of online learning and develop its own tailor-made courses. As the founders put it, "the initiative's mission is to provide open and free access to the best educational programs to everybody regardless of their place of residence, age or income level".

In October 2014 the platform opened registration for its first four massive online courses developed in collaboration with three leading Ukrainian universities, namely the 'History of Ukraine: from the Second World War to Nowadays' from Taras Shevchenko National University of Kyiv, the 'Introduction to Programming in Python' and 'Algorithm Design and Analysis' from Kyiv Polytechnic University and "Financial Management" from Kyiv-Mohyla Business School. Upon successful completion of a course, students were awarded a free certificate. As a matter of fact, it was not the first massive open online course launched in Ukraine. In autumn 2013 Taras Shevchenko National University of Kyiv pioneered in the field with its first massive online course in Marketing that had more than 9000 registered learners and enjoyed a lot of coverage in the media. Ivan Prymachenko and Oleksii Molchankvskii both worked on launching that course.

The Prometheus's objectives are to create series of courses (i.e. in programming, business, history, etc) following the model developed by edX and Coursera; to issue certificates to those who successfully complete the course; and to launch an experimental blended learning at one of the Ukrainian universities that will allow using MOOCs in the learning process for lectures and interim assessments while seminars and final exam will be provided by lecturers on site at the university. Currently, the platform offers a series of MOOCs in Entrepreneurship that includes such courses as "How to Start a Business in Ukraine", "Marketing: How to develop and Sell a Value Offering", "Financial Management", "Legal Aspects of Doing Business in Ukraine", "Taxation in Ukraine" and "English for Business". Another series of courses is on focused of civic society education and offers courses such as "Urban Studies", "Fighting Corruption", "Sociology and Social Research: What, How and Why", "Economics for All", "Fundamentals of Public Policy", "Basics of Lobbying", and "Gender Studies". All this courses were custom-designed with the Ukrainian audience in mind and some were funded with public or international funds.

The platform's competitive advantages compared to other MOOCs and learning platforms are its custom approach to course design and development; open cooperation with leading Ukrainian universities and corporations in developing courses that would fit the employer's expectations and requirements for

graduate's skills and competences; and, importantly, the initiative's ambition to integrate MOOCs into the system of higher education by introducing blended learning. So far the initiative has successfully cooperated with several major public universities, international organizations and even the government of Ukraine by providing them with an opportunity to develop and launch a course. With more than 200,000 registered users (benchmark reached on April 18, 2016) and over forty various courses, including one course on how to create an online course from scratch, the platform is enjoying a growing popularity among users of different age groups from all over Ukraine.

One of the biggest success stories is the Prometheus's series of courses in information and communication technologies. Harvard's CS50 that is considered one of the best introductory courses in computer programming was translated into Ukrainian by a team of more than hundred volunteers and is now offered together with a set of off-line mentoring sessions organized in cooperation with several Ukrainian IT companies. Both on-line and off-line components are completely free of charge with off-line groups organized all around Ukraine. With more than 60,000 registered users and up to 100 people competing for one seat in an off-line class, this is undoubtedly the largest and most popular MOOC in Ukraine. Prometheus's custom-made courses 'Programming in Java' and 'Programming in C#', developed in cooperation with Microsoft are also among the most popular ones. Current success of these courses is undoubtedly linked to the increasing number of outsourced IT services in Ukraine and Prometheus offers a great alternative to those who are not yet sure whether they could make a career in IT to try their potential absolutely for free.

Ukraine has the largest and fastest-growing number of IT professionals in Europe; its IT engineering work force is expected to double to over 200,000 by 2020. Ukrainian outsourcing companies offer a wide range of engineering capabilities, with most companies having already switched to agile development over the past few years. The export volume of Ukraine's software development industry reached at least $2.5 billion in 2015 (number 3 export sector), showing double digit growth year after year. This is just a fraction of the country's potential, taking into account its large and skilled workforce. The majority of local and international companies report that the country's political turbulence has had no or little impact on their existing business. All this explains a huge demand for IT skills and Prometheus with its free offering has proved to be much in demand among aspiring Ukrainians.

Another successful story is the Prometheus's recent course on "Public Procurement" developed by the initiative of the Ministry of Economic and Regional Development of Ukraine together with Transparency International and the EU's supported PROZORRO e-tender initiative. Registration for the course opened in May 2016 and in two weeks it has got 3,500 registrations. It is quite an impressive result given that it is

a first course of a kind in Ukraine and one of the first examples of collaboration between the national Ministry, an international donor organization and a MOOC platform.

What are the reasons of the high demand for MOOCs in Ukraine? Firstly, the whole concept of traditional education is currently challenged and questioned by many, and this, in my opinion, explains the demand for trying of whatever else is on offer. However, when such exploration happens out of idle curiosity, it rarely leads to a successful completion of the course (not surprisingly, the average completion rate is rarely over 10%). Secondly, there is a markedly widening gap between the learning outcomes in the academic courses and the real competences needed for being competitive on the job market and this explains the popularity of MOOCs created in collaboration with corporations and that of courses on entrepreneurship. Finally, and this is particularly true for Ukraine with its hundreds of thousands internally displaced persons due to ongoing conflict in the Eastern Ukraine, MOOCs offer an opportunity for professional requalification and getting a job for those, whose skills are no longer in demand.

The analysis of this platform's performance over a 16-month period demonstrates that there is a fast-growing demand for alternative education formats in Ukraine. The number of Prometheus's registered users has been growing gradually since its official launch. In April 2015 this number reached 50,000 users, in September 2015 it was 100,000, in January 2016 it totaled 180,000 users and in May 2016 it reached 220,000 users. This number is expected to grow steadily in the future as there are more and more customized courses being developed by the platform's team and approximately 40 million potential students.

It might be too early to say that all the Ukrainian universities fully realize that the global and local market for education has changed and MOOCs are very much responsible for this shift. However, the sooner this understanding comes, the better their chance will be to survive in this increasingly competitive and globalized market for education services. Their future will largely depend on their willingness to embrace this new reality and come up with a proper response to it.

So, What is There in the Future?

The question that preoccupies the minds of western universities is whether MOOCs represent an opportunity to compete for students and improve the quality of teaching by introducing new formats, or it is a real disruptive threat that will ultimately eat the universities' bread. Surely, there are risks that non-educational organizations with a more efficient business model and a more utilitarian approach to knowledge as a product will step in and challenge the traditional academic model. On the other hand, there is probably a higher chance of incremental innovations introduced by the universities that will help sustain and develop the traditional innovation. Those universities that will learn to respond fast to the external treats and start using them to their own advantage will not only survive, but most probably secure a prosperous and glorious future.

Looking at how the attitude to MOOCs developed over time can help universities better frame their digital strategies, take the best out of the model and avoid excessive spending. While the first years of MOOCs were marked by an almost unanimous praise for this ground-breaking idea, soon the sceptics and critics started pointing out its most blatant imperfections, such as low completion rates, doubted effectiveness, authenticity and cheating risks, lack of pedagogical and quality assurance requirements. According to Zemsky (2014, 243), MOOCs are never going to provide what is unique and most valuable in education, and those are faculty members, "who see themselves as mentors and guides rather than performers". One of the possible answers is that the future is all about further experiments with different combinations of traditional person-to-person and digital formats in education. According to Kristin Ingolfsdottir (2014, 1641), online developments, when integrated into traditional formats, will undoubtedly enhance current educational programs. Blended learning, a format where online learning is combined with the traditional brick and mortar school environment, might represent an interesting model that could be used efficiently not only in the higher education, but also at the secondary level. As Clayton Christensen (2013, 12) suggests, "the disruptive option is to deploy online learning in new models that depart from the traditional classroom". Flipped classrooms and blended models can really help use classroom time more effectively allowing more rewarding interaction between teachers and students. Still, research data on the various outcomes of digitally-enhanced learning is much awaited. And it will be even more interesting to see how the development of blended models benefits the universities. Since Prometheus has now initiated a start of a blended learning experiment at Kyiv Polytechnic University, we expect to have more data for the analysis quite soon. Interestingly, in Ukraine these experiments are also to bring about a change in faculty member's perception of MOOCs as there is still a lot of distrust and misconceptions towards the use of digital components in teaching. In my opinion, it will not only positively affect the content and delivery of university courses, but it will also promote further development of digital literacy at all educational levels.

Overall, my own view is that the advantages of incorporating digital components into higher education greatly outweigh the risks of losing some of the academia's traditional identity. Universities should make efforts to make sure that MOOCs and other digital advances become part of their normal learning process and complement and facilitate the educators' most important roles as mentors, guides and leaders.

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Essays

INTERACTIVE PRESENTATIONS AS OPEN EDUCATIONAL RESOURCES	ROZA DUMBRAVEANU, TATIANA CHIRIAC
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Abstract: One of the most common resources used in educational context is presentation. Quality presentation is a powerful and flexible tool with multiple purposes: teaching, learning, assessment. There are a lot of resources related to the usefulness or limitations of the presentations as well as presentations distributed as open educational resources via web. However, we notice that quite often teachers neither use completely the possibilities offered by the presentation software, nor the didactic potential of multimedia presentations. Our contribution to this topic consists in the elaboration of a set of interactive multimedia presentations that can be used as good examples of open educational resources. We also described the methodology of the elaboration of interactive multimedia presentations in conjunction with the structuring of teaching material in a flexible way according to the quality criteria for the evaluation of the presentations.

Introduction

Presentations are widely used in educational process as integrated parts of diverse didactic activities, particularly in explaining and teaching new material. Educational presentations are very effective tool to assist learning because simultaneously could use several information media: graphics, text, video, photos, animations, sound effects. A quality presentation has to include multiple learning methodologies in order to increase its effects on the audience. The main particularities of a quality presentation are proper combination of teaching and learning approaches, visual design, multimedia and interactivity.

To elaborate presentations for the effective utilization in the classroom the developer/teacher should considered:

    a.   The role and place of the presentation in the didactic process.

    b.   The well-defined message pursued throughout the lecture.

    c.   The defined learning outcomes/objectives and adequate teaching/learning tasks.

    d.   The effectiveness of educational material.

    e.   The involvement of students.

However, one of the major problems in the use of presentations is their limitation to information transmission to learners. Teachers frequently put excessive content in presentations, letting students to read or to put down the text as lecture notes, a usage that obscures the potential for diverse pedagogically-sound presentations. Some teachers prepared the course topics in presentation plain text format and delivered them under the so-called e-course support. The reasons for this are the ease of using presentation software and the relatively short learning time required to achieve basic-level usage, wrong interpretation of the pedagogical use of presentations, low awareness of the advanced features of the presentation tools.

Common barriers for full spectrum use of presentations consist in reluctance of some academics to invest the time required to learn new technology features, though when we have presented examples of interactive multimedia presentations at the university staff conference many teachers were excited on the pedagogical opportunities offered by these resources. In fact, teachers need relatively short-term time for the long-term gain in both the quality of their presentations and in the improvement of their teaching. With this belief in mind we have elaborated a teacher guide on the development of interactive multimedia presentations that contains practical recommendations and demonstrative samples of presentations. In this paper we present several ideas and examples of interactive presentations developed as educational resources.

Reasons to use presentations in educational context

There are many reasons and a variety of ways to use the presentations in teaching, learning, and assessment, but the key ones include:

a. Enhance a more effective communication.

b. Provide opportunities to organize information systematically.

c. Support interactive lectures.

d. Meet learning styles by mixing of media.

e. Fulfill diverse didactic uses.

The quality and the relevance of the presentations as educational resources depend on the pedagogical and technical skills of the academic author. The recent versions of the presentation software offer a rich repertoire of layouts, templates, tools, programming possibilities to be combined for the creation of an adequate educational resource. The glue for these technological assets is the pedagogical scenario thought by the developer in accordance with the teaching philosophy and the learning intention in the definite educational context.

Pedagogical approach is based on teaching/learning theories that every teacher embraces in his/her way of teaching. There are many learning theories that can be grouped in three categories: behaviorism, cognitivism, and constructivism. Usually every teacher combines a mixture of theories with the preponderance of one of them in delivering lectures and organizing learning tasks and activities. The pedagogies that follow and impose the presentation type can be described as: learning by listening, discovery learning, learning by doing, and learning through discussions. These pedagogical approaches can be used in different degrees, amounts and ways depending on the discipline and in some extent on the target audience.

Learning by listening is a traditional form with lectures for large audience and it is considered that the students are learning by being told. The presentations should be used to make the lecturing more dynamic and structured. Reasons for presentations in this case are: outline of the learning outcomes, sketch of the lecture; organization of the topics; focus on important facts; milestones, theories; stimulus for the lecture issues; illustrations of presented concepts; concluding remarks.

Discovery learning is a constructivist approach of learning when the teacher facilitates the students' learning by providing assistance to them to discover knowledge. The learners should have a rich range of options from which to build their own understanding of knowledge and consequently a suitable learning environment. The teacher may implement this approach differently depending on the students' learning styles and their readiness to comply with it. The role of presentations in this case is to inform students about the learning procedures (project or problem based learning); to explain the maim milestones in mastering the studied topics; to highlight the essence of the most difficult issues etc.); to gather the students hypothesis and findings; to collect the study questions; to pose the research questions; to present the learning tasks; to summaries the difficulties and the concluding remarks and many others.

Learning by doing is a form of learning that asks students to apply and to experience their gained knowledge in practical settings by solving real or approximate real world problems. At the first side, it seems that presentations are less adequate tool in this approach. However, there is room for presentations to enhance learning here too. As with the discovery learning approach, the teachers may structure the study topics in presentations, may show the examples of good works, may show the feedback to the assignments, may show the critical remarks, etc. Also teachers may ask students to summaries the results of their work in a well-structured presentation. The structure of the practical work imposed to students is an effective way to make a resume of their knowledge on the investigated topic.

The effectiveness of presentations in learning through discussions approach depends mostly on the educational context factors, such as the number of the students in the classroom, their training for debates, the fitness and proper design of the presentation for this purpose, the savvy of the teacher. The presentations should contain interaction components combined with collaborative techniques. The presentation can be used as a resource for the whole group, for peer or individual work for delivering the learning assignments and achievement of certain results.

All these models can be combined for a blended approach to enrich the teaching & learning process. Blended approach is a way to design courses by mixing different kinds of delivery and learning methods supported by technology. The traditional and interactive lectures, project work, labs and different assignments can be the indispensable components within this approach. More flexible or expanded within this approach is the way in which students participate in these learning activities.

In their practice the teachers use some elements of all these pedagogies. They can adopt their own pedagogical approach with their own mixture of relevant elements. The blended learning approach is currently used as it combines different teaching approaches and learning styles.

Applying one or another explicit model provides a framework on which the teacher should base the design of a presentation. The checklist of issues that the presentation should cover from the pedagogic point of view should follow the Gagne theory: gaining attention, informing learner of the objective, stimulating recall of prior learning, presenting the stimulus, providing learning guidance, eliciting performance, providing feedback, assessing performance, enhancing retention and transfer. Though all these events enhance learning, the teacher can skip some of them, depending on the learning situation, during lecture progress as well as in the presentation slides.

Designing interactive multimedia presentations

There is no one right or unique way to design a presentation, but there are several common principles that should be taken into account when planning and designing an educational interactive presentation. Teachers must consider the pedagogical approach adopted, the learning context, the technology options offered by the presentation software and the design requirements.

When it comes to presentation design there are a lot of choices – layouts, templates, colors, formats, visuals, and fonts – but it is important to know that not all design combinations give rise to a useful educational resource. We had designed some templates for the educational presentations that help the teachers to structure and to control the flow of the content. We tried to pursue the following design rules related to the content, structure and format of the presentations:

- a consistent visual theme throughout the whole presentation;
- a summary slide (like table of contents, keywords);
- navigation tools for logical structure of the contents (menus, buttons, animated triggers, internal and external links);
- focus on the main items, one concept/idea per slide;
- interactivity elements for audience feedback (quizzes, questions, tasks, reflection marks);
- adequate use of multimedia for better understanding of concepts;
- simplicity (no extra graphics, text boxes or effects that do not contribute to better understanding);
- limited bullet points and text (the text should be explained by presenter not to be read word for word text from the slide);

The functionality of the presentations was extended by adding VBA (Visual Basic for Applications) controls. An example of the presentation slide is represented in the figure 1.

FIGURE.1 THE EXAMPLE OF A PRESENTATION SLIDE.
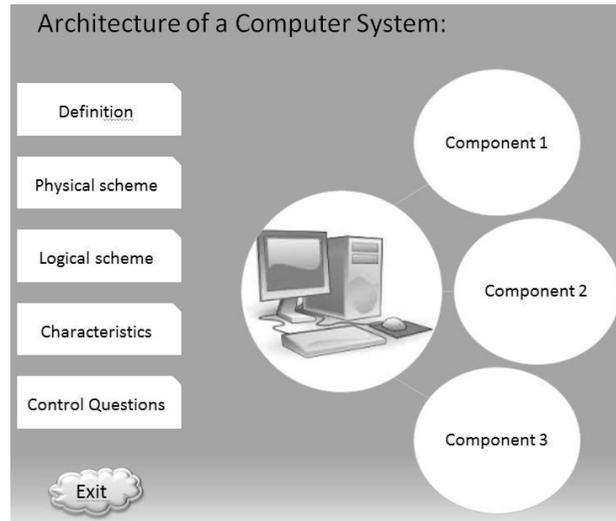
The presentation theme has a simple and a tidy design, adequate for keeping the attention of students' audience on the main topics of the lecture. The user navigates through the subjects covered via the left menu, each button being linked to the content on the right main slide area.

We consider that the presented design looks relevant for an educational visual resource and all slides are unified and connected together, giving a consistent appearance. The components of each page relate mutually through design elements such as background, structure, color, texture and so on, being placed with a definite purpose, and enriching the role of the slide message.

The interactivity of the presentations is one of the main points in the educational process. We will share several ideas and examples for creating interactive presentations. Often the teacher needs to demonstrate some theories or to exemplify the case studies by using videos or web sites. The files can be incorporated easily by adding external links in presentations, the only drawback being the lack of Internet connection at the time of delivery, but this should be avoided having those files stored in the local computer. The internal links can be incorporated as well. The developer bookmarks specific slides in the presentation and linked them to a word, a phrase, an action button, or an object.

The students' involvement can be achieved during lectures or learning & assessment tasks through question-based interactions incorporated into presentation slides. Asking questions is usually the strategy utilized to interact with the students. The questions may be of different type: multiple-choice, matching, numerical, calculated, short answer, true/false, drag and drop. The students can receive immediate feedback directly on the screen on the correctness of their answers. The interactivity is achieved by using textboxes, objects, action buttons and triggers.

Triggers allow the user to initiate a sequence of animations by clicking on a specific object instead of a mouse click. Triggers are logical instructions that make correspondence between events in case an object is activated something appears. One way to use triggers is with multiple choice questions. The developer should set up a slide with two zones: questions and answers. The learner clicks the answer, which is a trigger. The trigger can display a pop-up explanation or an image that indicates if the answer is correct or not. In this way, the student is engaged with the material and the presentation becomes an incentive for learning. Another way to apply triggers is to use invisible hotspot and animations to produce lines from the question to the correct description. The slide that illustrates the result may look as in the figure 2.

Figure 2. Two slides representing the trigger action.
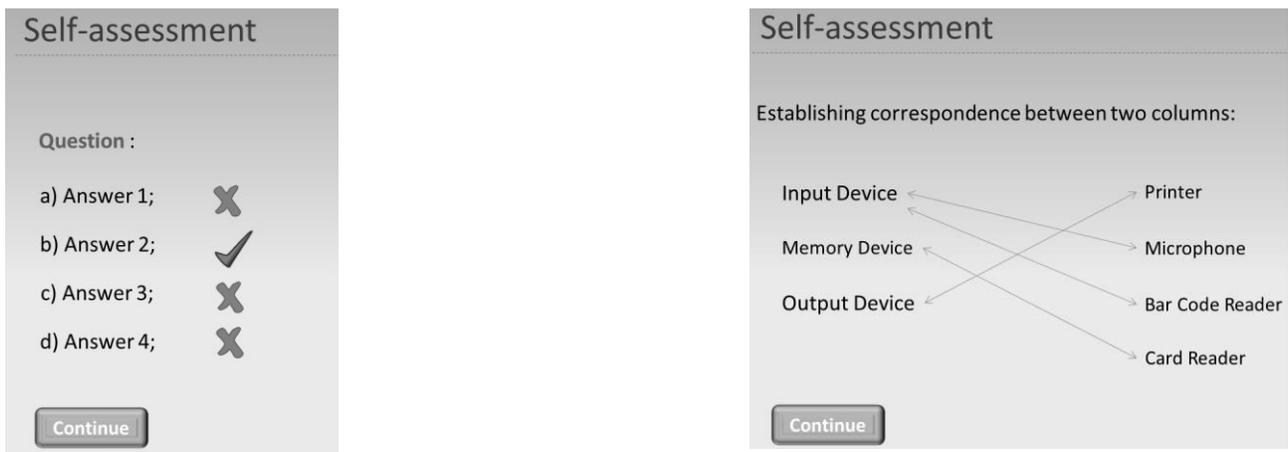
The left image is the result of a trigger applied for the multiple choice question and the right one is the result of the hotspot animation for matching questions.

Some of the more interesting interactions can be designed by using puzzle or game-like exercices for assessment and learning purposes. These kinds of presentations are used in classrooms for formative assessment, content refreshment or homework. A crossword template as a learning exercise is provided in the figure 3.

FIGURE 3 PUZZLE TYPE OF LEARNING ACTIVITY.
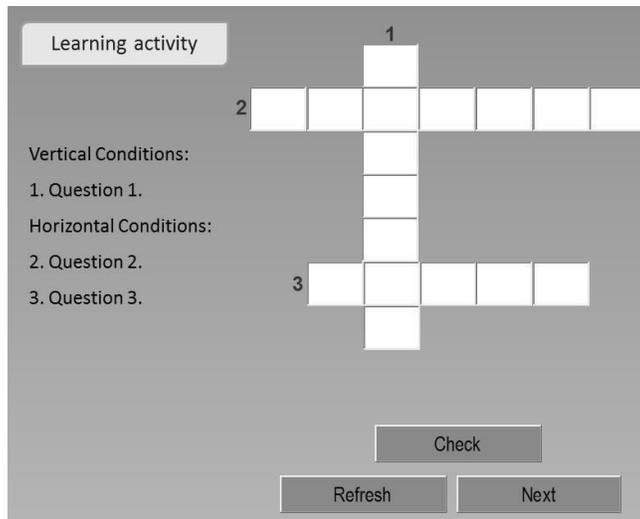
The slide is divided in several zones: the questions to be answered in the crossword, the crossword itself and the control buttons. The student inserts the answers in the textboxes of the crossword, which are ActiveX element controls. The verification of the correctness is assured by the check button linked to the VBA code written by the developer.

Another kind of the interactive learning activities rendered by VBA belongs to calculated questions. The figure 4 represents a very simple example of calculated questions where learner should fill in the related boxes the numbers or the mathematical signs in order to have the correct expressions. The expressions can be modified as to the teacher imagination and the learner needs.

FIGURE 4 CALCULATED TYPE TASKS ACCOMPLISHED BY VBA.
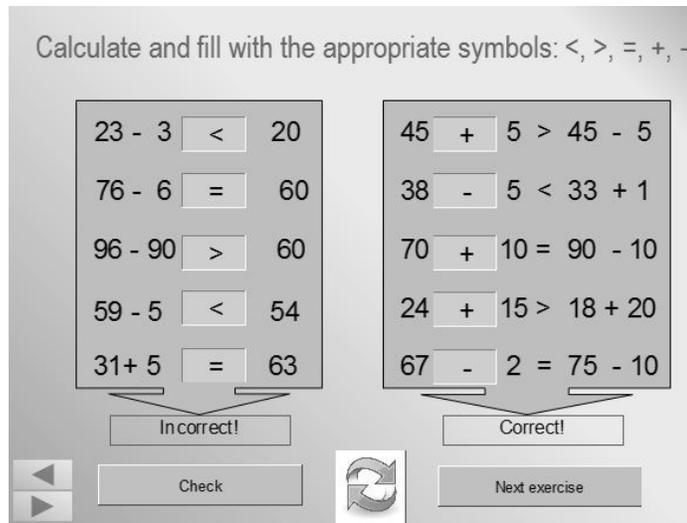
Any teacher that is highly motivated could develop programming skills under guidance to elaborate interactive presentations. This statement was proved on master degree students that were enrolled in the

course *Interactive Electronic Presentations*. Their initial background did not cover programming courses, but at the end of the named course all of them had created the interactive presentations with VBA controls.

We presented just a few examples of the components of educational presentations. These components should interfere as parts of a whole, harmonically, in a well-conceived learning object: pedagogical approach, learning outcomes, design, content, combination of media. Combined in an inventive manner all these features and elements accrue the variety of models of presentations with multiple educational purposes: teaching, learning and assessment.

Conclusion

There are many resources on designing the presentations. In this paper we tried to present some practical pieces of advice that should be implemented by teachers to create interactive and effective presentations that can be delivered as open educational resources. As long as the presentation is a visual tool that facilitate the educational process the main concern of the developers is to structure the content in a logical manner to enhance the teaching and learning in accordance with the pedagogical approach in the framework of the concrete educational event. The teacher should not be necessarily a professional designer to conceive a well-shaped presentation. It needs some time to learn the presentation software functionalities, the design principles and to get inspire from good examples of open educational presentations.

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IMPACT OF CHANGING INFORMATION/TECHNOLOGY ENVIRONMENTS	JASMINA NINKOV Belgrade City Library Belgrade, Serbia

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Key words: public libraries, IST training, innovative services, lifelong learning

Abstract: Knowledge, skills and information are becoming more important to our lives economically, socially and as citizens. Libraries have a central role to play in ensuring everyone has access to the resources, information and knowledge they need. for the future. Equality of access to information and to learning is vital if everyone is to have the opportunity to achieve their full potential. As we move towards a more knowledge-based society driven by digital technologies, the need to ensure access to information for everyone adds a new dimension.

In order to play their role, public libraries must offer new and innovative services and activities that empower citizens and helping to increase the number of qualified, skilled and fulfilled people of any age, class or gender, including those enrolled in recognized courses and those simply wanting to improve their skills at any time of their life, for any reason.

The use of IST tools for lifelong learning provides new opportunities but also increases the risk of social exclusion and the digital division of society. Public libraries have a key role to play in ensuring that citizens will not be divided into the digitally literate and illiterate by offering access to technology and particularly the Internet, especially for those people who do not have a personal computer at home or at work.

Public libraries are major knowledge and learning resource centres. They should be the local learning place and champion of the independent learner. The development of their services requires the establishment and maintenance of strong partnerships with other organisations.

There is also a requirement to provide access to and to package effectively a greater variety of good quality, relevant and attractive learning content of local relevance to use within new IST-based learning environments. One important source of this content is material held by libraries, museums and archives at local level.

As new technologies develop at an ever more rapid pace, it is likely initial support in their use will still be needed and that librarians will continue to play a key role in IST training for citizens.The services in public libraires has to be innovative and inspirative. Key partners in this changing role has to be LLP organisation at local and national level.

Public libraries at the digital crossroads

Public libraries have always offered information services, and some have offered specialised services e.g. business information, local studies, music, etc. ICT has changed these services exponentially, both in terms of the content and method of delivery. Access can now be provided to information from all over the world, at great speed, via sophisticated delivery channels. Libraries therefore need to be aware of a wide range of sources of information, from free to expensive commercial publications, and of the technology available to communicate with users.

Europe's public libraries currently stand at a crossroads of opportunity brought about by a confluence of:

- social challenges

- and the potential offered by developments in Information Society Technologies (IST) which have increasingly becoming available to implement new services.

In response, public libraries are changing fast: but they need to change even faster. It is likely that this is a response to a variety of phenomena including access to information via the Internet, an ever-expanding

quantity of cultural media forms and content (digital TV, computer-based activities etc.) and an increase in the number of people who buy rather than borrow a high proportion of the books which they read.

However, public libraries retain an important role in ensuring a literate information society. Support for reading and maintaining awareness of printed literature remains a crucial goal: the power of IST and the World Wide Web can be harnessed to this end. This is perhaps especially important for children when so many competing stimuli are available, but where the richness and scope of what is available in printed form is not available online.

The increased availability of remotely-provided information services and Internet use for information-seeking could well lead to a decline in the number of physical visits to public libraries. Yet there remains an enormous need for friendly on-line services which meet user needs and which are accessible to all. Public libraries are well-placed to play an important role in their development and provision. Many of Europe's children are now growing up with a well-developed and intuitive knowledge of the Internet and IST use. But there remain many excluded adults and children who have neither access

nor skills to make use of these services. Public libraries may need to focus more intensively on the needs of such specific groups.

Interoperability and seamless access to this content, building on that already being made available by public libraries as community information and in their role as learning centres, may bear additional fruit in future. One goal is the need to provide online services which enhance citizens' ability to link the satisfaction of their present needs with an awareness of their historical context, whether in an environment of education, e-government, recreation, domestic life or work.

Inevitably the resolution of these issues will over the next decade raise questions about the scope of the public library network, its nature as physical plant and its presence in the virtual environment, and the **type of staff and skills needed to fulfil this developing role.** To realise their full potential in the digital era, public libraries must be prepared to offer **new and innovative** digital services that empower citizens to achieve their personal goals in a changing world and to contribute to a cohesive society and a successful knowledge-based economy in Europe.

Public libraries are a force for public good. They are access points open to everybody who is in need of information to meet the challenges of his or her life. By defending and promoting democratic participation, the public library addresses especially support for groups with special needs and the gender perspective. By co-operating with museums and archives, for example by making available cultural heritage and family history material, they can promote social and cultural inclusion.

Public libraries have a unique culture: they are accessible, civil and enjoyable places. They provide a unique mix of resources and services and already embody the values necessary to contribute to a socially inclusive society by being a secure, risk-free and supportive social place that welcomes all on equal terms, as well as a gateway to knowledge and diversity and enabling forces for learning and a catalyst for change.

Digital exclusion is experienced increasingly as a real barrier for people's lives. The challenge concerns not only IT training for jobs but also very basic knowledge. Risks of digital exclusion are frequently cumulative to other forms, whilst digital opportunities can improve the quality of life for traditionally disadvantaged groups. People at risk of social exclusion and 'technologically shy' late-adopters need to learn how to use the Internet.

Lack of access and training are the main barriers. But there is also resistance to the Internet: about a quarter of the EU population seems not to be aware of the possible benefits for their own lives, although this figure is much lower in countries with advanced Information Societies. The digital divide will not disappear on its own. A market-led expansion of the Information Society alone will not be enough to attract all citizens.

To take advantage of e-Learning and new job opportunities in the knowledge society, **digital literacy** is vital. Internet usage is increasing across all socio-economic categories, but the access gap – between men and women, employed and unemployed, high and low-incomes, highly educated and less educated, old and young – is growing. Those who do not have Internet access are missing opportunities.

Public libraries are extremely well placed to address the challenges of the digital divide by improving the delivery of services, tackling educational disadvantage and helping deal with demographic changes.

Unemployed people need information about new job possibilities; young people need stimulating meeting places; children need enrichment programs that build on skills they are learning at school; older people need a place to find out about local news; and disabled people need an organisation that will treat them with dignity and accommodate their disabilities. Public libraries are admirably suited to meet these needs: they can and should become the heart of the community.

Life long learning

Lifelong Learning is becoming the guiding principle for provision and participation all across the continuum of learning contexts.Lifelong Learning is defined as the whole cycle of learning from childhood learning, formal education at all levels through to independent learning throughout adult life, including distance learning, whether or not credits, certificates or diplomas are involved.

E-learning can make a major impact for social inclusion and forms a vital part of the whole concept of Lifelong Learning. Potentially, it provides access to education and training opportunities for all, in particular for those who have access problems for social, economic, geographic or other reasons.

Public libraries are a key centre for informal learning and one of the most frequented institutions for de-institutionalised learning, offering content, training and support to every citizen as an integrated delivery point. Public libraries encourage personal development within a social context and contribute directly to the quality of life.

Libraries therefore have a key role to play in underpinning learning in its broadest sense, both as a formal activity in an institution and informally within the community. The notion of Lifelong Learning implies the ability to search for information and acquire knowledge actively and independently. The classroom and the traditional textbook must therefore be supplemented by archives, libraries and museums, institutions offering a broad choice of different media and professional guidance in information search techniques and learning opportunities. Lifelong Learning addresses the needs of people of any age, class or gender, ranging from those with special needs enrolled in recognized courses and wanting to obtain support for their formal learning to people not enrolled in any course but wanting to improve their skills or to obtain a qualification at any time of their life and for any reason.

In order to play their part in Europe becoming the most competitive and dynamic knowledge-driven economy in the world, public libraries must be prepared to offer new and innovative services/activities that empower citizens to successfully achieve lifelong learning, helping to increase the number of qualified, skilled and fulfilled people in Europe.

Public libraries are not always accepted as part of the teaching and learning process. Decision makers often need to be convinced that public libraries are in fact key players in this context. The use of new IST tools for Lifelong Learning provides new opportunities but also increases the risk of social exclusion and the digital division of society, especially where competencies and motivation are lacking, or where people are not used to learning. New learning environments, involving eLearning and the connection of electronic and traditional teaching methods are needed for the implementation of this flexible and individualised learning. Personalised approaches, such as counselling, are often necessary.

There has already been significant investment by public libraries in some countries in training for staff to develop IST skills and in equipment which enables them to develop services in support of Lifelong Learning. Libraries need to take the opportunity to be included in this process of re-defining education in order to capitalise fully on this investment.

Libraries stand not only for information but also for inspiration. They form a Europe-wide, in fact global, network, providing the potential to inspire directly and to offer support for other cultural partners. Creative industries already benefit from this network, but it could do much more so if major obstacles were abolished.

The return on the investment in libraries has been shown in studies to give significant increases in economic revenue for the local community through their innovative activities and local partnerships. However, this is under-recognized by the bodies from which libraries are generally funded. Libraries are a powerful and successful tool in supporting creativity and cultural activities and should receive further investment in order to form part of the underpinning services that should be boosted to support creativity and culture in general. Too many libraries are under threat to their funding because the national or local authorities underestimate their contribution to society. Creativity depends on access to creative content: creators build on their predecessors' work. This goes for all kinds of creativity, be it within the information industry, education or research. The internet sets the standard for information access. Most users expect to have the information they need for their work or exploration to be presented to them via their computer.

Research, education and creative work are internationalized. Research is organized in international project groups. For example art and design students are encouraged to supplement their studies with visits to universities abroad, and educational establishments compete for students on a global market. This means that electronic library services need to be able to cross borders, which would technically and organizationally be easy to fulfill.

Improving and supporting this existing library infrastructure across the EU, especially in remote or less-well-funded regions, would create more spaces (both real and digital) for experimentation, innovation and entrepreneurship and would increase access to ICT services – also for individuals and businesses who cannot afford their own.

Public libraries have a clear benefit for society and for the support of creative and cultural activities but must be funded up-front with proper buildings, staff, materials and project funding, not just for digitization but for other cultural services and for supporting and working with other partners.

Libraries buy and create digital cultural content, but access is limited both by contractual agreements with suppliers that restrict access and over-ride exceptions, and by the legal framework that restricts the crossing of national boundaries. Some libraries commercialize their services or self-created content but they tend to be the larger and financially better supported libraries. Commercializing library products and services and identifying potential new business models requires the kind of staff expertise which is currently rare, if non-existing, in libraries. ICTs could be used as drivers for new business models if

libraries could take advantage of staff with the necessary skills to identify potential commercial opportunities and to create business plans for these. Partnerships could be encouraged and librarian training programmes could be envisaged to assist this change in thinking.

Public libraries and innovation

What is innovation, and what is innovative in todays libraries.What do you have to know to became innovator? How to create atmoshere, working conditions amd managerail style to introduce innovative sevices. Innovation in libraries is a new thema in our profesional comunity and belong to the future, but there will be no futute without innovative way of thinking about development of public libraries. Public libraries have always offered information services, and some have offered specialised services e.g. business information, local studies, music, etc. ICT has changed these services exponentially, both in terms of the content and method of delivery. Access can now be provided to information from all over the world, at great speed, via sophisticated delivery channels.

The demanding nature of information work requires trained and experienced staff, and some staff will require specialised and technical knowledge and innovative way of thinking.

The impact of changing information/technology environments is visible in the society and in the library.They have to change toghether.Maker spaces in libraries are the best example how innovation and inspiration toghether with life long learning can existing with clear benefit for users and sitizens.

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PUBLIC LIBRARIES – TRUSTED INSTITUTIONS UNIQUELY PLACED TO PROVIDE ACCESS TO INFORMATION	BEBA STANKOVIC Public Library Ilija M. Petrovic Pozarevac Republic of Serbia

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Abstract: Libraries provide access to information and serve as gateways to knowledge, literacy, cultural development and maintenance of intellectual freedom and civil rights. The right of access to information is the fundamental right. During the 20th century education has become recognized as an individual right, right to personal development and a richer life. Lack of access to information means lack of opportunity, lack of education too.

Often, libraries are the only place where any person, regardless of education or skill level, can have access to information and the internet free of charge. With their existing infrastructure, skilled stuff and mission to connect individuals to information, libraries are uniquely suited to offering public internet access and training to people who would otherwise be left behind in the digital world. Libraries are central to our knowledge economy. Without them, many communities would have no access to technology, study space or tutorial and literacy training.

Public Library "Ilija M. Petrovic" in Pozarevac started putting into practice a project called " Get familiar with the virtual world of computers – become computer literate. " It is a free training for retired and elderly unemployed people. The training is adjusted to absolute beginners who want to learn the basics of computer operating so that to enable themselves for basic usage of information technology – surfing the Internet, finding and saving information both on computers and flash memories , sending emails and using basic free services which can be found on the Internet such as various social networks (Facebook, Twitter…) downloading music and films, watching films, uploading photographs from cameras to computers, using Skype…

At the very beginning, during the promotion of the project, a connection was made with Retired People Organization. It is evident this is one of more significant projects of our library because it represents an effective model of fighting against social marginalization of a complete social group.

Introduction

Nowadays public libraries are essential to success and progress in the digital age. Public libraries are poised to play a leading role in helping individuals and communities adapt to this changing world. Many libraries already are linking individuals to information and learning opportunities, driving development and innovation, and serving as community connectors, they inspire learning and empower people of all ages.

The point of view and tendency of main library goals during the 20 and 21 century has been turned to organizing human knowledge, owing to increasingly fast flow of information and ideas, as well as the need of modern (wo)men for long life learning, keeping in mind a very complex relation between a users and an information provider. With ways of communication being changed, library paradigm is also changing compared to the one in old times – these are institutions where time passes most slowly! On the contrary, thanks to their collections, computerized systems, digitalized texts and using multimedia e- publications, libraries can be, and they are leading information institutions. Well – structured time and carefully selected and offered information imminently destroy bureaucratic work structure. Permanent education of employees, systematical planning of services and programmes, co-operation with other cultural and educational institutions, NGOs impose a more modern trend of managing, particularly oriented to a user, and more active role in society.

"Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media

and regardless of frontiers." (Article 19 of the United Nations Universal Declaration of Human Rights). Right to information is one of basic human rights. It refers to all kinds of information resources: oral, printed and digital. The classroom and the traditional textbook must therefore be supplemented by archives, museums, libraries…institutions offering a broad choice of different media. But mostly, I shall say – libraries! Hence, libraries are central to our knowledge economy. In a society of lifelong learning – whether of a formal or informal nature – public libraries (even the smallest ones) offer guidance to access to the world and quality rating of information sources.

Among libraries we can find diversity and difference but technological innovations and electronic communications are a special challenge of our time, which every modern library practise is an integral part of. Managing cultural institutions has always been a more sensitive and specific area compared to managing other areas. If it is an institution of this type situated in a developing or a transitional country, it makes this process even more complicated. This statement is based on a very understanding of the role and work of cultural institutions (libraries) which are reasonably defined as necessary at all times (no matter how changeable and different it was in the past) with all the specificities of its work, needs and necessary support in all levels in their surroundings, where they work and which they often depend on, although sometimes too much. If we try to explain increasingly complex work of library practise, we can say it is an area of organizing and systematizing human knowledge, and in the process of doing it a whole framework of relations between a users and information is made, having a clearly defined object, methodology and vocabulary.

Serbian librarianship: Public Library Ilija M. Petrovic's Case

And how does it look like in our, Serbian librarianship? During it's, it can be said, very long tradition, libraries in Serbia were thriving especially after the World War II, when they were reestablished and, above all, new libraries of all tipe were founded, most of them being public libraries. Besides school and academic libraries, they were also founded within ministries, institutions, institutes, museums, archives.. There are about 4000 libraries in Serbia nowadays, linked together into unique library-information system.

Public Library in Pozarevac, Ilija M. Petrovic has a long tradition, since it started working as Pozarevac Reading Room on 27th January 1847, only a year after the first Reading Room was founded in Belgrade. Our library has been a regional county library comprising seven municipalities of Branicevo County since 1995 and it has been contributing considerably to the development of library science, both in the region and in the Republic of Serbia. In addition to regular library work, careful attention is devoted to organizing cultural and educational activities, gaining excellent reputation even outside the close surroundings. It has regularly been participating in IFLA (International Federation of Library Federation) world library congresses displaying poster presentations for six years. Among them are*: Transparency, Good*

Governance and Freedom from Corruption (IFLA , SLA and six more libraries, 2010) *It's Your Right to Know – promotion of human and minority rights through more intensive contact of The Protector of Citizens (Ombudsman*) – one of the ways our library becomes a bridge which allows citizens to be adequately informed and provided with specialised support in solving their problems and exercising their rights (started 2011) and the one I would like to talk about is *Get Familiar With the Virtual World of Computers* project.

Public Library Ilija M. Petrovic in Pozarevac started to educate its users in the field of information technology in 2013. At the very beginning, during the promotion of the project, a connection was made with Retired People Organization. It is evident this is one of more significant projects of our library because it represents an effective model of fighting against social marginalization of a complete social group.

The whole project was designed as a course under the name *Get familiar with the virtual world of computers – become computer literate.* The beginners' course was held in the period from 2013 to 2015. After its completion a need for a follow-up course arose so the Library organised the next one in 2015, i.e. IT training for computer users named *Get familiar with the virtual world of computers – become computer literate -advanced course.*

Both courses were primarily aimed at retired and elderly unemployed people. They lasted two weeks each, comprising 6 classes. Work was organised in small groups and each group had two teachers and five attendants.

The syllabus of the beginners' course, which lasted 6 classes, consisted of following topics:

1) Getting to know with basic terms of Information Technology (IT) and Windows surroundings

2) Creating files and folders

3) Microsoft Word – creating new documents, saving and printing

4) Internet basics – information search, downloading files from the Internet

5) Opening e-mail accounts and e-mailing

6) Social Networks, using Skype programme

Beginners' training, aimed at absolute beginners, was attended by 152 trainees.

The training started on 30 September 2013 and ended on 21 March 2014. It was the first group and it consisted of 72 trainees.

The second round of the beginners' course started on 15 September 2014 and ended on 22 May, 2015. There were 60 trainees on the course.

The third round started on 20 October 2015 and ended on 13 November 2015, which was successfully completed by 20 trainees.

Due to interests and requests of attendants who completed the first course and their need to gain new knowledge, the Library organised an advanced course, which started on 30 November 2015 and lasted until 25 December 2015 and was successfully completed by 20 attendants who previously finished the beginners' course.

The syllabus of the advanced course, which also lasted 6 classes, consisted of following topics:

1-2) MS Word-advanced text editing (inserting pictures and tables into the text)

3) Advanced Internet search, finding educational websites

4) Websites for editing/improving photos

5) Online shopping

6) Saving files to memory sticks, transferring photos from digital cameras

In a period of time which lasted a little longer than two years, 172 citizens attended the course of computer literacy. As a result 152 citizens attended the beginners' and 20 of them completed the advanced course, too. After finishing the course all the attendants filled in questionnaires which showed that their reactions were very positive about both the content and the teachers at courses. They also expressed their further interest for new courses in the Library, which is, also, one of very important aspects of our work.

Thus we can see one example of how libraries could be a one stop shop for community development, better say - a place that align people, place which create services that prioritize and support local community goals. Digital economy, as a combination of economy, information technology and digital electronics, is a reality which culture and education are based on, as well as modern, contemporary library practice. Services created in this way are more flexible and precise and are more specific about the receiver location, personalization and long-lasting relation with an individual with a specific name and surname, according to so – called "Martini Principle" – meaning anytime, anywhere and anyhow. At the same time, it is an area where further possibilities should be looked into, such as cultural empowerment and inserting differences in creating cultural pattern, i.e. avoiding cultural standardization. Opportunity for cultural and educational pluralism is being looked for and can be found in the production and circulation of the most diverse cultural and IT goods, libraries being the most convenient due to their various services.

Library practice is not easily defined since constant development of its essential and accompanying elements blurs the outlines of different definitions. Also, understanding our work as hybrid one implies a new usage of collections and resources, systematic planning of services in the widest possible range,

focusing, above all, on users' needs at a larger scale and adapting the very premises and method of work to all categories of the society. The definitions of libraries and of librarians change accordingly. The enormous increase in internet-based communication serves to shift attention to the virtual, as well as the physical library. Digital reference services, free access to large-scale data banks and secure retrieval become vital areas of professional development, and there is certainly more to come in this decisive domain of innovation.

Conclusion

To conclude, working in a cultural institution, such as library, an institution which in its methodology, comprises the widest possible culture production in the society, means putting into practice all cultural activities and events, giving it easily recognizable place and role in the local community. Wherever social community gives a priority to educational and information needs of its member we may find highly developed and respected profession of a librarian and library practice as an important stronghold of empowering strategic cultural and social interests of the society.

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Abstracts

USING IPADS IN HIGHER EDUCATION	VERONIKA NENIČKOVÁ Faculty of Arts Masaryk University, Czech Republic

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Key words: iPad, Higher Education, translation, interpreting, m-learning

Abstract: The use of iPads and tablets has been quite a big topic in primary and secondary education in the past few years. Meanwhile, we know considerably less about using these mobile devices in Higher Education. Do they have their place there at all? In what possible ways can they be used with university students? What would be a truly efficient and meaningful exploitation of the devices?

Since February 2015 teachers at the Faculty of Arts, Masaryk University, Brno, Czech Republic, have had 30 iPads mini at their disposal to use with their students. A year later, we are happy to say that we have identified a range of ways in which iPads can be used with students at the Faculty of Arts that meet our understanding of meaningful exploitation. We are summarizing them in this paper. The summary is particularly useful for other faculties with translation and interpreting studies

MOTIVATION, SELF-REGULATION OF LEARNING AND EMOTIONAL EXPERIENCES IN AN E-LEARNING ENVIRONMENT	THERESA MEINDL, XENIA JUSTUS, AND KLAUS-PETER WILD University of Regensburg, Department of Educational Science

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Key words: Emotion, self-regulated learning, motivation, volition, e-learning

Abstract: An increasing number of universities offers computer- or web-based learning courses. E-learning courses provide flexibility because neither the time nor the place of studying are preassigned. A potential drawback of this approach is, however, that this freedom of action requires students to self-regulate their learning activities. In addition, the preponderence of text-based learning materials and the lack of social interaction might impair motivation and cause negative emotions. When motivation is low, volitional processes are necessary for action control. These processes might be accombanied by, and lead to, different emotional experiences. On the one hand, it seems likely that extrinsically motivated learning activities lead to more negative emotional experiences than intrinsically motivated activities because the person does not act in compliance with her personal needs. On the other hand, the (subjectively) successful initiation of extrinsically motivated activities might result in positive emotional experiences such as pride. The present study was designed to examine the pattern and the process of emotional experiences across one semester, and to identify the influence of motivational orientation and self-regulation. The longitudinal sample comprises 220 teacher students from different universities attending a virtual seminar. Motivational orientation, self-regulation problems (academic procrastination) and emotional experiences (happiness, interest, dedication, satisfaction, pride, overload, frustration, worry, and shame) were assessed throughout different phases of the seminar. Structural equation modelling reveals a significant positive effect of intrinsic motivation on positive emotional experience at the beginning of the course, but when the exam comes closer, there is no significant effect. With regard to negative emotional experiences, there is no significant effect in neither of the phases. However, self-regulation problems were associated with more intense negative emotional experiences and reduced positive experiences in both phases.

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HIGHER EDUCATION DEPARTMENT WORKING ON OPEN EDUCATION PRINCIPLES IN THE LOLLIPOP WORLD	TAMARA KOVÁČOVÁ Coordinator of Open Education project EDUin, o. p. s. (NGO) Czech Republic

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Key words: Open Education, Open Educational Resources, OER, Open Science, Open Data, Universal Design

Abstract: Open education is supported by UNESCO, OECD, European Commission and others. The support of open education is explicitly mentioned in Czech Strategy of Digital Education to 2020 or Strategy Of Digital Literacy. Than plenty of the writing was done but how its implementation can looks in Higher Education(HE) reality? Let us be inspired by different cases how open education can be implemented on certain model HE department.

There are several tips, inspiration and cases from different HE institutions how aspects of open education can be implemented in HE practices. Let try to list of some of them to show up how ideal "OPEN" department at HE institution can looks like and what can happens there.

a. Teachers are aware of Open Courseware and if they find it useful, they use it to support in their teaching.

b. Teachers can share their teaching materials on their own department/university Open Courseware.

c. Teachers and researchers publish primary in journals under public license (egg. Open Access, Creative Commons, etc.)

d. Students can replace one/some of their courses by MOOC.

e. Students are creating OER (open educational resource) materials instead of writing seminar works. (Egg. students are doing translations/editing/publishing Wikipedia articles, create open textbooks/videos/materials for other experts, students, public, etc., publish at journals under public license, and create applications on existing open data sets).

f. Teachers using open data sets for teaching and research activities.

g. Teachers and students share their open data from research – under open research/open science principle.

h. Teachers are recording themselves during teaching. Video recordings are publicly available under public license.

i. Teachers create OER targeting public as well.

j. In using/adopting/creating of OER, recommendations for Universal Design principles are applied.

k. …and some more?

At the moment there are some real practice cases which are showing some parts of implementation of open education principles at different HE institutions. At this presentation we shown many of them to get inspired how practically HE can move towards to open education and make education available for everybody, every time and everywhere. Education is sharing!

| **PUBLIC OPINION SURVEY AS A TOOL OF OPEN PUBLIC EDUCATION: EVIDENCE FROM A QUASI-EXPERIMENTAL DESIGN** | RIDVAN PESHKOPIA, JONIDA LIKA

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Key words: public opinion research, ICT in research, mobile applications, student learning by doing

Abstract: With the introduction of international standards of property rights in Albania in the early 2000s, religious documentaries offered for free to the newly emerged TV private stations substituted for the TV time previously occupied by hacked programs. Combined with country's deep postsocialist crisis, and the revaluation of everything associated with the socialist regime, including its scientific education, those programs seem to have exercised a disproportionate impact on public opinion view toward well-established scientific facts, including the evolution (which mistakenly continues to be referred to as "the Theory of Evolution") That entire religious propaganda, based on the thinking of the contemporary Islamic philosopher Yahja Haroun, tends to attack not only the Theory of Evolution, but also the contemporary scientific method as we know it. Rightly so, most of the contemporary scientists, too busy with their scientific research, have not paid any heed to such a propaganda, perhaps trusting that secular education institutions would carry on such a task. However, to what an extent can scientific information reverse such a negative trend in our society? In order to respond such a question, we are currently implementing a quasi-experimental research design consisting with a pretest and a posttest survey. The main purpose it to statistically analyze data collected and establish models that would explain behavioral change in the condition of fresh scientific information.

LIBRARIES AS GATEWAYS TO OPEN EDUCATION AND INFORMATION SOCIETY	ATHINA BASHA OSCE, Albania

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Key words: Libraries, Information and Media Literacy, Albania, South East Europe, Reading, Youth, Curricula, Life Long Learning

Abstract: In 1974, in his report to the National Commission on Libraries and Information Science, Zurkovski described the traditional relations of libraries and the information industry. He provides examples of situations where the traditional roles of libraries and private sector information activities are in transition.

In the era of open education and information society, libraries and librarians have to change their "frame of reference" to respond adequately to the changes in media and technology and make the best long term use of it. New realities require new skills to navigate, evaluate and use information. Universities, libraries and library associations, collaborating with other institutions and stakeholders, are crucial in assisting all levels of users in using information properly in professional and daily life decisions.

"Mass Open Access Learning…Life Long Learning (LLL), free choice Learning, this is what Library has been about…Libraries are the ideal partner for that sort of movement we see now…Libraries can take the leadership in this transformation in education and open resources and LLL" (Miller 2012).

According to the Recommendations of The Ljubljana, Slovenia (March, 2006) "Achieving an Information Society and a Knowledge-Based Economy Through Information Literacy": Horton (2008), states the following:

To improve the quality and efficiency of education and to develop autonomous lifelong learners…Education at all levels should provide information literacy skills. For the purpose…To provide infrastructure and professional knowledge and leadership for achieving an information literate society, it is necessary to support libraries, librarians, information professionals and their associations. (p. 67).

Regarding South-East Europe, Spiranec and Pejova (2010) relate the following: Despite numerous significant efforts and initiatives that have been taken in the last decade by many international, regional and national organizations for Information Literacy (IL) promotion and advocacy, still, many countries have not made minimal necessary progress in that direction. South-East Europe is certainly one of the regions which are lagging behind overall positive global IL developments (p.75).

(Ex.)The survey has shown, that in Albania the government and its ministries, libraries and universities, lack an understanding of the concept and use of Information and Media Literacy. There are no national strategies, programmes, seminars or IL courses offered or planned to be offered yet, within the various curricula. The concept is often confused with Information and Communication Technology (ICT), and libraries also lack the right infrastructure to support the development of a global knowledge society.

Presenation will bring other examples from International and Regional countries and suggestions for new approaches for countries that lack behind. New library and education strategies and initiatives will be proposed, including the outlining of changes in curricula for further support and advancement.

References

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THE IMPORTANCE OF OPEN EDUCATION	DARCO JANSEN
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Abstract: Our education system of teaching kids to sit in straight rows and obey instructions was designed to churn out a constant stream of compliant adults who will work well within the system of the industrial economy. For several generations, our schools successfully trained people to have a lifetime of productive labor. The idea was simple - Go to school - Get a diploma - Get a job - Work until you qualify for retirement (preferably at the same job) - Retire. And, this system produced excellent results, for more than a century

Nowadays, our society is being fundamentally transformed by the impact of the internet, with rules of doing business being rewritten in one industry after another. The ever-accelerating rate of change is overwhelming the ability of the industrial economy to keep up. Economical, technological and societal forces are disrupting organizational bureaucratic hierarchy, hinting a shift from the old command and control model to the new network model embracing openness, collaboration and relationship building. Digital transformation is one of the greatest catalysts for the evolution of business and society.

Our existing school system demands that we teach things that are certain. Things that are beyond question. Things that are testable. But, the world has changed. Now it's time for school to follow along. Current education system is the last line of defense for the industrial economy. It is high time to abandon a top-down industrial model of education, and embrace a more personal and human approach to learning. The idea for the new education system is not to provide a road map to the students who are ready to follow it, but to teach curiosity and restlessness to the new generation of leaders.

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