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Expert Teachers as Digital Citizens –
The Attitudes of Expert Teachers in the Digital World

In this present paper the Digital Citizenship competency of Hungarian expert teachers will be examined. After presenting different approaches of Digital Citizenship, such as ISTE Standards and Ribble's definition, this paper introduces the model of ELTE PPK ITOK, 2013 where the three elements of Digital Citizenship (Digital presence, Digital lifestyle and Digital productivity) and the usage of Bloom's taxonomy will be presented. That is followed by the introduction of the methodology of Digital Citizenship research 2014 and a few results of Digital presence, consisting of Access, Usage of tools and Communication.

1. Definitions Explaining Digital Citizenship

After the widespread distribution of computer usage and the appearance of technological tools, such as smart phones, e-book readers, and the Internet of Things or smart home devices, the concept of Digital Citizenship emerged at the beginning of the 21st century. To use all of the tools, devices, curiosity about and interest in new technologies seem to be even more important than merely obtaining the essential technological background. The seaparation of the digital world and the real world is impossible, because they are linked and interdependent.

In the digital world competencies are as much requisite as we experienced in our traditional way of learning. As our relationship is tighter with online reality and with each other in digital world, we must build these related competences into our new environment. Building in the competencies is a prolonged procedure, so it is essential to learn it and to teach other people how they can build them in, too.

What kind of competences are we talking about? In the first part of the present study we will provide a review in related theory models while in the second part, concrete results will

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be introduced about the affective domain of Digital Citizenship results of Hungarian expert teachers in the field of Digital Communication, Digital Access and usage of Digital Tools.

1.1 ISTE Standards

For the first time the concept of Digital Citizenship at the ISTE (Informational Society for Technology in Education) appeared in educational documents. ISTE started to renew its standards with the NETS Refresh Project from 2007. The first part of the ISTE Standards focused on students (Ribble, 2008), after that they published a list of suggestions for teachers, administrators, coaches and IT teachers (ISTE Standards, 2012).

The publication for students "NETS.S Advancing Digital age learning" (ISTE, 2007) includes the topics below:

- Creativity and Innovation
- Communication and collaboration
- Research and Information fluency
- Critical thinking, problem solving and decision making
- Digital citizenship
- Technology operations and concept

One of the main novelties here was the appearance of expectations concerning the concept of Digital Citizenship. As the publication revealed, students should understand human, cultural and social background of technology and they should practise legit and ethical habits. The competencies can be measured with standards (Darling-Hammond, 2001; Falus, 2005) which contain the following guidelines in case of Digital Citizenship (ISTE, 2007):

- Advocate and practice safe, legal, and responsible use of information and technology
- Exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
- Demonstrate personal responsibility for lifelong learning
- Exhibit leadership for digital citizenship

The following list was created for teachers in 2008. The ISTE Standards Teachers (ISTE, 2008) contains the references of Digital Citizenship where they state that teachers' most important task is to support students and set up an own example. The main topics of the teachers' standard lists are the following:

− Facilitate and inspire students' learning and creativity

− Design and develop digital age learning experiences and assessments

− Model digital age working and learning

− Promote and model digital citizenship and responsibility

− Engage in professional growth and leadership

As the standards mention, Digital Citizenship's most important expectations of digital equipment usage are:

− Advocate, model and teach safe, legal, and ethical use of digital information and technology, including respect for copyright, intellectual property, and the appropriate documentation of sources

− Address the diverse needs of all learners by using learner-centered strategies providing equitable access to appropriate digital tools and resources

− Promote and model digital etiquette and responsible social interactions related to the use of technology and information

− Develop and model cultural understanding and global awareness by engaging with colleagues and students of other cultures using digital age communication and collaboration tools.

The standards made for educational administrators, ISTE Standards Administrators (ISTE, 2009) as well as for coaches, Standards Coaches (ISTE, 2009) have the same statements: they should provide support to pupils to reach the necessary digital equipment and resources. Moreover, they are advised to take a model role by using their own life experience. The improvement of the standards is in the pipeline. The first set of standards (ISTE Standards for Students) is expected to be published in the second half of 2016, followed by the list for teachers at a later time (Sykora, 2015.08.18.). With the new lists up-to-date guidelines are intended to be created, according to recent technological improvements.

1.2 Ribble: Nine Elements of Digital Citizenship

Mike Ribble, the author of Digital Citizenship in Schools (2007, 2011), declared nine components of Digital Citizenship, which he divided into three groups. The book was written following the recommendations of ISTE. He sorted the competencies into groups depending on their relationship with education (Picture 1.).
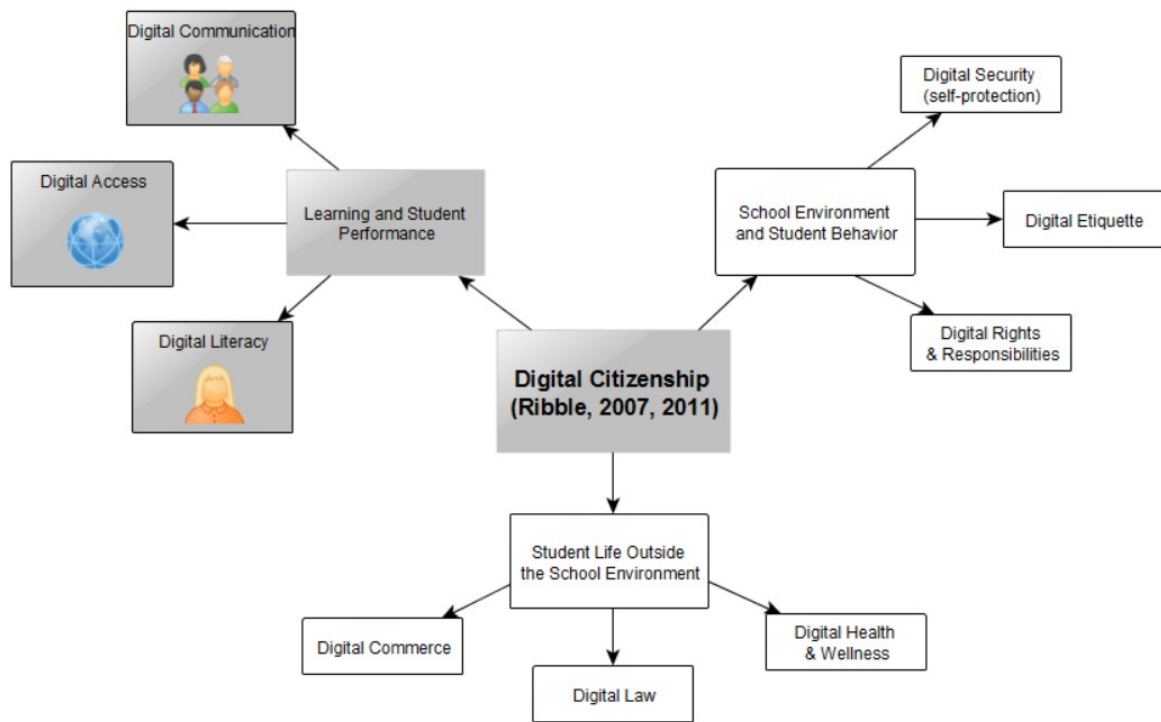
Picture 1. Ribble's model (2007, 2011) as a mind map

Learning and Student Performance:

- − Digital Access: full electronic participation in society.
- − Digital Communication: electronic exchange of information.
- − Digital Literacy: process of teaching and learning about technology and the use of technology.

School Environment and Student Behaviour:

- − Digital Security (self-protection): electronic precautions to guarantee safety.
- − Digital Etiquette: electronic standards of conduct or procedure.
- − Digital Rights & Responsibilities: that freedom extended to everyone in a digital world.

Student Life Outside the School Environment:

- − Digital Commerce: electronic buying and selling of goods.
- − Digital Law: electronic responsibility for actions and deeds.
- − Digital Health & Wellness: physical and psychological well-being in a digital technology world.

Considering the recent survey, Learning and Student Performance is the most important part of Ribble's model, which contains the competences of Digital Access, Digital Communication and Digital Literacy. Ribble uses the same definition already mentioned in his book (Ribble, 2011) and on the website of Digital Citizenship: Using Technology Appropriately (Ribble, s.a.), enhanced with our own thoughts.

Digital Access: Ribble examines Digital Access only from the view of physical access to a tool and the way people use technology. As he says *"technology users need to be aware that not everyone has the same opportunities when it comes to technology"*. Moreover, *"helping to provide and expand access to technology should be goal of all digital citizens"* (Ribble, s.a.). Although, in certain ways we must agree with the author's thoughts, we should consider the fact that technology is improving day-by-day. Therefore, we must create a new definition and reconsider our statement of what we mean when we say access. Is it necessary to have up-to-date equipment to reach the most recent contents? Is it essential to have internet access and devices any time? Ribble collected a few examples which could be Digital Access Issues: Equitable access for all students; Accommodations for students with special needs; Programs for increasing access Outside schools.

Digital Communication: The author compared the present days to bygone and recent past, stating that *"people are able to keep in constant communication with anyone else"* and *"now everyone has the opportunity to communicate and collaborate with anyone from anywhere and anytime"* (Ribble, s.a.). He noticed that the vast majority of students got their cell phones from their parents to keep in touch with them easily. Teachers are in dire straits because they cannot make a decision: Are cell phones, instant messaging, and blogs really inappropriate in schools? Most of the education researchers would say they are not, of course. Although, experts claim that improved technology has quite a number of advantages, modern technology is still rare in Hungarian schools, though the book was published five years ago. Ribble counts the following items as parts of Digital Communication: E-mail, Cell phones, Videoconferencing, Instant messaging, Text messaging, Blogs, Wikis.

Digital Literacy: it is still the most controversial one among the three main topics, which does not just concern casual conversations but also regulation and researchers' discusses. Therefore, *"technologies must be taught as well as how it should be used"* (Ribble, s.a.). Ribble set up a list with a couple of activities that we use in our work, however, schools do not use, for example, videoconferencing or online sharing spaces, such as wikis. In a number of different occupations, workers need *"just-in-time information"*, which requires

sophisticated searching and processing skills. That is the reason why the concept of digital literacy is as follows: *„learners must be taught to learn anything, anytime, anywhere"* and *„need to learn how to use that technology quickly and appropriately"* (Ribble, s.a.).

János Ollé draws the attention concerning Ribble's model to the following: the model does not consider the fact that students are aware of modern technology and they have enormous online experience or that teachers' behaviour is not emphasized sufficiently. Despite that we have to admit that this is the best Digital Citizenship model, so it is a perfect starting point to our research.

1.3 ELTE PPK Information Society Research and Teaching Group's Digital Citizenship Model, 2013

The Information Society Research and Teaching Group at the Faculty of Education and Psychology of Eötvös Loránd University's (short name: ELTE PPK ITOK) proceed to develop Ribble's model in the frames of Digital Citizenship research (2013). We improved the former competence models and connected them with Revised Bloom's Taxonomy. The researcher team set up three competence fields just like Ribble did which after all became completely different (Picture 2.). Our research group created 10 competences to measure the samples (students, teachers, non-teacher adults) − the present study does not include the results of this research. Definitions of the competences were published in several Hungarian studies (Ollé et al, 2013; Lévai, 2014; Czirfusz et al, 2015; Habók, 2015). In this study, we are presenting a list of the most relevant segments of competences as well as the essential definitions which are indispensable to understand the research. As in the present paper merely the results referring to the competence of Usage of digital tools will be presented, no other definition will be explained in details.

Usage of digital tools: Conscious usage of digital and online tools created to support individuals to meet the expectations of the 21st century and contribute to their communication and interactions in a way that results in their being useful and valuable both for their narrower and wider community. This circle of competence also takes the questions *what, how* and *why* into account in connection with the competences belonging to it.

− **Access**: Digital or online participation in social life, working processes as well as processes of how one organizes his/her life. Beyond obtaining technical background, this competence also requires social and personal conditions.

- **Usage of tools** refers to the individual's choice of the most suitable tool for his/her digital activity and also to efficient usage of it in order to create contents of high value for himself/herself as well as for others.
- **Communication**: delivering and exchanging information via digital or online channels either with the purpose of self-expression or sharing information or collaboration.

Digital social hygiene: a conscious lifestyle that considers digital and non-digital environment as a whole, while taking norms and habits accepted by the members of the community into account (Ohler, 2010). Practising it, according to the social standards (Ribble, 2011), represents a safe, legal and ethical behaviour which is at the same time value adding both to the individual and the community.

- Health
- Self-representation
- Cooperation

Digital value creation: In the digital world, autonomous, independent, determined, active, self-conscious and responsible individuals are appreciated. Productivity, at the same time, does not represent a natural or automatic consequence of the opportunities provided by the cyber space. These unique features can be interpreted as opportunities, basic values of democracy or a guarantee for efficiency, nevertheless as a source of problems or threats.

- Content management
- Value creation
- Productivity
- Time management
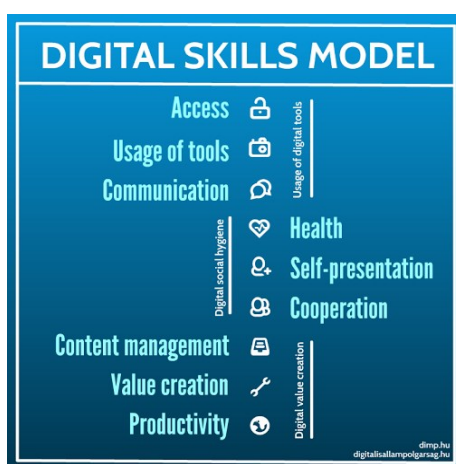
Picture 2.: ELTE PPK ITOK (2013) Digital Citizenship model
Resource: Szabó O.

1.4 Hungarian Educational Authority Digital Citizenship Research Group's Digital Citizenship model, 2014–2015

Expert teachers and teacher consultants participated in the research completed by the Oktatási Hivatal (Educational Authority) in 2014. Database used for this paper was created as part of the research project of high priority "Supporting teacher training" (SROP-3.1.5/12-2012-0001). Applying the results of the former Digital Citizenship research and studying specialized literature, the model was revised. A new name was given to the three competences and several elements of the third competence were changed. Productivity and time management were replaced by efficiency that carries the same features as the prior two competences.

Therefore, this model contains nine competences (the former model contained 10 in 2014) and each group consists of three competences. In consequence, the model published in 2014 (Czirfusz et al, 2015; Habók, 2015) contains the following competences:

- Digital presence
  - Usage of tools
  - Access
  - Communication
- Digital lifestyle
  - Health
  - Self-representation
  - Cooperation
- Digital productivity
  - Content management
  - Value creation
  - Efficiency

The research presented in this paper, were based on a theory model (2014). The results introduced the elements of the digital presence competence in a sample of expert teachers.

1.5 Measuring Digital Citizenship Competences with Bloom Taxonomy Levels

The levels of the competences are based on the Revised Bloom's Taxonomy (Anderson–Krathwohl, 2001). Bloom's Taxonomy is separated into three domains with revealing different levels of expertise.

- Cognitive domain: Remembering, Understanding, Applying, Analyzing, Evaluating, Creating
- Psychomotor domain: Perceiving, Setting, Guided Responding, Mechanizing, Adapting, Originating
- Affective domain: Receiving, Responding, Valuing, Organizing, Characterizing

Within the ELTE PPK ITOK Research Group, then within the Educational Authority Digital Citizenship Research Group, we measured the competences of Digital Citizens with Bloom's Cognitive Domain and Affective Domain (Ollé et al, 2013; Czirfusz et al, 2015). We supposed that cognitive and affective levels could be separated within the Digital Citizenship competences and also that the levels were interdependent. The present study especially focuses on Digital presence and introduces the results of this competence field.

The Affective Domain represents the levels of our relation to emotions, based on our emotions, value system, attitudes and motivation. In the following specification, readers will review the affective levels created by Bloom and his fellow researchers which were completed with the definitions of Digital Citizenship. In this study we introduce the definitions of Digital presence. We considered Bloom's definitions as one of the most important elements of the research (Table 1.), because it was the base of our method being explained in the second part of the study.

Descriptions of Bloom Levels	Usage of tools	Access	Communication
Receiving phenomena Awareness, willingness to hear, selected attention.	Open minded for new technologies, intrigued to choose and to get to know them. Curious to understand how to use the different devices and how to help others handling these tools.	Realizing the possibilities of access and identifying social and technological limits.	Paying attention to the partner's conversation, and being interested in the partner's message. Accepting the existence of digital communication and comprehending the significance of digital communication.

Descriptions of Bloom Levels	Usage of tools	Access	Communication
Responding to phenomena Active participation on the part of the learners. Attends and reacts to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation).	Recognizing the hidden potential of the devices acquiring practice, supporting others and presenting the usage.	Using the possibilities openly, inquisitively and deliberately, taking the lead and support.	Active participation in communication unfold and representing ideas of his/her own.
Valuing The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in the learner's' overt behavior and are often identifiable.	Appreciating the tools, setting up a preference list, reviewing the advantages, accepting and realizing the potentials of using the tools.	Appreciating the chances of Digital Access, accepting and recognizing the technological limits/disadvantages and approving the advantage.	Accepting the common communication norms, is willing to identify with them, appreciating communication creating values and setting up value preferences amongst communication forms.
Organizing Organizing values into priorities by contrasting different values, resolving conflicts between them, and creating an unique value system. The emphasis is on comparing, relating, and synthesizing values.	Systematizing the proper tools as far as his/her skills allow to as well as according to own interests. Identifying tools having functions alike.	Accepting the technological, social and personal limits of Digital Access. Being able to handle the three elements as a whole.	Comparing the forms of Digital Communication (advantages/disadvantages and assessing them) making a consensus, connecting the form of Digital Communication with the situations of offline lifestyle.

Descriptions of Bloom Levels	Usage of tools	Access	Communication
Characterizing Having a value system that controls one's behavior. The behavior is pervasive, consistent, predictable, and most importantly, a characteristic of the learner. Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional).	Using the tools responsibly and deliberately, selecting them effectively and efficiently, and evaluating the tools constantly and consistently while using them in order to make the most out of them.	Consciously reviewing the possibilities of access and being responsible in using them in accordance with one's skills and abilities.	Keeping communication norms, cooperating and forming one's communication consciously and consequently. Trying to create values, reconsidering situations and being able to change habits of communication to make it more effective.

**Table 1.The definitions of Bloom's Affective domain, supplemented
with the definitions of Digital presence**

Our research was based on the theories mentioned above and the results of it will be presented in the following chapter.

2. Methodology

2.1 Questionnaire and Data Collection

The Digital citizenship questionnaire was designed to measure the digital competences of the expert teachers in three different areas, such as Digital presence, Digital lifestyle and Digital productivity, examining both cognitive and affective domains along Bloom's taxonomy. The present paper examined only the affective domain of it, namely, Digital presence, exploring Access, Usage of tools and Communication.

As the affective domain typically explores attitude and habits about the examined topic, most of the questions in this domain were designed as rating scales or semantic differential scales with several exceptional dichotomous questions or multiple choice questions. The questionnaire was constructed using adaptations of measurements from an earlier research, ELTE PPK ITOK, 2013. Participants were asked to answer all the questions, therefore no missing data occurred.

To this study an online questionnaire seemed relevant, as all respondents were contacted via email. The final survey questionnaire was implemented on 26th January, 2015 and data collection continued till 9th February, 2015.

2.2 Respondents

The non-probability sample included 2938 expert teachers of whom 2535 represented classroom teachers while 403 were teachers not directly working in classrooms, such as speech therapists or special needs teachers, for instance.

In terms of demographic questions, 24,3 % (N=715) of the participants were male while 75,7 % (N=2223) were female. As the sample included only expert teachers − which means they need to have at least 14 years of teaching experience −, the majority of the participants were in their fifties with 27 years of teaching experience on average. In terms of places of work, the highest ratio of the expert teachers worked in cities (38,6 %), followed by those who worked in county seats (28,7 %). There were 19,2 % of the participants working in the capital, while the remaining 13,5 % worked in towns, as shown in *Table 2*.

Where do you teach?	*Frequency (N)*	*Percent (%)*
Budapest	564	19,2
County seat	842	28,7
City	1134	38,6
Town	398	13,5
Total	2938	100

Table 2.: Places of work of the respondents

2.3 Variables

Though with the data collected within the survey, we accessed a large scale of variables describing expert teachers' attitudes towards their digital citizenship. The primary aim of the research was to create an objective test where every participant would be able to be compared in each field of Digital Citizenship competences. Based on our definition of Digital Citizenship, it appears that every field of the competence model can be described precisely delimited, which helped us draw up what the expected answers would be for a respondent with high Digital Citizenship competence skills. By using an answer key, variables were

created to show right and wrong answers. Score variables were also computed for each field of competences and for each level of Bloom's taxonomy, as shown in *Table 3*.

Field	Level	Minimum	Maximum
Usage of tool	Receiving	1	4
	Responding	0	6
	Valuing	1	4
	Organizing	1	4
	Characterizing	1	4
Access	Receiving	1	4
	Responding	0	5
	Valuing	1	4
	Organizing	1	4
	Characterizing	1	4
Communication	Receiving	1	4
	Responding	0	4
	Valuing	1	4
	Organizing	1	4
	Characterizing	1	4

Table 3. Obtained minimum and maximum scores

Here stands an example of how the scores were created. On the receiving level of Usage of tool competency we defined a semantic differential scale with four items.

Using digital tool in my work is… *unnecessary* ❏ ❏ ❏ ❏ *indispensable*

Downloading a new mobile application for myself is… *unnecessary* ❏ ❏ ❏ ❏ *indispensable*

When checking other people's Internet habits I am… *disinterested* ❏ ❏ ❏ ❏ *curious*

As for new digital tools I am… *repulsive* ❏ ❏ ❏ ❏ *open*

If the respondents were curious and open, and they thought new applications and digital tools were indispensable for them, they scored 4+4+4+4/4=4 in the competence of Usage of tool, on the level of receiving.

3. Results

In terms of the results received, the highest score to achieve in the affective domain in the competence of Digital presence was 63, consisting of the five different Bloom-levels in three fields. The average score of the respondents equalled 50,503 (std. dev = 5,782), the minimum score gained, was 21,86 while the maximum was 61,3. The respondents' minimum and maximum scores for each field are listed in *Table 4*.

Field	Level	Minimum	Maximum	Mean	Std. deviation
Usage of tool	Receiving	1,250	4,000	2,976	0,538
	Responding	0,000	6,000	5,060	1,139
	Valuing	1,920	3,750	3,097	0,239
	Organizing	1,000	4,000	3,402	0,520
	Characterizing	1,000	4,000	3,230	0,614
Access	Receiving	1,000	4,000	3,483	0,436
	Responding	0,000	5,000	3,180	0,904
	Valuing	1,830	4,000	3,236	0,401
	Organizing	1,000	4,000	3,288	0,591
	Characterizing	1,000	4,000	3,342	0,492
Communication	Receiving	1,000	4,000	3,607	0,452
	Responding	0,000	4,000	2,938	0,820
	Valuing	2,000	4,000	3,109	0,309
	Organizing	1,000	4,000	3,192	0,594
	Characterizing	1,000	4,000	3,362	0,470

Table 4. Observed minimum and maximum scores, mean and std. deviation

Some of the most interesting results of each field are presented in the following chapters as well as some question types are introduced.

3.1 Usage of Tools

The first element of Digital presence is Usage of tools. In Bloom's valuing level of the affective domain, respondents were asked to rank their agreement relating to three statements of four different situations. For each of the situations, two statements described a concern or a benefit of the situation, while the third statement expressed a groundless fear about it.

About half of the expert teachers strongly agreed that using social networking sites required common rules to avoid distraction from learning (46,2 %), and the same ratio strongly agreed that it could stimulate cooperation and communication among students (46,4 %). Only a few respondents agreed strongly that using social networking sites for teaching purposes was indispensable (2,1 %), the bulk of them disagreed with this statement. This part of the questionnaire shows that half of the respondents are open to use a digital tool for teaching purposes yet there may be some concerns about the usage *(Table 5)*.

Using social networking sites for teaching...	*Without common rules it can deprive attention from learning*		*It is indispensable for students*		*It is suitable to stimulate cooperation and communication among students*	
	N	%	N	%	N	%
strongly disagree	151	5,1	1396	47,5	62	2,1
disagree	483	16,4	1028	35,0	348	11,8
agree	947	32,2	451	15,4	1164	39,6
strongly agree	1357	46,2	63	2,1	1364	46,4
Total	2938	100,0	2938	100,0	2938	100,0

Table 5. Usage of tools - valuing level, results 1.

The next question asked respondents to rank their agreement about using online word processor tools. The majority of the respondents are aware of the importance of checking sharing settings (94,8 %), and only 20,3 % thought that it is complicated to sign in. Respondents gave divisive answers about formatting options; 44 % agree that there are fewer

formatting options in an online tool while 56 % disagree with this statement. In our opinion, this depends on which tools we are using. A Notepad may not provide as many formatting tools as Microsoft Word, and when comparing Google Drive Documents to Microsoft Word it is obvious that the latter one would win *(Table 6)*.

When editing a document online...	It is important to check sharing settings		It is complicated to sign in the online word processor		There are fewer formatting options than in a traditional word processor	
	N	%	N	%	N	%
strongly disagree	26	0,9	1329	45,2	534	18,2
disagree	126	4,3	1014	34,5	1111	37,8
agree	412	14,0	505	17,2	891	30,3
strongly agree	2374	80,8	90	3,1	402	13,7
Total	2938	100,0	2938	100,0	2938	100,0

Table 6. Usage of tools - valuing level, results 2.

In terms of Internet commerce, respondents were very optimistic *(Table 7)*. The majority (95,6 %) agreed that shopping online could save sometime and 81,3 % agreed that reading the rules and descriptions was important in order to avoid being misled. Only some respondents thought that Internet commerce might provide poorer quality of the products (16,1 %).

Internet commerce...	It can save you time		Without reading the rules and descriptions, we can be misled easily		Sells goods of poorer quality	
	N	%	N	%	N	%
strongly disagree	21	0,7	108	3,7	1437	48,9
disagree	109	3,7	439	14,9	1027	35,0
agree	502	17,1	918	31,2	427	14,5
strongly agree	2306	78,5	1473	50,1	47	1,6
Total	2938	100,0	2938	100,0	2938	100,0

Table 7. Usage of tools - valuing level, results 3.

In terms of paying invoice online, a quite optimistic attitude was delivered by the respondents *(Table 8)*. While a small ratio (13,4 %) thinks that it can be dangerous financially, the majority are aware of its advantage, such as the lack of necessity of personal administration (89,2 %). Besides knowing the advantage, respondents still think that paying invoice online demand precision and accuracy (95,5 %) what we can agree with.

Paying invoice online...	*It is dangerous financially*		*It can replace our personal presence*		*It demands precision and accuracy*	
	N	%	N	%	N	%
strongly disagree	1922	65,4	146	5,0	28	1,0
disagree	624	21,2	173	5,9	106	3,6
agree	316	10,8	375	12,8	352	12,0
strongly agree	76	2,6	2244	76,4	2452	83,5
Total	2938	100,0	2938	100,0	2938	100,0

Table 8. Usage of tools - valuing level, results 4.

As Bloom's valuing level is based on the internalization, examining the above questions helped us understand not only the attitude of using digital tools, but also respondents' knowledge about these tools, which at the same time assumes the usage of the tools to some degree.

3.2 Access

While examining the second element of Digital presence, not only the physical access to digital tools, but other boundaries, such as repulsive attitude or the lack of help with digital tools are studied.

Bloom's responding level of the affective domain was examined with a question where expert teachers were asked to choose one of two possible reactions in a certain situation. While several of the situation's referred to the school or pupils, others referred to the teacher's private Internet access.

The bulk of the respondents chose the same options for three of the questions. They would help students find the computer room (95,8 %) instead of convincing them to avoid

Internet (4,2 %). They would ask their class to help finding a solution with a freezing video (86,4 %) instead of postponing watching it (13,6 %). And they would try to find a solution with the help of a computer's troubleshooter (94,1 %) instead of calling someone's help (5,9 %) *(Table 9)*.

One of your students cannot connect to the Internet in his/her home.	*N*	*%*
I try to convince him/her that Internet is not necessary for everyday living.	124	4,2
I show him/her where the computer room is in the school.	2814	95,8

You would like to play a video on the Internet in your lesson but it keeps freezing.	*N*	*%*
I ask my class if they can help me solve the problem.	2537	86,4
I postpone watching the video.	401	13,6

You need to send an email from your computer but you cannot connect to the Internet.	*N*	*%*
I call someone who could help me fix the problem.	173	5,9
I start the troubleshooting application of my computer.	2765	94,1

Table 9. Access - responding level, results 1.

However, the other two questions resulted in different answers. In one question expert teachers had to decide what they would do if they were not able to connect to a news site because of connection problems. The majority would try to find open wifi access nearby (59,4 %), although 40,6 % of the respondents would buy a newspaper instead. With the emerge of free wifi connections provided by shops, pubs, cafés and other providers, it is getting an easy and effective way to help ourselves *(Table 10)*.

You cannot connect to the news site. What would you do?	*N*	*%*
I buy a newspaper.	1193	40,6
I check for open wifi access nearby.	1745	59,4

Table 10. Access - responding level, results 2.

Having wifi access at school seems to be a divisive question as well. While 55 % of the respondents would choose to have open wifi access in their school, allowing students to use it, 45 % of the respondents would rather have protected wifi access which cannot be used by the students. A digital citizen should be aware of the fact that having access to digital tools and Internet connection is not always enough to fit into the definition of being a responsible digital citizen. Besides, helping others to have access is particularly required *(Table 11)*.

Would you choose to have open wifi access or a protected one at your school?	*N*	*%*
I prefer open access (where students can use wifi, as well).	1615	55,0
I prefer protected access (only teachers are allowed to use wifi).	1323	45,0

Table 11. Access - responding level, results 3.

Students connecting to the Internet at school may be disagreeable for teachers who do not often use digital tools as a purpose of teaching and who may think that Digital Access at school is unnecessary. Examining these questions, it clearly emerges that the teachers for whom it is not important to provide students the conditions of connecting to the Internet (p=0,000) prefer protected access *(Table 12)* and those who are more open to use digital tools on their lessons (p=0,000) rather prefer open access *(Table 13)*.

It is important for me to provide my students with the conditions of connecting to the Internet.		Strongly disagree	Disagree	Agree	Strongly agree
Would you choose to have open wifi access or a protected one at your school?	I prefer open access (where students can use wifi. as well)	38,0%	36,2%	51,7%	65,0%
	I prefer protected access (only teachers are allowed to use wifi)	62,0%	63,8%	48,3%	35,0%

**Table 12. Wifi access comparing to providing the conditions of Internet connection**

While using digital tools on my lessons I am...					
		Repulsive	Rather repulsive	Rather open	Open
Would you choose to have open wifi access or protected one at your school?	I prefer open access (where students can use wifi. as well)	41,7%	40,0%	51,5%	57,7%
	I prefer protected access (only teachers are allowed to use wifi)	58,3%	60,0%	48,5%	42,3%

Table 13. Wifi access comparing to the usage of digital tools on a lesson

3.3 Communication

In terms of digital communication, Bloom's characterization level will be presented. Characterization is the highest level of the affective domain. It is about the internalized values, which can be examined by attitude questions. Respondents were asked to rank their agreement of six different statements about digital communication. One of them referred to their students, while the rest referred to their personal habits of digital communication. As these questions were self-assessment questions, limitations need to be considered when examining the result *(Table 14)*.
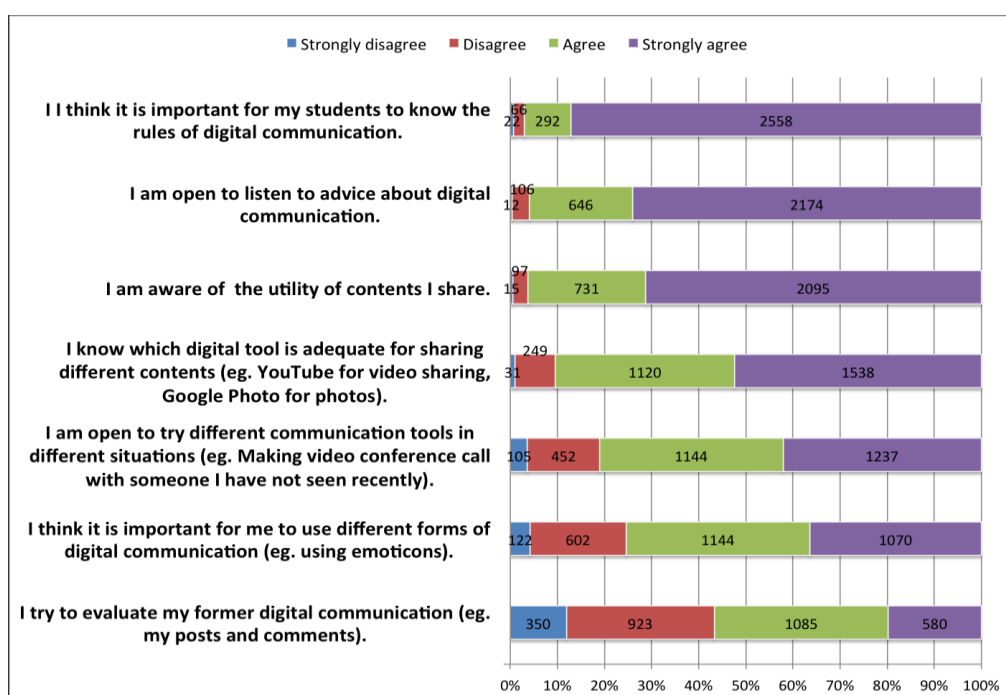
Table 14. Digital communication, characterization - results

The utmost agreement was given to the question about the students where 97 % of the expert teachers agreed that it was important for the students to know the rules of digital communication. However, 56,6 % of the respondents agreed to evaluate their former digital communication, only 19,7 % agreed with this statement strongly. According to the results, respondents seem to be well-informed about the possibilities of usage of different digital communication tools.

4. Conclusion

The present paper proved that most of the examined expert teachers reached high scores in the field of Digital presence competency, accordingly, they were open to Digital Tools, Digital Access and Digital Communication.

According to the results, respondents are intrigued in social networking sites, editing documents online, using internet commerce and paying invoices online. Expert teachers participating in the research claimed that people should be aware of the rules and follow them while using the tools.

In terms of the competency of Access, teachers are gladly willing to help students to have access. Sometimes teachers are in need of help, and in this case they are open to accept their students' advice. Still, examined teachers prefer newspapers to reading news online and 45% of the sample would choose to have protected wifi in their school which is not available for students. It can be concluded From the analyses that those who are more open to use digital tools in their lessons rather prefer to have open access.

As for Digital Communication, the vast majority of the examined expert teachers state that knowing the rules is the most important element. On the other hand, it is less important for them to use different forms of digital communication or try to evaluate their former digital communication.

Summarizing the results above, it emerges that expert teachers are inclined to use digital tools, yet in certain situations they prefer the traditional way. The actual use of digital tools could be revealed by examining the cognitive domain of our research.

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