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School relations and online activity – Internet vs. social participation

Introduction

According to the data from 12.04.2018, provided by the Ministry of Science and Higher Education in the Science in Poland portal, one in five teenagers (about 20% of the teen population) is addicted to access to information (Tomczyk, Selmanagic-Lizde, 2017). This addiction may take different forms, from online shopping, through gaming, to online gambling. Another interesting phenomenon is the so called fear of missing out (FOMO). This should alert teachers and automatically evoke questions how can we use this fact and turn this, somehow, pedagogical failure into a success. One of the frequently discussed issues is the change in participation culture and social participation, based mainly on the potential of new information and communication technologies (for example, Stunża, 2018). When mentioning the participation culture, we use the definition by Jenkins (2008), that it is a culture where fans and other consumers are invited to active participation in creating and redistributing the new content. In the context of popularity of social networked services and group relationships built via them between members of a "meeting" in the new media space, Stachura and Stunża (2016, p. 8) write about individualism *built on own paths of reading during hipertextual wandering through information nodes.* This may be a threat to the *development of culture in the spirit of wide access, joint participation and information exchange.* The above mentioned authors see this situation as a barrier for social interactions and, referring to selected scholars, they point out that real participation requires many conditions to be met (Jenkins, Ito, Boyd, 2015), such as ability to understand social situation in order to be able to engage constructively, ability to initiate contacts or deal with negative comments in the Internet. Media can play a significant role in education and socialization process. The more so, as they provide entertainment and enable social contacts. For 86.45% of the young people, access to movies and music is important, and 94% have their profiles in social network services. Stunża (2018) argues that digital technologies may facilitate peer relationships and respond to young people's needs in this area: many people cannot understand that young people want to be in touch constantly, and digital technologies enable them to do exactly that. The so called "fear of missing

out", seen by some as a disease symptom, is something completely normal if we consider the nature of teenagers and access to instant communication technologies.

Digital technologies transformed relations among students, between students and teachers, students and parents, and parents and teachers. The way teachers and students communicate must follow the development of new communication channels, and must do so in the atmosphere of trust and openness to changes. However, James E. Ford (2017) writes: *Teachers don't respect relationship-building as an important part of their praxis*. Traditional schools that focus on achieving the learning objectives, have got lost in the jungle of competency tests, popularity rankings and external evaluation. There is no place there, to develop relationships, empathy and culture of participation. But in these traditional schools everyone has a smartphone in their pocket, and this smartphone is no longer just a phone but a "human extension" — a repository of knowledge (links and training resources), contact directory and a set of tools to build one's identity. Ban on smartphones in schools means forbidding students to be themselves and forcing them to become someone else; someone who is not a subject but only a cog in the factory production supervised by the school. At the same time, many teachers complain they are not able to teach anymore because "phones have become a real plague". Students just wait for the teacher to turn away for a moment, to take their phones and use them. They are concentrating on social networks instead of knowledge they are being taught. André Giordan (2018) asks: *Are there "good" reasons to forbid smartphones in schools completely?... Why should we get anxious, concerned or even scared? What if we look at this tool again? Why not make it an object of our studies instead? Or maybe, we will include smartphones in school curricula...? Working on free social networking services is a great way to understand the times we live in.* Giordan emphasizes that new technologies allow students to cooperate as they publish and design digital content to complete their educational projects, they also enable interactions via online messaging tools. He also mentions workshops which help to develop right attitudes towards the risk connected with new technologies. Both, teachers and students, have to ask themselves about the meaning and importance of information. Who is the author of information? Why? What are the problems? Information control is an important objective of modern education. There are many good applications which may serve educational purposes (Potyrala, 2017). New technologies may be a pretext for questioning changes, or even progress, in the society. What has been changing? If technological progress is to improve the society, then what is the role of smartphones? What are the limitations? And what about saving our planet? Another question refers to the shift in attitudes towards success and fame. Some Youtubers every day gain international popularity which would never be possible without these new technologies. Are they heroes because they have millions of "posts" and "likes" in the Internet? (Giordan, 2018).

In the discussion about modern school, traditional school is often presented by referring to the Prussian school model. This bipolar approach shows that school is often looked at in extreme categories. In this case, both extremes have mainly opponents and, surprisingly, it seems that modern school, associated with new media, has more of them. This results from the fact that tools are viewed as strategies

and methods, and we forget that tools (educational media) are only the means to implement strategies and methods, not educational objective in itself. Just like the goal of having smartphones is not to carry it in our pockets or even dialing a contact numbers, but to initiate communication.

In this context, Stefan Hrastinski from the Uppsala University proposes an interesting approach based on the theory of online education as online participation. He begins with the common belief that the key e-learning challenge is to encourage students to learn. He analyzed the concepts and research approaches, which underlie the research into participation in the Internet by investigating e-learning settings. He came to a conclusion that the research are dominated by low-profile concepts of online participation, which are based on frequencies as indicators of participation. However, some researchers focus on studying more complex dimensions of participation, for example, whether users feel they take part and engage in a dialogue This is reflected by combining perceived and real measurements of participation. To summarize, there is a definition of participation in online learning, which covers its more complex aspects such as doing, communicating, thinking, feeling and belonging. Hrastinski suggested an initial theory of online learning as online participation. He thinks participation in online learning is, among others, a complex process of participating and maintaining relationships with others. The consequences of this theory are simple: if we want to improve online education, we must increase online participation.

Based on his previous reflections, he began to train tutors in online participation. Teachers play the key role in e-learning and, in addition to their expertise, they have to have the proper set of skills. The research conducted by Hrastinski showed that teachers face the following challenges: balancing private activities, reflection upon their tutoring skills, social activity and communication with students. Carol K.K.Chan i Yuen-YanChan (2011) conducted a study on students' opinions about their online collaboration. Their analyses showed that students who believed their activity was more adequate to build knowledge based on collaboration, more often exercised a deep approach to learning. There was also a correlation between students' views of collaboration and their effective participation in the Internet. We need to emphasize that during the last 20 years, social participation of young people has been growing in importance, what is reflected in the scientific literature, as well as among the decision-makers. Active participation of youths in their social and civil behaviors is, by default, viewed as a sign of positive development and well being of young people, and promotion of these behaviors has become the main goal of youth policy in different countries (Cicognani et al., 2008).

Methodological assumptions of the research

The goal of the research was to investigate how do teachers and students view the possibility of co-creating the culture of participation through engaging in educational-social projects, thanks to the new information and communication technologies.

The survey focused on the following research problem: According to teachers and students, to what degree does virtual environment used in school didactic process contribute to estblishing a communication platform between students and

teachers, to help them engage in educational and social activities? In the context of the theoretical background presented above, an interesting hypothesis is that mobile devices may facilitate building the platform of communication between students and teachers, so they can engage in educational projects and social activities together. We have formulated this hypothesis on the basis of the previously quoted research results indicating that students use mobile devices to support, share and organize their complex identities. If we fail to understand this and meet students half way, the present educational system will continue to disturb relations between different groups of formal education participants. However, we have also assumed that teachers are not really willing to take up the challenge of teaching in the virtual environment. We verified this hypothesis using the method of the diagnostic survey and the questionnaire technique. The survey was conducted among 400 students and 400 teachers from upper secondary schools.

It focused on 3 following aspects:

1) forms of participation, like: preparing information materials, developing project principles, project implementation, engaging in activities for the local community, contact/communication with the teacher during work on the project, popularization of knowledge about the project, preparation of evaluation tools, presenting the project results, efforts to maintain the project sustainability;
2) participation spaces: real and virtual environment;
3) participatory behaviors: reactive, pro-social, anti-social, organizational, cognitive, passive, aggressive, assertive, impulsive, compulsive.

Each respondent was asked to evaluate, using the Lickert scale (1-7), to what degree do mobile devices used in school teaching process contribute to establishing a communication platform between students and teachers, to help them engage in educational and social activities. To ensure that all statements in each category measure the same construct (internal consistency of declarations), Cronbach's alpha for each category was calculated (understanding: alpha = 0.80, acceptance: alpha = 0.82, accuracy: alpha = 0.89). All values show acceptable levels of reliability, alpha = 0.7. The level of understanding, acceptance and accuracy of the statements turned out to be representative for all the students and teachers, who participated in the survey. This determined the use of the research tool. The tool was based on the modified social presence scale, originally developed by Gunawardena and Zittle (1997). Independent variables were modified by extension, in order to focus on the perception of the process of learning social activities during implementation of projects by students and teachers.

In this research, a correlation model was used. Continuous variables included teachers' and students' view of online learning by students and their social presence (participation). One of the project limitations was the fact, that while the correlation method may describe dependiencies, it cannot identify the causal relations between the correlated variables. Pearson's correlation coefficient (r) was used to determine to what degree the variables are interdependent. An absolute negative correlation was assumed for the values from -1, through 0 (no correlation), up to +1 (absolute positive correlation). We checked how answers in one category may be connected with the answers in other categories.

Open-ended questions were asked after the second part of the questionnaire. The students were asked which participatory activities with the use of new media are the most beneficial to their relations with one another and with their teacher. Teachers, in turn, answered the questions about the indicators of "real participation" of students in the social life mediated by new media. In total, we have analyzed 400 answers given by the students and 400 answers given by the teachers to 4 open-ended questions.

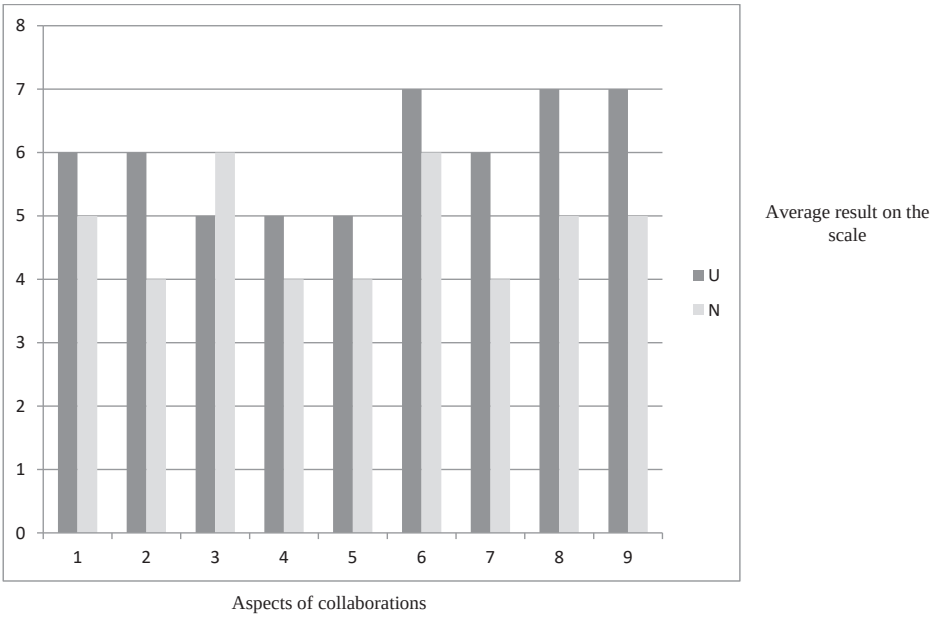
Results

The research results indicate the following dependencies (Graph 1):

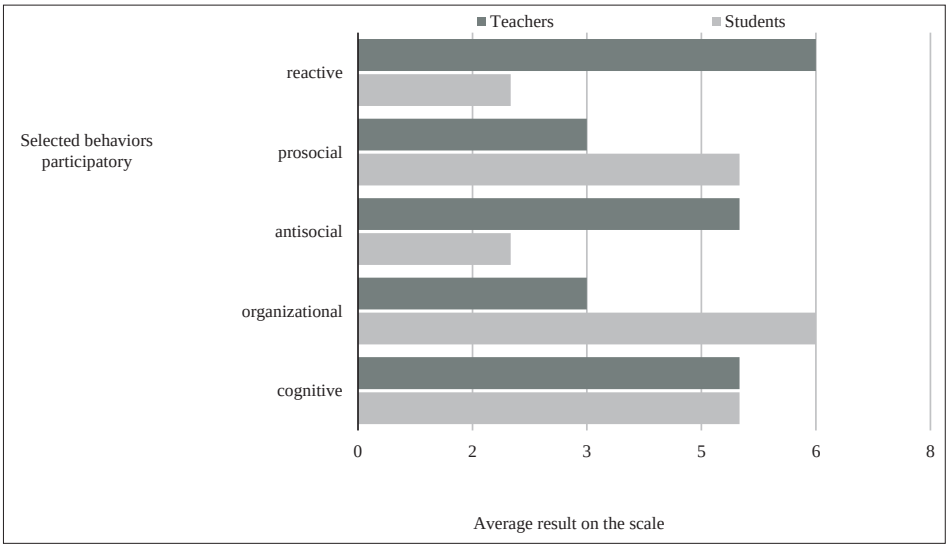
- teachers and students positively evaluate the role of new media in preparations of project information materials,
- the majority of the respondents think that developing project hypotheses must be supported by new media,
- most of the teachers think that project implementation does not depend on new media, whereas the majority of the students think otherwise,
- online activities for the benefit of local communities are evaluated positively by most of the students, and negatively by most of the teachers,
- communication with teachers during collaboration on the project is evaluated positively by all the students, but only by half of the teachers,
- the use of new media to promote the project is evaluated positively (the majority of positive opinions among the teachers),
- students evaluate preparation of project evaluation tools positively, whereas for most of the teachers it does not matter,
- presentation of project results and activities to maintain the project sustainability by using new media is very highly rated by all the students, and viewed as neutral or negative by the majority of the teachers,
- none of the teachers sees the need to use new media in their didactic work in the real environment; students rate such possibilities exclusively as 5-7 in the scale (positively).

In terms of participatory behaviors, the results were as follows (Graph 2):

- reactive behaviors (stimulus-response) are, to a large degree, associated by the teachers with new media,
- pro-social behaviors facilitated by new media are only recognized by the students; teachers see new media as the source of anti-social behaviors,
- organizational behaviors supported by new media are rated higher by the students than teachers,
- cognitive behaviors are evaluated highly by both groups,
- according to the teachers, new media promote passive and aggressive behaviors (as for the latter, students declare the same),
- students think new media teach assertive behaviors (teachers think otherwise),
- teachers think new media teach impulsive and compulsive behaviors (students think otherwise).



Graph 1. Evaluation of the forms of joint participation in projects by teachers and students.
1-9 Investigated aspects of collaboration:1 - preparing information materials, 2 - developing project principles, 3- project implementation, 4 - engaging in activities for the local community, 5 - contact/ communication with the teacher during work on the project, 6 - popularization of knowledge about the project, 7 - preparation of evaluation tools, 8 - presentation of the project results, 9 - maintaining the sustainability of the project.



Graph 2. Evaluation of participatory behaviors by teachers and students.

The level of acceptance of the virtual environment by the teachers does not correlate (r=0.6) with the possible forms of joint participation in project activities and participatory behaviors in the virtual environment (Table 1).

By default, teachers deny the value of virtual environment as educational environment, even though they recognize it enables building relationships between participants of pro-social projects in the Internet.

Table 1. Level of acceptance of the virtual environment by the teachers (A), in connection with possible actions enabled by the Internet (B1-B3). Expressed as an average degree in Lickert scale (L) and Pearson's correlation coefficient (r).

Level of acceptance of the virtual environment by the teachers (A)	Level of acceptance of the Internet as an environment facilitating pro-social activities (B1).	Level of acceptance of online communication during teacher's and student's work on the project (B2)	Level of acceptance of activities connected with implementation of the project in the virtual environment (B3)	r
L= 3.5	**L=5,5**	**L=5**	L=5,5	r=-0,6

During the analysis of evaluation of participatory behaviors by teachers (N) and students (U), correlations between answers in different categories were determined. It turned out that the highest correlation coefficient (positive correlation) and, simultaneously, quite strong dependence were found for teachers' view of: cognitive behaviors in the virtual environment and reactive, stimulus-response behaviors (r=0.7), and passive and anti-social behaviors (r=0.9) in the Internet. The survey also revealed (**Table 2**) that students with high general view of social participation got high results as for the need to act for the benefit of social environment by using the opportunities provided by new technologies (r=0.8). In addition, the general perception of social presence by students contributed significantly to prognostic reasoning regarding the general view the students have of participatory activities expressed as online interactions, individual engagement in the project and popularization of project ideas.

Table 2. Students' view of social online participation through (A), expressed by average degree in the Lickert scale (L) and Pearson's correlation coefficient (r), and students' needs to act for the benefit of social environment and online interactions during project implementation (B1-B3).

Students' perception of social participation through the Internet(A)	Students' needs regarding activities for the benefit of the social environment (B1)	Students' needs regarding social interactions with online content (B2)	Level of acceptance of activities connected with implementation of the project in the virtual environment (B3)	r
L= 5	L=5.5	L=6.5	L=5.5	0.8

The average value for declarative social participation through new technologies during the work on social projects was 5 in the seven degree Lickert scale (1 =

I strongly disagree, 7 = I strongly agree, 4 = I have no opinion). The analysis showed the correlation on the level 0.8 ($p<0.01$), which means that students recognize the potential of virtual reality and their own opportunities to engage in social activities in this environment (absolute positive correlation).

Qualitative data gathered from the open-ended questions confirm the results obtained from the quantitative data. Table 3 shows the frequency and percentage values for the open-ended questions where students listed activities which support the most their relations with one another and with their teachers. Table 4 presents the frequency and percentage values for the open-ended questions in which teachers identified the indicators of "real participation" of students in the social life mediated by new media.

Table 3. Frequency and percentage values in the open-ended questions (4) where students identified (n=400) activities which support the most their relations with one another and with their teachers.

Activity	Frequency	%
online activities for the benefit of local communities	135	34
communication with teachers during collaboration on the project	133	33
maintainin the project sustainability	82	21
- implementation of a group project	50	12
Total	400	100

Table 3 shows the activities which, according to the students, support the most their online learning. These activities are viewed as beneficial in the area of building relationships in the school. Number one is online activity undertaken to benefit local community, second is communication with the teacher during collective implementation of the project.

Table 4. Frequency and percentage values collected from the open-ended questions (4) with teachers' declarations as for the indicators of "real participation" of students in the social life mediated by new media.

Participation indicators	Frequency	%
- understanding the social situation	208	52
- ability to initiate interactions	40	10
- ability to deal with negative online opinions	88	22
- active engagement in social affairs	64	16
Total	400	100

The analysis of the frequency of answers given by the teachers to the open-ended questions (Table 4) indicates that for the majority of them, the sign of real participation in social activities in the virtual environment, is when students understand the social

situation. Then there were *ex aequo*: ability to deal with negative online opinions and active active engagement in social affairs.

Discussion and conclusions

The study confirmed that social participation is viewed as positive by youths who recognize new opportunities provided by the online tools to initiate and engage in certain activities. According to Richardson and Swan (2003), direct conduct of teachers and the presence of other people are particularly important issues for people engaged in online education. Therefore, teachers' skepticism expressed in the survey does not inspire optimism when it comes to students' view of learning and satisfaction from collaboration with teachers. Despite collective social interaction with online content, social participation means individual involvement of each member of the social group, which is the highest level of development leading to social presence. Slightly lower on the list will be the individual interactions in the Internet, that serve social purposes, or individual interactions enabled by the Internet (Potyrala, 2017, p.293). The surveyed students declare they want to engage in such activities. We need to agree that educational community is on the brink of new age of online learning. Online learning is promoted as more cost-efficient and comfortable than traditional educational environment. It also provides more opportunities to continue education (Richardson i Swan, 2003, p. 67). Social presence theory, a sub-area of communication theory, postulates that a critical factor of a communication medium is its "social presence," which is defined as the "degree of salience of the other person in the (mediated) interaction and the consequent salience of the interpersonal relationships". Today, we can confirm that modern communication media are interactive media that significantly affect interpersonal relationships.

Cicognani and his team (2008) studied relation between social participation and sense of community among young adults, and the impact both of these variable have on the social well being. Hughey et al. (1999) argued that participation strengthens the sense of community. Social participation offers the opportunity to nurture social bonds with people outside their families and peers from different environments, and thus, helps them to find their sense of belonging and reinforce their social identity and identification processes (Cotterell 1996). In our survey, the students declare their willingness to collaborate. It seems that teachers too, once they overcome their biases regarding the possibility of real involvement of the students online, would be willing to use online environment to improve mutual relations during project implementation. McMillan and Chavis (1986) proposed z four-dimension model of social participation, with the following components: membership, influence, integration and fulfillment of needs, and shared emotional connection. Membership refers to the sense of being part of a community, and identification. Influence is the individual opportunity to participate in social life, individual contribution to mutual relationships. Integration and fulfillment of needs refers to the benefits people draw from their membership in the community. Emotional connection is based on the awareness of shared history, and bonds develop with time thanks to positive relationships with other community members.

In general, students have positive opinion about the role of IT tools in creating the space for relationships during work on educational projects. Teachers' view is slightly different. However, based on the result obtained, we can conclude that mobile devices and virtual environment may facilitate establishing the platform of communication between students and teachers, so they can engage in educational projects and social activities. It is possible under the following conditions:

- teachers and students must recognize the opportunity for collaboration by means of new media, not only for information and promotion purposes, but also:
  - during completion of shared educational tasks,
  - during implementation of projects focused on out-of-school community, or groups gathering individuals with common interests or cognitive goals,
  - to build trust between teachers and students, and develop relations that facilitate communication regardless of the communication tools used,
- teachers must improve their information competencies
- teachers must increase their level of the following competencies regarding digital tools which may support students participating in projects:
  - combining new and old media in the educational process,
  - development of competencies in the area digital pedagogy,
  - development of social competencies in the context of IT,
- development of education regarding responding to aggressive online behaviors and online behaviors in general,
- development of new media didactics that would include not only the methodology of teaching but also teacher-student, student-student etc. relations. We need new didactics that addresses educational objectives in terms of interpersonal relationships, communication and teaching the science.

Feedback and engagement are critical here as social interactions are very important for people. Our survey leads to a general conclusion that students view the presence of other people (friends and teachers) in their educational experience as important part of this experience. For them, virtual environment is a natural space for collective pro-social activities. School should use these abilities, as they are considered critical in the knowledge-based society. It should not ignore students' needs regarding the ways of learning and building relationships.

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School relations and online activity - Internet vs. social participation

Abstract

Using new technology tools in education process and presence of smartphones in schools raises many controversies. Addiction of children and youth to information and social networks is often emphasized. FOMO and different forms of bullying are the relatively new phenomena. Authors of the paper discuss the possibilities of using information and communication skills in school practice, asking to what degree mobile devices used in school didactic process contirbute to building a communication platform between students and teachers, to help them engage in educational and social activities. Method and technique used to verify this hypothesis were diagnostic survey and questionnaire. A seven-point Lickert scale was used, together with a survey questionnaire with open-ended questions, addressed to students and teachers. The sample consisted of 400 students and 400 teachers from upper secondary schools.

The study focused on three aspects, such as forms of participation, areas of participation and participatory behaviors of students. The results show relations between the way teachers evaluate participatory behaviors of students and how they view the forms of joint participation in projects. As for students, there is a high correlation for general perception of social participation and the need to act for the benefit of social environment, using the opportunities provided by new technologies. The research results are discussed based on the subject matter literature. They can support the idea of education supported by mobile devices and ambition to build stronger relationships in schools, both between teachers and students, and between students.

Keywords: school relations, Internet, youth, ICT in education,

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