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Research on iGEN generation among students from Radom[1]

Badanie generacji iGEN na przykładzie radomskich studentów

Key words: iGEN generation, smartphones, global network.

Słowa kluczowe: pokolenie iGEN, smartfony, sieć globalna.

Streszczenie. W pracy przedstawiono charakterystykę generacji iGEN w oparciu o badania studentów I roku. Są to najstarsi przedstawiciele pokolenia użytkującego od najmłodszych lat smartfony i funkcjonującego w sieci globalnej. W badaniach tych chodziło nie tylko o diagnozę ich posługiwania się urządzeniami IT, ale również o ich jakość życia, stan psychiczny i samoocenę.

Introduction. The transformations related to access to the latest technologies, especially mobile technologies, concern different generations in time. The generation born about 20 years ago is treated as the one that in principle has always been able to use devices that have permanent access to the global network. At present, this generation known as iGEN completes the stage of school education and starts studying. It is interesting to identify the changes that occur in this generation, against the background of previous generations. It is also important whether excessive use of IT devices produces positive or negative effects. How much increased virtual contacts, at the expense of direct (real) relationships affect the quality of life of young people, or when they function like this they can feel happy and fulfilled.

The genesis of study. The impulse to address this issue, as well as conducting pilot studies among the youngest students of Radom was the publication of the book „iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy and Completely Unprepared for Adulthood – and What That Means for the Rest of Us" by Jean Twenge in August 2017. This book caused a discussion on the Internet, and provoked the author of this study to set up question whether similar effects as among Americans occur among Polish youth.

[1] Przedruk: E. Sałata, A. Buda (red., 2018), *Edukacja, technika, informatyka w budowaniu lepszej przyszłości*. UTH Radom.

Based on the interview given by Jean Twenge, (https://www.youtube.com/watch?v=E8oBrmlIZe8&t= 29s; access December 15, 2017) generation iGEN are young people born in 1995-2012, who always had their phones and tablets at their disposal and have always been active in social media. They present a different lifestyle than their predecessors from couple of years ago. They are not interested in getting a driving license as soon as possible, or an additional summer job. They sleep less, but also postpone sexual initiation, they are less interested in alcohol, as a result they relatively prolong their childhood, and the present 18-year-olds behave as 15-year-old children. Transformations in American families have caused that there are less children and parents can devote more attention to them, they are more caring for them.

The manifestation of this era is also to provide child (from an early age) with a mobile phone (smartphone), formally to have more contact with him, and also to exercise a kind of supervision over them. Few years earlier, if you want to talk with friends, you just had to leave the house, often just go somewhere (hence the need for driving license at the age of 15–16), now you can do all this on your smartphone (social conversations, gossip, arranging parties). Therefore, there is no need to go out, including parents, to spend your free time. Unfortunately, research conducted in the US shows that more activity on mobile devices results in the lower satisfaction, and when the activity is less, satisfaction with life is greater. In the generation of iGEN depression, loneliness, and suicidal thoughts appear quite frequently. This applies to children and young people who sit in front of the screen for over 2 hours a day. So sports, reading books, meeting friends bring happiness while writing messages, social media, TV, games give less happiness. After this research, the author said she had taken tablets and telephones from her children.

Different generations during the development of the information society. One of the older qualifications of the division of people, taking into account their attitude to the use of information technologies, was the functioning of digital immigrants (people excluded from the IT world) and digital natives. Another division is generation X and generation Y. The first ones are people born between 1960 and 1980, who experienced the huge development of classic media: radio, press and television. The generation uses Internet facilities to a limited extent, having low confidence in such information. They prefer a direct conversation, personal contact, as a foundation for forming relations, establishing relationships (Kornaszewska-Polak, 2012, p. 103). Generation Y is the first of the generations referred to as "millennials", that is people coming to adulthood around 2000. They were born in 1980–1990. They are characterized by a large divisibility of attention and multitasking. Internet is becoming the main source of information. The next generations are named: generation C, Z, You Tube, iGEN. These divisions are not clear.

The generation born after 1990 (in the USA a bit earlier) is called the C generation. The name comes from three words: "connect, communicate, change". The main determinant of this group is growing up and education in the Internet age. In fact, they do not know the world without IT, they function well in virtual reality, simultaneously leading real and virtual life. They are permanently connected to the

Internet, they cannot live without Facebook and smartphones. They are real network users because they not only search for information but create it themselves.

The YouTube website, which has been in operation since 2005, allows you to post your own videos, is a great venture to communicate around the world. Recently, You Tube wants to become a social network, similar to Facebook.

Generation Z is the generation of people born after 2000 (according to some sources between 1995 and 2012), so those who learn or study or just enter the labor market. They cannot live without the Internet and social networking sites. This cohort also functions as the iGEN (iGeneration). This generation is shaped by smartphones and the accompanying development of social media. When the first iPhone entered the market, i.e. in 2007, the oldest representatives of this generation were early teenagers.

Children and teenagers in the modern media and communication technology. The modern child lives in a highly-dynamic world. Thanks to the free flow of information, they can learn about various events, contact with unlimited number of people, become a member of the information society. The virtual world is attractive and far from reality. In such a network community one can overcome alienation, loneliness and isolation. The attractiveness of this new reality may lead to the situation that online world becomes the main one (Andrzejewska, 2012, pp. 44–46).

However, there are also serious threats. Many of them result from a lack of knowledge about the media that should be systematically passed down to children, even in pre-school age. In this sense, one can speak of low media awareness among children and young people. Research carried out by M. Wrońska among children and young people, as well as their teachers, showed that the level of media awareness (it consists of: media knowledge, level of media literacy and attitudes towards the media) can be described as mediocre. At the same time, teachers in these studies fared worse than students. This means a big dissonance between the expectations of young people to the usage of modern technologies in school and education system (Wrońska, 2015, pp. 37–45).

One of the most serious threats is related to the loss of privacy in the Internet, which young people are most exposed to. Information posted by them, on the web, often begins to live its own life. Removing it, when is already placed in the cloud, is basically impossible. In addition, many portals apply the rule "use services for data". In practice, if you want to get complete information, you should first answer a number of questions or give an access to personal data, that may reveal a lot of sensitive data (Czopek, 2016, p. 69).

The widespread use of mobile phones (smartphones) from an early age causes behavioral addictions called phonoholism, associated with the need for continuous use of these devices. The research carried out in Radom in 2017 on students in the sixth grade of primary school and third grade of middle school shows that average students use their smartphones about 4-5 hours a day. Interestingly, they often use them in inappropriate places, such as: almost everyone on the road (safety issue), about 80% at schools (although it is forbidden), in the toilet (over 50%) and even a dozen or so of

those surveyed in the church. Students, who have forgotten the phone, declare feelings of anxiety, anger, and nervousness (Cibor, 2017, pp. 145–147).

Similar phenomenon related to the acceptance of information and media technologies by school students occur in other European countries. For example, a research of 302 students a few years ago in the Czech Republic, showed that only 12% of students do not use the Internet when they are preparing for school lessons. They spend an average of 3 hours on the network on working days of the week, and on weekends even more than 5 hours a day. At the same time, only 20% of teachers accept and support the use of the Internet in homework (Vankova, 2014, pp. 108–113).

Students use the Global Network, primarily the web portals. Research conducted among 101 Greek and 71 Finnish students concerned the impact of social media on education at the academic level. Before determining the impact of these media, one should analyze the purpose for which this support for education makes sense. Students are advocates of the use of social media in the education process, although they emphasize the fact that it should look a bit different than using these media for private purposes. (Siakas, Siakas, Tsitsekidou, 2017, pp. 221–235).

Generation iGEN on the example of Radom. The survey was conducted in January 2018 on a group of 137 1st year students of three fields of study, from three different faculties of the University of Technology and Humanities in Radom. There were 45 students of pedagogy studies of the Faculty of Philology and Pedagogy (44 women and one man), 41 students of physical education from the Faculty of Health Sciences and Physical Culture and 51 students of computer science from the Faculty of Mathematics and Computer Science. Men prevailed in these last two groups. There were 33 of them on physical education, which is over 80%, and on IT 42, which is over 82% of this group. In total, 64 women make up nearly 46% of the entire group of students. Attempts were made to reach all first-year students of these three fields of study, and the only criteria in participating in research, was the age of students. It could not exceed 22 years. There were only few students who did not meet this requirement. The average age of the surveyed students was less than 20 years old (exactly 19,83). The youngest student from Ukraine was 17 years old. Most of the students are residents of Radom (73 people), then the surrounding villages (44) and small towns of the region (8). Not everyone answered this question. Such a situation also occurred quite often in the next points of the survey, which means that the total number of indications is not always 137.

The next question concerned the time budget of the surveyed students divided into two options: working days and holidays (weekend). It was necessary to indicate how many hours they spent on: learning and working, everyday household activities, social meetings, physical activity and sports, care for their own appearance, reading books and press, as well as broadly understood IT technology (smartphone, tablet, laptop, Internet). They could also enter their own actions not specified in this set. Only a few students benefited from this option, including hobby, sleeping and watching TV. The deep analysis of students' answers leads to the conclusion that not everyone provided adequate answers, especially to the first question about working days.

Average number exceeding slightly 3 hours means that they probably did not fully take into account didactic activities at the university, or rather, students referred to their free time, which they devote to additional study or work. The majority of respondents spend their time on using IT devices (on average over 3 hours and 40 minutes), as well as on social meetings (2 hours), the least on reading and taking care of their own appearance (less than 1 hour for each of these activities). Answers to this question in relation to holiday (weekend) days are similar. The time devoted to the use of IT and the meeting is even bigger (less than 4 hours for IT and 3 hours 25 minutes for meetings). The time devoted to learning and working has decreased, although there are cases where some students work (learn) these days even several hours.

The vast majority (121 students, which is over 88%) has access to the Internet on their phone (smartphone) all the time. No wonder that as many as 56 students (nearly 41%) spend over 5 hours a day on the Internet, 45 people (nearly 33%) from 3 to 4 hours, 30 people (nearly 22%) from 1 to 2 hours and only 6 people (about 4%) less than 1 hour. Students started their IT activity on average 9 and a half years ago, when they received their first mobile phone, have been in the Internet for 5 and a half years and have more or less the same time in Facebook. It is interesting because they had to start their presence on this social network site on average around the age of 15. Formal Facebook regulations prohibit the registration of children under the age of 13, but the EU regulations have raised this limit for 16 years old. Most students (129 responses) use a safer group contact, which is Messenger. Quite popular are You Tube (90 indications), Snapchat (88) and Instagram (87). Individuals indicated other listed social networks (including "Nasza Klasa", popular mostly in a slightly older age group). It was also possible to mark their own unlisted portal. Several people have indicated the VKontakte, social portal popular in our eastern neighbors.

Another question concerned the possibility of using smartphones at school during the lesson. It turned out that in 54 cases such a situation was possible with the knowledge and consent of teachers, and in 56 cases the respondents at the school used it, although the teachers either did not know it at all or pretended that such a situation did not take place. In 26 cases, sanctions were threatened by the use of smartphones during lessons. 103 students (over 75%) have a driving license and did it very early, just after turning 18. It would seem that this indicator is not too high.

The next questions concerned the assessment of the life quality through the prism of various opinions on selected topics. Alcohol initiation is one of the most interesting indicators of "growing up" of young people. In the first version, the question was about age, in which the respondents tried to drink alcohol for the first time. It turned out, that answer "not drink at all" should be also added. Such a variant was marked by 28 people. This means that every fifth student under study is an abstainer. The average age of alcohol initiation is 15 years and 9 months. The next three questions are an attempt to assess their short life. Answers to the question whether they are happy (a) is presented in Figure 1.

Another question was about fulfilling in life. The results are slightly less optimistic than the previous question, although this is understandable, as the surveyed students can still achieve much in their lives. The results are shown in Figure 2.

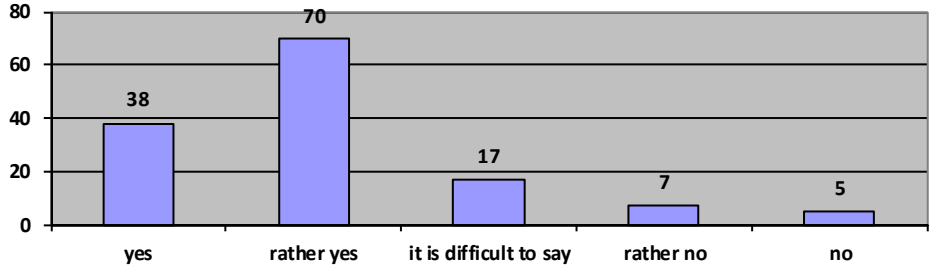

Fig. 1. Are you happy?

Fig. 2. Are you fulfilled?

The next question concerned family relationship, in particular spending time with family. Answers to this question are very optimistic, and details are presented in Figure 3.

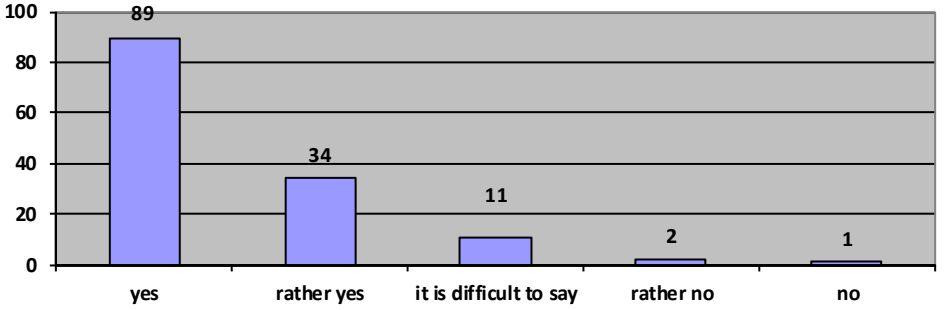

Fig. 3. Do you like staying with family?

The next questions are related to the activities that the iGEN generation performs with their smartphones. Answers to the question about contacts among peers show that direct contact (in real life) is still the main form. As many as 106 respondents described this form as the most important one, only eight students believe that they

prefer to communicate more in the network than in reality. For 26 respondents, the form of contact does not matter. Most of the respondents (89 people) turn off their smartphone premeditated at night, 16 never switch off their phone and 31 people do it in specific situations: at the university, at work, in the church, at important celebrations and meetings. These results are optimistic, although the next question corrects this opinion. As many as 63 respondents (nearly 47%) go to the toilet with their smartphone to play or read news, 35 people (over 25%) also takes smartphone when expects important contact, and only 38 people (over 28%) never take a phone to the toilet. The next two questions were about searching for solutions to personal and scientific (professional) problems. The answers to these questions were not entirely unambiguous and reliable. Many students refused to answer or provided incomplete answers. The most indications were for conversations with friends and acquaintances. The network is usually not the first source for solving personal problems, although in the case of professional (scientific) problems it slightly overtakes contacts with peers. When asked about watching erotic portals, the results are varied: 19 people like to watch them, 37 – rather yes, 21 – rather not, and 58 do not watch at all. However, if you take into account the sex, it turns out that the vast majority of women (53 people) do not use erotic portals, 9 people probably do not, and only one person rather yes. Thus, users of erotic portals are almost exclusively men. There is a growing number of people watching sport programs on the web, buying goods and reading audiobooks, but there are also students who do these things in a traditional way.

The last group of problems concerned trust in the global network. While, in the past most of the respondents published their photos on the Internet (108 indications), nowadays there are slightly fewer (86). Respondents only know 17 cases when a friend had problems with the publication of their data on the web. Students are aware of the risks caused by excessive web presence. More than half of the respondents (70) believe that this can lead to depression and suicide. They are quite critical of opinions on the Internet, because they do not attach importance to "likes" their posted materials online (118 indications that it is indifferent to them).

Conclusion. Research on the generation of the older generation of iGEN – first year students who have not exceeded the age of 23 did not show excessive threats related to the increasing use of smartphones. Although the global time of using these devices is increasing, not all problems are solved with the help of the global network and virtual contacts. Face to face contacts with the family and among peers have still a great importance. It would be interesting to compare similar parameters characterizing the generation of beginner students with adults as well as teenagers.

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