



ORIGINAL PAPER

Digital Natives Romanians Can Hardly Imagine Life without Internet

Anda Anca Rodideal*

Abstract

In the current digitalized world Romania is the land of contrasts: we are the last in Europe at digital competences but we have almost the highest connectivity speed in Europe – 2nd place (DESI, 2018). Through smart phones, Internet data consumption is growing exponentially especially among children and teenagers, but is lacking the education for a healthy and responsible usage. The EUKIDS research from spring 2018 in Romania show that 84% of children 9 – 17 years old are accessing Internet from a mobile device, 4 times more than five years ago. (Velicu, Balea, Barbovschi, 2019). Similar, the INSSE (National Institute of Statistics) research from the same period found that 9 in 10 students (97,3%) are accessing internet several times per day (Cuturela, Gheorghe, et al. 2018). The effects on children are not always positive, 33% of them reported encountering negative experiences on-line, and 50% were exposed to images with extreme violence, show the same report. In the absence of joint actions at the level of social policies and sustained educational interventions, every child, family and school are facing in a personal manner the excess technology within our society. This paper will address Romanian children's internet consumption habits reviewing the newest results of researches on teenagers and correlating them with data gathered in autumn 2018 from empirical researches within two gymnasium schools in Bucharest, children 11 – 15 years old, using quantitative and qualitative methods: a questionnaire for 250 children and individual essays on describing how they imagine future life without internet and multimedia technologies. The results are surprising, especially boys telling that they cannot imagine life without Internet. That's why this paper aims to rise an alarm signal about the importance of educating youngsters to efficient use the technology, but also to leave happily in a “free-of-technology” manner.

Keywords: *adolescence, gender, multimedia usage, internet consumption habits, internet risks & advantages.*

* Ph.Dc. Rodideal Anda Anca, Bucharest University, Faculty of Sociology and Social Work, Phone: 0040723 197 559, Email: anda.rodideal@drd.unibuc.ro.

Digital Natives Romanians Can Hardly Imagine Life without Internet

Introduction

Starting from the data gathered through research at national level and beyond, and considering the rapid evolution and changes in the Internet consumption patterns of society, due to the generalized use of smart phones and mobile devices with instant internet access from anywhere, it is a known fact that younger population, aged between 11 and 18 years old, are the most active in using the new technology: 95% of American teens (13-17 years old) had a smartphone in 2018, and 45% of them were constantly online (Anderson M., Jiang J., 2018); 88% of Germans 12-13 years old already have a mobile phone in 2017 (Order, Durner, 2019); 89% of Czech children 11 – 17 years old access internet through mobile phone daily (Bedrošová, M., Hlavová, R., 2018); 89% Romanian 11 – 17 years old teens are using internet daily through a mobile phone (Velicu, Balea, Barbovski, 2019).

As anytime when major social changes have taken place, there is now a whole range of fears and new discovered risks of using on a such large scale, and from the very early age, the digital technology, especially since no one can now know exactly what influences it will have on today's native digital children, how they will evolve and how society will be transformed under the conditions of the emergence of virtual reality and artificial intelligence.

The big issue with the children and teens accessing technology and internet is its magical attraction for them, all of them being so excited and eager to stay connected as long as possible. Within the last twenty years lots of researches were made in order to identify mainly the risks of prolonged time spent in front of the screens, but the emergence of mobile smartphones, always connected to internet, a device that they own now from primary school changed even more the spectrum of risks they may be confronted with, especially because they transformed their way of spending time, the concept of playing, communication, learning and finally their entire primary socialization process. It cannot be ignored the negative effects of Internet and digital technology which are real and are already affecting children development. This became obvious in every school, where more and more the main negative effects observed are: decreased interest in school activities for those who use internet mainly for entertainment purposes, gaming and social networking (Kim, et al, 2017, Rodriguez-de-Dios, Oosten, Igartua, 2018; Lau WWF, 2016), lots of bored children without technology and increased dependence of the online time, affecting family and friendship relationships in qualitative and temporal terms (Akin, 2012, Anderson 2001, Young and Rogers, 1998, in Anderson, Steen, and Stavropoulos, 2016). As longer as the time spent online, as higher the exposure to bullying and cyber-bullying, premature sexualization, generation compression - because age differences are blurred by the acquisition or lack of digital skills that do not respect any age pattern (Levin D., Kilbourne J., 2008). More often serious problems such as anxiety, depression, isolation, social phobia or internet addiction (of games for boys and social networks for girls) appears (Kaess M, Parzer P, et al, 2016) together with a decrease in the empathic capacities of young people and an increase in impulsivity and verbal and physical violence supported in particular by the lack of direct contacts and instant messaging communication (Alter A., 2017). Parents and teachers are unequivocally prepared to cope with all these challenges, at the level of Romanian education system there is no integrated strategy for adapting the curriculum and integrate technology at large scale within the teaching process, there are no initiatives for building the literacy digital competences and children resilience, proved to

be the real key for overwhelming all these negatives sides (Livingstone, Davidson, Bryce J. et al., 2017).

In order to build a comprehensive and useful strategy to develop the digital literacy skills and competences needed for success in the future technologized society it is helpful to know exactly the actual situation, what and when are doing children and teenagers with technology, what are their believes, attitudes and opinions, their aptitudes and competences related with technology and internet usage. Through secondary analyses of national studies correlated with local data gathered through empirical studies, this paper aims to reveal the actual consumption habits, risk and advantages of Romanian teenagers online, which can guide the forward needed actions to be implemented.

In order to avoid misunderstandings, the following terms will be used as explained below:

- Internet – the online, virtual environment and everything can be made on World Wide Web, from playing to access and produce information and social network communication, through all the devices can access it, smart mobile phones, tablets, laptops or desktops. (DiMaggio, Hargittai, Neuman, Robinson, 2001).
- Multimedia – the mix of media communication – text, images, sounds, graphics, animations – that can be send, received or accessed through internet, using mobile devices, meaning any hand-held device that is permanently connected to the internet, as smartphones, tablets or laptops, allowing its user to “communicate with others, access information of choice, connect to others and information, collaborate with peers online, construct information and deliverables” (Robinson, Reinhart, 2014: 15). New concepts, as “transmedia” were created and used in order to better describe the complex activities of producing, reproducing and changing, sending and receiving content using platforms like Facebook, Instagram, Snapchat (Scolari, 2018), also being used in the discussions about “transmedia competences” (Pratten, 2011) that should be developed to these “digital natives” children, in order to minimize their exposure to online risks.
- Digital natives – one of the names given to the generations born after 1997 because they grow up surrounded by the internet and digital technologies that emerged in society, and they are „all native speakers” of the digital language of computers, video games and the Internet” (Prensky, 2001). They are also called “generation Z” (Dimock, 2019: 1) within large researches realized on US generations by Pew Research Center, showing the distinctive characteristics of these generation versus the “Millennials” – the generations born between 1981 – 1996 – who lived also before the expansion of technology. “Social media, constant connectivity and on-demand entertainment and communication are innovations Millennials adapted to as they came of age, but for those born after 1996, these are largely assumed.”(Dimock, 2019: 5) The researches show a tremendous change in their behavior, attitudes and competences bringing positive and negatives aspects, but no one can predict how these changes will evolve and how will shape their adulthood and finally, the entire social life.
- Digital competences – as defined within the EU digital development strategy, “digital competences 2.0.” refers to the set of attitudes, aptitudes and knowledges operationalized in 5 dimensions, measurable and achievable: capacity “to use data and information”, “to communicate and cooperate”, “to

Digital Natives Romanians Can Hardly Imagine Life without Internet

create digital content”, “online safety” and “problem-solving capacities” (Digicomp 2.0., 2016). As researches have shown it is of tremendous importance to build these types of competences to everyone, but especially to children and teens, in order to offer them the tools to be safe online (Velicu, Balea, Barbovschi, 2019).

Romanian children and teenagers online – national researches results

During the year 2018 in Romania were conducted different national representatives’ researches, some of them longitudinal studies, that offer a complex view over the Romanians internet consumption habits, revealing new trends, attitudes, risks and advantages that can lead to better actions in order to find solutions for advancing our country from the last position between EU countries regarding internet and digitalization. It will be compared data from: The Digital Economy and Society Index (DESI 2018) – annual European research that calculate a “composite index that summarizes relevant indicators on Europe’s digital performance and tracks the evolution of EU member states in digital competitiveness”; EUKIDS 2018 report about Romanian children – from EUKIDS Online, a „multinational research network that seeks to enhance knowledge of European children's online opportunities, risks and safety” (Velicu, Balea, Barbovschi, 2019: 1).

The same research methodology is used within all the Europeans countries, in Romania it was applied in 2013-2014 and again in 2018, revealing new representative data about Romanian digital natives (Velicu, Balea, Barbovschi, 2019); Romanian National Institute of Statistics (INSSE) research conducted in 2018 - “Population access to information and communication technology 2018” offering representative and valuable data regarding general population internet and technology consumption habits (Cuturela, Gheorghe, et al., 2018).

These recent national representatives’ studies about internet connectivity in Romania show an outstanding performance regarding fast and ultra-fast broadband: 53% of homes were connected in 2018, compared with EU average of 33% homes, and there were three times more subscriptions to ultra-fast broadband, than in EU – 43,8% in Romania, compared with 15,4% average in Europe (DESI 2018). These dates are confirmed and improved by the INSSE study on “Population access to information and communication technology” in 2018, showing that 72,4% Romanian households have an internet subscription, the majority being those with children - 93,5%, of those, all of them having internet access from home (Cuturela, Gheorghe, et al., 2018). So, there is no surprise that 84% of children and teens 9 – 17 years old are accessing internet daily from a mobile phone, 39% also from a computer or laptop, and 19% from a tablet. (Velicu, Balea, Barbovschi, 2019).

Some local particularities shouldn’t be ignored: in Romania there are big differences between rural and urban connectivity, the large share of fiber deployment is especially urbanized (DESI 2018); children usage of internet through multiple devices increase by age and different digital divides occur, limiting the acquiring of equal digital competences, due to: high costs of devices, those with no access to a computer at home are disadvantaged, high cost of the internet access or poor internet signal quality in some areas limit for some of them the online experiences (Velicu, Balea, Barbovschi, 2019).

The same EUKIDS 2018 research show that the main reasons for online activities of the children 9 – 17 years old are entertainment and communication: daily, 79% of them watching video-clips, 78% listen to the music and communicate with

friends and families through social media, 61% play on-line games, and 50% visit a social media network. There are differences according with age, around 50% of teens over 13 years old are using also internet daily for homework, products searching, talking with friends from other countries. It is interesting that the younger ones are using two times more the internet for producing and creating video/audio content (12% - 9-12 years old., versus 7,5% - 13-17 years old) (Velicu, Balea, Barbovski, 2019).

These results are compatible and consistent with those from INSSE 2018, showing for students 16-24 years old that the main activity on internet is accessing a social network - 95,4%, followed by music listening - 76,7%, using email - 75,7%, online gaming - 61,5% and searching products - 55,8% (Cuturela A., Gheorghe A.M., et al. 2018). The same preoccupation for accessing social networks can be observed in DESI 2018 data, Romanians being on 4th place in Europe on “using internet for social network activities”, but on the last place regarding online shopping, banking, music, videos, games or news searching. (DESI 2018).

Regarding digital competences, Romania is on the last place in Europe, with the lowest percentage of population using internet and having at least basic digital skills, but the children and teens situation is not as bad. The EUKIDS 2018 report show that children 9-17 y.o. rank 8.5 out of 10, regarding instrumental literacy (knowing to save photos, change privacy settings, etc.); 7.7 points for information management competences (verifying source and validity of information, searching over key words); 9,1 points for social competences (knowing what to share or not, how to block someone); 8.3 points for mobile smartphones usage (searching and installing applications and controlling costs or buying apps); the less developed competence is creativity, 7.6 being the score, for creating and sharing images or movies and knowing how to modify some images or movies created by others. As a conclusion, EUKIDS 2018 report show general high developed literacy digital competences for children and teenagers 9 – 17 years old, a total score of 8.1 out of 10, especially due to their high access and increased usage of internet and smartphones (Velicu, Balea, Barbovski, 2019).

Taking into consideration all these, it is obvious that Romanian children and teenagers are high users of internet technology and smartphones, meaning they are benefiting from all the advantages offered by world wide web, but also are highly exposed to the inherent online risks. The main negatives consequences of high connectivity for Romanian children, as exposed in EUKIDS 2018 research are: 34% of them, boys and girls alike, said they have experienced negative situations online, a percentage that grow with age, but they did not know how to react, because only 40% of them talked with a friend, or with their parents and 18% didn't talk with everyone. Bullying and cyberbullying are very common, 32% of them being victims, with the highest percentage for those of 13-14 years old – 37%, and 40% of them declaring that were affected and very affected by this situation. A total of 21% admitted that have been the aggressor, the bully, many more boys as girls – 26% versus 16%, and 34% of them were witnesses, with high percentage for those of 15-17 years old, 45% of them witnessing a bullying or cyberbullying situation. Others major risks confronting Romanian children and teens are: exposure to violent and negative content – around 40%, cyberhate – 32%, but 52% for those of 15-17 years old, sexting 24%, but exposure to images with sexual content 39%, with 67% for those of 15-17 years old. Also, it should be remarked high prevalence for meetings with strangers known on internet,

Digital Natives Romanians Can Hardly Imagine Life without Internet

60%, but for 81% of them this was a positive experience, being happy about it (Velicu, Balea, Barbovschi, 2019).

As a conclusion, the Romanian children are confronted with risks and unwanted situations online, as the children worldwide, more interesting and notable being the adult's responses to these, parents and teachers being not always prepared to mediate online risks. As EUKIDS 2018 reveal, only 26% children asked for their parents help for problematic online situations, but 47% said that they helped their parents with different internet issues – inverse mediation. Regarding the parental mediation, it is a process that decreases with children's age, the main forms used being the usage of parental apps – 24%, geolocation apps – 22%, or other filters and apps to block children access to inappropriate content-21% (Velicu, Balea, Barbovschi, 2019). From school part, only 30% children say they've been advised or helped by a teacher when they didn't know how to solve an online situation, generally schools being involved in a restrictive mediation of mobile technology usage, just trying to impose rules for not use them and disturb the classes. It can be summarized that is a low implication of representatives' adults in Romanian's children digital life, fact that contributes to increasing online risks encountered and to an uneven distribution of digital competences among them. Unfortunately, at this moment there is no strategy at the level of educational system to implement courses for development children digital competences, even Romania is engaged in implementing until 2020 “Digital Education Action Plan” as established for European Union countries.

As a result, in Romania the use of mobile devices produces only learning on “informal level”, depending only of each person desire, capacity and chance to meet a specialized teacher or to self-online-media-literacy, resulting a “second level digital divide” (Reinhart, Thomas, Toriskie, 2011).

Methodology

Taking into consideration the above-mentioned research results, a local research was conducted, an exploratory study that aims to go further, to question children opinions about the influence of internet and technology in their life, using quantitative and qualitative methods. Because of the lack of governmental policies and strategies regarding the development of children digital competences in schools, and because of the informal characteristic of children online activities this study aims to find the children opinions and believes regarding the good and worst that internet brings in their lives, if they are aware that there are also disadvantages on the magical online virtual world.

The research was conducted in September – December 2018 in two gymnasium schools, with 250 pupils 5th to 8th grades, ages 11 – 15 years, from middle Bucharest in two phases: first it was used an auto-applied questionnaire, regarding their online habits, parenting mediation tactics and also some prospective questions for 250 children, 11 – 15 years old from both schools. Then, in order to better understand their opinions and to give them the chance to express their feelings and thoughts, the pupils were asked to write an essay regarding their life with or without internet. Participants characteristics are described in Table 1.

Table 1: Respondents by age & gender

Percentage of children (N = 250)	Total		5 th - 6 th grade (11 - 13 y.o.)		7 th grade (13 - 14 y.o.)		8 th grade (14 - 15 y.o.)		
	Girls	Boys	Total		Total		Total		
	53%	47%	30%		33%		37%		
			Girls	Boys	Girls	Boys	Girls	Boys	
				57%	43%	50%	50%	55%	45%

Source: Author's own compilation

Results of empirical local study

The quantitative research did not offer many surprises regarding internet and smartphones usage habits, the questioned children have generally the same habits as the national researches show: children from both schools, boys and girls alike are using especially mobile phones for accessing internet, especially for entertainment purposes (social networking, music and movies watching and sharing, gaming) and also for doing homework. The answers that were out of ordinary and will be further discussed are those related to prospective questions and parental mediation of technology usage.

Prospective questions like “can you imagine life without internet & digital technologies?” and “how much time can you stay without internet connection?” were included in order to measure how deep is the digital magical attraction and the addiction of using internet. The results show that almost half of them (48%) cannot imagine life without internet, the percentage decreasing only for girls in 7th - 8th grades to 37% - 38%. There aren't big gender differences, but is interesting to observe that according with age, slightly decrease the number of girls who cannot imagine life without internet, opposite with the boy's answers, where the percentages are increasing with age, finally, more boys than girls could not imagine life without internet (52% boys versus 44% girls) (Table 2).

**Table 2: “Can you imagine life without internet?
(yes / no, N = 250 pupils, girls = 135; boys = 115)**

	5 th - 6 th grade (11 - 13 y.o.)		7 th grade (13 - 14 y.o.)		8 th grade (14 - 15 y.o.)		TOTAL	
	yes	No	yes	No	yes	no	yes	No
Girls	46%	54%	63%	37%	62%	38%	56%	44%
Boys	55%	45%	46%	54%	43%	57%	48%	52%
TOTAL	50%	50%	53%	47%	52%	48%	52%	48%

Source: Author's own compilation

In order to complete the picture, another question asked them “how long they can resist without being connected: not at all, one day, one week or a month and more”. The answers are consistent with the previous question, only 35% of all pupils answering that can live one month or more without connectivity, and 25% of them answered one day and 8% of them answering that they cannot live without being online. It is notable the decrease with age of those who answer that cannot resist without internet at all, from 15% of 5th-6th grades, to 0% of 8th grades, probably due to experiences and the process

Digital Natives Romanians Can Hardly Imagine Life without Internet

of children maturing. Also, because it's a common penalty used by parents to prohibit for few days to one week use of technology for children, this may be the reason for this answer to be the highest frequent for all categorize, especially for girls. (Table 3).

Table 3: “How long can you resist without being connected to internet? a) Not at all; b) one day; c) one week; d) one month or more” (N = 250)

	5 th - 6 th grade (11 - 13 y.o.)				7 th grade (13 - 14 y.o.)				8 th grade (14 - 15 y.o.)				TOTAL			
	%				%				%				%			
	A	B	C	d	a	B	c	D	A	b	C	d	a	b	c	d
girls	15	31	29	25	9	22	25	44	0	23	40	37	8	25	31	35
boys	15	25	30	30	8	17	35	40	0	29	36	35	8	24	34	35
TOTAL	15	28	30	28	9	20	30	42	0	26	38	36	8	25	33	35

Source: Author's own compilation

Because these opinions are strong related with the life experiences and time spent by children online, these being affected by the family's internet and technologies using habits and parental mediation of children using internet and devices, the above-mentioned results were corelated with those on the question: “Does your parents control or have ever controlled your access to internet or to some specific web sites?” Almost 75% of children 5th and 6th grades and 87% of those from 8th grades answered that their parents did not control them and did not intervein in their online activities. They consider that main reasons for this “freedom” is either because their parents trust them, either their parents do not have the knowledge to do it. Few of them – 17% of 5th – 6th grades and 9% of 8th grades – answered that their parents control them, but still do not know what they are really doing online, and, the smallest part of children have parenting control application installed on their devices, especially girls, the percentages decreasing when age raise (Table 4). These results are in line with the national representatives' study's conclusions, showing that parental mediation regarding digital technologies and internet usage is low and decrease when children grow: the girls are more “controlled” by the parents, but for boys, the parental control decrease to 0 in 8th grade, showing that the social bias regarding boys being more skilled with devices and more saved for risks preserved, even the statistics show there are no differences between girls and boys regarding digital competences and exposure to risks (Velicu, Balea, Barbovschi, 2019).

Table 4: “Does your parents control access to some web pages or apps? a. never; b. my parents are not good at devices, so no; c. they are not interested, they trust me; d. sometimes yes, but they do not know what I am doing online; e. yes, I have parental control app active on my devices” (N = 250).

	5 th - 6 th grade (11-13 y.o.)			7 th grade (13-14 y.o.)			8 th grade (14-15 y.o.)			TOTAL (11-15 y.o.)		
	%			%			%			%		
	a,b,c,	d	e	a,b,c,	d	E	a,b,c,	d	e	a,b,c,	d	e
girls	73	19	8	72	15	13	88	4	8	78	12	10
boys	75	15	10	88	9	3	86	14	0	83	13	4
TOTAL	74	17	9	80	12	8	87	9	4	80	13	7

Source: Author's own compilation

To better understand children's opinions regarding their digitalized childhood, a qualitative method was used: half of the children wrote an essay about how would be their life without internet and technologies and the other half wrote about how is their digitized connected life, in both cases the essay should refer to: time spent online, entertainment activities, peers' relationships, family life and school climate. The content analyses of their answers show for those who had to imagine life without internet that: only 4% of them refused to make an imaginative exercise, writing that "they cannot imagine life without internet", while more than 80% of them mentioned that without technology they would have more time to go out in the nature, to make sports, to meet and play face-to-face with their friends, 28% of them mentioning that they will not feel alone anymore; 46% of them said they will have time to read, to draw or discover different hobbies; 23% of them believe that they would have better results in school, because "will have more time for exercising and doing homework, but sometimes, it will be harder because they do not have easy access to necessary information, as through internet"; regarding the relationships with their families, almost 40% of them said that will be improved, and will talk more with each other, but regarding educational process all agreed there will be no changes, because technology is not so used in school for teaching purposes.

"I know that internet is not good for my health, but it is part of my life. I resisted without it 2 days, but it wasn't ok, I missed the contact with my friends. If there were no internet, I would play outside, I would invented things." – Girl, 12 years old

"My life without internet would be boring, this is how I am used. Without it, I would learn by reading books." – Girl, 13 years old

"Internet get me addicted. I am hypnotized by it. The worst experience with it is that I argued hard with my mom." – Girl, 14 years old

"Without internet, I think I will learn better for school, I will talk more with my parents, because they cannot stay without smartphones. I would draw and read a lot." – Boy, 13 years old

For the others, who should write about their life with internet, it is important to mention that almost half of them believe that internet consume their time, but more than 70% believe that internet help them to learn lots of new things and to be connected with their friends; 37% of them said that their parents impose them rules for time spent on internet, but 28% said they have no such rules; 56% of them mentioned that their parents are not so good as them in using technology, frequently asking children's help; more than 75% mentioned that technology is just occasionally used for teaching, and it will be better to be used more often, because they will learn easier. It is important to mention that children were delighted and excited to write about this subject and there are no remarkable differences regarding age or gender, all of them proving an increased level of understanding advantages and disadvantages of technologies and internet in their lives.

"Internet is my friend, because I learn new things, make new friends and we share our best moments." – Boy, 11 years old

"Internet helps me with the things I do not know, and when I have to do a project for school. My teachers do not use technology for teaching purposes, but sometimes they use it". – Girl, 12 years old

"My parents know and agree with me being online, they do not impose me rules, but they use it even more than I do it, but they do not handle better than me the technic issues on internet" – Boy, 15 years old

Digital Natives Romanians Can Hardly Imagine Life without Internet

Conclusions

As the national representatives' studies show and the local research conclude, in Romania children are using digital technology a lot, but the parents and teachers are not mediated enough and efficient their consumption behavior. The autonomous children are learning informal, by trying, researching and more from one-another, without adults' supervision in virtual world, so they interiorize a personalized conception about life in a technologized world, believing that it cannot be other way as it is now: all they are doing is related and helped by the internet technology, from relationships with family and friends, to school and homework, to play and spending free time. Even some of them are aware that not everything is good online and excessive use can be harmful, the digital natives Romanians are influenced by their peer and parental model and cannot oppose to the magical attraction of virtual world.

Even this local study is limited to 250 respondents from two schools, since between children is a high homogeneity regarding their activities and beliefs, the percentage of 50% children who cannot imagine life without technology and internet corelated with 66% children believing that cannot resist without internet more than one week are high and at least dangerous, taking into consideration that none of this technologized reality existed 30 years ago. So, near the duty to better prepare adults, parents and teachers to mediate children internet usage habits and to find ways to formally educate children digital competences to keep them safe from risks, it is equally important to prepare our children to live in a world without technology, so they be really prepared for the future. As important to build children and teens transmedia competences is also to build their competences to spent time without technologies, to fully experience life also un-connected, to understand that technology is just a tool for raising our quality of life only when we choose to use it. The lack of general policy and educational strategy regarding development digital natives' transmedia competences could lead to dangerous digital divides between who is and who is not online connected, but also between who can and who cannot easily adapt to a non-technologized life, with unpredictable consequences to the social order.

Taking into consideration all these studies results, even limited, new issue that should be furthermore studied are raising regarding digital native generations lifestyle and believes. If half of them, boys more than girls, cannot imagine life without internet it should be raising concerns for parents and teachers, meaning their influence is low and the socialization process become more mediated by technologies, than by adults, human beings caring and loving. The rapidly technological advances created specially to magically stimulate the senses are immediately adopted by children within their digital habits, modelling their lifestyle. Further in-depth researches are needed to carefully study and understand all these in order to take the right measures to equilibrate children development and to prevent the raise of high digital divides between generations and those who are high-digital connected and those who aren't.

References:

- Alter, A. (2017). *Irresistible: The rise of addictive Technology and the Business of Keeping Us Hooked*, Bucharest: edit. Publica.
- Anderson, M., Jiang, J. (2018). *Teens, Social Media & Technology 2018*. Retrieved from: <https://www.pewinternet.org/2018/05/31/teens-social-media-technology-2018/>.

- Anderson, E. L., Steen, E., Stavropoulos, V. (2016). Internet Use and Problematic Internet Use: a systematic review of longitudinal research trends in adolescence and emergent adulthood. *International Journal of Adolescence and Youth*, 22(4), 1-25. Retrieved from: https://www.researchgate.net/publication/309001837_Internet_use_and_Problematic_Internet_Use_a_systematic_review_of_longitudinal_research_trends_in_adolescence_and_emergent_adulthood.
- Bedrošová, M., Hlavová, R., Macháčková, H., Dědková, L., Šmahel, D. (2018). *Czech children on the internet: Report from a survey at primary and secondary schools*. Project EU Kids Online IV – the Czech Republic. Brno: Masaryk University. Retrieved from: https://irtis.muni.cz/media/3122572/eu_kids_online_report.pdf?fbclid=IwAR3fFzODoRI3_pLYJd49QZMznB_lkci2mLJhIgS5gW5WsY_nc_4-q5vRF3s.
- Cuturela, A., Gheorghe, A.M., Miloiu, L., Simion, C., Toma, S. (2018). *Population Access to Information and Communication Technologies 2018*, nr. 309/6.12.2018 INSSE, National Institute of Statistics, Retrieved from: <http://www.insse.ro/cms/ro/content/accesul-popula%C5%A3iei-la-tehnologia-informa%C5%A3iilor-%C5%9Fi-comunica%C5%A3iilor-%C3%AEEn-anul-2018>.
- DIGICOMP 2.0, (2016). The Digital Competences Framework for Citizens. Retrieved from: <https://ec.europa.eu/jrc/en/digcomp/digital-competence-framework>.
- Digital Economy and Society Index (DESI) (2018) – *Country Report Romania*. Retrieved from: http://ec.europa.eu/information_society/newsroom/image/document/2018-20/ro-desi_2018-country-profile_eng_199394CB-B93B-4B85-C789C5D6A54B83FC_52230.pdf.
- DiMaggio, P., Hargittai, E., Neuman R., Robinson, J. P. (2001). *Social Implications of the Internet*, in *Annual Reviews Sociology*, 27:307-36. Retrieved from: <https://www.annualreviews.org/doi/abs/10.1146/annurev.soc.27.1.307>.
- Dimock, M. (2019). *Defining generations: Where Millennials end and Generation Z Begins*, retrieved from: <https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>.
- European Commission (2018). *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – The Digital Education Plan*. Retrieved from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2018:22:FIN>.
- Kaess, M., Parzer, P., et al. (2016). *Pathological Internet Use Is on the Rise Among European Adolescents*. *Journal of Adolescent Health*, 1-4, p.3. Retrieved from: [https://www.jahonline.org/article/S1054-139X\(16\)30037-4/fulltext](https://www.jahonline.org/article/S1054-139X(16)30037-4/fulltext).
- Kim, S. Y., Kim, M. S., et al. (2017). *The association between internet use time and school performance among Korean adolescents differ according to the purpose of internet use*. Retrieved from: https://www.academia.edu/35836592/A_study_of_the_relationship_between_parental_mediation_and_adolescents_digital_skills_online_risks_and_online_opportunities.
- Lau, W. W. F. (2016). *Effects of Social Media usage and social media multitasking on the Academic Performance of University students*, 2016. Retrieved from: <https://kundoc.com/pdf-effects-of-social-media-usage-and-social-media-multitasking-on-the-academic-perf.html>.
- Levin, D. E., Kilbourne J., (2008). *So sexy so soon – The new sexualized childhood and what parents can do to protect their children*, New York: Ballantine Books.
- Livingstone S., Davidson J., Bryce J. et al. (2017). *Children's online activities, risk and safety, A literature review by the UKCCIS Evidence Group*. Retrieved from:

Digital Natives Romanians Can Hardly Imagine Life without Internet

- https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/650933/Literature_Review_Final_October_2017.pdf
- Livingstone, S., (2019). *From Policing Screen Time to Weighing Screen Use*, Children's Media Foundation. Retrieved from: <https://blogs.lse.ac.uk/parenting4digitalfuture/2019/02/08/from-policing-screen-time/>.
- Order, H., Durner, A. (2019). *Basic Data Children and Media 2019*. Retrieved from: https://www.br-online.de/jugend/izi/english/Basic_Data_Children_and_Media.pdf.
- Pratten, R. (2011). *Getting Started in Transmedia Storytelling: A Practical Guide for Beginners*. Seattle: CreateSpace. Retrieved from: <https://talkingobjects.files.wordpress.com/2011/08/book-2-robort-pratten.pdf>
- Prensky, M. (2001). *Digital Natives, Digital Immigrants*, from "On the Horizon", MCB University Press, Vol. 9 No. 5, October 2001, 2). Retrieved from: <https://www.mareprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf>.
- Reinhart, J. M., Thomas, E., Toriskie, J. M. (2011). *K-12 teachers: Technology use and the second level digital divide*. *Journal of Instructional Psychology*, 38(3), 181-193. Retrieved from: https://www.researchgate.net/publication/281257712_K-12_teachers_Technology_use_and_the_second_level_digital_divide.
- Robinson, R., Reinhart, J., (2014). *Digital Thinking and Mobile Teaching: Communicating, Collaborating, and Constructing in an Access Age*, Denmark. retrieved from: <https://easytech4alldotnet.files.wordpress.com/2017/02/digital-thinking-and-mobile-teaching.pdf>.
- Rodriguez-de-Dios I., Oosten J.M.F, Igartua J.J., (2018). *A study of the relationship between parental mediation and adolescents' digital skills, online risks and online opportunities*, in *Computers in Human Behavior* 82 (2018), 186-198. Retrieved from: https://www.academia.edu/35836592/A_study_of_the_relationship_between_parental_mediation_and_adolescents_digital_skills_online_risks_and_online_opportunities
- Scolari, A. C., (2018). *Transmedia Literacy in the New Media Ecology, January (2018)*. Retrieved from: <http://mediainaction.eu/transmedia-literacy-in-the-new-media-ecology-white-paper-publication/>.
- Velicu, A., Balea, B., Barbovschi, M., (2019). *Internet Access, Use, Risks and Opportunities for Romanian children – EUKIDS 2018 project*. Retrieved from: http://rokidsonline.net/wp/wp-content/uploads/2019/01/EU-Kids-Online-RO-report-15012019_DL.pdf.

Article Info

Received: April 09 2019

Accepted: May 05 2019
