

Network Generation

›Architects‹ or ›Herostratuses‹?

Values and Attitude Toward Technologies – The Key to Understanding Between Generations

The pioneers in studying youth in the context of networking information-communication society were Don Tapscott¹ and Marc Prensky.² When developing their concepts, both researchers employed the interdisciplinary »generational theory« by Neil Howe and William Strauss,³ presented in their book »Generations« [Howe, Strauss 1991]. Having studied the history of America, from the time of its exploration by Columbus, Howe and Strauss came to several important conclusions, including the following:

- Generations are the cohort groups, they consist of people who are close in age, have similar values, shaped at the age of 10–12 under the influence of certain cultural and historical context. There are particular periods of time, during which people of different ages share the same values.
- People born on the edge of generations turn out to be bearers of values of groups on both sides of the edge. They constitute so-called »echo-generations« which become mediators between the generations surrounding them.
- Every four generations represent a cycle that repeats sequentially every 80–90 years. Therefore, the values of the fifth generation are similar to those of the first one. The metaphor of the four seasons of nature may be well applied here. Accordingly, there are four basic types of generations, which are »autumn«, »winter«, »spring«, and »summer«.
- The four season types correspond with four archetypes: »autumn« is a generation of »heroes/conformists«, active, self-assured fighters and activists, who not only create new assets, but also defend already ex-

1 Don Tapscott – Canadian researcher, lecturer, business consultant, counselor, honorary Doctor of Laws, Adjunct Professor of Management at the University of Toronto; Professor Emeritus at several Canadian and American universities, Chairman of International Scientific-Research Center nGenera Insight; he has Bachelor's Degree in psychology and Master's Degree in pedagogical sciences.

2 Marc Prensky – American writer, speaker on learning and education, designer of learning games, human resource and technology executive on Wall Street. M. Prensky holds degrees from Yale University and Harvard Business School.

3 Neil Howe – American historian, economist, and demographer and William Strauss – American historian, play writer, and lecturer. Both are co-authors of the book »Generations: The History of America's Future, 1584 to 2069« [Howe, Strauss 1991].

isted ones; »winter« is a generation of »artists/timeservers«, doubting and insecure, lonely, deprived of the inner core, those who maintain flexible attitude towards the environment; »spring« is a generation of »prophets/idealists«, revolutionists, optimists who create a new bright future; »summer« is a generation of »nomads/rebels«, unstable, cynical, disappointed in the reality and denying moral values.

Based on those conclusions, Howe and Strauss developed classification of generations of the 20th-21st centuries: 1) »GI« generation or generation of winners and builders, born between 1900 and 1921; 2) Silent Generation (1923–1943); 3) Generation of Baby-Boomers (1943–1963); 4) Generation X or unknown generation (1963–1983); 5) Millennial generation (1983–2003). All of them are distinguished by generational values. According to Howe and Strauss, these values may change over the course of time, but the core values, formed in the childhood and during the teen period, remain. It emerged, that the notorious fathers-and-sons conflict is caused by the different values and technologies they had to confront, rather than by different ages (otherwise, children would always copy their parents when grown up). For instance, generations whose representatives spent their childhood under the circumstances of struggling for life (wars, famines, etc.) are particular about frugality, abstinence, they have skills in surviving. If childhood coincides with periods of economic growth and technological progress, such values as leadership, orientation to winning, readiness to manage new technologies are typical of this generation. These ideas correspond to Karl Mannheim's concept of »major historical event« which defines the »face« of the generation. They also correspond to his thesis, that every generation has definite a social program, objectively motivated and spontaneously formed, which reflects the state of material and intellectual culture, and the types of social relations, both concrete material and ideal relations [Mannheim 1964:17].⁴

⁴ It has been affirmed that the term »Generation Y« first appeared in the paper »Generation Y« in »Advertising Age« magazine in 1993: Advertising Age, Editorial: »Generation Y,« August 30, 1993, p. 16.

The universal interest in Howe-Strauss theory and its further development have led to the appearance of different names for the same generations. Some of those names have become more popular than the original ones, proposed by the authors. For instance, the Millennial Generation has also been called »Generation Y« [Tapscott 1999]. This second name has a higher citation rate because it easily identifies the generations which goes right after »Generation X«. Consequently, people who were born after 2003 are called today »Generation Z«.

»Network« Generation and »Digital Natives«: Children Teach Parents

Let us get back to D. Tapscott and M. Prensky, who not only gave the new name to the »Millennial Generation« from the Howe-Strauss theory, but also emphasized the attitude of this generation toward new information-

communication technologies (ICT). Moreover, the factor of the attitude toward ICT determined the new name for the generation. The term »network generation« (»NET-Generation« or »N-Generation«) was proposed by Tapscott in his book »Growing Up Digital: The Rise of the Net Generation« published in 1999 [Tapscott 1999]. In the thirteen chapters of the book, Tapscott vividly described the profile of the »network generation« represented by 80 million young people (around 30 percent of the total USA population). In spite their »tender« age (under 20), so called »N-Gens« are very good at computer programs, the Internet, video-games, and electronic mail. They even do not need manuals to deal with those. Tapscott hoped, that his book would help most of the readers to understand and to accept the culture of this generation as a culture of »overwhelming new media«. The acceptance of the advantages of the new media technologies would help the society to put up with the inevitable changes, brought by them to each sphere of social activities. Tapscott believes, that refusing to accept digital technologies by certain part of society is one of the basic conflicts of the end of the 20th century. In order to avoid negative consequences in case of failure in solving this problem, the author suggests that the older generation »listen to their children« [Tapscott 1999], so that they will be provided with the opportunity to realize their plans and dreams.⁵

5 In 1993, Tapscott found out, that his own children were used to sending letters to Santa Claus via the internet. They also surfed the internet easily, so Tapscott assumed they were genius. Then he learnt that other children of the same age were doing the same things and realized, that something »was going on in the world«. Later he called it a »paradigm change«.

The book »Growing Up Digital: The Rise of the Net Generation« is a study in which D. Tapscott represented the most favorable image of young people who use new digital technologies. It is also peculiar in terms of being the first serious publication in the West, created with the help of the internet in collaboration with hundreds of grown ups and young people -»co-authors« from all six continents. They were exchanging e-mail letters with Tapscott, many theses of the future book were primarily discussed on internet forums and on the site,⁶ which had been developed for this particular purpose. The site still exists, it is very informative, accessible for people of any age, and back in 1990s it was a high-hume innovation of the time.⁷

6 www.growingupdigital.com

7 The source proves, that the »Millennial Generation« is not homogeneous.

According to Tapscott, even though the representatives of the »network« generation may differ in races and religions, their »N-Gen«-cultures, in general, are very alike, as they were being formed under the influence of the same circumstances and issues: uncertain perspectives of the global economy, pollution, teen suicide, lack of parents' attention, risk of catching AIDS or get addicted to drugs, etc. Tapscott thinks, that in their striving to get away from all those problems and fears, young people tend to consume different computer-related goods and services, movies and music, as well as designer clothes and accessories actively.

Among many of the people with whom he conducted the interviews, he found some whom he called N-Generation »role models« (ideals). These young people have the following basic values: self-sufficiency and independence from anyone, good education, the right of privacy and freedom of speech, the inappropriateness of race discrimination, emotional support

from parents, and civil responsibility. At the same time, another type of youth is represented in the book. It belongs to the Millennial Generation as well, but is not a »network« at bottom. In fact, this type of youth represents the phenomenon of *digital inequality*. There are many different reasons, including their financial situation, why these young people do not have access to the Internet either at home, or at school. The author is deeply concerned with this problem and thinks that digital inequality and the gap between young people and technologies may lead to the irreparable circumstances. Being disadvantaged financially in the first place, they will become »disadvantaged« in terms of knowledge, which means they will have cheerless prospects in the information-communication society. Describing this sad reality, Tapscott points out, that digital inequality is as widely spread across the world as financial inequality is. Developed countries that have access to the digital technologies and new media will continue on getting richer and richer, while the third world countries will become more and more poor.

The main conclusions in Tapscott's book »Growing Up Digital: The Rise of the Net Generation« (1999) are the following: the »N-Generation« representatives are the most competent and active internet users, that is why this particular generation may be called a »network«; for the first time in history young individuals are more skilled and experienced in handling innovations than older people. As we can see, this last thesis corresponds with the work of American anthropologist Margaret Mead on 1) the dependence of inter-generation relations on the scientific-technical development and its rate; 2) the *prefigurative* cultures, in which adults are taught by their children [Мид 1988].⁸

⁸ M. Mead wrote, that people are interconnected by electronic communication network, young people have common experience in things, their parents do not have such experience in. The older generations will never see their experience applied in the lives of the younger generations. This gap between generations is absolutely new, unique, and global [Мид 1988:361].

Two years after the publication of D. Tapscott's book on »N-Generation«, a significant paper by M. Prensky came to light. He proposed another definition for the »Millennial Generation« – »Digital Natives« [Prensky 2001]. It was used in the double-metaphor »Digital Natives vs. Digital Immigrants« which was part of the paper's title. With the help of this sharply chosen metaphor, the author wanted to emphasize the pivotal difference between those, who were growing at the times of digital and computer technologies development and those, who would always treat technologies as *novelty*. »Digital Natives« were taking computer games, the internet, and the mobile phones with the mother's milk. For them, computer language is native, they are »native computer language speakers«. Those, who were not originally born in the digital world, will always remain »digital immigrants«. Even if they try to adapt and learn the language of digital and computer technologies, they will retain their »accent« of some sort. Marc Prensky's metaphors are especially clear for those, who know how hard it is for a grown up person to learn a foreign language. On the other hand, at an early age, this process is easier, unconscious, and more productive. Therefore, all generations starting with generation »Y« (followed by »Z« and so on in alphabetical order) will be considered as »digital native«; the

representatives of all other generations still alive – as »digital immigrants« (the last – generation »X«).

In the West, the book by D. Tapscott and the paper by M. Prensky lit a fire on the issues in the minds of the researchers from different spheres of science. It also happened due to the further evolution of the new media, for instance, appearance of »MySpace« (2003), »Facebook« (2004) and »Twitter« (2006), the major audience of which consists of those called »N-Gens«, »digital natives«, or »Generation Y«.

»Genius« or »Dumb«, »Architects« or »Herostratuses«?

From the early 2000s, the themes of »youth and new media«, »youth and nets« have become *edgy* for the western science and public discourse. Along with that, the palette of judging the network generation representatives began to vary from admiring their abilities to resenting such their characteristics as »inability to work«, »asociality«, and »goofing up their opportunities«. Mark Bauerlein,⁹ the author of the book »The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes Our Future (Or, Don't Trust Anyone Under 30)« [Bauerlain 2009], insists, that the young generation is not getting any smarter or more educated, despite all the opportunities it is provided with by the Net in terms of the information search. Moreover, they are worse at writing and they read less. At the same time, they are more obedient, they volunteer and avoid risks. The late 19th – early 20th centuries was a rather optimistic time of economic growth, it provided youth with money, civil rights, and, in general, made them »positive«. But the internet, which was supposed to elevate their minds, on the contrary, narrowed their consciousness to the limits of their own social circles of contacts. The whole world came to them via the Net and saved them the trouble of »going out«. Their minds reject the cultural legacy of the world, they *re-post* (borrow) texts, images, videos in the limited groups of peers. It is important, that M. Bauerlein admits, that the negative assessment refers to the intellectual abilities of young people, not their behavior or values.

⁹ Mark Bauerlein – an English professor at Emory University (USA), expert in languages and culture.

In the same 2008, the article »Is Google Making Us Stupid? What the Internet is doing to our brains« by Nicholas Carr¹⁰ was published in »Atlantic Magazine« [Carr 2008]. It contained references to Marshall McLuhan who, already in 1960, had noted the ability of mass media to not only provide information for cognitive processes, but to also conduct these processes. Describing the transformation of his own cognitive processes under the influence of the internet and new technologies, N. Carr used the following metaphors: if some time ago, in the past, he had felt like »a scuba diver in the sea of words«, at present he was »zipping along the surface like a guy on a Jet Ski« [Carr 2008]. Nowadays, even an adult internet user has to force himself to read a comparatively long text till the end. Of course, the same is true for the teenagers who are almost always logged

¹⁰ Nicholas Carr – Harvard graduate, American writer, author of books on technologies, business, and culture.

11 N. Carr presented the data on the use of the mobiles by the teenagers: an average teenager sends and receives around 2272 text messages per month, which is one message every ten minutes when awake.

12 As the example, he used the story about Friedrich Nietzsche who had problems with vision. At some point he decided to buy a typewriter so he could work »blindfold«. As the result, his contemporaries admitted that he began to write more briefly. Later book by N. Carr »The Shallows: What the Internet is Doing to Our Brains« [Carr 2010].

13 The author of the given paper must admit, that today more young people, who belong to the »network generation«, not only find it tiring to read long texts, but also suffer from partial dyslexia (type of reading disorder, characterized by difficulty with learning to read fluently and with accurate comprehension despite normal intelligence), as well as from partial or total dysgraphia (writing disorder associated with impaired handwriting, orthographic coding), and finger sequencing).

14 The authors believe that gamers have their frontal areas »switched off« even when they stop playing.

15 S. Greenfield's official site: www.susan-greenfield.com/media/books/

on to the internet and connected to their phones [Carr 2010].¹¹ He quoted Maryanne Wolf, a famous American psychologist, who once had said: »We are not only *what* we read. We are *how* we read«. Reading and writing are »instinctive« skills. Mass media and other technologies play important roles in forming connections between neuronal cells.¹² In the process of deep reading, people, as a rule, interact with multiple ideas, which requires putting aside all external stimuli and dedicating themselves fully to the text. According to Carr, constant texting, checking e-mail and social sites updates distract modern young people from reading, forming such types of connections between neurons, that interrupt linear reading and deep understanding.¹³

In 2008, American psychiatrists Gary Small and Gigi Vorgan pursued the subject of »digital natives and digital immigrants« in their book »iBrain: Surviving the Technological Alteration of the Modern Mind« [Small, Vorgan 2008]. They proposed that by trying to adapt to the changing world that is becoming »digital« the human brain inevitably changes too. They see the problem not in changes themselves, but in the *rate* of changes. They state that there is a »gap« between cognition patterns of »natives« and »immigrants« of the digital world. They mention facts that prove the ambivalent nature of consequences brought by the influence of information technologies and new media on young people's brains. For example, videogames can improve ambient vision, the ability to identify visual images on the screen, systems thinking, and skills in executive types of activities. At the same time, they restrain the activity of the frontal part of brain that controls memory and emotions.¹⁴

The same disturbing attitude toward positive and negative consequences of the influence of computer technologies on young people's intellectual abilities and emotional sphere appeared in Europe as well. In the early 2000s, among others, British neurophysiologist, Professor at Oxford University, Baroness Susan Greenfield started showing her concerns about uncontrolled usage of the internet and computer game playing by children and teenagers. She is constantly warning the world community about inevitable transformation of the brain structure under the influence of information computer technologies and the internet.¹⁵ As the director of research in this field, she admits, that on one hand, interaction with computers led to improving the IQ tests results of the active young users. On the other hand, they appeared to be incapable of empathy, as it is impossible to learn to sympathize with two-dimensional screen images without communicating with real people. There is one more problem: people have a low understanding what a risk is. The state of a gamer, who is used to having several lives and to killing screen characters, is very similar to the state of a person with damaged pre-frontal part of brain. He has a risk predisposition and does not realize the danger and the consequences of his actions. It is similar to what a schizophrenic feels, whose prefrontal part is also under-developed [Greenfield 2003; Greenfield 2012].

These statements provoked certain reactions: large international, governmental, and private funds in Europe and the USA began supporting research on the influence of computer technologies and the internet on young people and its consequences. As the result, over the last 10–12 years various collective and authors' monographs, scientific papers and reports have come to light. The public interest, as well as the interest of large corporations, toward this problem is so high, so that even editors of business newspapers, just like their colleagues in journalism, publish results of those researches and the reviews on the most prominent publications [Derbyshire 2009]. TV programs on popular science, that host scientists and teachers who have different views on the consequences of internet influence on youth, have high ratings.¹⁶ Therefore, very a controversial attitude toward network generation and its prospects was formed in the scientific and public discourses by the middle 2000s.

16 »Social websites: bad for kids' brains?«
– BBC Newsnight. 25 February 2009. – Retrieved 6 January 2010. – [news.bbc.co.uk/2/hi/
programmes/newsnight/7909847.stm](http://news.bbc.co.uk/2/hi/programmes/newsnight/7909847.stm).

Stereotypes, That do Not Let Us Understand the »Network Generation«

At the peak of those discussions, in 2008, when the oldest N-Gens came to the age of 25, the new book »Grown Up Digital: How the Net Generation is Changing Your World« by D. Tapscott was published [Tapscott 2008]. The author was trying to figure out what was happening to the grown up generation under the conditions of the further development of computer technologies. D. Tapscott paid particular attention to the *stereotypes* about the representatives of the »network generation«:

- »They are dumber, than we used to be«. They cannot concentrate, suffer from distracted attention disorder;
- They have a network addiction, they spend time on the Net instead of going info sports, they avoid personal communication, have health problems (obesity). Their addiction to videogames may be compared to alcohol or drug addiction.
- They are socially immature, not capable of living on their own – they live with parents.
- They have no respect for copyrights, they violate copyright laws.
- They are used to uncontrolled bullying on the Net.
- They are poorly motivated; they cannot set goals; they are bad employees (do not want to obey office rules).
- They are egoistic and narcissistic; social networks and YouTube let them feel themselves in the center of attention.

Based on scientific data, the author suggests that we look at the network generation with *different* eyes. Of course, the N-Generation, or the »Generation Y«, is different from all previous generations. But could it be otherwise, if it is the first generation for which the technological environment is a *natural* environment? Tapscott believes, that N-Geners in particular are able to change the future of an organization, because they, unlike the previous generations, have almost an »inner« understanding how to deal with new technologies. The author agrees, that media have changed behavioral patterns of N-Geners and influenced some of their brain functions, but he evaluates those changes mostly as »positive«. For instance, permanent multimedia experience made N-Geners' consciousness more sensitive in perceiving visual objects and orientation in space. Videogames improved coordination of eyes and hands, which is essential for fast decision-making. The span of their short-term memory has not been enlarged (maybe, even got smaller), but the technological knowledge has increased in quantity, their amount of skills and their rate of using them run high. It provided young people with the opportunity to find necessary information really fast, to process it, to evaluate, and to turn it into knowledge. As negative consequences of new media influence, that require specific attention of teachers and parents, Tapscott considers poor critical thinking which does not let N-Geners, e. g., distinguish extreme creativity from madness.

It is absolutely obvious for Tapscott that the network generation will transform social institutions in a way no one has before. First of all, it concerns the institution of education.¹⁷ Traditional education generated knowledge similarly for everyone. Students were like »empty vessels«, passively fulfilled with content. Such methods do not work anymore. Too many students do not want to study and drop from schools and universities, so, we must consider this the result of applying the traditional methods of teaching. Today, when students have immediate access to any factual data online and the knowledge in any professional sphere become obsolete very fast, modern education must concentrate on *how* to learn, instead of just transferring knowledge. Teachers should stop lecturing and begin interacting and cooperating, by letting their students research and discover new knowledge by themselves.

Tapscott emphasizes that the N-Generation is different from other generations in terms of its attitude toward work. Instead of being loyal and working at the same places all their lives, they prefer changing work places from time to time, searching for a better salary, as well as for a more interesting job. They want to be in full charge of their own careers, including entrepreneurship. A »free-lancer« status does not scare them, moreover, it is preferable, because it is flexible in terms of time and place of work. N-Geners like »to have fun« at work, which is effected on the design of their work environment (including virtual) and informal communication with other employees and partners. They turn out to be valuable assets for a

¹⁷ Here, D. Tapscott advocates the view of M. Prensky.

company, because they bring enthusiasm, talent, and initiative, along with new technologies.

N-Geners consume goods as fast as they consume information. Tapscott thinks, that marketing experts are supposed to take into consideration the »consuming« particularities that were formed under the influence of new media. As far as N-Geners have a lot of experience in using anti-advertising applications, marketing strategies, targeted at them, must be based on developing *relations* with them. It is well-known, that young people value the opinions of their peers, therefore, it is vital for marketing experts to use social networks and groups in order to figure out who the opinion leaders (»agents of influence«) are, for instance, active bloggers, and to »hire« them, in a certain way. Bloggers may make comments on the products and communicate their opinions to the Net audience.

According to Tapscott, N-Geners have an absolutely new set of social skills. They realize their active attitude through using photo and video cameras on their devices and posting documentary materials on the Net, rather than participating in mass public and political events (demonstration, riots, etc.). For »Generation Y«, computers are the safest means of »uniting« and the most effective means of forming particular public opinion among large number of target audiences. As a good example of such virtual political activity of N-Geners, Tapscott describes the successful campaign of Barack Obama in 2008. It showed the role of the network generation in changing politics. It was for the first time when American youth participated in political life of the country so actively.

N-Geners are not just inheriting the world, they are changing it. Those changes cross the borders of virtual and come to the real life.¹⁸ N-Geners are sure, that they have the right to be heard. They will not wait for a response too long: their reaction will be global and immediate, considering the characteristics of the Society-Network. Of course, the network generation is not perfect, neither is the internet or digital technologies, which allow users to steal music, watch porn, and conduct hacker attacks. Certainly, the youngest N-Geners need help from the grown ups in mastering the ethical principles our civilization should live up to. In general, Tapscott believes, that network generation is not »lost«, it does not have »fatal vices«, moreover, it makes our world a better place.

Ten years after the publication of his first book, Tapscott describes the basic characteristics of N-Generation and points out its fundamental values:

- »Freedom« – N-Geners expect and demand freedom, choice, and diversity in all spheres of life.
- »Individual Adjustment« – Unlike the previous generation, which used to consume mass products, they prefer personal style not only in con-

18 D. Tapscott mentions the case when British Council invited four teenagers, active bloggers, to speak on global problems at the final plenary session of the Global Humanities Forum in Switzerland.

suming, but also in their work environment.

- »Control« – Being surrounded by numerous competing media-channels, N-Gener learnt to control information, immediately recognizing mystification and lie.
- »Honesty« – They expect honesty from companies. They can forgive honest mistakes, but not fraud or malpractice.
- »Cooperation« – This is N-Gener's natural state, it often goes over the edges of co-working and mutual social activities and turns into co-creativity.
- »Entertainment« – It is so important and necessary for N-Gener that they always want to enjoy their work and sometimes cannot see distinct line drawn between work and fun.
- »Speed« – N-Gener use high-speed technologies, so they expect prompt responds, decisions, and actions. If they do not get them, they become »dull«, anxious, and irritated.
- »Need of Innovations« –N-Gener constantly remain in the stream of technological changes, so they want to possess only brand new technical »toys« [Tapscott 2008].

Along with the second book by Tapscott, the book »Born Digital. Understanding the first generation of digital natives« by John Palfrey and Urs Gasser was published in the USA [Palfrey, Gasser 2008]. The authors' objectives were to study basic tendencies of establishing network generation and to determine which of them should be supported and encouraged, and which should become the objects of everyday public and parents' attention and concern. Palfrey's and Gasser's professional sphere of expertise¹⁹ explains the major questions they try to answers: »Why do digital natives put personal information on the internet »at the click of a button?« and »How parents and teachers can protect them from online bullying and interfering their personal lives by strangers?« Just like Tapscott, they created their own image of the digital natives, based on the results of serious social surveys.²⁰ It is very complex and consists, on one hand, of natives' energy, their need for creativity and innovation activities, on the other, of their internet addiction, acts of aggression, harassment, ignoring copyrights and non-critical information processing. Though young people, their parents and teachers have to live under the conditions of a »digital Pearl Harbor«, Palfrey and Gasser are still optimistic about the possibility to solve most of the problems, unless the government does not pay attention to improving »internet legislation«. It is important, that they propose to put the interests of individuals above the interests of legal bodies (opposite situation is typical for US laws).

19 John Palfrey and Urs Gasser– Professors of Law at Harvard Law School, work for Harvard's Berkman Internet and Society center – cyber.law.harvard.edu.

20 The authors prefer to call the digital natives »tribe« or »population«, emphasizing that they are just one billion people out of six, inhabiting the planet today.

Most of the researchers who study the problems of N-Geners, »digital natives«, and »Generation Y« are familiar with the book by J. Palfrey and U. Gasser. However, as it was mentioned above, D. Tapscott and M. Prensky remain the first researchers in the field. Their books and papers set the tone for the scientific and public discourses on the characteristics and abilities of the modern youth, growing under the constant influence of the Internet. Over the last 10 or 12 years, a great number of researches on various aspects of the »youth and the Net« issues, specific and interdisciplinary, have been conducted all over the world.

For instance, in 2005, the book »Generation Y: Surviving (and Thriving) with Generation Y at Work« by Peter Sheahan was published. It consisted of four chapters under very expressive titles: »Understanding Generation Y«, »Attracting Generation Y«, »Managing Generation Y«, »Retaining Generation Y« [Sheahan 2005]. P. Sheahan gives other names to this generation, such as »street smart« and »Generation WHY«. Besides, he divides it into *sub-generations*, because part of it was undergoing great development of technologies as teenagers (if born after 1992), the other part – as children (if born after 2000). »Street smart« young people have a »street« type of intelligence, which allows them to orient in the surrounding environment really quickly and to use the information properly. The fact that they love changes and can adopt rapidly, makes them ideal subjects and objects for innovations. They are valuable for business as employees, because they can find the shortest ways to achieving the goals. They also want to know *why* they have to do a certain task. It is important for them, as they need to process and evaluate great amount of information, while achieving their goals.

Now let us turn to another notable book, published in the first decade of the 21st century, on the problem we are interested in. It is the book *Generation Digital: Politics, Commerce, and Childhood in the Age of the Internet* by professor Kathryn Montgomery [Montgomery 2007],²¹ the expert in communications, media-critics, and digital culture. The author concentrates on the issues of intrusion of digital technologies in the everyday lives of children and teenagers. She also considers the changes in children's personality under the influence of the new media landscape. Back in the day, the rooms of ten to fifteen-year-olds used to reflect their inner experiences (walls covered with posters, personal diaries in table drawers). Today all of that (thoughts, preferences, friends) is on the internet. They have an opportunity to »try on« different personalities, choosing a more appropriate one, and, in such a manner, to express themselves in front of the audience. K. Montgomery analyses the problems of accessibility to porn and scenes of violence on the internet and the commercialization of new media. She admires the role of the »Generation Digital« in creating unique symbiotic relations between brands and consumers, because teenagers voluntarily take part in developing and promoting brands. K. Montgomery describes youth as bold pioneers and active creators of the new digital culture on one hand, and as innocent victims and passive »targets« of digital marketing

21 In 1998, the results of K. Montgomery's researches on electronic commerce and electronic confidentiality made USA Congress pass The Children's Online Privacy Protection Act (COPPA).

on the other. In her opinion, such ambivalence is the core characteristic of the »Generation Digital«.

While researchers – sociologists, psychologists, teachers, etc. – try to examine the abilities of the »Y-Generators«, to follow their dynamics, and to argue on positive or negative influence of computer technologies on their brains,²² business representatives use those characteristics for their commercial purposes. Over the last ten years, a lot of books with particular titles have appeared, for example, »Dancing With Digital Natives: Staying in Step With the Generation That's Transforming the Way Business is Done« by M. Manafy and H. Gautschi [Manafy, Gautschi 2011]; »Tapping Into Generation Y: Nine Ways Community Financial Institutions Can Use Technology to Capture Young Customers« by C. Greg [Greg 2010], and so on. Using the results of scientific studies on the characteristics of the »Net« generation, managers and marketing professionals develop effective technologies to involve »Y-Generators« into online shopping and into brand and production formation.²³ Nowadays, the »Y-Generators« are the most active online shoppers all over the world.²⁴

22 E. g., Initial findings on the effects of digital technologies on school-age learners. – Paris: OECD. – 2008. – www.oecd.org/dataoecd/39/51/40554230.pdf); 2) Lusoli W., Miltgen C., »Young People and Emerging Digital Services an Exploratory Survey on Motivations, Perceptions and Acceptance of Risks«. – Joint Research Centre, IPTS – 2009 – ipts.jrc.ec.europa.eu/publications/pub.cfm?id=2119).

23 E. g., the technologies of using »brand advocates« and »crowd sourcing«. »Brand advocate« is a person who evaluates a product and recommends it to other potential consumers. Companies find the most active and talented »Y-Generators« in order to use them as opinion leaders. Producers provide young people with free gadgets, devices, designer clothes, etc. in exchange for their »independent opinions« on them. It took several months for Tavi, a fourteen-year-old daughter of an artist and a teacher from Chicago, to become a leader of opinion for a multi-million audience of »Y-Generators« [Spicheva, Kuzheleva-Sagan 2012:64–68]. Young bloggers are welcome to the fashion shows, they inspire designers and couturiers, their photos illustrate the best glossy magazines. (vespig.wordpress.com/2010/04/19/самые-известные-модные-блоггеры). »Crowd sourcing« – is a technique of gathering ideas from outside a company, from groups of people, especially from online users (wiki.witology.com/index.php/Краудсорсинг).

24 According to some surveys, eight to twelve-year-old American children spend around 30 ` 000 ` 000 dollars of pocket money every year. They also influence their parents 150 ` 000 ` 000 expenses. (»Подростки. Они тратят \$180 млрд в год и знают о технологиях больше, чем вы когда-нибудь узнаете« – 26 июня 2012 г. – www.adindex.ru/publication/tools/2012/06/26/91148.phtml).

»Janus-Faced« Profile of the »Network Generation«

Based on the analysis of the above mentioned researches, we can point out three major approaches to describing socio-psychological profile of the »network generation«: 1) emphasizes *positive* characteristics (D. Tapscott, M. Prensky, P. Sheanan); 2) puts forward *negative* features (M. Bauerlein); 3) insists on its *ambivalent* nature (J. Palfrey, U. Gasser, K. Montgomery). The latter approach seems to be more relevant, if under the term »ambivalent« we understand that N-Generators can possess 1) characteristics, that may come out as advantageous and disadvantageous; 2) opposite socio-psychological characteristics that are not common for the *same* types of personality. Such ambivalence can be qualified as a certain »lack of identity« and can be called »architect and Herostratus combined in one personality« complex. Here we represent several examples of such ambivalent characteristics, typical for »N-Generators«:

- The ability to do several tasks at the same time, switching from one medium to another and interacting with the real world simultaneously. It leads to incapability of doing the same work for a long time, especially if it requires concentration, attention, and diligence. As a result, N-Generators are not ready for long-term cooperation and slow promotion. They need immediate success and recognition.
- A high level of information awareness, which appears to be the result of using various sources. These sources are not always reliable in terms of their accuracy, which interrupts deep and systematic knowledge formation. Young people do not have enough cognitive experience and actual

knowledge about the world around them. They used to develop those under the influence of reading books and communicating with older generations. Today, they make decisions based on their own ideas of truth, good, evil, and so on.

- Orientation on the net type of collaboration, which makes it difficult to work totally »independently«. Communication in social networks and on other professional platforms has changed the structure and the scheme of doing a job. Having received an individual task, an actor has an opportunity to use such technology as »crowd sourcing«, which is putting the task on the Net and asking »friends« for help. The advantage here is obvious: actors can go beyond their own creative abilities. Another disadvantageous side of it – the habit to rely on the help of the Net which leads to the lack of young people’s skills of working alone and to reducing their diligence. Besides, productive creativity and developing an original product are replaced with reproductive work. Instead of giving birth to a unique idea, N-Geners go on the internet and use already existent experiences to combine with other people’s ideas, that have already become successful.²⁵

Now, let us turn to several examples of possessing absolutely opposite characteristics by the same N-Geners:

- Realizing oneself as a *self-sufficient* person, being responsible for own actions, but at the same time, being totally *infantile*. The first characteristic is the result of the pre-figurative relations between young and old generations (M. Mead): usually, N-Geners are teachers for their parents, when it comes to using new digital and computer technologies. The »teacher status« allows them to feel authoritative and self-actualized. The second characteristic refers to the fact, that nowadays, socialization of teenagers and young people takes place on the Net, among people of their own age. That leads to emotional and social immaturity, formation of specific »infantile« attitude and behavior. Today, a young man around thirty who lives with parents, plays online games, and does not plan on having a family is quite frequently occurred phenomenon. Such people are called »kidults« (»kid« and »adult« combined in one word).
- Manifestations of individuality and unique style on the one hand, and a tendency to the »herd behavior« on the other. Individuality and style result in high professional achievements, as well as success in the world of cyber-games and virtual communication. »Herd behavior« leads to prompt responses to various »viral« technologies and to the desire of being »on trend«.
- The tendency to participate in different network projects valuable to the community, as well as in anti-social activities (hacking, viral attacks,

²⁵ This reproductive type of creating a new product is very common for the current pop-culture: instead of making original movies and recording original music, the entertainment industry produces sequels, prequels, cover-versions, and remixes on successful projects.

etc.). Charity and network brotherhood are just as attractive for young users, as aggressive behavior, such as trolling, online bullying, etc.

Conclusion

Based on our research, we are ready to propose the following hypothesis on the reasons of the controversial nature of the »network generation's« socio-psychological profile:

The unprecedented ambivalence of characteristics, possessed by the N-Generers, above all can be explained by the characteristics of the Net as their major life and work environment. Along with interactivity and global nature, its most important characteristic is the *duality of all its processes*, e. g., self-organizing and manageability, centralization and de-centralization, controllability and tendency to obtain freedom, uniting and fragmenting, socialization and individualization, democratization and developing digital inequality [Nosova 2012]. Such ambivalences of the internet indicate the ambivalent status of the »network generation«, as one of the most active subject and object of the electronic communication. The necessity and opportunity to play different social roles in the Society-Network leads to a diversification and the »loss« of identities by the most active agents, i. e., N-Generers. But is that »lack of identity« a pathology or a condition of surviving in the Society-Network? That is the question ...

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