

The X and Y Generations' Characteristics Comparison

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Abstract: The aim of this paper is to identify generational differences, also similarities among university students in order to realise the reason of generational gap. Data for this study were collected through survey analysis (n=783). Findings indicated significant differences among X and Y generations usage of new technological innovation (i.e. also applications and devices). While Generation Y members (Millennials) are technology and social media addicted, the members of elder generation are in a different life period and due to this they are calmer, and more family oriented. Although generational gap is one of the fanciest management topic it is necessary to highlight that some characteristics are not as socially back-grounded rather than typically age relevant. On the other hand, generation gap is not so sharp the two, there is only a slight shift from X to Y or Z generations. That means the so-called cuspers (between generations' members) should also be taken into consideration.

Keywords: Generation differences; Millennials; Cuspers; X generation

1 Age Groups or Generations?

The foundation for generation research was laid down by American historians William Strauss and Neil Howe in their paper Generations, published in 1991 [2]. Some preferred names for this generation [2] are:

- The new generation of the labour market,
- Generation Y,
- Millennials,
- The next generation,
- Generation Tech,
- Generation.com ...

The research has led them to the conclusion that there is a certain pattern in the behaviour of consecutive generations and such a cycle lasts for about 80 years. This lifetime-long generation transition has become much shorter in the case of the recent generations; the quicker the technological innovations are implemented, the more difficult it is to determine the transition between the generations. McCrindley and Wolfinger [6] gave an excellent summary of the characteristics of each generation, but their results were based on the research of Australian generations. Although globalization has been expanding, these limits can be different in different cultures or regions. For example, the authors put the birth of generation Z for 1996; in Hungary, the first members of generation Z have just started their higher education studies. If we use the limit set previously in 1996, we will see later that they are represented in our sample, but the young titans of generation Z are not treated separately from generation Y. (1) Due to lack of an exactly defined turning point, those born in 1996 can also be the elder representative of generation Y; (2) their number of elements as represented in the sample is so low that it does not make any sense to treat them separately.

The sociological research, however, cannot disregard the impact of information technology development. Thus, some research projects distinguish the generations in modern history based on impacts of the digital age. Tapscott [15] basically distinguished 4 generations. The first that he describes in detail is the baby boom generation; they were born between 1946-1964. This generation was named after the explosive growth in number of births after World War II. There are approximately 81 million of them all over the world. The information revolution for them is basically the radio and TV.

Generation X – those born between 1965-1975 according to Tapscott [15] – has arrived at a specific social environment. The number of births has drastically declined, by almost 15%. The unemployment rate is very high; all the jobs have been taken by the members of the older generation. This generation is a very aggressive communicator; they are very strongly media-oriented. They are followed by the Y or Net-generation. Their number is almost as high as the baby boom generation. Their members are extremely efficient in study and work. They almost immediately digest the collected information, share it with their friends and acquaintances, thus helping its interpretation and absorption. The generation Z is the next; they have not entered the labour market yet, they are currently enriching their knowledge in education. They are perfectly fine with all the digital devices and they are almost unable to exist without these devices [14].

First of all, we need to give a correct definition for generation as a niche of a cohort population. The KSH's (Hungarian Central Statistical Office) definition, which has been used since 1970, is the following "Generation is a specific type of population cohort: it means a group of people who were born in the same year. As the members of a generation should live through demographically important events (for example getting a degree, marriage, birth, employment, death, etc.) interlocked this way time and frequency of occurrence of these events are

comparable with factors affecting in time.” [4] According to Bordes et al. [1] a generation is a peer group defined by both its demographics and its key life events like passage from birth to adulthood. Shaped by their common history and influences by common icons, events and conditions (forces in the environment) that become reference points for them, which ends in shared values and behaviours.

According to this, the age group born in the same era and thus socialized in a similar environment can be regarded as a generation. Of course, it does not mean that all members of the same age group are identical. The differences of personality and other psychological characteristics make each group colourful.

The environment, in which the person is socialised, is also determinant from the aspect of their system of values. The other important aspect to be highlighted, is that the age differences (developmental psychology) should also be considered, when the generations born in different eras are compared. For example, it has been mentioned in several places that generation Y is ambitious as opposed to the generation X, whose members have become apathetic by now. We strongly believe, however, that the members of generation X were also full of ambition at the same age, when they started to explore the job market. [9]

Reeves and Oh’s paper [11] provided a perfect state of art concerning the literature of Generation Differences. They suggested that generation means people born within the same time period (nowadays this period is decreasing); share a common set of characteristics based on historical experiences, economic and social conditions, technological advances and other societal changes. At the same time, they noted that the most popular findings are based on limited data, so these should be treated with a lack of reliability and validity data. But, mainly their paper verifies the above-mentioned KSH’s definition, i.e. various generations could be determined by chronological schemes (assign people born in any given year). Opinions of researchers may be different because different geographical areas follow different technical/ecological/business innovation. Cultural differences must be taken in consideration as well, i.e. some chronological schemes and impacts reach the cultures differently and in different times, and we do not take historical differences in consideration or there will be individuals who do not fit the mould.

The paper written by Péter Róbert and Tibor Valuch [12] was chosen as a benchmark. The authors try to describe and classify the political and sociological features of Hungarian history in the last 100 years in terms of generation research, as it is presented in Table 1.

Table 1

Generation division in terms of individual time, historical time and socialization in Hungary [12]

Historical time	-1949	1949-1962	1963-1989	1990-1995	1996-
	Confrontatio, world war, Horthy-era	The long 1950s	Kádár's consolidation then crisis	Transformation crisis	Post-socialism
Individual time	Ageing of generations				
Young 1983-1997					Young age socialization
Young middle-aged 1963-1981					Family, young-age socialization
Middle-aged 1948-1962					
Old -1947	Family, young age – primary socialization		Later, adult age – secondary socialization		

According to this, the members of population regarded as generation Y were born after 1982 and have lived through three historical eras, which could well be distinguished in terms of politics. In our opinion, however, the IT revolution, open borders, globalization and the changes in the education system and attitude have had a much greater impact on this generation than the political and historical structure. Due to the digital revolution, new forms and methods of education have been implemented; new technologies were born, which have presented serious challenges to the traditional educational system. The members of generation Y have lived through these changes. [16] They are 'Baby Boom Echo', this name describes the children of the Boomers. [7] In Hungary, they are the grandchildren of the people of the so-called Ratkó's era.

Managing this period shifts between nations we accept Lancaster and Stillman' [5] opinion. Between two generations there is a slight shift in which group shares preferences, values, attitudes and behaviours of both generations. They are the so-called cuspers. We identified them as those born between 1980-1982. The authors made the distinction between people born on the edges of various generations. They labelled this period between 1975-1980 in the USA. As Reeves and Oh [11] suggested, the existence of cuspers further limits the generalization of generational traits to individuals based on their categorization regarding generation [11, p. 297]. Birth year is only one of the factors to distinguish generations and it is a relatively sensitive factor. We argue that generations are rather shaped by historical heritage and cultural background than chronological data, but this factor could be handled more easily. That is why we use this categorization during our study. Finally, the Hungarian society shows the following picture:

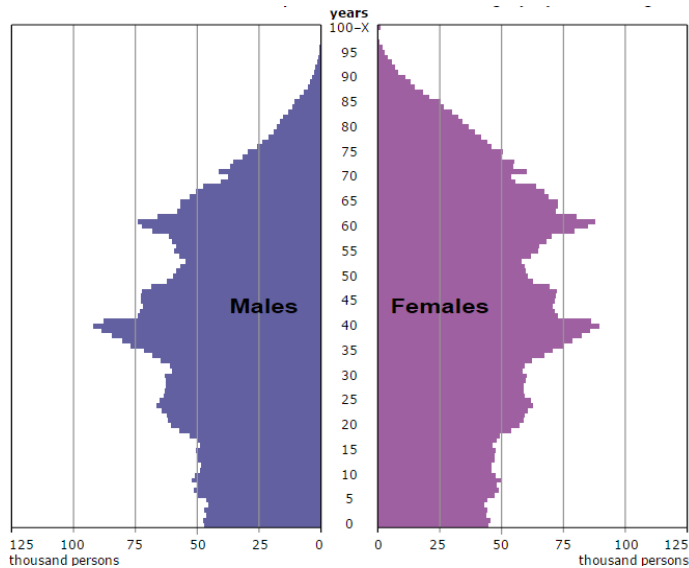


Figure 1

Population number of Hungary by sex and age (1. January 2016 9 830 485 person)

X generation till 37 years old-Cuspers between 36-34 years old-Millennials younger than 33 years old. But, what are the main differences between X generation and Millennials regarding their opinions?

2 Empirical Research

2.1 Research Questions and Methods

We absolutely agree with Reeves and Oh [11] who suggested a distinction between people born on the edges of various generational spans and those caught between two generations by labelling them cuspers. It is difficult to find that salient effect (e.g. political, social or cultural event) which divided the two periods of observed generations. For these, we were interested in the so-called slightly shift. Measuring differences, we had to choose and define factors which could be diverse between generations. Factors and terms used by us were observed earlier, more information can be found in Kolnhofer-Derecskei and Reicher [3].

Our first hypothesis is the following:

H1. There are significant differences between generations' attitudes. (We were interested only in differences so there are no labelled factors.)

We assume that there are main differences between examined generations' groups. Regarding the measured factors there were some, which significantly differ from each other among different generations. These characteristics can be identified with the impact of time and innovation (e.g. using of social media or IT innovations) but, not all of the asked and measured variables will be different. Other characteristics will be similar in the case of all generations, like personal, lifetime period or educational characteristics. Testing our hypothesis, we used Kruskal-Wallis non-parametric test (with sig level. $p=0.95$) because this method is not so sensitive in distributions and standard deviations of independent samples (compares modes and not means) but it is one of the absolutely reliable statistics. We had to consider the cuspers, due to this, we divided our sample into three layers. Gender differences also consist and influence our way of thinking so *we compared responds regarding gender* (however, this case there was no hypothesis determined we used Mann-Whitney non-parametric hypothesis test).

Secondly, we assumed that factors could be a group of factors. Using the method of clustering we could answer our next research question; namely what kind of characteristics attract different identifiable groups (now generations).

Regarding judgments of subjects, different characteristics could be grouped into three clusters.

With k-hierarchical cluster analysis (in this case exclude cases list wise procedure was used) we could cluster variables (terms) into three clusters (we used $k=3$ because earlier we have determined three different subsamples, namely generation X, cuspers and Millennials). Using this method, sharp differences will jump out from the data. This procedure attempts to identify relatively homogeneous clusters of variables based on selected characteristics.

Later, based on generated clusters, i.e. variables of grouped characteristics' subjects can be identified because this process also classifies cases (i.e. respondents) and not only variables into the three clusters. Thus, we have generation description based on meaningful clusters and the age category about any of the subjects.

Lastly, but not least, we were able to compare subjects' opinions (clusters) to age categories. Finally, our hypothesis 2 was the following:

H2. Age' and characteristics' clusters are significantly interrelated.

In the last part of our research we used symmetric measures (Cramer's V with 0.95 signif. level) and samples comparison non-parametric method (Friedman k related samples test).

SAMPLE

This study does not examine demographic heterogeneity within millennial cohort because the sample consists of students at Obuda University. This is a typical problem in case of generations' studies, as Reeves and Oh [11] highlighted in case

of Millennials, that the samples were mainly students, focused on people who entered colleges or universities and focused on white collar or intellectual worker careers. However, generation differences mostly cause educational problems before workforce's challenges. But, sooner or later, all the Millennials will enter the labour market. Regarding characterization, we tried to define the research questions from the aspect of the labour market (this is to be discussed and justified in detail in subsequent analyses). When the differences between generations were to be explored, we focused on the comparison made on the basis of labour market features. The methodological background is detailed in Kolnhofer-Derecskei & Reicher [3]. The used listed terms were included in the first question of our question series compiled with the help of Google survey form. Link to the questionnaire:

https://docs.google.com/forms/d/179uhOPyaFpDpvkDAEw5CgPzAzPCbooM04Qhb_cnHYM8/viewform?usp=send_form

The respondents were asked to mark the five most important traits, which they think are typical for the members of their generation. Answering this question was compulsory and the list of characteristics was complemented with an output (text box). The respondents could mark more or less than five traits (the online survey form does not enable to program the given conditions). The completed (and formally as well as semantically validated) questionnaire was sent to all the students of Óbuda University through the Neptun study administration system and the participants in the research could also distribute it. As Rajnai, et al. [10] suggested new generations bring new learning attitudes. Therefore, e-learning is nowadays more than a learning system, it is complete solution and way of communication between students and lecturers. "Many universities and colleges implement e-learning system in their own training programs to satisfy the learners' needs." [10 p. 118] Also, Óbuda University uses Neptun and Moodle systems in order to connect its participants together. That is why we used the Neptun system sharing our survey in the case of measuring students' opinions.

Table 2
Distribution of respondents (head)

Sample	Gender		Total
	Male	Female	
X Generation	57	28	85
Cuspers	24	12	36
Y Generation or Millennials	403	259	662
Total	484	299	783

Since the present paper focuses only on the members of the Y generation, the responses of only those respondents are discussed (after, of course, classification and filtering) whose date of birth was in 1982 or later. The characterization of the sample in terms of demography is summarized in Table 2. The filling ratio in case of students from Obuda University – marked as population – was rather high

Therefore, the sample covers the students of Óbuda University and can be regarded as representative from several aspects.

Regarding our population (i.e. students of Óbuda University) this study is based on selective Millennials and one level of education, rather than national datasets. That caused the over-representation of Millennials. It is important to remember that the data are survey based on self-reports and not behavioural measurements or observations. As we mentioned earlier they will enter the Hungarian corporate world thus, managers and leaders should pay attention to these generation differences and make changes in their leadership styles, practices and tools.

2.2 Hypothesis Examinations Comparing the Opinion of Two Generations

Comparing these results with the responding members of the other generation (about 110 people), we can see the divergence is arising not only from the generation differences, but from age characteristics as well. The following differences are shaped by the comparison of relative frequencies of responses received from students belonging to generations Y, cuspers and X:

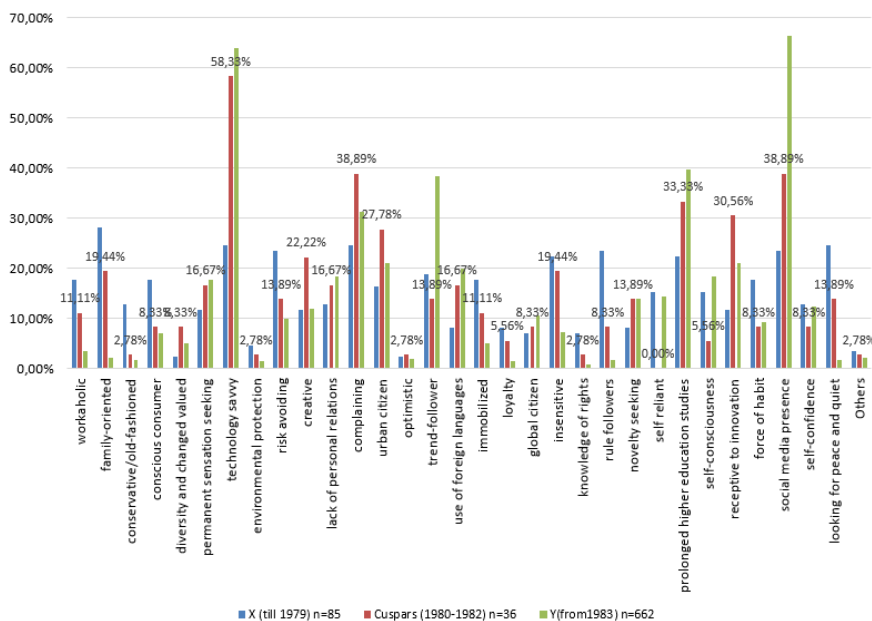


Figure 2

Descriptive statistics of different meanings

For the evaluation procedures, we have used (online) content analysis software and SPSS. Mainly, we used descriptive statistics because most of the responses

were measured on nominal or ordinal scales. Using non-parametric hypothesis test for two independent samples (Kruskal-Wallis test, significance level is 0.05) there were sometimes (n=13) significant differences between the groups. We compared the distribution so in cases of any characteristics there were group diversities. Independent samples median hypothesis test estimated the same results.

Table 3
Summary of our findings

Descriptions	Sig.	Decision
workaholic	,000	Rejected the null hypothesis.
family-oriented	,000	Rejected the null hypothesis.
conservative/old-fashioned	,000	Rejected the null hypothesis.
conscious consumer	,004	Rejected the null hypothesis.
diversity and changed valued	,346	Retain the null hypothesis.
permanent sensation seeking	,377	Retain the null hypothesis.
technology savvy	,000	Rejected the null hypothesis.
environmental protection	,120	Retain the null hypothesis.
risk avoiding	,001	Rejected the null hypothesis.
creative	,197	Retain the null hypothesis.
lack of personal relations	,454	Retain the null hypothesis.
complaining	,267	Retain the null hypothesis.
urban citizen	,361	Retain the null hypothesis.
optimistic	,924	Retain the null hypothesis.
trend-follower	,000	Rejected the null hypothesis.
use of foreign languages	,031	Rejected the null hypothesis.
immobilized	,000	Rejected the null hypothesis.
loyalty	,000	Rejected the null hypothesis.
global citizen	,562	Retain the null hypothesis.
insensitive	,000	Rejected the null hypothesis.
knowledge of rights	,000	Rejected the null hypothesis.
rule followers	,000	Rejected the null hypothesis.
novelty seeking	,334	Retain the null hypothesis.
self reliant	,047	Rejected the null hypothesis.
prolonged higher education studies	,007	Rejected the null hypothesis.
self-consciousness	,120	Retain the null hypothesis.
receptive to innovation	,042	Rejected the null hypothesis.
force of habit	,049	Rejected the null hypothesis.
social media presence	,000	Rejected the null hypothesis.
self-confidence	,756	Retain the null hypothesis.
looking for peace and quiet	,000	Rejected the null hypothesis.
Others	,769	Retain the null hypothesis.

Kruskal-Wallis nonparametric tests algorithm. Asymptotic significances are displayed. The significance level is 0.05 Rejected H0 means: at least one sample is different.

Our first hypothesis (H1) was accepted: we have found significant diverse factors among generations. At the same time, we must highlight that not all the measured characteristics are relevant to generations. Some of them (like creativity or innovation) are independent from the generations' classifications because they are personal traits like optimism (i.e. born with) or typical general world relevant like urbanism (i.e. globalization problem) or age-relevant (i.e. change with age, education or maturity).

In the second comparison, we divided our sample regarding their gender.

Differences between genders are the following:

Table 4
Group Statistics Mann-Whitney U

gender (grouping variable)		N (Chosen)	Relative (%)	Asymp. Sig (2- tailed)
workaholic	male	23	4,75	0,248
	female	20	6,69	
family-oriented	male	28	5,79	0,954
	female	17	5,69	
conservative/old- fashioned	male	16	3,31	0,619
	female	8	2,68	
conscious consumer	male	39	8,06	0,753
	female	26	8,70	
diversity and changed valued	male	24	4,96	0,971
	female	15	5,02	
permanent sensation seeking	male	86	17,77	0,536
	female	48	16,05	
technology savvy	male	280	57,85	0,228
	female	186	62,21	
environmental protection	male	6	1,24	0,079
	female	9	3,01	
risk avoiding	male	57	11,78	0,863
	female	34	11,37	
creative	male	74	15,29	0,003
	female	24	8,03	
lack of personal relations	male	82	16,94	0,451
	female	57	19,06	

complaining	male	145	29,96	0,465
	female	97	32,44	
urban citizen	male	113	23,35	0,270
	female	50	16,72	
optimistic	male	12	2,48	0,273
	female	4	1,34	
trend-follower	male	165	34,09	0,442
	female	110	36,79	
use of foreign languages	male	88	18,18	0,758
	female	57	19,06	
immobilized	male	33	6,82	0,800
	female	19	6,35	
loyalty	male	12	2,48	0,903
	female	7	2,34	
global citizen	male	48	9,92	0,839
	female	31	10,37	
insensitive	male	55	11,36	0,200
	female	19	6,35	
knowledge of rights	male	8	1,65	0,984
	female	5	1,67	
rule followers	male	24	4,96	0,400
	female	11	3,68	
novelty seeking	male	64	13,22	0,845
	female	41	13,71	
self reliant	male	63	13,02	0,423
	female	45	15,05	
prolonged higher education studies	male	189	39,05	0,270
	female	105	35,12	
self-consciousness	male	84	17,36	0,895
	female	53	17,73	
receptive to innovation	male	86	17,77	0,019
	female	74	24,75	
force of habit	male	49	10,12	0,967
	female	30	10,03	
social media presence	male	275	56,82	0,007
	female	199	66,56	
self-confidence	male	54	11,16	0,231
	female	42	14,05	
looking for peace and quiet	male	31	6,40	0,010
	female	7	2,34	

As can be realised there were four times the significant (sig. level 0.95 $p < 0.05$) differences between genders. Creativity and innovation were differently handled, which is quite interesting because these two phenomena depend on each other. Creativity was defined as a personal trait (being creative), and innovation mainly defined as open-minded to innovation. As a conclusion, we can underline that there were not really important differences between the judgments of the two genders.

Our next research question deals with selecting and grouping variables (here characteristics).

First of all, we tried to understand the relationship between variables and for this we used the MDS technique. Multidimensional scaling technique attempts to find the structure in a set of proximity measures between objects, the distances between points in the space matching the given dissimilarities as closely as possible. The result is a least-squares representation of the objects in that low-dimensional space, which, in many cases, will help to further understand data. MDS uses distances between variables, we took Proxscal mode with squared Euclidean distances. The stress and fit measures give an indication of how well the distances in the solution approximate the original distances. Lower stress measures (to a minimum of 0) and higher fit measures (to a maximum of 1) indicate better solutions.

Table 5
Stress and Fit Measures

Dimensionality:	2
Normalized Raw Stress	,04483
Stress-I	,21172 ^c
Stress-II	,36124 ^c
S-Stress	,08736 ^d
Dispersion Accounted For (D.A.F.)	,95517
Tucker's Coefficient of Congruence	,97733

PROXSCAL minimizes Normalized Raw Stress.

c. Optimal scaling factor = 1,047.

d. Optimal scaling factor = ,951.

This method helps us to understand the impact of time instead of grouping characteristics. That is why drawing the cluster centres or borders would not clarify the meaning of our findings. Axes are more important and relevant. Multidimensional scaling helps find the structure in a set of distance measures between our characteristics. Understanding the distances between these points in the space can be interpreted and used to further understand our data.

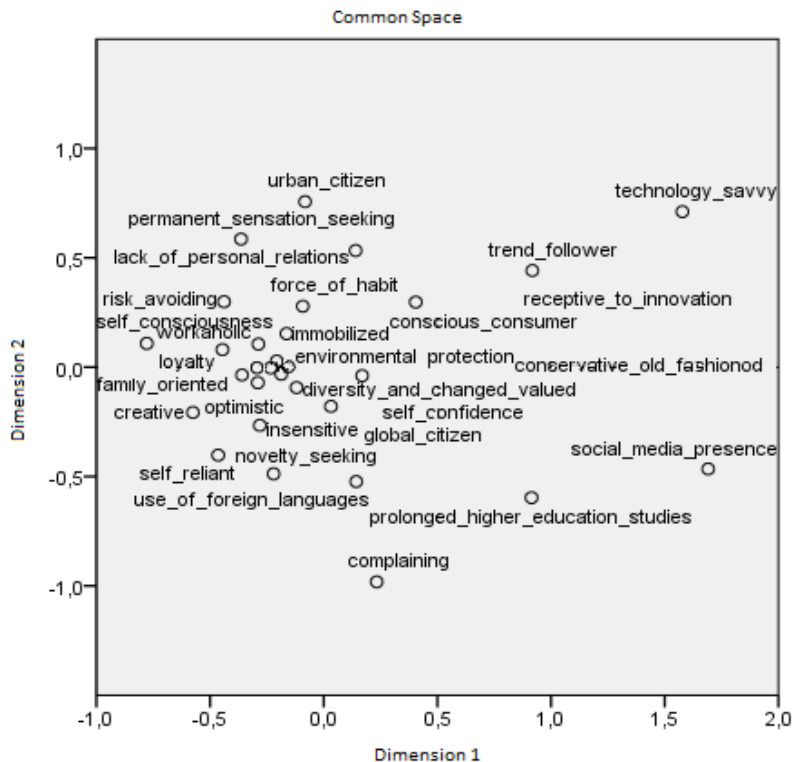


Figure 3
Dimensions

Dimension 1 can be interpreted as a time horizon or generation horizon that means this axis shows the generational gap. Dimension 2 cannot be clearly realised, due to this none of the characteristics on the left side can be interpreted as salient generations' differences. MDS can be used to identify dimensions that describe respondents' perceptions. We found that the time and non-defined horizontal axis define a two-dimensional space, which accounts for the similarities that are reported by our respondents.

As long as MDS draws slight shifts among the characteristics, cluster analysis draws the borders between different groups of variables. Using cluster analysis makes possible to identify deeper structures within the data. This type of segmentation is able to divide different groups. More specifically, it tries to identify homogeneous clusters' variables.

Clusters of variables are detailed in Table 6. We used three clusters because the original idea based on three subsamples like members of generation X, cuspers and Millennials, but according to the state of art (important literature) we divided

generations regarding their dates of births. Now clustering variables helped us understand connections (here distances) between measured variables.

Table 6

Clusters

Final Cluster Centers

	Cluster		
	1	2	3
workaholic	,10	,06	,02
family-oriented	,14	,03	,01
conservative/old-fashioned	,08	0,00	,01
conscious consumer	,15	,10	,02
diversity and changed valued	,05	,06	,04
permanent sensation seeking	,18	,19	,16
technology savvy	,25	,65	,83
environmental protection	,03	,02	,01
risk avoiding	,20	,04	,09
creative	,15	,21	,07
lack of personal relations	,19	,12	,19
complaining	,39	,15	,32
urban citizen	,25	,13	,21
optimistic	,05	,02	0,00
trend-follower	,10	,31	,56
use of foreign languages	,13	,24	,21
immobilized	,12	,02	,05
loyalty	,06	,03	0,00
global citizen	,09	,14	,10
insensitive	,18	,02	,06
knowledge of rights	,05	0,00	0,00
rule followers	,11	,01	,01
novelty seeking	,14	,14	,13
self reliant	,16	,13	,13
prolonged higher education studies	,44	,24	,38
self-consciousness	,21	,09	,18
receptive to innovation	,01	1,00	0,00
force of habit	,15	,04	,09
social media presence	,24	,64	,87
self-confidence	,13	,11	,12
looking for peace and quiet	,14	,01	0,00

*Only the significantly relevant factors (ie. ANOVA $p < 0.005$) were typed in bold.

Cluster 1 can be identified as conservative, old fashioned styled, complaining but self-reliant and conscious group, the members of which are engaged in prolonged studies (if that means Life-Long Learning) this cluster should be generation X. Cluster 2 can be described as conscious consumers who are involved in environment protection and innovation and mainly live in bigger cities. This cluster may be equal to cuspers. The last Cluster, Cluster 3 is creative, speaks many languages, is open for novelty and social media, lastly it is loyal and mainly its members are absolutely technology-addicted. These characteristics are relevant for Millennials. By selecting subjects (cases) based on clusters, we can group them. Cluster memberships were comparing with the original generation order. Comparing these two grouping methods (i.e. characteristics – cluster membership) and age relevant) we found the following connections.

Table 7
generation * Cluster Number of Case Crosstabulation

Count

		Cluster Number of Case			Total
		1	2	3	
generation	X generation	63	9	13	85
	Cusper	20	11	5	36
	Millennial	187	137	338	662
Total		270	157	356	783

Test Statistics^a

N	783
Chi-Square	270,860
df	1
Asymp. Sig.	,000

a. Friedman Test

Regarding this result, we accepted H2, because we found that our cases' (here subjects) characteristics and clusters ages are linking together significantly ($p=0.000$ with 0.95 signif. level). The relationship between two variables (i.e. cluster and age grouping) is moderately strong (Cramer's V over 0,3) and significant ($p=0.00$ with 0.95 signif. level).

Summary

Our findings reflected the state of art concerning various generations' attitudes and habits. H1 was accepted, that means there were different factors between generations.

We absolutely agree with the work of Reeves and Oh [11], some parts of our results based on Hungarian samples verified their findings. Generation X is mainly skeptical and conservative, sometimes regarded as old-fashioned. As long

as Millennials want to be protected as children, Xs are independent and do not like to depend on others for help. For the Millennials the world is open, they speak many foreign languages, are open-minded and accept easily, ambiguous perspectives and opinions, but Xs are aware of diversity and think globally. Millennials are more pragmatic, embrace environmental protection, and they are self-assured and achievement focused. Generation X is more family oriented, so both generations keep in its mind work-life balance. Although members of both generations like to work with the latest technology, the younger one is more technology addicted and technology savvy. They keep in touch with each other through social network media and not really care about personal relationships. That causes a deeply impatient attitude, i.e. prompt feedback whenever they want it.

Summing up, it should be realised that there are no determined differences between these two generations. It was really challenging for us to find the real limits among generations. Regarding our statistical results, no clear border can be drawn that is why it was necessary to use the definition of cuspers. Our results also proved that there is no clear and sharp distinction between people born on the edges of various generational stages. According to our H2, various generations can be distinguished not on the basis of age differences but rather on differently perceived and followed values.

Conclusions

The outcomes of the statistical comparisons were summarized in Table 8, thus revealing the significant differences in the responses received from the members of the two generations.

Table 8
Summary of our findings

Significantly different:	Not significantly different:
- Workaholic *	- Embracing diversity and changed valued ***
- Family-oriented *	- Permanent sensation seeking ***
- Conservative	- Environmental protection ***
- Conscious consumer	- Creative **
- Technology-addicted (savvy)	- Lack of personal relations ***
- Risk-avoiding	- Complaining **
- Trend follower	- Urban citizen ***
- Use of foreign languages	- Optimistic **
- Immobilized	- Global citizen **
- Loyal	- Novelty seeking **
- Insensitive ***	- Assertiveness **
- Knowledge of rights	- Self-consciousness **
- Rule follower	- Self-confidence **
- Prolonged higher education studies	
- Receptive to innovation	

<ul style="list-style-type: none"> - Force of habit - Social media presence - Looking for peace and quite *** 	
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In our opinion, there are some traits among the above, which are age specific (marked with *) and some which can be led back to personality differences (marked with **), and finally some others, which are problems of our era independently from the age or lifetime period (marked with ***). It would be worth, however, to explore these differences with further review of literature.

Some popular articles suggest that Millennials are a “want it” and “want it now” generation, but we cannot judge a book by its cover [8]. When we (i.e. X gen members) were fresh graduates and young, did we not want the same? Having good pay and benefits, rapid successes, work/life balance and of course challenging work? Although the career expectations of the Millennials are manifested differently in their career ladders, their needs and motivations are not really altered from their earlier imaginations. Mostly the companies try to suit their structures, organizations and styles to their employees. Nicholas [7] gave a good description of the workplaces of various generations. The new generation will not respect authority; respect is not based on title or position; all their colleagues must earn their respect. Finally, “It has been suggested that many of the career goals and expectations among Millennials are “supersized,” unrealistic, and disconnected between reward and performance.” [8 pp. 282]

Or are we responsible for these “problems”. According to Sacks [13] they are said to have “helicopter parents” who hover over them (the over-involved Boomer parents). Other typical outcomes of this hovering behaviour are – among others - the Pan Peter syndrome or Mama-hotel and Papa-bank.

We agree with Takács, et al. [14 p. 30], who suggested that "Robotics is becoming a mainstream phenomenon, entering all areas of our lives. In addition to cutting-edge research and development, robotics is becoming equally important in the classroom and home education." Robotics education has grown tremendously in significance, one reason for that can be the needs and wants of this new generation (i.e. Millennials) whose members are saliently technological savvy. [14]

As we have referred to it in several points of the present paper, this question has been discussed as part of a larger, comprehensive research. We had dual objectives; not only the self-introduction of generation Y has been presented with the help of projection technique, but – in terms of education methodology - we also conducted research with direct and active involvement of students, where the students were both the target group and the active researcher.

Our outcomes have further strengthened the research concerning characterization of the two generations but it was a novelty that the members of the generations themselves evaluated their own generation. Fine shift could be observed among any generation, the members of these shifts are called cuspers. During this

research, we have explored cuspers, and the results of our sample layers underline the continuous changes.

It is highly important to understand that there are a lot of features in the characteristics of generations, which are more age-specific and to a lesser extent due to socialization. The authors of the present article have also shifted their focus to family as they were getting older. The discrepancies between generations are often due and strengthened by the different communication of the two generations. As long as a generation is being educated and served by the previous generation, this education will be responsible for any issues with the new generation.

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References

- [1] Borges, N. J. – Manuel, R. S. – Elam, C. L. – Jones, B. J. (2006): Comparing Millennial and Generation X Medical Students at One Medical School. *Academic Medicine*. Vol. 81/6 571-576
- [2] Howe, N. – Strauss, W. (2009): *Millennials Rising: The Next Great Generation*. Knopf Doubleday Publishing Group
- [3] Kolnhofer-Derecskei, A. – Reicher, R. (2016): Genyus – how do millennials judge themselves? In: Maksym Bezpartochnyi (ed) *Theoretical, methodological and practical foundations of human resources management*. Riga: ISMA University, pp. 25-32
- [4] KSH (2015): *Módszertani dokumentáció/fogalmak - Generáció*, http://www.ksh.hu/apps/meta.objektum?p_lang=HU&p_ot_id=200&p_obj_id=646 (2015. 03.)
- [5] Lancaster, L. C. – Stillman, D. (2003): *When Generations Collide. Who they are. Why they clash. How to solve the generation puzzle at work*. New York Collins Business. (Core references)
- [6] McCrindle, M. – Wolfinger, E. (2009): *The ABC of XYZ. Understanding the Global Generations* UNSW Press
- [7] Nicholas, A. G. (2009): *Generational Perceptions: Workers And Consumers*. *Journal of Business & Economics Research*. 7/10, 47-52
- [8] Ng, E., S., W. – Schweitzer, L. – Lyons, S. T. (2010): *New Generation, Great Expectations: A Field Study of Millennial Generation*. *Journal of Business Psychology*. 25. 281-292

-
- [9] Pais, E. R. (2013): Alapvetések a Z generáció tudománykommunikációjához, PTE
- [10] Rajnai Z., Nguyen Huu Phuoc Dai ; Duong Van Thinh (2016): Learning attitude in XXI century Published in: Applied Machine Intelligence and Informatics (SAMII), 2016 IEEE 14th International Symposium on p.: 115 - 119
- [11] Reeves, T. C. – Oh, E. (2008): Generational differences. In Jonassen, D. - Spector, M. J. Driscoll, M., - Merrill, M. D. - Jeroen van Merriënboer (ed) Handbook of Research on Educational Communications and Technology: A Project of the Association for Educational Communications and Technology. pp. 295-303
- [12] Róbert, P. – Valuch, T. (2013): Generációk a történelemben és a társadalomban. Generációs politikai attitűdök és részvételi minták történeti-szociológiai megközelítésben. Politikatudományi Szemle XXII/4. pp. 116-139
- [13] Sacks, D. (2006). Scenes from the culture clash. Fast Company, 102, 72-77
- [14] Takács Á., Eigner Gy., Kovács L., Rudas I., Haidegger T. (2016): Teacher's Kit: Development, Usability and Communities of Modular Robotic Kits for Classroom Education IEEE Robotics & Automation Magazine 23:(2) pp. 30-39
- [15] Tapscott D. (2009): Grown Up Digital: How the Net Generation is Changing Your World, McGrawHill, New York
- [16] Todd, R. J. (2008): The digital Revolution and Web 2.0 – Impacts and challenges on school libraries and the learning environment <http://www.nalis.gov.tt/LinkClick.aspx?fileticket=03Db0RG%2Bijc%3D&tabid=64> (2015. 03.)