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ÚSTAV JAZYKŮ

TECHNOLOGY AND SOCIETY

TECHNIKA A SPOLEČNOST

BACHELOR'S THESIS
BAKALÁŘSKÁ PRÁCE

AUTHOR   Jan Hrbek
AUTOR PRÁCE

SUPERVISOR   PhDr. Milan Smutný, Ph.D.
VEDOUCÍ PRÁCE

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Bakalářská práce

NÁZEV TÉMATU:

Technika a společnost

POKYNY PRO VYPRACOVÁNÍ:

Popište vývoj nových technologií, zvláště v oblasti elektrotechniky a IT. Uveďte technický popis jejich fungování. Analyzujte dopad využití nových technologií na různé oblasti života – komunikaci a vztahy mezi jednotlivci ve společnosti, přenos informací, media, vzdělávání, právo, rodinný život, profesní rozvoj aj. Zaměřte se na společenské změny způsobené pokrokem vědy a techniky. Popište pozitivní i negativní aspekty.

DOPORUČENÁ LITERATURA:

Sociologický časopis. Czech Sociological Review. Sociologický ústav AV ČR

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Guga, J. (2015) Digital Self: How We Became Binary. Pilsen : University of West Bohemia

ABSTRAKT

Zpracovaná bakalářská práce je zaměřena na problematiku nejpoužívanějších technologií, jak nás ovlivňují a jak mění naši společnost. Nejvíce se zabývá používáním internetu, vlivu smartphonů na různé oblasti lidského života, používání internetového portálu YouTube, vlivem YouTuberů na společnost a popsáním pojmů streamer, streamování. Práce popisuje jak pozitivní vlivy těchto technologií na společnost, tak negativní vlivy, které přináší.

KLÍČOVÁ SLOVA

Internet, Smartphone, YouTube, YouTuber, Streamer, Twitch,

ABSTRACT

This bachelor thesis is focused on problems related with the most sophisticated IT technologies such as the Internet, smartphones, the Internet portal YouTube and defines terms such as YouTuber, streamer and streaming. It also deals with the way how these technologies influence people and our society. In the thesis, both positive and negative aspects of these technologies are described.

KEY WORDS

The Internet, Smartphone, YouTube, YouTuber, Streamer, Twitch

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V Brně dne ....

(Jan Hrbek)

PODĚKOVÁNÍ

V Brně dne ....

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CONTENT

LIST OF GRAPHS

All graphs used in paper show results of the research processed by author of the bachelor thesis.

1. INTRODUCTION

Technology and society are closely related from ancient times. All kinds of technical inventions had always influence on people and people had always influence on its reach. Humanity has entered into "*digital age*". Invention of new technologies is crucial for human development, however, there is a threat that new technologies will influence people and society in more aspects than their inventors expected. A great example is the comparison of children today and children fifteen years ago. Nowadays, children cannot imagine their lives without communication technologies, smartphones, computers and other technologies of the 21th century.

People tend to be on-line all the time and communication technologies play a major role in their lives. With the current life style, there is also no time to keep in touch with friends and family in other way than in electronic one. Even though new technologies bring a lot of positive benefits, they bring so many negative aspects such as loosing privacy, loosing personal contacts, addiction, etc.

This bachelor thesis deals with the most used technologies such as the Internet, smartphones and technologies related with them. It is general fact, that new technologies bring power and this power should be controlled. Nowadays, YouTubers and streamers keep an internet power and they have huge influence to society. Processing of this topic is a significant part of bachelor thesis. In addition, a questionnaire dealing with an influence of YouTubers and streamers is also one part of the thesis.

2. THE INTERNET

In many countries information technologies have become a part of casual life in the last ten years. With no exceptions, these technologies interfere in all areas of human life. Information technologies affecting all of its sites and is more than possible that they are affecting the ways of human thinking. An adequate example is the invention of the letterpress in the 15th century. A change made to simplify its production or to cut costs has led to its expansion to a larger segment of the population and consequently conditions have occurred for better dissemination of information. All new technologies have immediate impact on humans and that means the impact on the society as a whole. For example: in communication, relationships, business etc. Computers have the greatest influence on the communication in society. They are practically involved in every device. Nowadays, it is almost impossible to find any electrical device without an implemented computing capability. In the last 30 years people desired to evolve the new technology focused on information technologies.

As presented by Cavalier (2005)

> *Too often, new technology develops with little attention to its impact upon human values… Let us do better! In particular, let us do what we can in this era of the computer revolution to see that computer technology advances human values. True enough, we could argue endlessly over the meanings of term like privacy, health, security, fairness or ownership. Philosophers do it all the time – and ought to. But people understand such values well enough to desire and even to treasure them. We do not need absolute clarity or unattainable unanimity before we do anything to advance them (p.1).*

Nowadays, another significant machine affecting human lives is a smartphone. It is almost certain that the distinction between mobile phones and computers will be suppressed in the near future. Smartphones are opening a new way for communication in society and almost all people are "*on-line*" anywhere and anytime. Sherrod (2016) claims that "*Indeed, today´s technology is leading us even farther away from reality with the new advancements in the virtual world via smart devices*" (p.34).

2.1. Communication on the Internet

Technology and society is a very broad topic and it is almost impossible to focus on all means of communication, so this thesis will be focused on the area of human interaction on the Internet and the usage of smart devices. The Internet brings new ways of creation social groups affecting a large number of people. Suitable example is a video platform YouTube and that is also described in the thesis.

The Internet has created a new space for communication between people and its new environment also carries the new models of interaction. We can say that there are two basic levels at which the Internet affects interpersonal relationships. The first is personal - communication or contact users on the Internet. And the second is impersonal.

The personal communication may be divided into a text-based communication and a face-to-face communication. According to Kappas and Krämer (2011) the most famous text-based communication portals in 2011 were Twitter, user blogs, Facebook, MySpace, E-mail and ICQ. In this respect ICQ and blogs are not generally used in 2016 thus, they were replaced by Facebook and the other social sites.

Kappas and Krämer (2011) claim that:

> *Although the massive use of technologies such as Skype suggest that, at least under some circumstances, people prefer the most direct and face-to-face-like communication form, still the heavy usage of Second Life, World of Warcraft or the status messages within the social networking sites has to be explained (p.3).*

As a result, usage of face-to-face communication is massive. However, users prefer to be hidden behind 3D avatars or virtual characters than communicate through the webcam.

2.2.1. Virtual relationships

Interpersonal relationships on the Internet make up a significant section on their own. A virtual world is largely different from the ordinary world and it is also reflected in the interpersonal communication. It cannot be certainly stated that each user of the Internet is affected equally. It is evident that the person who uses only an email is less affected than the person who communicates on social sites or plays on-line games. The internet is more than place

where people communicate. It is a place where everything is possible. People go online and work on projects, solve problems in the ordinary life, become members of a virtual community for several years and they may perceive these aspects very seriously in their lives.

In 2006 an online dating portal Badoo.com belonging currently to the major dating portals on the Internet was created. Nowadays, the online dating has a growing popularity thus of a fast and a busy age. But can true intimacy really develop online?

Scott, Mottanela and Lvooy (2006), who published an internet article focused on comparing virtual relators, individuals who had pursued computer-mediated relationships, with traditional relators, who had only face-to-face relationships. The study involved 546 participants (159 males, 387 females) within the age range from 18 to 59 years. As a result the fact that virtual relators reported significantly lower intimacy in their virtual relationships than relators with face-to-face romance relationships was proved.

Scott, Mottanela and Lvooy (2006) claim:

The results of our study suggest that the potential theorized benefits of computer-mediated communication—including greater self-disclosure, increased access to each other, and the possibility of sexual attraction developing out of genuine emotional connectedness rather than from superficial, physical attraction (p.760)

In a virtual relationship it is easier to find a way how to end a relationship thus people cannot face problems from an ordinary life and they can simply "escape".

2.2. Internet and identity

The internet environment is mostly an anonymous environment. A sender can be whoever with a hidden identity and for a receiver it is difficult to identify who the sender is. The question arises: How is it possible to gain truthful information about a communicator? The consequence of anonymity on the Internet reduces the credibility of the whole environment and, in addition, users are able to communicate more easily without barriers in comparison to the deal in the real world.

Another issue related to a free choice of identity, freedom of communication and expression on the Internet is a sense of equality that people have yet to solve in the real world. It is for example: a social status, financial situation, attractiveness etc. Users have a possibility to choose

who they will become and it may be one of the biggest advantages of chat communication on the Internet.

On the other hand, a danger arises that people begin to believe in their virtual identity as presented by Jirovský (2007, p.13). The network communication is mostly an affair of words. The words create the personality of users and people who deal with words fabulously have a great advantage in various situations. Generally speaking, human behavior is always a combination of overall character and personal characteristics of a particular person. It is difficult to determine how cyberspace and communication technologies will affect behavior of people that will take the Internet for granted in the near future, having an access to it at all times for the whole lives.

According to the study made in 2007 in Texas, the average student was connected loosely 19 hours each week. It is documented that one student from the Czech Republic spent weekly 114 hours in chat rooms (Jirovský 2007, p.14).

With each new technology, as with every new discovery, human behavior is partly changed and it depends on society if these changes will be accepted. Atwood (2011, p.48) argues that in relation with the expansion of the Internet communication new social groups are created and their ideas are then shared worldwide but members do not usually get together in the real world.

The internet is a unique mass medium because it is able to connect people directly in contrast with the television or radio. Due to television, people could share the same thoughts as another person in another country or on another continent, they could change a type of the reality which influenced them but there was no possibility to communicate with people in real time. People were connected together only trough watching a screen passively. On the other hand, the Internet is characterized by the direct connection and the possibility of mutual interaction between users in different places. Although such meetings are taking place only in the virtual environment, it does not change their authenticity.

Currently, it is very common that people are spending more time communicating on the Internet than communicating in face-to-face communication (Atwood, 2011, p.46).

3. SMARTPHONES

3.1. A brief history of smartphones

Today´s cell phone known as a smartphone for a mass production was introduced by Apple in 2007 but smartphone has been known from 1993. The main difference between today's smartphone and early smartphone is that the early smartphone were designed for corporations not for general public. The development of a smartphone is divided into three main periods.

The first era was targeted and designed only for corporations and companies segment. The second phase began with the invention of iPhone. In 2007 Apple started to produce iPhones for general customers and it was the major breakthrough on the cell phone market. The expansion was due to increasing battery life, improving display quality and technology. Apple has created a stable operating system.

The third generation of smartphone continues from 2008, when smartphones are constantly upgraded and the most famous operating systems (iOS, Android, Blackberry OS, and Windows Mobile) still being improved (Sarwar, 2013).

3.2. The impact of smartphones

Areas affected by smartphone include health and social life, business, education etc. Mobile technology has changed behavior and lifestyle of individuals and almost all modern society.

Both positive and negative aspects are described below. On the one hand, smartphones allow people to create their own micro-cultures where people communicate and share their ideas but on the other hand, smartphones lead people to being connected 24 hours a day resulting in addiction.

3.3. Smartphones and human psychology

The impact of smartphones on human psychology is growing. There are several ways in which the human mind and life are influenced by this technology.

3.3.1. Positive aspects

According to Sarwar (2013) smartphones significantly reduce stress in a busy work and demanding world. In today´s stressful age, a smartphone allows to be in touch with friends and families. An easy connection enables the user to engage in social life while people are waiting on a bus stop, traveling, working etc.

Sarwar (2013) proved that smartphones also increase a human brain functions when it is used for access to the useful information not only for entertainment. However, playing games also helps to improve reaction times, reduces the level of stress and improves the language knowledge.

3.3.2. Negative aspects

One of the most significant problems is the addiction to smartphones and the connectivity they provide. This problem has increased rapidly in the last five years. According to Kwon and Lee (2013), more than 8% of smartphone users are addicted to these devices and more than 10% overuse social sites as Twitter, Facebook, Badoo and YouTube. Addiction to smartphones is a tendency to be connected and communicate with people without real life contact.

Nurfit (2012) proved that a restlessness accompanied by withdrawal symptoms is growing significantly when people do not receive any messages and updates. Also, the released results of the study made in UK, where 37% of adults and 60% of teens admit they are highly addicted to their smartphones. In most cases the problem is not the lack of a smart device, but a habit of being used to using smartphones even for the most rudimentary tasks.

For example, easy mathematical calculation 8 multiplied by 6 can be easily solved without a smart device, but a lot of people use those instead to produce faster results while trying to avoid the "extra" effort. A smartphone can be considered as a replacement of a human brain, which interferes with necessary and basic brain functions. Another significant aspect is that people check mobile phones almost all the time, which may result in relationship problems, getting an accident due to lack of awareness, etc. (Sarwar, 2013).

3.4. Smartphones and health

According to a research carried out the website *kantarmediahealthsurvey.com* (2012), results revealed that about half of all pharmacists used some type of smartphone for professional purposes.

In 2016, doctors use applications allowing them to monitor patient´s blood pressure and blood levels during the day. Nowadays, there is a wide selection of applications allowing the user to check his health condition, manage prescriptions or look for an alternative health care.

Health applications would play a key role in health care because they facilitate monitoring of a patient efficiently and almost effortlessly. According to the article How Smartphones Are Changing Health Care (2012), the number of people using applications such as Runkeeper it has increased significantly since 2012. Runkeeper is a health and fitness application designed for Android. It uses GPS navigation for monitoring the runner´s achieved time and distance**.**

In his article Bohan (2016) points out that 71% of adults in the USA own a smartphone or other wireless device and the number of users with at least one health or fitness application downloaded into their smartphone has increased from 16% to 32% in the past two years. After that, users can share the results with other people and they can be more motivated and also determined. However, there are huge numbers of other useful health applications.

For example, applications including drug references, healthy lifestyle advice and medical calculators. Health care is a very complex process impossible to entirely delegate to smart devices at all, but applications assist healthcare workers to make more accurate medical records.

Nowadays, people frequently use health applications for managing their own health. Bohan (2016) in his internet article states *"More than ever, doctors will need to connect in with the app ecosystem or be left behind."*

3.4.1. Negative effect on health

With the use of smartphones, people´s lives have become more comfortable. People use smart devices in all ordinary situations and they even might start avoiding personal interactions. According to an article published by Dave Chaffey (2015) the average user checks his/her cell phone approximately 34 times a day. The average user spent 0.3 hour using a smartphone every

day in 2008 but in 2015 the time was 2.8 hour every day. Another important aspect is the usage of smartphones at a very young age. For parents it is a more comfortable way to give children a smartphone and not to be worried.

On the other hand, it brings some associated health and social issues. The main issue is disconnecting kids from the real social contacts, which may lead to psychological problems. Excessive use of smartphones at a young age may cause eye problems of kids. The habit of scrolling a lot of pages and skipping from one option to another without getting complete information may be harmful for the brain development. Playing online and video games may cause obesity and poor bone growth and in addition these activities are extremely addictive (Sarwar 2013).

Young kids often spend several hours playing mobile games every day and it is harmful for their health. A study written by Volkow (2011) claims that an excessively using of smartphones may causes dangerous health problems such as tumors, cancer and it has effect on the brain function. The subsequent effects of using smartphones are: inattention, deterioration of school results and an inappropriate behavior.

3.5. Smartphones and business

Smartphones have opened a new dimension for business and business communication. There are not only benefits from sales but smartphones have created new possibilities for mobile application developers, internet providers and other sectors of business.

3.5.1. Business benefits

In the last few years there has been a rapid growth of smartphone applications in the market. In 2016 according to website *lifewire.com*, Apple has achieved an amount of 1 billion overall iPhones sold. South Korean Samsung owns 22.7% of overall market share and Apple owns 10.4%. Due to high demand, a lot companies had decided to invest money in the development of new applications

Mobile Application Market is a new sector which has been introduced. The internet website *Communities Dominate Brand* (2014) claims that more than 40,000 smartphone applications were created and more than 3 million applications were developed in total. Smartphone applications

industry employs 2.1 million developers and this is more than global music industry in total. Almost all smartphone producers have their own application market place where users can buy a wide range of software products. Some of them are free of charge but the majority is paid. The most know applications market places are for example: Microsoft mobile Application, Apple store, BlackBerry application market etc.

Smartphone applications have also opened a new space in advertising. Advertising sector is quite an old concept but a lot of new applications supported advertising process to be more effective and target-oriented to end users (Sarwar, 2013).

3.5.2. Business negatives

One of the main impacts that smartphones have had in recent years is its ever-growing market share. An article written by Dan Lohrmann (2016) states that global experts predict smartphones and tablets will increasingly replace desktop and laptop PCs. According to the article, Intel said that the PC market dropped between 10% and 12% during the first quarter of 2016. This may be attributed to the fact that smart devices are now comparable in the computing power to traditional PCs. From the point of view of a traditional smartphone user, their smart device offers almost exactly the same capabilities as an unwieldy personal computer. Services such as news feeds, social media activity and instant text messaging Personal computers and smartphones are still not interchangeable, and probably never will be as presented by Sarwar (2013). But it is obvious that an average user without any special requirements can make due only with a smartphone, instead of a PC platform.

4. YOUTUBE

The Internet portal *youtube.com* is the greatest free video website which allows users to upload, view and share their video clips. YouTube was created by Chad Hurley, Steve Chen and Jared Karim in 2005. In addition, the first plan of the founders was to create a dating website. However, this initial project was a failure. Therefore Karim, Hurley and Chen decided to create a video server named YouTube. The first published video was from Zoo in San Diego, where Jared Karim had stayed with a group of elephants. The first video gathered more than 4 million views (Hecl, Gabrielle, Chvála, Madbros, et. al, 2015, p.32). YouTube grew significantly in popularity in 2006, and in the same year it was acquired by Google. In 2007 it was announced that YouTube would upload every music video created in the last 18 months.

In line with growing popularity of YouTube, "*Internet celebrities*" were beginning to gain recognition among the casual viewer base. Internet celebrities are loosely defined as being famous due to their appearances and performances on the Internet. Currently, internet celebrities are comparable in popularity to mainstream figures, such as movie stars. These are individuals who had gained recognition in their native countries (Bothma, Cosijn, Fourie and Penzhorn, 2008, p.189).

4.1. YouTube as a business place

However, server YouTube is considered more than a website because it allows uploading and watching video clips. Nowadays, it is primary a business covering almost all countries in the world.

The principle of the YouTube business model is based on channel popularity, given by the number of legitimate subscribers. Each subscriber rates video clips visible in their list of recommended videos. According to the website *socialblade.com*, which offers a real time tracking of YouTube channels, currently the number one most popular channel is "*PewDiePie*", with over 48,997,933 subscribers and a total of 13,697,097,600 video views. Mirjam Wattenhofer, Roger Wattenhofer and Zack Zhu described a linear increase trend of users uploading more videos in accordance with their channel´s popularity rating. Higher incomes and new potential subscribers are the result of the said trend (Wattenhofer, Wattenhofer and Zhu, 2012).

In fact, some YouTube local subsidiaries reimburse profile owners based on the number of subscribers and the number of views. YouTube launched the portal in the Czech Republic providing 10 Czech crowns for every 1,000 views. Due to video views, channels with more than 200,000 subscribers earn approximately 40,000 crowns each month (Hecl, Gabrielle, Chvála, Madbros, et. al, 2015). The main source of an income is an advertisement. The advertisement is placed into or before videos. The professional contract is offered to each channel with more than 100,000 subscribers.

4.2. YouTubers

It is really difficult to define who a YouTuber is. In fact, a YouTuber is each person who uploads videos on YouTube. In this thesis a person who owns a YouTube channel with more than 10, 000 subscribers is considered YouTuber. According to YouTube policy, after achievement 10, 000 subscribers, each channel may sign a partnership with YouTube. It allows YouTubers to insert advertisements into their videos and earn money. Nowadays, people can earn a lot of money by making YouTube videos. According to the website *therichest.com* the richest YouTuber with an impressive net worth of seven million dollars and a staggering five point four billion views, is Swedish YouTuber "*PewDiePie*". Real name Felix Arvid Ulf Kjellberg, PewDiePie's success arose from providing funny commentary on video games. In 2013, his channel overtook Smosh to be the most subscribed-to channel on YouTube.

YouTubers either get paid for promoting particular label or product they get for free, or they profit from their videos being watched and subscribed, as well as for getting likes. They often become a part of a promoted company, offering benefits and discounts to their subscribers. Due to the fame and fan support, YouTubers are even able to found their own companies.

YouTubers share their own experiences and opinions. Some of them create videos on the daily basis. They can talk about everyday life problems in relationships, they show make-up tutorials, outfit ideas, home decor, cooking, exercising. They can share reviews on products, baby advices, gaming tips and travel experiences. It often starts as a hobby, although it can become a full-time commitment because they are able to earn more money from making the videos, than from being an ordinary employee. From doing this, sharing everyday life, they build up communities containing millions of followers. YouTube is not the only way how to share messages. YouTubers, in their videos, do not forget to mention that you can also support them by

subscribing on other platforms such as Instagram, Facebook, Twitter and Snapchat. It is the best way how to easily interact with them since there is a possibility to make real time videos.

The subscribers believe and share the same ideas and opinions and support them in their life decisions. As it is often seen in the comment section, they consider them not only as random friends but they can also imagine having them as siblings. They are even more influential than show-business celebrities since they are more relatable, due to the fact they still live ordinary lives without manners. The YouTube stars can have a huge impact on followers, children and teenagers predominantly, because they are in the most suggestible age and are willing to spend a lot of hours watching YouTube videos.

The internet journal businessinsider.com (2017) published an overview of the most famous YouTubers with millions of subscribers and huge number of total views. According to Nathan McAlone, author of the article, the most popular and the most watched YouTuber PewDiePie, having almost 55 million subscribers and over 15 billion total views, has used his charisma and close relationship to subscribers, whom he calls "*bros*", to build a lucrative career by playing games. He came into a negative spotlight after sharing anti-semitic messages in his videos.

One of the fashion and beauty YouTuber released a book and broke the record for highest first-week sales of a first-time novelist since Nielsen BookScan began compiling such records in 1998.

In addition, after her immense success on YouTube, she managed to end up on Dancing with the Stars, where she reached the finals with a huge support from her 10 million hard-core base of subscribers. A couple from US had an idea to play pranks on each other and then upload it on YouTube. They show the preparation of the prank as well as the reaction. Doing that, they managed to earn a lot of money with the high number of subscribers and views.

Although YouTube is used by all ages, the platform is very popular among teenagers. According to a research by Defy Media (2015), 96% of the young population aged between 13 and 24 regularly use YouTube. They consume online videos via social media sites for an average of 11 hours a week, making it their most popular website. This popularity is reflected again in the amount of YouTubers that focus on teenagers. The influence YouTubers have on the behaviour of teenagers is increasingly unprecedented. They are seen as role models and often recognized in the streets by their fans. However, outside this online world, YouTubers are just as normal as

most people. Parents often do not know about the online behaviour of their children and the YouTubers that children endorse. This results in confusing moments when fans enthusiastically recognize their favourite YouTuber while other people do not know who this particular YouTuber is. A well-known Dutch beauty YouTuber explained that when she is in public, for example when visiting a shopping mall or eating at a restaurant, fans recognize her from YouTube.

4.3. Specifics of the language employed on YouTube

In the Internet environment, users had created a specific language and terminology. The new words and abbreviations are frequently used in ordinary communication as well.

However, YouTube is not only a video server. An integral part of YouTube is a space for comments located below videos. In fact every viewer reads or reacts to comments below videos. Therefore, a person unaware of the particular word expressions may become deeply confused.

4.3.1. List of specific word abbreviations

BFF – Best Friend Forever

ASAP – As Soon As Possible

BFH – Bitch from Hell

BFU – Bloody Fucking User

MYOB – Mind your Own Business

OT – Off Topic

IMYA – I am Missing You Already

GN – Good Night

FYI – For Your Information

BRB – Be Right Back

LOL – Laughing Out Loud

BMA – Bite My Ass

ROFL – Rolling on Floor Laughing

IMHO – In My Humble Opinion

AFAIK – As Far As I Know

IMAO – In My Arrogant Opinion

BTW – By the Way

4U – For you

4.3.2. Common and specific word phrases on YouTube

On YouTube is a wide range channels dealing with a various topics and interests. As a result, the new YouTube trends have created the new words connected with a particular parts of YouTube industry. The older generation is frequently unacquainted with the new words. Some of them are listed below.

Let´s play – Commented gameplay of video game. Particular parts of the game are introduced by YouTuber. It is frequently accompanied by a humorous commentary.

Haul – Video introducing a certain thing bought by YouTuber. Introducing clothes, shoes, or cosmetics are the most common

Monetization – Money earned for an advertisement located in the video clip.

Kappa – An ironic end of thoughts written in the reverse meaning. Example: *"Trabant is the fastest car on the World, Kappa"*

Challenge – Video where a fulfillment of a difficult task is essential.

5. LIVE VIDEO STREAMING

A word streaming refers to watching audio or video files on the Internet without downloading. Live video streaming allows users sending video or audio signals in real time on the Internet. Nowadays, live video streaming is frequently used for broadcasting news, video chat rooms, face to face business video conferences, online courses and watching movies online.

Live video streaming has become popular recently since it requires a very fast internet connection not available in the past. Without fast internet connection, files used for streaming have to be often highly compressed, which reduces the quality.

5.1. Twitch streaming platform

Twitch is the most famous streaming community in the world founded in 2011. Twitch is a platform for streamers who record themself in real time broadcasting while playing a video or computer game. Twitch users share their broadcast and content with other users known as viewers. Some streamers would rather spend more time by interacting with viewers out of the digital world. Streamers became really popular in young generation and they are considered celebrities. Twitch, the gaming community, offers new opportunities for gamers, developers, and publishers in the market. In addition, there is also a place for advertisements and product placements.

The basic question arises. Why is Twitch popular and attracts so many people? Streamers usually use webcams for recording themselves and people enjoy watching skilled players of computer games. Due to Twitch they are able to keep "*in touch*" with the players. Every stream includes Internet Relay Chat (IRC) via that viewers communicate with other viewers and with streamers as well. Therefore, Twitch means more than just viewing live broadcasting.

Viewers are a part of the chosen community and they have the sense of "*family*". Another possibility how to communicate with a streamer is a donation system. Viewers can use it for sending money straight to the streamer altogether with a short added message. It must be pointed out that Twitch subtracts 2% of the donation value in each transaction. Therefore, streaming is not only for viewer's entertainment, but it is also a big business involving most famous streamers and internet celebrities.

5.2. Streamers

The Internet streamer is a person who records himself/herself while playing video or computer games. Nowadays, there is the new type of streamers called "*talking show streamers*". Those people are not skilled gamers and in the most cases they just talk. Some of them talk about serious issues but the majority perform a show. Thus some people refer to them as the stand-up comedians.

Streamers are not known only on platform Twitch but they are also popular from their YouTube channels. Edited videos or all streams are uploaded on their YouTube channels where viewers may remind highlights from recent streams. Many worldwide famous streamers left school or college and they started to work as professional streamers. They own clothing lines. They are faces of several brands, help charities to gather money for research with their nonstop live streams and many more activities.

5.3. Streamers as leaders

Streamers do not play only particular computer games but they establish their own community. These specific communities constitute individual signs of behavior shared by its members. A streamer is often accepted as a leader of the community and core viewers participate in fulfillment of his requests and wishes. Each viewer watches predominantly his/her favorite streamer or streamers and he/she mostly identifies with his/her ideas or style of playing computer games.

The influence of streamers on their community is quite a new topic and not many researches and academics writings are provided. In the Czech Republic there is not many publication focused on this topic, thus other parts will be predominantly written by the author personal experience. On the one hand, streamers may influence their audience in positive way, they may speak about problems of young generation, how they solved it, how young people should behave in particular situations etc. On the other hand, it is difficult to define to which extend the viewers are influenced and there also arises the danger of negative influence. In addition, young kids may be influenced by vulgar speech, also racist ideas and they may be guided to aggressive behavior. It is the responsibility of each streamer to realize that fact and to learn how to manage their community.

5.4. The sense of community

The sense of community may be divided into several parts such as membership, emotional connection, influence, fulfillment of needs, etc. The sense of membership is created mostly by personal investment into community. Viewers spend a lot of time watching their favorite streamer, invest money to support him and share the same ideas with him. Those viewers, who do these activities frequently, are considered to be core members in the stream community. Core members often have some advantages (special chat emoticons, chat priority, presents, etc.) allowing other viewers to recognize them among other participants.

A sense of conformity is also developed within the community by sharing common values. The members often tend to exhibit and share the atmosphere created by the streamer and they feel the need to follow community rules. Another common aspect why people want to be a part of community is an opportunity to gain new skills from other members. A sense of belonging and friendship are also very commonly developed issues arising from sharing the streaming experiences. We can say that the more positive experiences the members have in relation to the community, the stronger their emotional connection to the community is.

6. RESEARCH

This thesis also includes a questionnaire focused on information from 100 respondents. The questionnaire is aimed at the knowledge about streamers, YouTubers and platforms used for their work. Respondents investigated were in the age group between fourteen and nineteen years. In addition, the questionnaire compares the answers of students of Primary school ZŠ Na Kopcích Třebíč and between the students of technical High school Manželů Curierových Třebíč.

Comparison of the two different age categories brought very interesting results described in the following parts. According to the information given from watching several different streamers and YouTubers those two age groups analyzed are mostly influenced by them. It was the reason why teens were chosen as respondents.

The questionnaire consists of seventeen questions and it is divided into three parts. In the first part there are general questions about the age of respondents, their student/working status and their basic knowledge about YouTube.

The second part focuses on more specified questions about YouTubers and streamers. Question number 8 divides the second and third part of the questionnaire. Assuming that the participants mark answer NO, they should skip four questions (third part) and continue with question number 13. The last part is aimed at the acquisition of personal opinion of participants on the influence of streamers and YouTubers on them.

6.1. Questionnaire

Dear respondents,

I really appreciate your time spent by fulfilling this short questionnaire focused on YouTube, streamimg platform *twich.tv* and their representatives. Questionnaire will take between 10-15 minutes of your time. Please, indicate your answers truthfully. The questionnaire is anonymous and the information obtained will be used for my bachelor thesis purposes only. The bachelor thesis is named Technology and Society.

1) **Please choose your age:**
   A) 10 - 14
   B) 15 - 19
   C) 20 - 25
   D) 25 and more

2) **Please indicate your status:**
   A) Student of Primary school
   B) Student of High school

3) **Do you use portal YouTube in your ordinary life?**
   A) Yes
   B) No

4) **Do you have a YouTube account?**
   A) Yes
   B) No

5) **If you answered <u>YES</u> in the previous question, do you comment or like any videos at YouTube?**
   A) Yes
   B) No

6) **Have you ever heard word <u>YOUTUBER</u>?**
   A) Yes
   B) No

7) Have you ever heard word <u>STREAM/STREAMER</u>?
   A) Yes
   B) No

8) Have you ever visited website <u>WWW.TWICH.TV</u> ? (If you choose <u>NO</u>, please skip to the question number 13.)
   A) Yes
   B) No

9) Do you watch any channels on this platform?
   A) Yes
   B) No

10) If you answered YES, how many hours a week do you spend watching live broadcasts on this portal?
 A) 0
 B) 1 - 9
 C) 10 - 19
 D) 20 – 29
 E) 30 and more

11) Have you ever sent a DONATION (voluntary financial contribution) to a streamer?
A) Yes
B) No

12) If you answered YES, how much is the total amount you sent as DONATION?
A) 0 – 199 CZK
B) 200 – 499 CZK
C) 500 – 999 CZK
D) 1000 – 4999 CZK
E) 5000 – more CZK

13) Are you the owner of any product sold under the YouTuber/streamer brand? (clothing, bracelets, posters, etc.)
A) Yes
B) No

14) Is anyone of your favorite <u>YouTubers/streamers</u> your role model or idol?
A) Yes
B) No

15) If you have someone like this, can you please say who it is?

……………………………………………………………………………………………

16) Do you think YouTubers/streamers influence in a certain way the behavior of people in society? (opinions, expressions, stylization etc.)
A) Yes
B) No

17) Do you think streamers/YouTubers have positive or negative impact on their audience?
A) Rather positive
B) Rather negative
C) I don't know

6.2. Results

The questionnaire was evaluated and each question is processed into two different graphs. The first graph represents age of primary school students and the second graph is evaluated for high school students. Those two graphs are compared to each other.

Graph 1: *Please choose your age:*
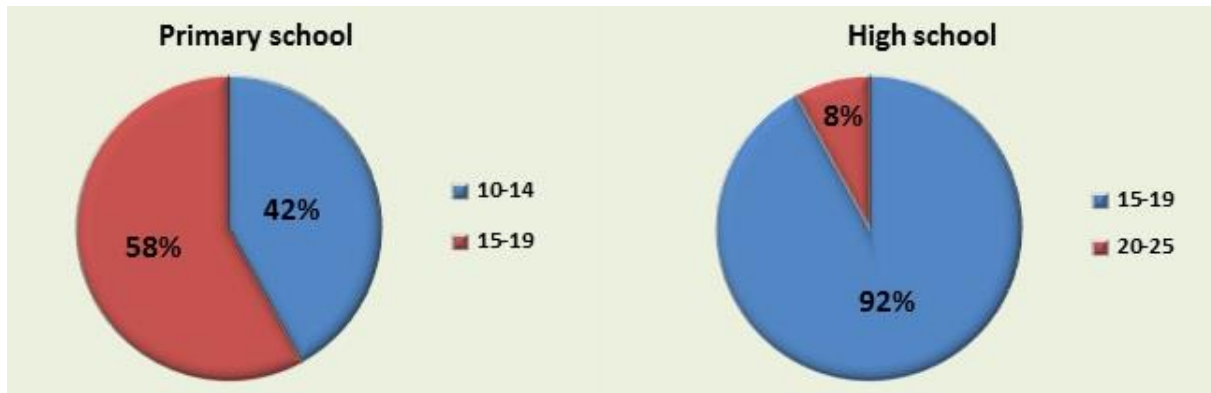
The questionnaire was aimed at students of a primary school and a high school. Thus, teenagers are mostly influenced by YouTubers and streamers. Only 8% of students are older than 20 years. In addition, with this graph is also closely related the question number two.

Graph 2: *Do you use portal YouTube in your ordinary life?*
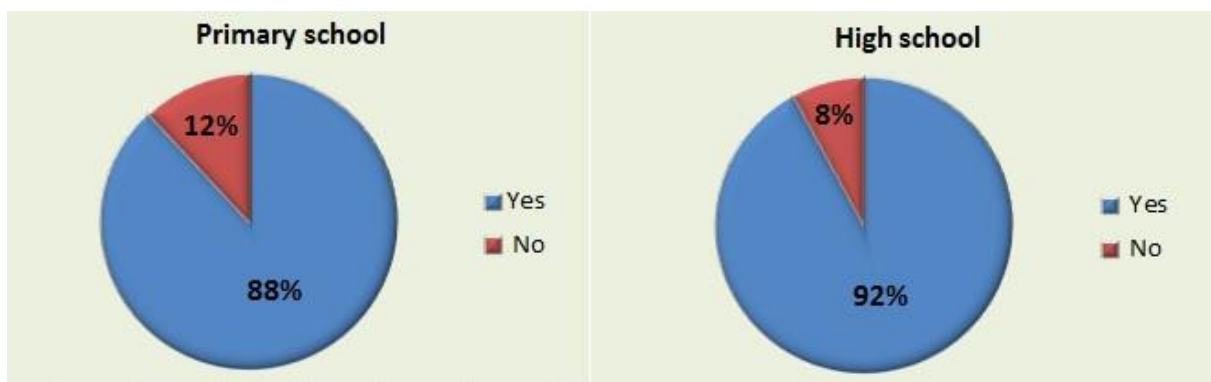

According to results of the question number three, 88% of primary school students and 92% of high school students use YouTube in their ordinary live. This number points to the high popularity of YouTube among teenagers.

Graph 3: *Do you have YouTube account?*
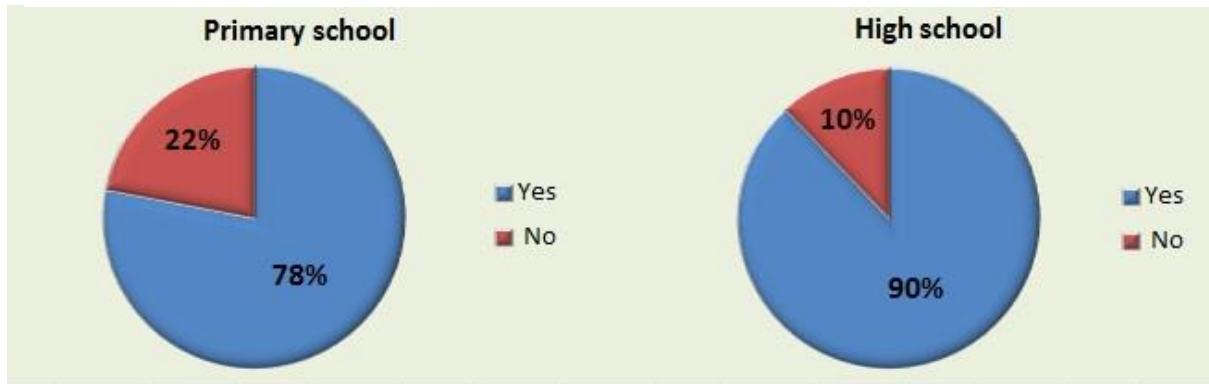
Graphs of the question number four display an amount of respondents owning YouTube account. In comparison with the question number three, almost each user owns the YouTube account. However, there is a difference between those two results (graph number 2 and 3) 10% at primary school students and 2% at high school students.

Graph 4: *If you voted <u>YES</u> in previous question, do you comment or like any videos at YouTube?*
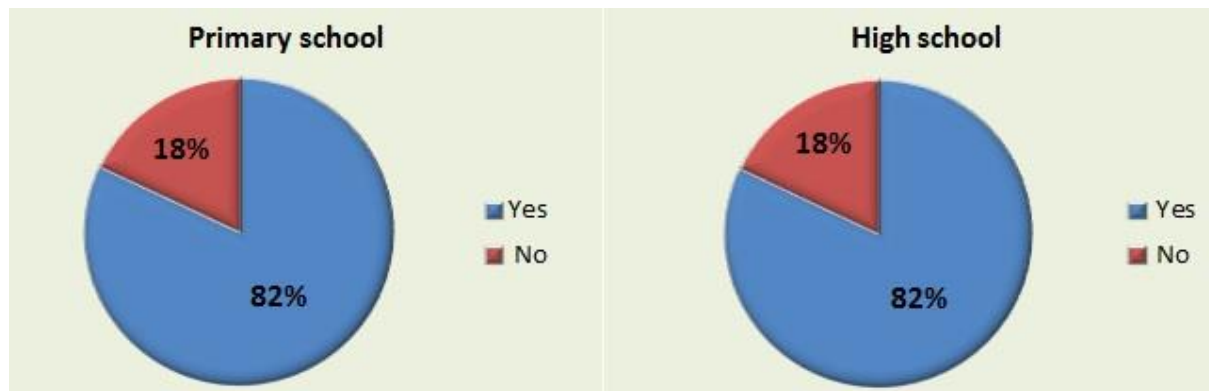

In question number five there is a different number of respondents. In question number four 41 respondents from a primary school answered YES and also the same number of respondents from high school. Thus, the question number five is a result of 41 respondents from each category and not from 50.

Graph 5: Have you ever heard word <u>YOUTUBER?</u>

Primary school

8%

92%

■ Yes
■ No

High school

4%

96%

■ Yes
■ No
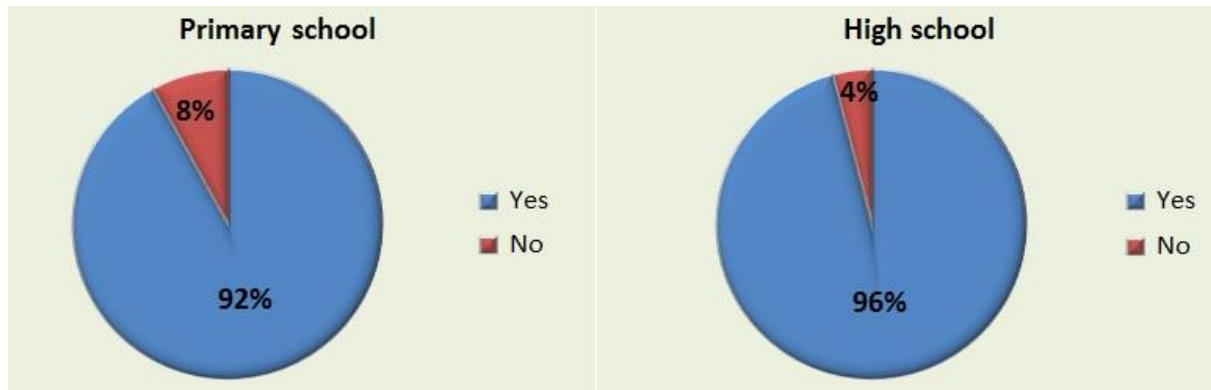
According to results, only 8% respondents from primary school and 4% respondents from high school have never heard the term YouTuber. Those results display fact, that YouTubers are well-known among young generation.

Graph 6: Have you ever heard term <u>STREAM/STREAMER?</u>

Primary school

8%

92%

■Yes
■ No

High school

100%

■ Yes
■ No
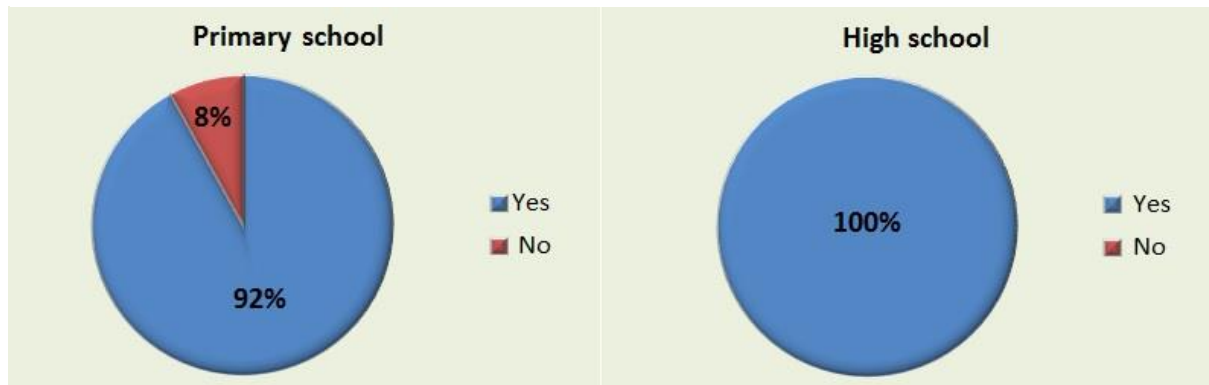
Graphs representing results of question number 7 showing a high knowledge of the term streamer. Only 8% of primary school students answered NO. However, it also proves popularity of streaming broadcastings among young generation. 100% of high school respondents answered YES.

Graph 7: Have you ever visited website WWW.TWICH.TV? (If you choose NO, please skip to the question number 13.)
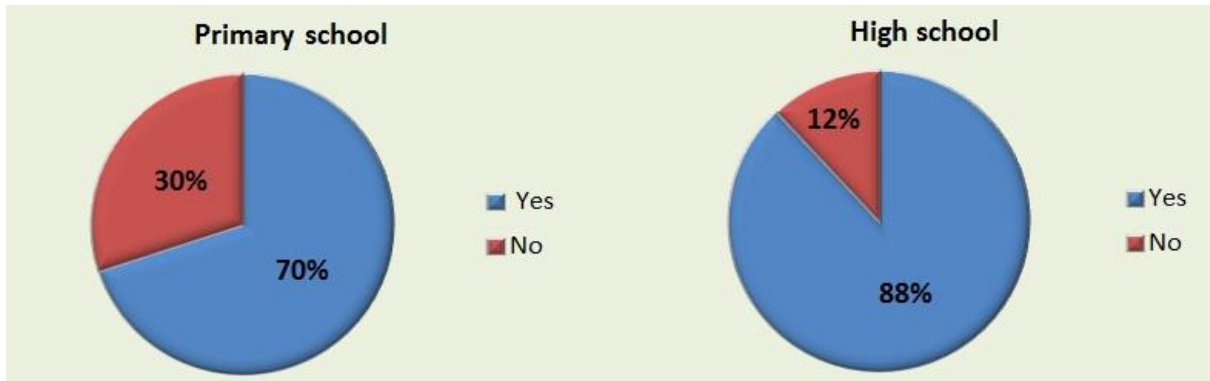

The amount of respondents who know streaming platform *twitch.tv* is very high. 70% and 88% are percentages pointing to the general fact, that a huge number of stream viewers are teenagers.

*Graph 8: Do you watch any channels on this platform?*
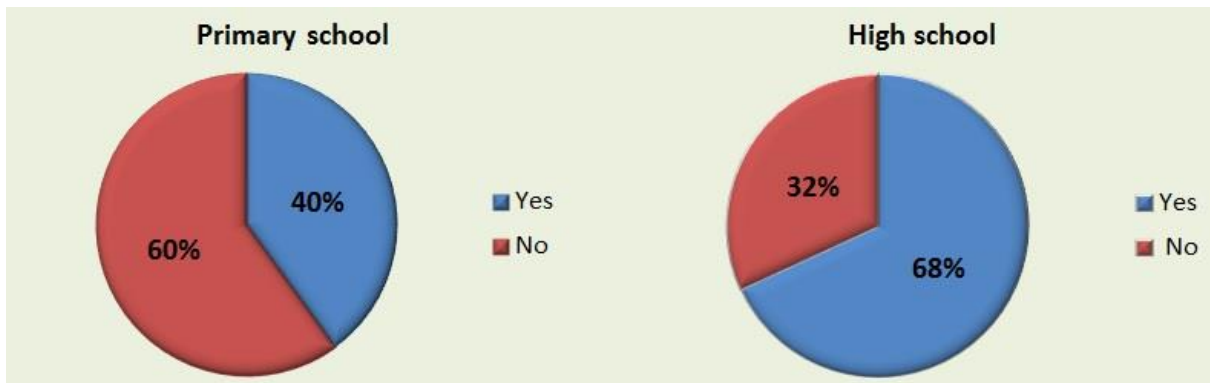
In comparison with the graph number 7, only 40% people, who answered YES in the previous question, watch streams on Twitch. The percentage is higher 68% in high school students. There are two possible cases how percentages may be influenced. Respondents who answered NO watch streams on other streaming platforms or they do not watch streaming broadcasts at all.

Graph 9: *If you answered YES, how many hours a week do you spend watching live broadcasts on this portal?*
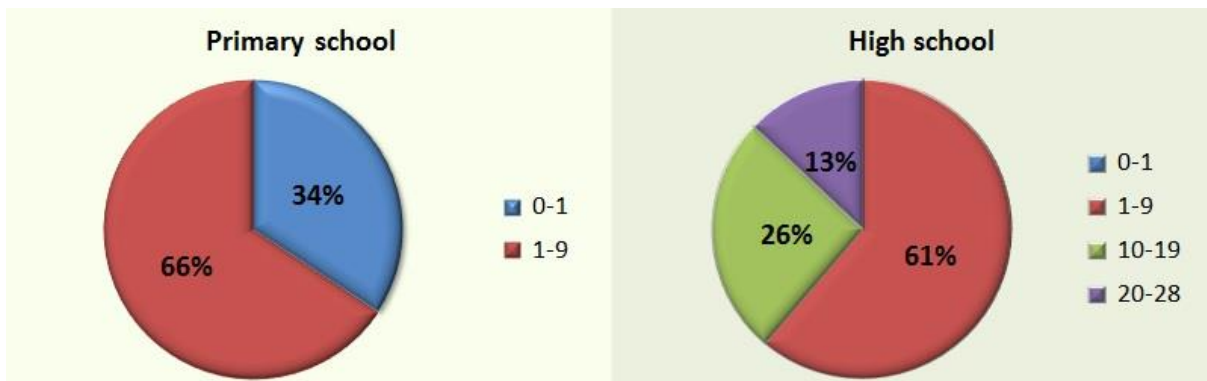

The question number 10 is closely connected with the question number 9. Results are processed from respondents who answered YES in previous question number 9. At primary school students we obtained very surprising results. In addition, the highest marked answer is 9 hours spent weekly by watching streaming platforms in this category. According to results, high school students spent more time by watching streaming platforms.

Graph 10: *Have you ever sent a DONATION (voluntary financial contribution) to a streamer?*
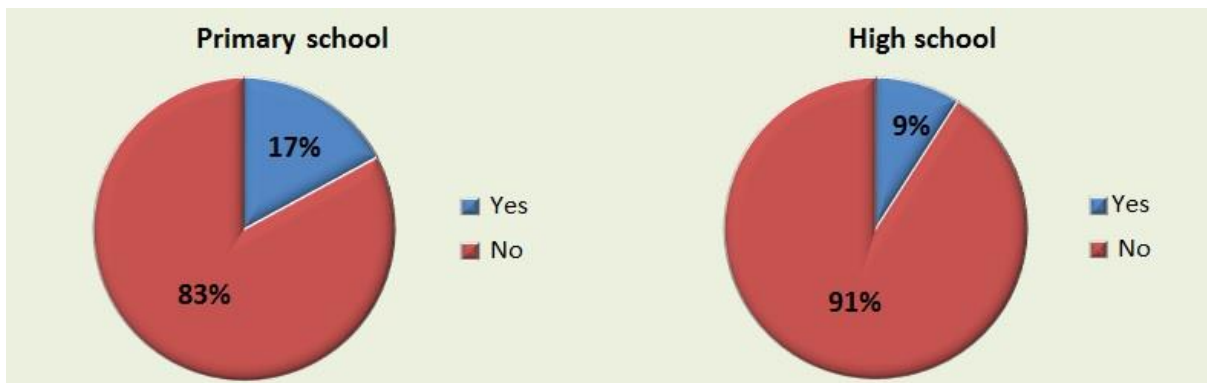

A very low number of respondents have ever sent a donation to a streamer. Apparently, it has to do with the fact that students often do not have regular income. And in that case, donations must be sent by employed people who can afford to give away a part of their income.

Graph 11: *If you chose YES, how much is the total amount you sent as DONATION?*
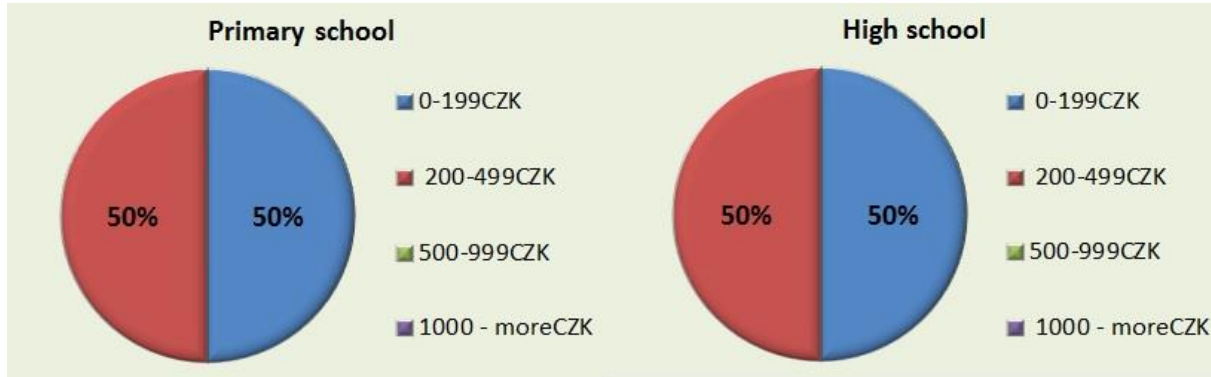

According to the survey, when young students decide to send a donation, it is not a high amount of money. Therefore, young people who study at school are not very keen on sending donations because they do not have regular income and rather spend it on something else.

Graph 12: *Are you the owner of any product sold under the YouTuber/streamer brand? (clothing, bracelets, posters, etc.)*
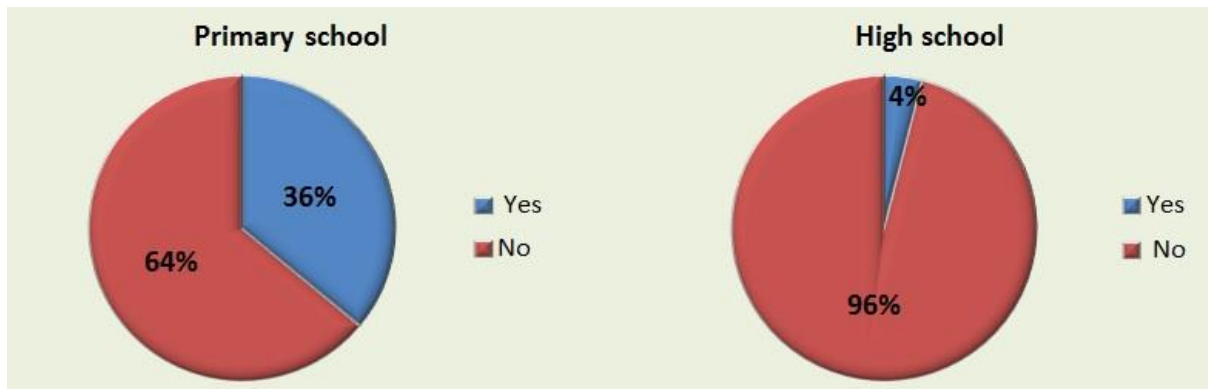
As it is shown in graph, only 4% of high school respondents own any product connected with a YouTuber or streamer. On the other hand, 36 % of primary school students stated buying such product. It is quite a difference in evaluation between these two groups of young people. Products sold by streamers attract students attending primary school, mostly in the category under the age of 15 years, much more than high school students.

Graph 13: Is anyone of your favorite <u>YouTubers/streamers</u> your role model or idol?
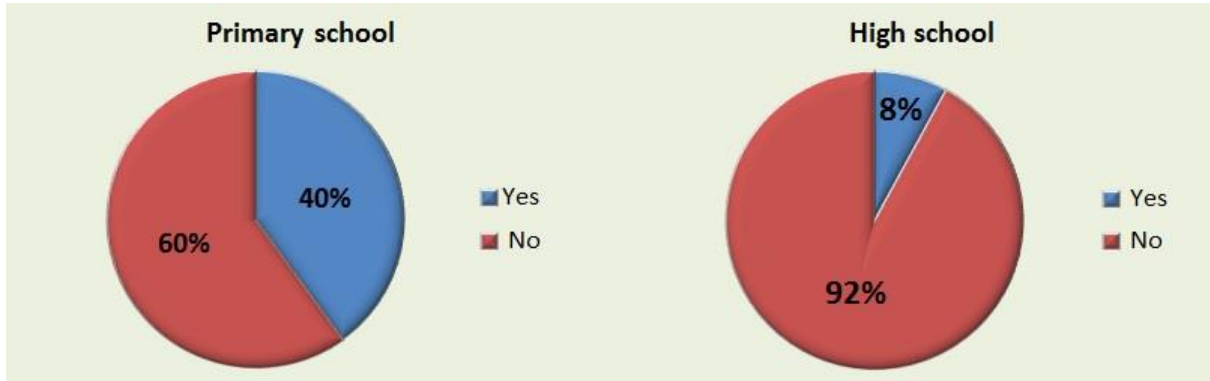

Only 8 % of high school students admitted having favorite YouTuber or streamer as a role model or idol. On the contrary, 40 % of primary school students admitted having them as their role models and idols. This result indicates fact, that younger generation often needs someone iconic and they are easily suggestible.

Results of the question number 15: *If you have someone like this, can you please say who it is?*

Very few students (11 from 100 respondents) answered this question therefore it is not possible to process conclusive and relevant result.

Graph 14: Do you think YouTubers/streamers influence in a certain way the behavior of people in society? (opinions, expressions, stylization etc.)
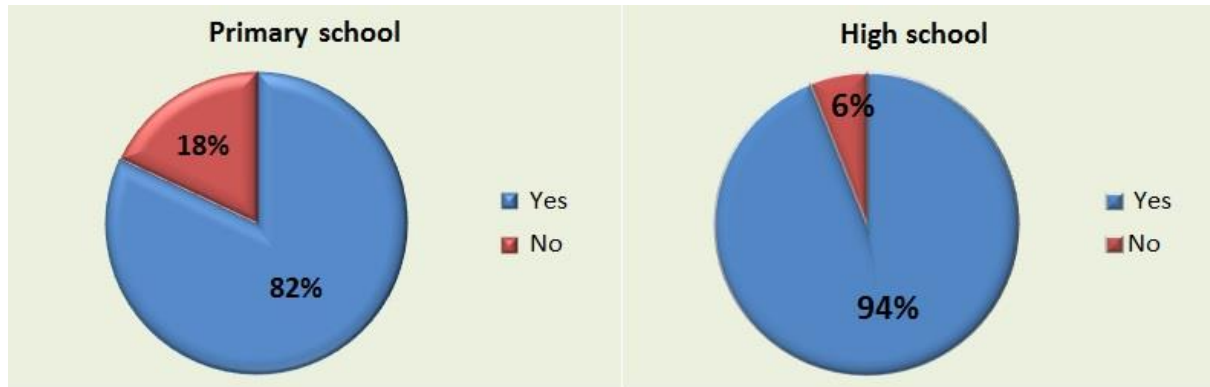
Based on the fact that high percentage of young people answered YES, they obviously realize how great influence YouTubers and streamers may have on people's behavior in society.

Graph 15: Do you think streamers/YouTubers have positive or negative impact on their audience?
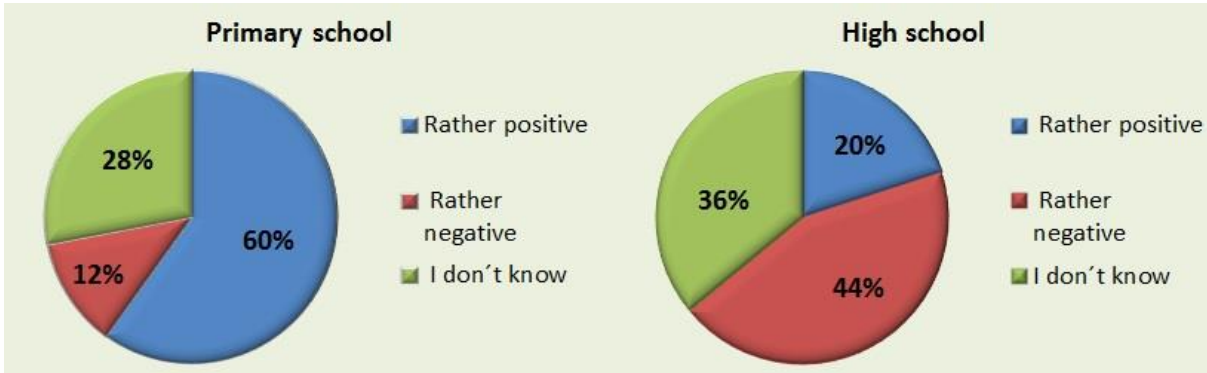
Primary school students think that YouTubers and streamers have rather positive impact on their audience in 60% of cases and only 12% of them are convinced otherwise. On the other hand, 44% of high school students opted for having rather negative impact or responded with answer "*I don't know*" in 36% of cases. Only a very low percentage opted for positive impact.

These different points of views show that respondents attending primary school are convinced that YouTubers and streamers have rather correct opinions, therefore they look up to them and marked them as having positive impact. On the contrary older respondents do not share the same opinion as their younger colleagues. The results show that students from high school are not so easily influenced by mentioned online characters as the younger group of students.

7. CONCLUSION

Society and technology have a significant connection known from ancient ages. Each new technology invented has helped to shape human behavior and personality. For example, the invention of stone tools, wheel, font, iron production etc. rapidly changed the history of mankind and it is considered fundamental in the human development. Nowadays, technology affects human lives more than ever. The influence of technology impacts into many different fields. It can be easily observed in everyday life of each of us. New technologies help in medicine – such as new operational machines, external human body parts and many more. In addition, applications in smartphones help with a treatment or diagnosis. Transport, economy and almost all categories of human life are influenced by technologies. New communication technologies also provide their users an easy way to stay in contact with their families and friends, regardless of the distance dividing them. Nowadays, the most used communication technologies are Skype, Facebook, Messenger, Twitter, etc. Internet social media are becoming an important source of information, in some cases even more reliable than others. They are a place where people share their ideas, opinions or important moments of their lives.

The influence of technology on society is not always positive. It can lead to addiction. An addiction to new technologies such as smartphones or computers became a serious issue for many young people. Nowadays the risk of such an addiction is higher than ever before. Another related problem is the loss of privacy. People willingly share their personal information without ensuring that their information will not be misused by third side without their consent.

Nowadays, there is a huge expansion popularity of "*internet celebrities*". Such as internet celebrities may be considered all people creating any content on the Internet successfully. YouTubers and streamers have a significant influence on their audience. In addition, those people must realize their responsibility and they should create content with a sense.

According to results of research processed in this bachelor thesis, respondents are acquainted with this problem considerably a lot. The vast majority know some YouTubers and streamers and more than one half of respondents watch stream broadcasting on the platform *twitch.tv*. There is an important fact that almost all respondents realize the influence of YouTubers and streamers on society. However, according to 44% respondents from high school they have rather negative

influence to them. 60% of respondents from primary school believe that YouTubers and streamers have a positive influence to society.

The topics presented in the thesis will definitely be often discussed in the future. Nowadays, some YouTubers and streamers are more popular and they have greater fan base than movie or TV stars. People must admit the fact, that internet celebrities will have the biggest influence to society in the future.

The trend of YouTubers and streamers is at the beginning in Czech Republic but people should be prepared and more academic theses and psychological researches should be carried out

However, in the end, technology is a human invention and it depends solely on people, how they will treat it. This reference should be taken seriously as new technologies and people using them will shape our future.

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