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Identity and Threats in the Virtual World

Summary

Use of information technology in creating virtual worlds and virtual personalities – or identities – carries not only positive but also negative aspects. Inability to identify a real person opens a possibility to use different technologies for the suppression of personality, the possibility of various hazardous groups, alienation from real life and so on. Increasing the security of information systems results in eliminating hazards to IT, processed information, and also the users themselves.

Keywords

virtual world, virtual identities, escape from the real world, increasing information system security, identity status, diffusion, foreclosure, moratorium, achievement

1. Introduction

The technological discoveries of the second half of the 20th century were so powerful and so essential that one can talk about a giant leap which humanity has made in its development. The whole process can be regarded as a major development of computers and computer related technologies, which was related to the development of mastery of binary circuits. Almost inevitably, computerization has been greatly improved after these breakthroughs. Mainframes "ruled" in the early seventies; ten years later, they began to be displaced by minicomputers and then PCs. The end of last century was already characterized by networking, leading to the birth of the Internet. The subsequent creation of a platform of websites and web-based games has resulted in a huge variety of applications, which induce formation of first identities. The start the new millennium is marked by social networks and virtual worlds, where which is unimaginable without identities and virtual identities. Journalists gave this period the denotation of the era of Web 2.0. Although this label rather polarizes IT community, is increasingly used.

2. Personality vs. Identity

At the beginning, we shall try to define the basic concepts. Although the concept of digitization which is used quite often in literature with dealing information technology describes exhaustively when, the term "identity" itself is not clear. When we look at some of the approaches, we see that it is not so trivial. According to Zontak's work (as cited in Marcia, n.d.), identity can be defined as follows:

"Identity is a sense of unity and integrity, which takes time and in different circumstances, coupled with the ability to maintain a link with the realistic system of values. Lack of identity caused by the weakening of personal esteem, inferiority complexes, doubting oneself, builds one's inability to actualise oneself and achieve one's ideals." This definition could be considered theological. Historically, the Halki defines identity as follows: "In view of history, human identity has several dimensions: in relation to the past, one features as an heir, whereas in relation to the future on is the co-creator. In doing so, the very formation of the future is happening at the present moment, when a reasonable and free individual transforms experience into decisions and actions which will form the future." Psychological approach may represent, for example, the theory of German Jewish psychologist Eric Erikson. His approach is based on the argument that life is a sequence of several life crises, when we come to one which can achieve a mature identity. Based on the pioneering work of Erik Erikson on identity, Canadian developmental psychologist James Marcia (Marcia, 1966) chose a different approach. According to his theory of adolescent identity, expression requires two completely different ideas: the crisis (a period whose outcome includes the analysis of values and the possibility of review), and commitment. At this point of maturity from this perspective Crisis actually leads to a commitment to a particular mission and changing value chain.

While in the past, social institutions were the prevailing bearers of fundamental social roles, currently, as a result of the individualisation of social life, their function is very much weakened. In information society, it is certainly difficult to

understand one's own identity before tackling social behaviour. Social institutions have lost their monopoly on broadcasting news, which often lead to uncertainty if confused. These fluctuations, according to Manuel Castells Oliván, renowned sociologist and expert on the issues of information society, can lead the search for simple and clean solutions such as religious and secular fundamentalism. Technological advances after World War II gave people hope and awoke in them the impression of an infinitely growing prosperity, which was clearly a motivating effect in the post-war period. Paradoxically, the intensive development of these technologies continues to this day. An increasing number of households, organizations, companies are connected to the Internet. Earlier this year, Slovakia almost reached the EU average of 67% of connected households. Number of households with Internet access in Slovakia has more than doubled since 2006, from 27% to 67%. Since 2006 the expansion of the internet has been the fastest in Romania (Fig. 1), where the number of connected households increased from 14% to 42%, followed by Bulgaria, where the number of households with Internet access increased from 17% to 33%, and the Czech Republic (increase from 29 to 61%). Together with the Bulgarians, the Latvians and Lithuanians, the Slovaks are among those who frequently use the Internet for phone calls and video (SITA, 2010).
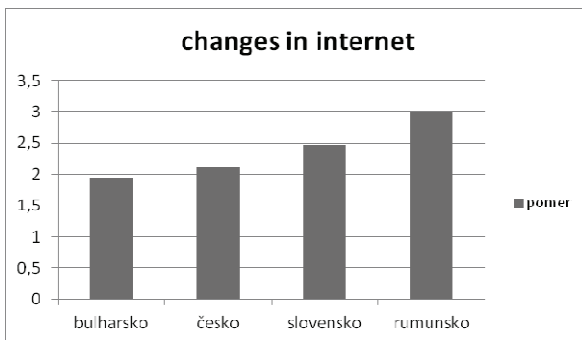

Figure 1 Growth of the Internet in selected countries
Source: SITA, 2010.

The majority of households are connected to the Internet (Figure 2) in the Netherlands (91%), Luxembourg is 90% and 88% in Sweden. At the lowest percentage of internet-connected households is found in Bulgaria (33%), Romania (42%) and Greece (46%).
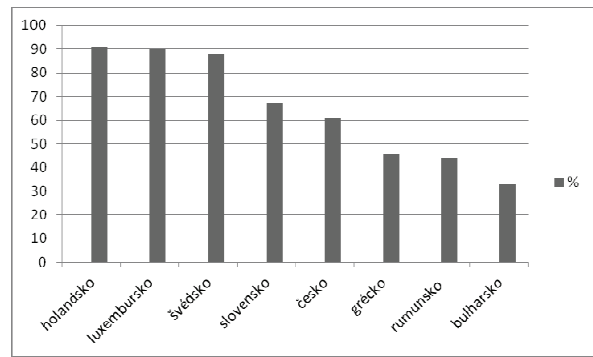

Figure 2 Internet use in selected EU countries
Source: SITA, 2010.

3. Virtual Identity

The Internet and the mobile phone have certainly been milestones in the field of information and communication technologies in recent years. Flooding the market, these technologies generate a further development, the results of which we see as the expansion of Web 2.0, and especially social networking sites. Communicating with physical strangers, whose virtual identity, however, we do know, gives us tremendous flexibility in communication. Engaging in discussion groups, with attractive interest range, encourages the use of virtual identity and offers tremendous opportunities to those who have communications problems in real life. For these people, communication under virtual identities can be helpful in socialization, increase confidence, improve self-esteem and social integration. Initially, the anonymity afforded by the virtual identity ensures is welcome because we are able to manage it. This identity management is provided mostly by the filling in the user profile, but very often the user data is either not provided at all, or only minimally. It is not rare that for such users to fill in the profile with inaccurate and misleading information. This can my no means be considered a sound approach, but unfortunately, currently there is no known solution to it. Generally speaking, this usually happens then when the service provider requires more information than the user's nickname and password. In such cases, these users feel it as a threat to their anonymity, and provide false information just to enter the virtual communication environment. It is probably unnecessary even to emphasize that the data received by services by data in this way to worthless.

Generally, it can be argued that the virtual identity was merged with real identity in a virtual environment, but unlike the real identity, virtual is

not driven by any legislative, social or ethical rules. It is for this reason that virtual identities are, in general, unreliable and do not deserve trust. Exceptions are only those social networks that are built up gradually, with strict adherence to identity management, where the community cannot admit anyone into their circle without this person knowing at least one member of the community. This relationship of trust enabled development of social networks such as Facebook, where the percentage of correct information is very high compared with other networks.

4. The Virtual Environment

Virtual environments can refer to all the places where the users use their virtual identities. In fact, a virtual environment has certain specific features that make it uniquely separable from the real environment, which significantly affects its attractiveness. Of course, there are also cases such as Second Life, which is to preserve the authenticity of the real world in a virtual environment. The main advantage of the virtual world is definitely that of anonymity or controlled anonymity, which denotes the possibility for identities to reveal some correct information. The next factor is opportunity to be carefree. This is not a highly important benefit for young people, but this situation changes radically when they enter real life and are exposed to the problems of everyday life. Peace of mind in the virtual environment helps to forget the greater or lesser difficulties of real life for some time (often a few hours a day). It is always a better option than to resort to alcohol, although many experts do not see the difference between alcohol dependence and addiction to virtual life.

The advent of virtual environments has radically changed interaction between people, and on-line relationships have become more important than direct personal contact. Of course, this trend is understandable, although in terms of ethical, social or cultural development, one cannot be sure it is the best.

5. Virtual Culture

Virtual culture is also strongly associated with the virtual identity, because it would be impossible to record or download of multimedia content without it. Broadband transmission, radically reducing the cost per MB of stored information, has opened the possibility to store and transfer large files and large numbers of files. These trends, of course, initiated

the development of other technologies such as distributed computing and cloud computing. These technologies are essential to anywhere in the world where an internet connection, the user knows how to get the multimedia content in real time. A few years ago had such technologies as were available to "a chosen few", but they are now available to everyone. In democratic countries, where there is no censorship on media servers anyone can upload their creations, so advocates often associate it with culture and art, which have nothing in common. Unfortunately it is also a part of the culture of the nation, although many would probably refer to it as lay culture and art. Like everywhere else in the virtual culture, we also have great quality and valuable achievements on YouTube, shot on holiday locations miles away from home. After all, just like a virtual art gallery tour, or the interior of historic buildings, these can offer really emotional personal experiences.

6. Virtual Threats

Virtual threats are becoming an increasingly serious topic of academic discussion and moving into the real world. Just as quickly, if not faster than the development of ICT, virtual world develops at an incredible pace, including various threats. Networking is used to create a breeding ground for viruses distributed through the network, which has showed its previously unprecedented destructive power. This provided the makers of antivirus systems with a tremendous impulse for development and it can be freely said that if anti-virus protection is not neglected, users can successfully defend themselves against this threat. What damage can be caused when we get destructive virus that either compromises our anti-virus system, or damages the operative system? If we do regular backups of our files, which is at present neither cost nor time consuming, our loss is likely to be small. If we can back up the content, it will prevent significant losses. Interestingly, almost every routine user knows of the threats, but when the attack really occurs, we hear "Tomorrow. I just want it back." Even though it is a real threat and we know about it, most users are incorrigible.

Another relatively large category of threats are potentially unsafe applications. This is a group of various small programs that use either human error or software protection error. These programs do not act destructively; on the contrary, they try to be invisible as long as possible. Damage that may arise due to their actions can be considerable. All these programs are able to fully develop; they tend

receive "power" through the user's identity, trying to completely uncover the identity and the provided valuable related information to unauthorized persons.

Another threat is the nature of the content that users have on their own computers. Some of this content may be inappropriate for children, although parents are aware but to an insufficient range. Since their focus is only on preventing their children from going to sites with erotic content, they forget that their own contents may contain significantly more threats, which are also often much more serious. In Slovakia, there was a project ovce.sk within the EU project available at sheeplive.eu. This project focuses on the virtual threats faced by children using the internet. When we think of risk factors, many of them are also found in computers used a vast majority of adult users. The main risks can be summarized as follows:

▪ Gullibility and naivety is typical of children and youth, but a rather large number adults are unaware of possible threats from the network and do not expect any attack on their identity, which under certain conditions may be fatal (eSlovensko, 2010).

▪ Curiosity is not a privilege of children, but also of adults. The only difference is that adults are trying to hide their curiosity, as they were brought up in the spirit of that curiosity is a vice. In fact, a healthy curiosity propels people forward and a healthy curiosity also involves children and young people, because everything new and unknown is also tempting.

▪ Dependence on the Internet is unfortunately no longer a social phenomenon, especially in younger age groups. Especially young people in puberty are entirely dependent on the Internet, and the dependence only slowly decreases with age. A significant decrease can be recorded only in young people once they have established their own families, which will add responsibilities and significantly reduce the time for Internet activities. In certain cases, the internet is a bond stronger than the bond of family, and family sometimes draws the short end of the stick.

▪ Truthfulness is a risk factor, especially for children in the prepubertal age. Then one should identify the truthfulness of these key attributes and try to keep it everywhere. It is important for parents to explain to children the possible threats so that children do not give information about themselves and enable

anyone to abuse it. It is like when parents explain to their children not to talk to strangers in the street to, not to take candy from strangers, or not to enter a stranger's car.

▪ Obedience is also typical for the lowest age group internet users. Children are brought up to be absolutely obedient to their parents, elders, teachers, etc.. These habits can also spread to the Internet, so when they are required certain information, they will answer obediently and truthfully, assuming that they are acting properly. It is difficult for them to understand why the questions are not answered on the Internet.

▪ Black-and-white view of the world is typical of children, and therefore they do not understand that things are not just white or just black. Their primary expectation is that everyone will be as good as they, and they therefore really do not understand why they should not provide information about themselves. In these cases, the most effective method, once again, is the use of examples with a stranger from whom they should not take a candy. Although they might not understand the essence, they should be advised not to provide any information.
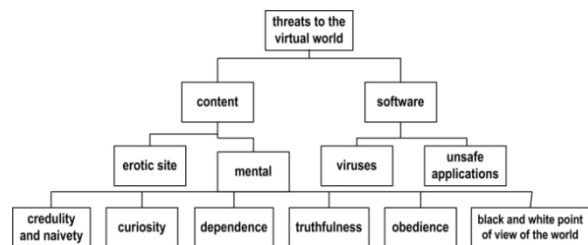

Figure 3 Sources of hazards on the Internet
Source: eSlovensko, 2010.

Identity always plays an important role in the above threats in the virtual world (Figure 3), for example, the threat of virus attacks. However, when we think of the consequences of our actions related to the management of virtual identity that reflects the real situation, we arrive at an opinion that the inconsistent and imprudent identity management can affect all our lives. We could give many examples where the procedure "owner identity" which is shared on the net had a profound impact on him. For instance. A church school teacher placed of her holiday photos in a swimsuit on the social network, which her supervisor regarded as indecent behaviour when she returned to work. Another curious case was after two friends communicated through social networks, showing the photos of their luxurious homes and competing which one of them will go

on more expensive vacations. Not surprisingly, someone revealed the identity of one of them, and after returning from holiday he found the house burgled. Of course, there were also cases when youths share their videos filmed during their vandalism spree and helped the police arrest them. These are cases where the disclosure of identity was misused by sharing photos and videos. In other cases, it may reveal the identity of its user through the proper use of the instrument of social engineering, which is manipulated so that the user eventually has a good feeling being able to provide their sensitive information. Another situation is phishing, which can be befall even the most cautious user, so all institutions where identity management is an absolute priority seek to improve their security protocols.

7. Conclusion

In most cases, abuse of identity is dominated by human stupidity. Most adult users will not realize the possible consequences of their actions. They do not realize that once something is placed on the internet, it cannot be removed without a trace. They tend to lapse illusion of false security that they are for themselves and their computers are safe. We do not wish to induce a feeling of helplessness and encourage people to paranoid behaviour, but the fact is that in fact we are all exposed to constant threats from all sides, when we connect to the Internet. Even if they are not only serious threats if not anything, it is just enough to instruct our children; however mostly we, the adults, spend considerable part of life in front of computer screens, and should seriously realize the dangers lurking.

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