

Emerging Cultures in Society due to Technology

Remzi Yildirim¹ and Huseyin Canbolat²

Electrical and Electronics Engineering Department, Yildirim Beyazit University, Ankara, Turkey

E-mail: \(^1 < remzi1963@gmail.com >, \(^2 < huseyin.canbolat@gmail.com >, \(< hcanbolat@ybu.edu.tr > \)

KEYWORDS Change. Civilization. Community. Development. Ethics. Science

ABSTRACT Humans always live in communities. The social life started as family or clans and the modern day large cities are formed in time. At each period of human communities, science and technology have affected the life and changed the society significantly. The change due to science and technology is accepted voluntarily or the society is sometimes forced to change through the technological developments. The communities have never been static. The science and technology changed the religious, ethical values of the society sometimes considerably. Even though these changes are mostly insignificant, the accumulated culture has resulted in the modern day civilization. The change and transformation continues dynamically and will never stop. In this work, some major technological changes in human history are studied.

INTRODUCTION

Common sociological, socioeconomic and psychological values and culture are formed in the human society as a result of living in communities through a long history. People lived as nomads when they used animals for a living. If they got their living from agricultural activities, they settled at a place. The first communities began with families and clans. Then these grew into villages, towns and cities gradually. The first settlements emerged during the agricultural revolution. This led to the diversity of jobs to sustain the settlement. The communities can be considered as the origin of civilization. After the agricultural revolution and due to the settled life, people started with development in production, marketing, science and technology with time. The machines and tools for plowing fields were invented. These inventions led to the modern day agriculture machines and other high technology products at a slow pace. The inventions and specialization in the society create an interdependence of people from various expertise. This led to trade of goods between people. Especially rivalry between people of similar or same expertise emerged the development marketing techniques in order to get more profit against their rivals. The expertise on some specific area emerged the guilds or the union of professions. This led to the sociological structure of the society. The social classes of professions are formed. All of these took humanity from the small size community life to the large-scale city life slowly. The social life also provided safety for

the individuals and commerce emerged as a source of wealth and status in the society. The responsibilities of social life and trade rules dictated the moral and ethic values. The moral values are the main subject of religions and religious beliefs. Religion enforces the people to obey the moral rules voluntarily. These values primitively started the culture of the society. This era can be considered as the settled agricultural era (Redman 1979; Gebauer and Price 1992; Barker 2009; Bocquet-Appel 2011). The quality of education is discussed in the context of technological and the classical methods (Bogavac et.al 2016). Chraska 2016 investigates the effect of computers on lifelong learning of university students in Poland, Slovakia and Czech Republic. Kargün (2015) discusses the managerial perception of culture and communication in an organization. All of these issues can be made related with technology and culture due to digital modern systems, although it does not exactly fit in the approach of this study.

The relation between culture and technology is investigated in several studies. Pacey (1985) focuses on the cultural view against the technological issues in the society, such as nuclear weapons, pollution, biological technologies. Slack and Wise (2014) investigate the technological culture in the society and try to create new alternative cultural studies approach to engage technological culture. Orevbu (1997) approaches the subject in terms of the cultural differences of different societies and the development of new technologies in the society because of these cultural differences considering differ-

ent countries. Carley (1995) studies the communication technologies in terms of their effect on cultural issues. Pinchot et al. (2010) worked on the mobile technology in the perspective of how it changes the culture.

In the formation of civilization and culture, the common humanitarian values are the most significant factors. The common values were accepted in the society, since all classes of the society had some benefits by obeying these values in the time of their formation. The acceptance of a common value sometimes may be in a very short time. However, these values were the result of a long historical formation. In the formation process of common values, the beliefs and moral values of the society have great effect. However, technology is another important factor for the formation of common values. It is possible to say that the new values were the result of some technological developments. These technological innovations or inventions may change the society more than the beliefs and moral values. Technology can form the society in a mandatory way.

Objectives of the Study

The paper aims to investigate the new cultures as a direct result of the technological developments based on the observations in the society. The claim is that some of the technological developments had an important impact on changing the related culture permanently. In that context, the effects of different technologies are discussed. The technologies need not be the new ones. Both the old and new technologies are discussed based on their impact on the society. Paper, electrical energy, automobile and digital era technologies are extensively discussed in the following sections.

MATERIAL AND METHODS

The method of the paper is observing the behaviors of the individuals or groups in the society and the interpretations of the situations in the history from the perspective of cultural changes due to technology.

OBSERVATIONS AND DISCUSSION

Science, Technology and Social Change

People developed lots of scientific knowledge, technology and inventions in history.

Some of these inventions changed the social life radically and a civilization emerged as a result of these activities. The researchers deal with some of these inventions in this study.

Paper

Writing was invented before paper. The invention of writing changed a lot of things in the society and started the civilization of scripts. The first scripts were put on stones or clay tablets. Especially the orders of the rulers were written on these materials along with some religious texts. The Egyptian and Sumer civilizations left a huge amount of such scriptures (Aston et al. 2000; Ward 2001). The main drawback of writing on stones or tablets was the difficulty of writing and copying the content to another material. Due to this, written culture was not able to spread among the ordinary people. The inscriptions on clay tablets were used for writing very important things, such as state laws, court orders and holy books. Therefore, lay people had almost no chance to have access to the writings. Due to the problems in writing, translating into another language and taking copies, the written language did not popularize in the society and had almost no effect in life. After the invention of paper, the written language became prevalent in the society beyond any discussion. Every written thing could easily be copied in bulk amounts and the literature came into easy reach of the layperson. This was a very significant phenomenon. Paper is still important today. Paper was used everywhere. Its function in the daily life was important and it still continues to be used in modern society. The importance of paper in human life can be understood through the religious texts. The fundamental books of religions were written on paper and copied in bulk amounts in order to teach the people the main aspects of the religion. The functionality of the paper provides all these services to people. The books were the main media for widespread education of people for new ideas and beliefs. It provided an easy method to record and transfer the ideas and beliefs by its lightness and ease of writing on it. People do not have to have special tools to write on paper. Similarly, it can easily be carried in the pocket. The ease of carrying also makes it easy to reach the content just by looking at the script, that is, reading it. No media could provide such a simple way of recording and getting back in terms of the complexity of the technology behind it. The books or information written on paper reduces the difference of illiteracy between the social classes. Everybody can reach the knowledge, understand what is told and think on some idea to get new results. This was achieved through the published media in the forms of literature, poetry, art, architecture, and newspapers. These tools, which are provided by use of paper, made the exchange of knowledge easy. Sociologically, the civilization is developed more easily by specific use of paper. The knowledge of ancestors is carried to later generations on paper. The ease of reach of that knowledge flourishes the new ideas, inventions, viewpoints, and moral values, scientific results based on the heritage recorded and protected on paper. Thanks to this ease of reach, people should not reproduce the fundamental results recorded on paper. Based on that they can get newer and better results. For example, it may not be possible go beyond the steam engine and invent the other types of engines used today without the records on paper. Similarly, the printed materials realized the spread of technology throughout the world more than the memories of individuals. Still people can reach this heritage by using the books kept in libraries. Briefly, the past can be conveyed to the later generations through the recorded texts on paper, and this formed the foundations of the modern civilization (Kaku 2011).

The digital era started in the second half of twentieth century. The digital inventions reduced the significance of recordings on paper by the ease and speed of reaching the recorded information. However, paper still continues to be one of the main knowledge or information carrying media. Because the information recorded on paper can easily be transferred to the people without a need to use any special technology to retrieve the recorded knowledge. Paper civilization was dominant until the last quarter of the twentieth century. That is, the only dominant technology that shapes the human life was paper until the rise of digital era. For centuries, paper was the only way of recording and retrieving knowledge, art, science and technology itself. Without paper and the knowledge recorded on it, the modern day civilization could not be possible.

Electrical Energy

Another discovery that shapes the society dominantly is electrical energy (Asimov 1994;

Bunch and Hellemans 2004). The discovery of electricity took humanity to the modern life and it is the start of the social life characterized by consuming the technological products and the industrial revolution. Electrical energy was the main form of energy used in every branch of industry and it is still vastly used by modern society. There is no useful alternative to electrical energy. In that respect, it is not inappropriate to name the industrial era as "the electrical energy era". Electrical energy is used not only in industry but also in the houses for lighting, operating the appliances, such as, washing machines, vacuum cleaners, television sets, computers, and so on. Now, every part of modern life depends on electrical energy. Any problem in energy supply can stop the life in any developed country. The lighting of cities, aviation, transportation, factories, business life, financial transactions and telecommunication industry cannot be thought without electricity. With every novel technological invention, the dependence on electricity is consolidated. Electricity makes the human life easier and it changes the way of life significantly. The heavy materials do not require huge number of workers anymore thanks to heavy machinery operated by use of electrical energy. In that respect, the widespread use of electrical energy was a milestone in human civilization. The widespread use of electricity was the driving force of cultural changes in the previous century. The current products of digital era, such as computers, Internet infrastructure, telecommunication systems, information systems, stock market connections via satellite and Internet are all dependent on the supply of electrical energy, even though it seems unrelated to electrical energy at first glance. The speed of communication provided by the digital technology makes the domestic and international trade over a vast area possible. This results in the increasing importance of the currency exchange rates. Digital technology emerged a new class of people based on financial operations. The 'money' becomes easily exchangeable by financial operations on the Internet. The importance of money increased considerably through the information technology based finance system. On the other hand, the money becomes a virtual entity more than a physical paper object. These developments create new social classes based on financial services. Another result of digital technology based money is that it provides soft power to the people, companies and states, as long as they can control the system. All of these are based on the production and supply of electrical energy. In that respect, all products used in modern society that provide great power are dependent only on the electrical energy. The social and cultural changes are based on these new technologies of electricity dependent information systems. The modern day electrical supply system is the largest technological system founded by the people.

Automobile

Automobiles (or land vehicles) entered human life after 1800s (Bellis 2016). After this date, at which automobiles entered social life, the social life changed considerably directly or indirectly. In the beginning, the automobiles were too expensive for people. The widespread use of these vehicles became common after the series production was introduced and as a result the price became affordable. After the introduction of automobiles to the market, it became one of the major needs. Normally, it was not demanded before its invention, because it was not natural to have such high speeds. However, after the introduction, the automobile became a major need in a very short time, since it provides an easy way of travelling and going long distances fast. It also became a status symbol in the last century. It provides prestige to the owner and a significant indicator of economic power and wealth. This situation makes the social class differences deeper and more conflict between social classes became more serious due to the high prices, which were affordable only by the wealthy people. The low-income people could not afford the automobiles. Recently, middle class people have incomes to afford an automobile throughout the world although there are still lots of people with incomes under middle classes. On the other hand, especially in developed countries automobiles are considered affordable.

The affordable prices create demand for the roads. Because of this, states are demanded to make regulations and infrastructure for the needs of automobile owners. For example, the roads were not so important before the automobiles. The state became responsible for road construction. The land owned by the private sector or individuals should have been expropriated and the owners should be paid for the nationalized land. The rules and traffic signs for the roads

should have been established to prevent accidents and protect goods and souls on the roads. Traffic laws and signs were not known or used before the invention of automobiles. An individual should know the traffic laws even if he does not drive an automobile to protect himself from accidents. Driving a car is a sort of expertise and the driver should be licensed by an authority and the use of a car without a driver's license is a crime that should be punishable by law. Before marketing of automobiles, nobody was required to have license for any kind of transportation.

The social rules for public transportation include both ethics and law. Some rules are considered ethically without any enforcement other than the ethical values, while others are rules that should be obeyed and some penalties should be applied if these rules are violated. An example of rules based on ethics is that the elder people have priority to sit in case of there are no sufficient space for sitting. The society created a code of behaviors and ethics for public transportation. These rules emerged a new culture in the society. This culture has not emerged from the traditions or long-term experience of the society. They are dictated by the technology that produces the automobiles. These rules are mostly same in all cultures. Therefore, it can be said that the automobile technology brings its own rules and culture independent of the country and the history of these countries. Also, the technology of the automobiles has potential to harm lives and goods in case of reckless driving. Because of this, behaving against the rules is considered a crime and a criminal law based on the automobile technology is established. Interestingly, people accepted these new traffic culture and laws voluntarily in a short time.

The social culture affected the society so much. The planning of cities cannot be thought of without parking places and roads for automobiles. The pedestrians and drivers have their own rights on the roads and these rights are recognized by the state. The cities are planned for automobiles primarily then the social areas for people are considered after. The automobiles of various brands were all the status symbols at the beginning. This prestige symbolism can be seen through the brands recently. The people can sacrifice even the agricultural areas for the automobiles. In that respect, the automobile civilization comes before the people and nature. The auto-

mobile technology dictated its own rules to the society and changed the social culture significantly in a short time.

Digital Era

The construction of the first computer in 1940s and the invention of semiconductor devices diode and transistor in 1950s may be marked as the beginning of the digital era. The computers started to become common in 1970s and widely used after 1980s (Winston 1998; Hearst 1999; Bunch and Hellemans 2004; Kincsei 2007; Neuman 2010). Previously, nobody predicted that computers would have a great impact on the society. The fast development of the digital technology, especially in telecommunication, and the decreasing prices of digital products resulted that the computers and their connection to the world via Internet became ordinary household devices or services. The computers are attractive in the sense that the use of computers makes jobs easier than ever and the developing communication media becomes an important daily life facility for all people. The digital technology became cheaper in a very short time comparing with the previous revolutionary technologies. Computers are used almost at each area of the human activities now. Their prices are affordable to each social class. Automation, industry, medicine, telecommunication, aviation, space, transportation and Internet are examples of the sectors that use computers commonly. Indeed, these sectors cannot exist as themselves without computers. Nowadays, all areas of life have become integrated with digital technology. For example, automobiles are traditionally mechanical devices. However, new generation automobiles are marketed as equipped with an embedded computer that controls all functions of the car. These cars cannot be used without their embedded computers.

Now, nobody can think of a life without computers. Even the new generations of children have no concept of life without computers and smartphones. It can be said that the digital technology is used in every sector now. The use of computers in the sectors has an impact on social life. These impacts are more significant in some sectors than others. The study deals with the high impact sectors in the following.

Smartphones

Smartphones have been increasingly used especially in the last decade. More important than the use of them, they changed the way of life for people radically in a very short time. The main communication media of writing letters is now a cultural issue of old times. The common culture of letters is now a nostalgic activity. The highspeed short messaging service texts made the letters unnecessary. Even face-to-face communication, that is, speaking is not used much in the time of smartphones. People prefer writing short messages using their phones to talk with their friends and loved ones at a distance instead of speaking with a person next to them on streets, shopping centers, schools and so on. Since speaking should include voice, the audio services provided by cell phone operators is not preferred in public. It may seem ironic that devices originally designed for speaking on long distances abolish speaking. This situation weakens the relations between people, and people become more self-centered. As a result, pathological and illogical social behaviors become common among people. Some psychological disorders that are considered exceptional become common now. Experts claim that these are originated by the increasing electromagnetic pollution and the environmental problems due to electromagnetic waves. Another issue is that the people can easily access information from every part of the world. That is, people have easy access to any information instantly using their phones, computers or even their television sets, which are equipped with digital technology more than ever. In that respect, it can be claimed that people become more sensitive to others since they can have all information about the needy people and can act for them. In fact, the actual phenomenon is not this. For some events people may react in a short time through the social media, while they give no reaction at all for another similar issue. Normally, the reactions are based on the individual's beliefs and way of life. However, it can be observed that most of the reaction or no reaction to issues are dependent on the egotistical values of the individuals. This becomes a new culture dictated by the nature of the digital technology. The nature of this technology provides easy and fast access to any information. The information includes the music and video sites, online shopping sites, social

media, banking, financing, education, distance lectures and any site for some specific need. This creates an illusion of self-sufficiency on individuals. Feeling of self-sufficiency takes the individual in a self-centered mood or in an imaginary world centered on him. At the end, the individual is an egoist, who thinks that, *I do what I want, when I want, where I want and nobody is more important than me at any situation.* These psycho-sociological attitudes become common among the users of digital technology. As a stereotype, they are more sensitive to suffering of animals than human sorrows. They are elitist as a result of their imaginary world of egoism.

Digital Entertainment

This group of people has their own entertainment concept. This concept is based on computer games. These games are computer game software. These games may be for one player or for a group of players. PlayStation, Nintendo and Xbox are examples of these games and the companies that their business is such games. These computer games are common among the young people. People become more self-centered through these games, since in these games one can destroy a whole planet by just clicking a mouse. Indeed the ease of clicking a mouse and the feeling of power through easy mouse clicks gives users a great pleasure. The feeling of selfsufficiency and self-esteem is at the highest degrees during these games. This kind of entertainment was unthinkable 25 years ago. Atari Company marketed the first examples of these games. But the Atari games were not online. Now there are thousands of these games mostly online. Gamers found groups for specific games and some people even publish books that give detailed information on the game, such as, shortcuts and easy ways to perform the tasks of the game. The start of gaming was getting accustomed or addicted to the game. However, now it is a culture of its own with the communities dedicated to a specific game on the Internet. The young generation is addicted to this culture and it is hard to predict the future of social life and family structure in the society after 50 years. The time consumed playing games is becoming more than the family time at the house. In some classes this is definitely true, while other classes can be expected to close the difference in the near future. As a consequence of this phenomenon,

the interpersonal relations decrease and the family ties are broken more. The feeling of loneliness in the middle of the crowd is a result of these individual times in gaming in front of the computer. The individual times breaks the ties with the society, people become uninterested to the social and moral values more and more. Consequently, the living alone becomes a common culture among people. It may be expected that the future society consist of egoist persons.

Social Status and Smartphones

The smartphones became a social status symbol, especially among the young generation. This is particularly true among the young members of middle and low-income classes. Using a smartphone of an expensive brand is considered as prestigious among these people. In fact, even the expensive smartphones are affordable prestige symbols compared to the cars and other symbols of social status. The social status is proved constantly, if an individual uses the latest model of the brands.

Internet

The great product of digital era is the web of computers, or commonly known as Internet and now the concept of Internet of everything. The era of Internet and smartphones is briefly known as the information age (Kincsei 2007). In recent times, Internet and smartphones present lots of advantages to the users. The advantages are different in different areas of life. In the industry, it is the developed production method and robots in production lines. In advertisement sector, individual promotions are the advantages. In marketing, the smaller cost of marketing makes the products and services cheaper. In medicine, the imaging and diagnosis systems give advantages to paramedics to rescue or heal the patient. In aviation, digital technology makes the air travel safer. In trade, the ecommerce via Internet is the growing trend. In communications, the satellite systems provide broad horizons to the media concepts as long as wider bandwidths to transmit high quality data. The ecommerce and online banking payment systems prevent waste of time due to wandering in the malls and going to the bank for payment purposes.

Electronic Trade and Finance

The volume of e-trade on earth is not exactly known today, but everybody predicts a huge volume. The most important feature of e-trade is that it is not restricted to shops. Anyone can reach any potential customer by just creating a website without the cost of operating a shop. Also the intermediaries are not needed in e-trade and the nature of the digital technology provides such an opportunity. E-trade consists of various sectors from high technology products to simple services, such as catering. Especially, in case of emergencies, the digital technology provides speed. The e-trade rapidly becomes a common culture in the society. It changed the buying and selling culture radically. Most people voluntarily use the advantages of e-trade and e-banking facilities due to its ease and speed. Electronic trading requires, or more correctly dictates, the new legal regulations and standards regarding the customer-seller relations on Internet. A new kind of law branch should be invented and enforced in a country. In fact the legal regulations should include international collaborations or the laws regarding the electronic banking and trading must be valid in more than one country, may be throughout the earth. If these regulations are not done then the states lose taxes and the trade becomes uncontrollable and the crimes cannot be detected and punished. The new kind of law, simply Internet law should be established independent of the countries' will. Unfortunately, there was no such thing in any period of the world history. However, the need for an Internet law including all aspects of social activities is dictated by the use of digital technology in an unthinkable way before. The new law should include the present crimes committed on Internet and potential crimes should be included as much as possible. The most common crime on Internet is the insults committed through the social media sites, such as, Facebook, YouTube, Instagram and Twitter. Another type of crime is violation of privacy, especially by hacking or stealing the private information on the cell phones. Electronic trading and financing provides means for financial frauds and illegal transfer of assets. All of these should be examined and treated properly. Otherwise, an unjust law with bugs has no use and increases the anarchy of the online activities. The crimes are increasing on the Internet due to legal loopholes and the traditional law

is unable to deal with these crimes. Another problem in these crimes is that the criminal is mostly an educated person who knows the digital technology very well and the detection of these crimes is hard due to the virtual character of the crime. However, no one thinks that banning some Internet activities can prevent the crime, because even if these are banned it is not possible to prevent the use of such digital means completely. The limits of such social changes dictated by the digital technology will be clearer in time. The social change through the digital products is independent of physical borders of countries and the location of the people who participate in it. It may have pioneering signs of a worldwide common culture and ethical values in time. Probably, all information age products and activities will depend on some common ethical values.

Social Media

Internet creates new values never seen before. Any new service, product or activity can easily become normal especially among young people and the elder people accept it as normal in time. For example, a group of people of different ages can form a group of common interests. These sites are called social media. These sites may be independent of social layers in the society. The social conflicts due to difference of social classes may be ignored in these social groups on the social media. Some people in these groups present a virtual character, which is not present in real life. In such a case, there could be some serious socio-psychological problems in the society.

Through the social media sites, different kinds of relations for a purpose can be established between people. Also, the marriage can be arranged between people who do not know each other via the friendship sites. This kind of relationship and friendship issues were unknown to the societies of the world. These kinds of activities come along with their own moral values. In fact, the people participating in these sites try to continue their cultural background for some time, but it is not wise trying to override ethical concepts and values of others and make them accept one's values. Therefore, the values and morale of these sites based on some minimized set of rules, which do not violate values of people on that site as possible as it does. Mostly, the minimized rule set allows activities that may violate the values of some people on the site.

People become flexible when they meet an unallowable situation according to their beliefs or values. It starts generally by accepting and normalizing the possibly violating situations due to the grey area of violation. In time, violation of all values become normal to the eye of the user, if they do not leave to obey their values and beliefs. This behavior spreads in the society in time and the common values of the society become unimportant to the members. The concepts of character, value and moral are changing in time. The unacceptable things in the past become acceptable. From this, new types of characters and behaviors emerged in the society. Computer games are examples of such phenomenon. The people can play games on computers instead of going out with relatives or friends. The company of a machine is much more attractive than a company of a friend. This case may point to some new biological and psychological disorders.

Internet being such an effective media has to have its own moral values. The new regulations should have been passed to deal with such new phenomenon. New types of crimes are invented and committed via Internet. For example, hacking is a novel concept and a crime that was unthinkable before. Criminal codes gain new definitions and corresponding penalties.

Another significant effect of Internet is on the social change via social media sharing (Winston 1998; Neuman 2010; Hearst 1999; Graham and Dutton 2014; Virjan 2013). Social media sites are the invention of Internet that was never seen before. These sites effectively remove the borders from the human relations. The locations, beliefs, moral values and nationalities of people become irrelevant when they meet and be friends via Internet sites. Why do these people become friends? If they met physically at some place on earth instead of Internet space (cyberspace), do they still become friends? The answer to the second question is not affirmative in almost all cases, while the first one is answered mostly affirmative. Why do these people want to be together? Why do they establish a group without depending on any belief, moral value or nationality? These questions should be answered in one way or another. Otherwise, it is hard to understand what is going on.

The marriage and friendship sites are candidates to form a new marriage culture (Tufekci 2008). These kinds of marriages are realized without questioning the positions according to the

participating individual's beliefs and values. These marriages by meeting on the sites are becoming a new cultural phenomenon in the society. This case is a living example of technology forming new moral values or beliefs. A new culture and its related values are formed through the direct effect of the technology. This phenomenon is useful and good at first glance because people at different possibly unreachable easily locations know each other and peace becomes widespread around the world. However, most of the time these people live alone and have hard times due to their loneliness. People have access to the newest technology, but they cannot find a friend to talk to. Even they know the death of their next-door neighbor through the police or the bad smells coming from the neighbor's apartment after the dweller died alone. The attractive and problem free world of the Internet and cell phones motivates the people to live alone by themselves. The humanitarian relations between people have eroded due to the desire of living alone as an individual. The modern life makes people accept that the visiting relatives are an unnecessary traditional chore and the digital technology takes place of an intimate friend, sweetheart or a beloved family member. The loneliness causes psychological disorders and the people cannot trust each other. The distrust between people brings out individuals fearing to have friends. However, the communities and societies and any kind of groups can continue through the trust among its members.

Education and Internet

The most prominent advantage of the Internet is its contribution to education (Sutton 2013; Cardoso et al. 2009; Castells 2014). The contribution is two-way. First, the present resources can be shared easily via the Internet. Second, the lectures can be transmitted to where the available expertise on the topic is not present or insufficient. Thus, the students can reach the expert and ask questions to better understand the issue. The distance learning lectures spreads the information to the needy places and reduces the inequality between the two places through Internet. Normally, experts do not want to work at places with limited facilities about their professions. The distance lecturing presents opportunity to share the expert knowledge over a broad area and a broad audience. This is an important service to provide equal opportunity for educating people in small places. It was not possible to reach such a huge audience before the digital age.

Technology is an outcome of the human mind. However, technology comes with its own agenda based on the technical requirements and the beliefs of people who produce and design it. The roads for cars are built before the houses. However, the same approach is not used for comfort of people. Will the robots dominate the world in the future? Is humanity going to be slaves of high technology having artificial intelligence? Will humanity obey moral values formed through the technological inventions? According to the recent tendency, the formation of culture via the technology will be more dominant. The historical experience indicates that the immoral technical requirements provide a good standard to do the job, but it is not true that these kinds of requirements create a humanitarian society with high degree of ethics and beliefs. Although the beliefs and values without any logical ground is changed whenever necessary as a result of slow evaluation process in time, the values dictated by technology change the society in a very short time and most of the time the result is a violent moral demolition.

In fact, technological developments provide useful and easier to use services. Although this reduces the unequal practices among people, every new technology brings out its own health problems. For instance, new problems on hand and fingers are emerged due to touch screens. Another documented health problem is the carpal tunnel syndrome, which is seen more and more after the widespread use of computer mice. A newly emerging issue is the digital heritage (Wong 2013). However, this has not been a part of emerging digital culture yet. The authors believe that it will shortly be an important part of the heritage concept in the society.

CONCLUSION

Technology provides some convenient facilities to the people. However, it dictates through scientific and technical necessities some rules related with the moral values. The dictation changes the traditions formed in the long historical past values in a very short time. The new values dictated by the technology mostly produce negative results. The use of technology in

the life provides to people convenient ways to do jobs, but moral values and social changes dictated by technical necessities may not provide positive results. The society should have a sense of balance between the social life and technical necessities. However, the fast change in the technology in the last 50 to 60 years has made one lose the balance. The two generations of humans live together now on earth. The young generation of under 20 years can use the modern technology very easily and the older generation over 45 years has difficulty using the technology. This actually appears as a generation gap and great difference between the moral values and beliefs of different generations. Due to this, today is a transition period and everything seems blurred. It is hard to predict exact results of this fast changing period. In the researchers' opinion, most of the issues will be clarified in the next 50 years.

Nowadays, the digital heritage emerged as a new issue. Here the word "heritage" does not have the usual meaning as in the cultural heritage. It means the ownership of digital material owned such as (email, social media) accounts, the photographs on the social media, briefly everything someone owns individually on the digital media. This issue is not discussed in the paper. However, it is clear that it will be a hot topic in the near future and it will change the classical meaning of inheritance forever.

REFERENCES

Asimov I 1994. Asimov's Chronology of Science and Discovery. New York: Harpers Collins.

Aston BG, Harrell JA, Shaw I 2000. Stone in Ancient Egyptian Materials and Technology. Cambridge: Cambridge Unv Press.

Barker G 2009. The Agricultural Revolution in Prehistory: Why did Foragers become Farmers? Oxford, UK: Oxford University Press.

Bellis M 2016. The History of the Automobile: Early Steam Powered Cars. From http://inventors.about.com/library/weekly/aacarssteama. htm> (Retrieved on 12 June 2016).

Bocquet-Appel JP 2011. When the world's population took off: The springboard of the neolithic demographic transition. *Science*, 333(6042): 560-561.

Bogavac D, Kovacevic J, Radovanovic I 2016. Quality Lifelong Education: Computer and/or a Textbook. *The Anthropologist*, 24(1): 75-82.

Bunch BH, Hellemans A 2004. The History of Science and Technology: A Browser's Guide to the Great Discoveries, Inventions, and the People who Made Them, from the Dawn of Time to Today. Boston, New York: Houghton Mifflin Company.

- Cardoso G, Cheong A, Cole J 2009. World Wide Internet: Changing Societies, Economies and Cultures. Taipa, Macau: University of Macau.
- Carley K 1995. Communication technologies and their effect on cultural homogeneity, consensus, and the diffusion of new ideas. *Sociological Perspectives*, 38(4): 547-571.
- Castells M 2014. The Impact of the Internet on Society: A Global Perspective. MIT Technology Review. From https://www.technologyreview.com/s/530566/the-impact-of-the-internet-on-society-aglobal-perspective/. (Retrieved on 12 June 2016).
- Chraska M 2016. The personal computer and its position in lifelong learning and leisure of university Students in the Czech Republic, Slovakia and Poland. The Anthropologist, 24(1): 284-291.
- Gebauer AB, Price TD 1992. Transitions to Agriculture in Prehistory (Monographs in World Archaeology). Madison: Prehistory Press.
- Graham M, Dutton WH 2014. Society and the Internet: How Networks of Information and Communication are Changing Our Lives. Oxford: Oxford Uny Press
- Hearst MA 1999. The changing relationship between information technology and society. *IEEE Intelli*gent Systems and their Applications, 14(1): 8-17.
- Kaku M 2011. Physics of the Future: How Science Will Shape Human Destiny and Our Daily Lives by the Year 2100. New York: Doubleday.
- Kargün M 2015. Managers' perception of organizational culture and organizational communication. *The Anthropologist*, 22(1): 44-49.
- Kincsei A 2007. Technology and Society in the Information Age. Budapest: European Comm. From http://www.icsd.aegean.gr/website_files/metaptyxiako/154935850.pdf (Retrieved on 12 June 2016).

- Neuman WR 2010. *Media, Technology and Society:* Theories of Media Evolution. Ann Arbor: University of Michigan Press.
- Orevbu AO 1997. Culture and Technology. New York: UNESCO Report No: CLT/DEC/Pro 1997.
- Pacey A 1985. *The Culture of Technology*. Boston: The MIT Press.
- Pinchot JL, Paullet KL, Rota DR 2010. How Mobile Technology is Changing Our Culture. *Conference* on Information Systems Applied Research 2010 CONISAR Proceedings, Nashville Tennessee, USA.
- Redman CE 1979. Rise of Civilization: From Early Hunters to Urban Society in the Ancient Near East. San Francisco: WH Freeman and Company.
- Slack JD, Wise JM 2014. Culture and Technology: A Primer. New York: Peter Lang Publishing Inc.
- Sutton B 2013. The Effects of Technology in Society and Education. Master's Thesis, Unpublished. New York: State University of New York.
- Tufekci Z 2008. Grooming, gossip, facebook and myspace: What can we learn about these sites from those who won't assimilate? *Information, Communication & Society*, 11: 544-564.
- Vîrjan D 2013. The internet is changing our world. Theoretical and Applied Economics, 20: 117-124.
- Ward C 2001. World's oldest planked boats. Archaeology, A Publication of Archaeological Institute of America, 54(3): Abstract.
- Winston B 1998. Media Technology and Society: A History: From the Telegraph to the Internet. London: Routledge.
- Wong C 2013. Can Bruce Willis leave his itunes collection to his children: Inheritability of digital media in the face of EULAs. Santa Clara High Technology Law Journal, 29: 703-761.

Paper received for publication on January 2016 Paper accepted for publication on December 2016