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TECHNOLOGY AND HUMAN RELATIONSHIP

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Abstract
We’re living in a ‘digital world’. Technology influences every aspect of human life, making it easier, better and different. The fast-developing technology gives new impetus to developments almost in every field. The primary purpose of technology is to build human relationships, and human community. It has to safeguard and enhance the entire cosmos. However, often people tend to be too much immersed in this digital or virtual world and fail to be present adequately in the real world, to the real people and to real relationship. To make technology serve human beings well, requires the exercise of good judgment. It is an obligation for all to harness humanity for the better use of technology. Human persons ought to be connected to claim their identity in technology and technology ought to be understood and accepted as an agent of humanity.

Keywords: Digital Divide, Digital World, Social Communication, Technology, Techno-Dependent, Technological Appraisal, Virtual World

1. Introduction
Today we are living in a technological world that is known as ‘the digital world’ or ‘digital age’, ‘connected society’ or ‘LinkedIn society’. Technology with its limitlessly limited horizon in myriad of fields: from the environmental conditions to governance issues, from agriculture to architecture, from engineering to entertainment, from

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industry to transport, from communication to education, from tourism to space, from business to medicine, from genetics to politics... affect people both positively and negatively across the globe. Technology influences human thoughts, communication, action, relationships, and human life, making it easier, better and different.

With the explosion and expansion of technologies, people are able to overcome the obstacles of time and space, money and magnitude, energy and effort... With the use of the technological tools such as Email, Twitter, Face book, My Space, You Tube, Linked In, Blogs... people connect and relate with one another, with other cultures, languages, and religions, etc. Thus the fast-advancing technology on the whole, gives impetus to developments almost in every field and improves the quality of human life and human relationships.

However, the same technology that makes life easy and cosy, at times loses its charm joys. It connects people across the globe instantly and establishes relationships, also makes them to be distracted, depressed, isolated, and disconnected easily. Often people tend to be too much immersed in this digital or virtual world and fail to be present adequately in the real world, to the real people and to real relationship. This article reflects on some of the positive and negative impacts of technology on human relationships. The first part of the article deals with the meaning of the terms used: ‘technology’ and ‘human relationship’. The second part reflects on the intricacies of interrelationships or interface of technology and human relationship. While the third part highlights the social setbacks, the fourth part presents the challenges of technology on human relation. This article concludes with the invitation to harness human connection to claim human identity in technology and technology is to be considered as an agent of humanity.

2. Meaning of the Terms ‘Technology’ and ‘Human Relationship’

The terms ‘technology’ and ‘human relationship’ have wide and varied meanings. The purpose and the significance of these terms keep changing according to the signs of the time. However, we shall try to learn and understand some of the important aspects of these terms.

2.1. Technology

Technology is literally the “study of techniques.” As per business dictionary, technology is the purposeful application of information in design and production; the utilization of goods and services in
the organization of human activities.¹ For Santikaran, technology is entrepreneurial expertise and professional knowledge, on how to carry out planned programmes.² Fadahunsi views technology, as a scientific knowledge aimed at satisfying the basic needs and objectives of human persons and is classified into three broad categories: the human embodied technology such as skills, knowledge and experience; the capital embodied technology such as machines, equipments, tools and the disembodied technology which includes blue-prints, products and product specifications.³ T.K. Wie describes technology as the knowledge and machinery needed to run enterprises including the software (skill) and hardware (equipment).⁴ Thomas L. Erkson defines technology as the intersection or the interaction of object, process, knowledge, and volition.⁵

Andah understands technology from the context of cultural history, tradition, progress, cultural values and civilization. He regards technology as the material expression of peoples’ life, values and attitudes.⁶ According to Cherhoudi technology is a process of the application of scientific knowledge for the commercial production of goods or services.⁷ Mishra considers technology as a tool of machine, a process, a system, an environment, an epistemology, and an ethic. He states, “The systematic application of knowledge, materials, tools, and skills are to extend human capabilities. Therefore, technology includes not only tools and machines but also their impact on processes and systems, on society, and on the way people think, perceive, and define world.”⁸ Thus, to some technology means an applied knowledge and science; to others gadgets, devices, and machines; to some others skills and tools, yet to others it means a complex social interaction, economical appraisal, cultural enterprise or a process and social development.

2.2. Human Relationship

Oxford dictionary defines relationship as the way in which two or more people or things are connected. It is the state of being interconnected or interrelated, being associated, linked, or correlated.9 Merriam Web minister dictionary defines relationship as the state of being related or interrelated; connected or binding participants in a relationship. It is a state of affairs existing between those having relations or dealings.10 As per Macmillan dictionary relationship is the way in which two or more people or things are connected with or involve each other.

Human relationship refers to a relation or relationship existing between human persons.11 Thus human relationship can be defined as the sum total of human views, reaction and response in establishing connection or relationships between human beings. In the context of technology, one can also speak of relationship between human persons, between human and the real or the virtual world. In the following few pages we shall reflect on the intricacies of interrelationships or interface of technology and human relationship.

3. The Intricacies of the Interface of Technology and Human Relationship

Technology is generally understood in terms of tool, and techniques and its products (good or bad) or its material benefits (profitable or unprofitable, positive or negative), rather than understanding its deeper relationships with human person, human culture, and the environment.12 What produces technology — human values, social development, cultural organization and so on — is less evident and less significant than experiencing its products and benefits. In order to understand the intricacies of the interface of technology and human relationship in personal and social life we shall raise the following questions: How does technology help or hinder human persons in building a meaningful relationship with oneself, with others, and the entire creation? How does technology

motivate people to express their care and concern, compassion and support, presence and service to others? What are the challenges of a human-centred or person oriented technology?

Technological appraisal, often driven by the human desire and search for a better way of life, has developed new inventions and discoveries that are described as both blessings and burdens. Technology as a blessing increases the quality of human life, human vision, human enterprises, human development, and human relationships. Here we shall highlight a few of the transformations wrought by technology in social trends.

3.1. Use of Technology in Human Tasks

Technology is dynamic and human persons use different types of technology to accomplish their various tasks. To name a few, communication technology is used to transmit information or data from one place to another or from one person to another; construction technology is used to build structures; assistive technology is used by people with disabilities to accomplish specific tasks which seem to be difficult or impossible to perform; medical technology is used to extend and improve human life; information technology is used to store information; entertainment technology is used to create an entertainment experience; business technology is used to run a business and enhance various business operations; and educational technology is used to improve the performance of the students by creating and managing various technological processes and resources; internet technology allows people to, in some ways make the world a smaller village... One of the primary tasks of technology is to connect and interconnect people, the global world and the entire cosmos. Thus from the invention of the simplest human accessory like clothing, to the most complex research such as the human genome project, there is no area of human activity that is out of bounds for technological intervention and innovation.

3.2. Technological Innovations for Human Well Being

Technology accelerates innovations, as human needs and demands keep emerging. The virtual world with the technological tools such as Internet, Television, Video Games, and Cell Phones... shapes human

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persons and their lives. In many ways technology has strengthened human relationships by keeping in contact with old friends, colleagues, and co-workers. It has brought luxury in the life of the common man/woman. Technology affects human life and human relationships and human-centred technology brings people closer together.\(^{15}\)

A well utilized technology becomes a great asset to human persons. Based on Maslow’s work, Jessica Serra states that digital media helps people in time management, develop human skills; increase productivity or social interactions; and even improve optimism and self-esteem, as well as general knowledge.\(^{16}\) Automation brought about by technology has saved human effort and time to a large extent. The use of advanced technologies like robotics and artificial intelligence has proven to be helpful in life-risking endeavours like mining and space exploration. Satellite communication is an important facet of technology.

Technology has brought distant places closer and simplified information access. It has made the world a smaller place to live in. Maslow opines that social interaction as one of the human necessities to survive must help people to reach self-actualization\(^{17}\) and build human relationships, human skills, and human community. Thus technology is an instrumentally useful device for the human well being, transmits information and knowledge to human persons; facilitates to maintain and strengthen their familial and social relationships; fosters them to be and to become socially sensitive agents, economically, and culturally adept persons.

### 3.3. Technological Advancements for Human Development

The technological advancements are accompanied by the reduction in time and space, effort and cost for production of any material ranging from the microchips to the state of huge automobiles or from the sophisticated devices to the mega structures coupled with ease in

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design and development. These advancements invigorate socio-economic development; reduce the material production cost and the over head charges which generate savings in the economy and lead to human development.

In a research Keith Hampton has found that the more the people use different kinds of social media to interact with one another, the stronger their relationships tend to be and to become and even the nature of relationships changes. Children have better access to health, education, and entertainment. Young people have ample chances and choices to develop new skills and creativity in the field of education, employment, social commitment, political innovation. People in general improve their socio-economic status, cultural adaptation, and religious affiliation using many platforms in social media. Technology breaks down barriers of caste, creed, race, etc. For instance, Facebook and other social networking sites help people to be in touch with people far away. As a communication tool, mobile phone use is associated with reduced public isolation. Thus Technology as a part of the continually evolving industry is shaping human beings and their future destiny.

3.4. Technological Dynamics for Human Relationship

In fact, in many instances, technology aids in building relationship. Whether it is about the way people connect with each other, the spatial and temporal dimensions of communication, the breadth and depth of connections, or the meanings that are conveyed and experience shared, the use of new connected technologies or smart technologies and networks changes the dynamics of their relationships. Robert Kraut’s research has found that today most people spend their time online communicating with people with whom they already have strong ties. In those cases, he affirms that

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the online connection decreases depression, reduces loneliness, and increases levels of perceived social support.\textsuperscript{22}

The increased continuity in interactions that communication technology promotes can be instrumental in strengthening family and relational bonds. A study shows that three quarters of teenagers feel having a mobile phone makes them closer to their parents.\textsuperscript{23} Increased directness and continuity in relationships often lead to deeper knowledge of others and wider understanding of situational contexts in relationships. For example, today people see and interact with each other more directly through video conversations via smartphones or conferencing devices.

Technology as a leveller enables people from all sections of society to engage with each other on equal footing. People are increasingly able to focus their relationships on striving towards common goals when there is a shared purpose in their relationships. The use of technology within teams leads to more specialised and improved division of labour among colleagues, or even across the labour market. Adam Piore envisions that technological tools to pursue human relationships will continue to evolve in unexpected ways. He says, “In conjunction with other modes of interaction, through technology people can bolster existing relationships; contribute to diverse relationships, and keep alive dormant relationships.”\textsuperscript{24} Technological appraisal is partly responsible for social development, cultural interaction, and people’s views on morality, spirituality, and human nature, etc. It is perceptible that technology has the potential to enhance human relationships and also to destroy it. If the technology is human-centred, it can benefit humans and build human relationships, but if not, it can disconnect or break human relationships.\textsuperscript{25} Now let us focus on some of the social setbacks of technology.


\textsuperscript{23}Robert Kraut et al, “Internet Paradox.”


4. Social Setbacks in the Use of Technology

The social issues like the use of latest gadgetry, economic and social development leading to more comfortable lives, the launch of a new phase in global relations, international and environmental issues and so on, amply exemplify technological penetration in society. People have more extended connections than ever in this digital world, which is a great asset for networking and a challenge too. Feenberg argues that technology is a politically and culturally neutral but progressive-positive force. Fellows views technologies, technique, and associated products as essentially scientific — in the sense that they are detached from any human-oriented or socio-cultural values. Their view of technology as a neutral scientific force is inadequate and does not account for negative aspects of technology.

Chattopaddhyaya says that there are two significant fallouts of the expansive role of technology. One is gradual enlargement, rather globalization, of the market economy; and the other is increasing delegation of human responsibility. In fact while Web communication facilities have worked wonders in speeding long-distance communication, they have deprived humankind of the warmth of personal contact. Here the question to be raised is not only how technology affects the society but also how will it guarantee a sustainable and secure society for all. The following are some of the social setbacks of technology.

4.1. Social Separation and Isolation

Over-dependence on technology leads to social separation and isolation. Although some people are happy about having built up a number of relationships through technology, sometimes the quantity of these relationships leaves people feeling qualitatively empty. The technological gadgets like television, computers, cell phone, ipad, etc. make a serious impact on a person’s social habits, social life and

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relationships. Spending a limited amount of time viewing wholesome programs on Television can strengthen human relationship and interactions. Exposure to what is viewed on television can have serious setbacks on people's social lives.\textsuperscript{30}

With the fast advancing technology, people have started harnessing artificial intelligence in many fields. Machines replacing human beings results in the under-utilization of human intellect, human power and human effort, leading to serious issues like unemployment, underemployment, dissatisfaction and boredom. In the business sector employees and business managers communicate through email, phones, text messages and video conferences, replacing face to face communication. Since most of the tasks are being automated, employees have less involvement in the final product which leads to dissatisfaction and workplace boredom.

With regard to the use of internet, Robert E. Kraut’s study revealed that the more the people use the Internet, the more their depression increases, and the more social support and other measures of psychological well-being decline.\textsuperscript{31} The more hours people spend on the Net, the more depressed, lonely and stressed they feel. The negative effect is that high Internet usage left less time for deeper relationships between friends and families. This phenomenon leads to social isolation of some people crippling their social relations.

A person tends to live in a virtual world of his/her imagination. According to Kiran, people spend their time chatting with their online friends whom they have never seen and met. This addiction gives rise to many psychiatric disorders. An Online friendship devoid of the element of trust can lead to faulty and fractured interpersonal relationship.\textsuperscript{32} One study has found that playing violent video games is a significant risk factor for later physical aggression.\textsuperscript{33}

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\textsuperscript{31}Robert Kraut et al, “Internet Paradox” (accessed March 18, 2016).


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keeps adding to the burgeoning rate of crime such as illegal intrusion into confidential information, password theft, illegally hacking and stealing confidential credit card numbers and electronic fraud through illegal interbank money transfer. The mounting of the websites spreading religious and communal hatred, child pornography, rousing racial conflicts, smearing campaign against opponents are some of the negative impact of the technology on people.

The divorce rate of computer professionals was highest as compared to other professionals. The survey indicated that the applications filed by the computer professionals for divorce constitute 57% of the total applications which is a severe blow to the institution of marriage. Gradually, technology seems to be subtly destroying the meaningfulness of interactions people have with others, disconnecting them from the world around, and leading them to an imminent sense of isolation in today’s society. Using sophisticated technologies, people become so dependent on them that they are so apathetic with what is really happening within them and around them.

4.2. Social Dissent and Disconnection

Technology helps people to connect with others instantly at their fingertips. Ironically, by being connected, they become dissident and disconnected. While being busy on their devices, people’s attention gets divided and they become split within and without. Although people conveniently turn to devices for their social needs, they primarily yearn for physical interaction. The problem is, like the technological devices, they expect their relationships to be just as fast and brief, thus, diminishing the quality of their relationships.

Technology produces and/ or widens the ‘digital divide’ — within a country and across nations; between the urban and rural people; between the economically rich and poor; between the educated and the uneducated; between those who have the resources and those who do not have (in relation to the availability of information and technology, accessibility and utilization); between different cultural

34Kiran, Information and Communication Technology, 77.
35Kiran, Information and Communication Technology, 72.
groups. Even if technology becomes more and more affordable and accessible to all and by all, ‘digital divide’ between those who have and do not have continues to be the same.

The social fallouts of industrialisation like weakening of family bonds, soaring divorce rates, neglect of the old, etc. are complex problems with no easy solutions. People are too busy with the fancy technology they have, leaving the human community in danger. Children spend more time playing online and less or no time playing on the ground. Youngsters spend more time on social networking, than on the joys of real social life. People are more active in the virtual world rather than in the real world. Hunger, wars, conflicts, and many adversities do not move them much for any social action.

Some technological developments have caused unforeseen problems and negative consequences not only for the society but for the environment too. Gopalakrishnan laments that the reckless use of the world’s limited resources is in danger. Fossil fuels like coal, petroleum and natural gas are used up; forests are cut down extensively, oceans are being over fished; and many species of plants and animals have disappeared. The pollution of air, water, and ground, etc. are the outcome of industrial and domestic activities. The proliferation of crime and terrorism is also partly attributed to technology.

Although electronic gadgetry is to be more connected or related in some ways or other, it becomes or it creates a shallow connection or relationship. There is an overwhelming replacement of face-to-face relationship with screen-to-screen relationship. There is a great concern regarding the over use of technology and its impact on face-to-face communication and relationships, so much so that some Los Angeles restaurants have banned the use of mobile devices to ensure customers enjoy both their meal and their company.

37Kiran, Information and Communication Technology, 63.
40K.V. Gopalakrishnan, Impact of Science & Technology on Mankind, 161.
Since personal and public relationships rely on making others feel valued, devices put these relationships at risk. Society as a whole will have to realise that human relations are more important than material well being and human bond is more valuable than virtual bond. Therefore, people are invited to evaluate periodically the technological progress and its usefulness to the human persons. The sharing of the human concerns through social media is not always adequate, as it is often found to be superficial and virtual. People have to believe that it is their responsibility to use technology in a way that doesn’t harm them, others and the environment. The following are some of the challenges of technology on human relation.

5. Challenges of Technology on Human Relation

Problems and potentials often go hand in hand; problems can be turned into opportunities. Every element of the universe exhibits two faces, one is the constructive side and the other is the destructive side. Society has become more and more dependent on technology. Human greed, selfish interest, lack of planning and prejudiced vision has led to the abuse of science and technology.

5.1. Emotional Invisibility

Making meaningful relationship electronically presents extra challenges. People who are uncomfortable with face-to-face confrontation may tend to use electronic media, to transmit their emotions. It is because the person to whom they are communicating in the electronic world is not physically present to display or to disapprove; to respond or to react to their emotions. It is much easier to injure friendships online than in person, because of the ease of creating misunderstandings electronically. For transferring information efficiently, technology is good but not for building emotionally

42Gopalakrishnan, Impact of Science & Technology, 163.
sensitive or satisfying relationship. The people who understand the importance of human relationship in technology may consider the technological tools as means only to be used to complement the human relationships or person-to-person relationship.46

5.2. Technology-Dependent

As technology gets smarter and more sophisticated, people are getting more dependent on it and even become chained to it. Technology traps people in a vicious cycle of inventing technology to fulfill human needs. Technology creates more human needs which propel them to be technology-dependent. Edward Moore Geist says that humanity acquires all the right for the use of technology for all the wrong reasons too. He warns that the real danger that the human community faces is not that computers will begin to think and act like human beings, but those human beings will begin to think and act like computers.47 It is, therefore, important to incessantly examine and to evaluate what is happening in a technology-dependent era and what will happen if the human persons continue to be more techno-dependent.

6. Conclusion

Humanity is the fundamental portion of technology. The primary purpose of technology is to build human relationships, and human community. It has to safeguard and enhance the entire cosmos. The swift growth of technology has to be noted as an impetus for the growth of humanity. It is imperative to make technology to be at the service of human beings. Sync with human relationship is important for the creation and the maintenance of technology in this digital era. Technology has increased the quality of social interaction and social relationships. Human relationship in technology is what makes humans rational and realistic. It is a call to continuously create a balanced world.

It is the responsibility of the human person to use technology proficiently in proper perspective for the benefits of all in overcoming social disproportion, dissent, disconnection, isolation, etc. The right

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use of technology will further the technological development of the world. If not it can cause destruction to the human and the cosmic world. Therefore, the greatest challenge is the exercise of right and just judgment in the use of technology to serve the human purposes. Human persons ought to be connected to claim their identity in technology and technology ought to be understood and accepted as an agent of human relationship.