

Postmodern Openings

ISSN: 2068 – 0236 (print), ISSN: 2069 – 9387 (electronic)

Coverd in: Index Copernicus, Ideas RePeC, EconPapers, Socionet,
Ulrich Pro Quest, Cabel, SSRN, Appreciative Inquiry Commons,
Journalseek, Scipio, CEEOL,
EBSCO

Technology and Well-Being- An Evocative Essay

Satabdi Roy CHOUDHURY

Arup BARMAN

Postmodern Openings, 2014, Volume 5, Issue 2, June, pp: 15-37

The online version of this article can be found at:

<http://postmodernopenings.com>

Published by:

Lumen Publishing House

On behalf of:

Lumen Research Center in Social and Humanistic Sciences

Technology and Well-Being- An Evocative Essay

Satabdi Roy CHOUDHURY¹
Arup BARMAN²

Abstract

The paper explores the objective behind the progressive technologies and societal subjective judgement towards well-being. The association of both the variables (technology and well-being) illuminates the impact of technology upon the well-being and its interconnected dimensions which consists of people health, community, happiness, prosperity, welfare and nation as a whole. The paper also focuses on the question- does these developing technologies leads towards positive well-being in general or does also leads to increasing negative effects upon the society.

The paper provides a practical overview on the complementary relationship on how scientific advancement and technological innovations are important drivers to increase the ease of human life and how the societal demand to lead a comfortable life, directs the origin of new technologies. In this paper presents a brief empirical evidence delineating the implication of technology in our value system, culture and attitude in common and as well as the emerging known and unknown issues coming in the near future.

Keywords:

Technology, Well-Being, Scientific Advancement, Innovation, Societal Demand, Value System.

1 Satabdi Roy CHOUDHURY - Research Scholar, Department of Business Administration, Assam University, Silchar-788011, Email Address: 08satabdi08@gmail.com

2 Arup BARMAN - Associate Professor Ph.D, Department of Business Administration, Assam University, Silchar-788011, Email Address: abgeet@gmail.com

Understanding Technology: The word technology comes from the two Greek words, transliterated 'techne' and 'logos'. Techne means art, skills, craft or the manner by which a thing can be achieved and Logos means a word, a saying or an expression by which inward thought is expressed. Thus, literally, technology means skill to convey an idea in order to reach the goal. But nowadays the term technology mainly signifies the knowledge of tools, machines, techniques, crafts, systems, and methods of organization, in order to solve a problem. Today, technological advancement has provided to human race with an ability to control and adapt to their natural environment.

According to Merriam-Webster, dictionary technology is an "application of knowledge to the practical aims of human life or to changing and manipulating the human environment. Technology includes the use of materials, tools, techniques, and sources of power to make life easier or more pleasant and work more productive. Whereas science is concerned with how and why things happen, technology focuses on making things happen".

A broad definition of technology can be illustrated in three aspects: Cultural aspect consisting of goals, value ethical codes, belief in progress, awareness and creativity; Organizational aspect consisting of economic and industrial activity, professional activity, users, consumers and trade unions and Technical aspect consisting of knowledge, skills, technique, tools, machines, chemicals, resources, products, wastes etc. This definition of technology is referred to as the "Technology Triangle" which has three interdependent and interacting components namely: People, Technical Knowledge and Physical Tools. The effectiveness of the technology utilization depends largely on interaction between these three components. For instance the language of knowledge being used by the country might differ from one another in terms of CD ROM drives with internet updates versus stores with records on papers and confusing registries. People involved also play an important role in terms of their level of education, technological skill to utilise the technology. Lastly the physical tools are referred to as physical machinery or hardware is the important component of technology as it directly affects the technology (University of Pretoria).

Understanding Well-Being: Well-being is a stable state of being well, feeling satisfied and contented. It's a state, consisting of positive happenings in an individual's life in relation to his social,

spiritual, economic, psychological and physiological sphere. Thus, well-being is not just the absence of disease or illness. It is a complex combination of a person's life that is 'how we feel out ourselves and our lives'. Well-being is strongly linked to happiness and life satisfaction and therefore researchers have found that there are various factors enhancing an individual's well-being as: Network of closed friends, Enjoyable and fulfilling career, Enough money, Regular exercise, Nutritional diet, sufficient sleep, Happy self –esteem, Optimistic outlook, Realistic and achievable goal, Ability to adapt change, etc. Thus, Wellbeing is can simply defined as feeling good and functioning well. This includes having a fair share of material resources, influence and control, a sense of meaning, belonging and connection with people and place and the capability to manage problems and change. There is abundant evidence to demonstrate that the skills and attributes associated with wellbeing are a core asset, protecting and enhancing the lives of individuals and communities.

The concept of well-being covers a vast area and which is difficult to define. This is because how people understand well-being is very different in different context. At the intuitive level the well-being can be defined as “Doing Well, Feeling Good-Doing Good, Feeling Well”, doing well and feeling food is a fairly common formulation for well-being which captures the dual aspect of well-being as defined. ‘Doing well’ conveys the material aspect or the standard of living whereas, ‘Feeling good’ refers to the subjective aspect that is the personal perception or level of satisfaction as supported by New Economic Foundation (nef). From the other end ‘Doing good-Feeling Well’ revealing the research domain of well-being in developing countries (White, 2008).

Growing evidence from the new science of well-being suggest that, the meaning attach to well-being mainly refers to the derivation of enjoyment and fulfilment from number of different factors. Leading a satisfying life involving steady and adequate income is not the only factor leading to well-being rather; the scope of well-being includes health, social connections (relatives and friends) and the ability to contribute to the wider community. Thus, people gain pleasure form doing a good job and having it recognised by others. They enjoy grappling with, mastering and then using new skills and knowledge. All in all, they value freedom (Field, 2009).

Well-being is about children being confident, happy and healthy. It has two elements psychological well-being (includes feeling and thinking) and physical well-being. Children's relationships and interactions with families and communities contribute significantly to their sense of well-being. Children need to feel respected, valued and empowered. Expressing themselves creatively and experiencing a spiritual dimension in life enhances children's sense of well-being. Physical well-being is important for learning and development as this enables children to explore, to investigate, and to challenge themselves in the environment. A growing awareness of their bodies and abilities is also part of this. Here, adult's can supports children's psychological and physical well-being by helping them to make healthy choices about nutrition, hygiene and exercise (Aistear, 2014).

For many centuries the pursuit of happiness become the basic need to survive on the one hand and pressure to conform to social conventions and morality on the other. Thus, from the above discussion, it can be concluded that the well-being is a broad concept which embrace the entire human race and therefore understanding well-being will provide base to explore the various domains of human life. The importance of well-being comes to play when Humans change over time through the influence of life events and shifting priorities. With change comes natural alterations in the needs and desires necessary to feel 'well'.

How Technology Shapes Well-Being? The innovation and development in the field of technology has changed our lives in many ways. It has given us the power to transform our environment, extend our life span, create vast, interconnected societies and even explore the universe. Today, we use technology from dawn to dusk from the simplest wooden hammer to personal computers. Technology has touched our lives in almost all respect, say it the use of mobile phones, kitchen micro-wave, electric cooker, kettle, television, remote control, water heaters, air-conditioners and other larger communication system as internet facilities, air-routes, railways and so on. Therefore, technology plays an important role in our lives and we face a number of key issues surrounding through the technology:

- **Bridging the Gap:** As significant part of the world still does not have essential sources to continue a proper life as safe drinking water, adequate electricity, road constructions, communication huddles, quality health care units, technology can improve these

conditions worldwide by providing better communication, business process and developing education system, building industry and factories to trigger the employment and thus ensuring no one is left behind.

- **Fostering Global Trade:** With the help of technology, today global trade has increased exceptionally compared to past decade. Due to the coming of internet facilities people now can purchase goods and services from worldwide simply by clicking, rather, travelling on road, facing the traffic and suffering with pollution. With the introduction of various online shopping sites as Homeshop.18, Naaptol, Myntra, Flipcart.com etc., has made the products available at much cheaper price.
- **Escalating Nations Economy:** Recent OECD analysis shows that science, technology and innovation play a significant role in economic performance. In recent years, multifactor productivity (MFP) has increased in several OECD countries (e.g. Australia, Denmark, Finland, Ireland, Norway, the United States) reflecting greater efficiency in the use of labour and capital. Due to the increasing efficiency has resulted in improved information and communication technology (ICT) and also helps in rising the quality and skills of the workers (OECD, September-2000).
- **Ensuring Safety to Critical Systems:** Today, almost all the nation's economy depend much on the internet or the computerised security systems to maintain the confidentiality within the country. With the increase of the large scale multinational business and individual interconnectedness via various social networking sites, protection of global economy as became essential. The fresh memory of September 2011 incident, along with the widely published incidents of web site hacking horror as Injection Threats to security system, Tipping the user ID, The Extortion Attack Case of Oracle Database etc. Here, with the help of internet system both government and safety officials can fight with such unsocial elements.
- **Increasing Online Community:** With the increasing use of social networking sites the social relation among the people of different communities belonging to different counties are also increasing. The birth of online community sites as Facebook, You Tube, LinkedIn, Hi5, Twitter, Google +, Instagram and so

on are the sites that helps people to create public profiles and list of users to share interests, activities and improve the background of real life connections. In short we can say that these online communities made it possible to connect and interact without having to fly thousands of miles to communicate with each other.

- **Easing the Domestic Life:** One of the most important contributions of technology to the well-being is the comfort provided within the domestic front. With the use of electronic home appliances as microwave oven, electric kettle, refrigerators, washing machines, Vacuum cleaner, Mixer, Garden tools, Telephone etc., has made the household task very comfortable. It is one of the important area where technology is used every day and these has changed the position of women as they can create a domestic haven for their families and raise the standard of living and ultimately release housewives from the shackles of household chores.

From the above points we can say that the technology arises to satisfy our wants and ease our day to day problems. But, question also arises does these wants further lead to innovation of technologies....

How Well-Being Shapes Technology? We have a long recognised technology as a driving force behind much historical and cultural change. But if the question is to be turned around to examine how the need to be 'well' shapes technology, illuminates the complex, often fascinating interplay between well-being and technology. Technological innovation does not happen in vacuum; rather the decision is based on the calculation of costs and benefits. This assemblage of ideas focuses on the interconnections of technology, human well-being and values. This line of thinking stresses our capacity to shape technologies in reaction to the once fashionable thesis that technological determinism trumps, overrides all other forms of causation – a thesis known as the "autonomy of technology", that is our choices are always already incorporated within the technological process and we believe that we can decide whereas in effect Technique decides for us (Dupuy, 2012).

There are various on-demand factors which prompt the technology from time to time, to transform further:

- **Need for Rapid Industrialization:** To face the challenge of changing social and economic system and to walk hand in hand with the globalization process, the demand for rapid industrialization starts echoing in almost every nation. The demand for rapid industrialization act as the part of the wider modernisation process which lead to technological innovation with large scale energy and metallurgy production. The process also directed the innovation of various technologies as Steam engine, Internal Combustion engine, Construction of Canals, Roads, Railways & Electric-power lines.
- **Need for Agricultural Advancement:** Agriculture is one of the primary and important pillars of the nation's economy. It provides raw material to many industries for its final product, support international trade through export of eatable goods and ultimately support nation's economy to develop. Thus, realising significance, the demand for its advancement began to increase which trigger the technology transfer initiatives in the form of high-yielding varieties of cereal grains, expansion of irrigation infrastructure, modernization of management techniques, distribution of hybridized seeds, synthetic fertilizers, and pesticides to farmers.
- **Need for Household Technology:** The household is the base of well-being or can be state that the well-being begins from a happy family. Therefore, household activities need to be properly organised so that each and every member gets enough time to be together. Accordingly, raises the demand for household technology and lead to generate the various household appliances, home automations and other devices such as Washing machines, Air-conditioners, Food storage, Multipurpose Tool kit and so on commonly used within the home. Domestic technology recognizes the use of applied science to achieve a particular goal of energy efficiency and self sufficiency, in short 'under industrialization the family is much less important. The household is no longer the focus of production; production for the marketplace and production for sustenance have been removed to other locations. Families are smaller and they are urban rather than rural' (Cowan,1976).

- **Need for Communication Up-Gradation:** Communication is the base of social life within the society. Communication serves as a foundation for human interaction, strengthening the relationship and base for planning, organising and socialisation process. So, being the base of the social life, the need for up-gradation of communication technology started to be felt and humanity experimented with varying forms of technology that from Edison’s inventions of the Phonograph and Telegraph, Alexander’s invention of Telephone and over the decades coming of Mobile phones, Fax, E-mails, Text messages, Blogs, Social networking sites, Video conferencing and so on.
- **Need for More Secured Financial Institution:** The health of any economy is closely related to the soundness of its financial institution. Though these institutions create no new wealth but their borrowing, lending and related activities facilitates the economic process of production, distribution, exchange and consumption of wealth. Thus, these process need more secured system regulation and these need lead to the origin of E-banking, Mobile banking, ATM machines, Credit and Debit cards, Locker facilities, Online fund transfer etc.

From the above discussion, the raising questions as ‘how technology shapes well-being?’ and ‘how well-being shapes technology?’ originate two diverse entities that is, technology on one side and well-being on the other side. Here, the relationship between both the entities can be said as a complementary relationship or a relation shaped by a common set of factors, both having a contributory role to play. Therefore, the relationship can be best explained under the four parameters of well-being.

Changes within the Overall Sphere of Well-Being due to Technology:

Psychological Well-being
<ul style="list-style-type: none"> - Enhanced Human Intelligence (our thought process+ internet availability) - Positive Outlook (budding confidence ,‘I Can’ for advance technology) - Greater Life Satisfaction (amazing sense of accomplishment for presence of sophisticated technologies)
Physical Well-being
<ul style="list-style-type: none"> - Mobile Phones (a light and portable device can be carried out easily)

- ATM Machines (offers convenience due to multiple location & cash can be withdrawn any time)
- Online Shopping Sites (purchase of goods and services via computer click rather than travelling)

Social Well-Being

- Social Networking Sites (a platform to build social relation)
- Videoconferencing (connect people of different places through audio & video communication over broadband network)
- Video-Sharing Sites (provides a fast and easy way to interact with business partners or audience)
- Better Quality of Life (improved medical technology lead to less occurrence of disease)

Spiritual Well-Being

- Stronger Relational Bond (more attachment among people for advance communication methods)
- Revisit to the Past Action (digital reflection through recording technology made it possible to flood back the past activities)
- Ability to Enjoy Life (feeling of quick fulfilment of work)
- Compliance to Human Welfare

(Source: Barman. A. and Roy Choudbury, 2014)

Synergy of Technology and Well-Being within Society:

Technology and well-being refers to the cyclical co-production of one upon the other. This synergistic relationship occurred from the dawn of humankind, with the invention of simple tools and continues with the more and more invention of modern technologies. Some recent technologies are now encouraging people to reflect on these previously captured experiences by returning the recordings after time has passed. These systems make it possible to revisit veridical accounts of our pasts in ways that were not previously possible' (Isaacs et al., 2013). Since, from its origin technology has emerged as a powerful tool as it directs the persuasive technique rather than one –way communication. In this field the most important contribution came from the media technology which lead to a significant change within the society by focusing on many issues which are always have been ignored before. Media technology has helped in facilitating the delivery of persuasive messages to purchase, donate, vote, concede, or act – from megaphones to billboards to television (Ijsselsteijn et al., 2006). Another form of media that exist today is the Social Networking Sites, which forms the main

communication base for the existing time and young generation is the most avid user of this new technology. With the 'widespread adoption of social media, people are increasingly capturing their daily activities and sharing them with others by posting photos and status updates to social networking websites. This may be due to the opportunities provided by this networking sites to have a control over the own created profile and can be presented in a very charming way to the others. Over the last decade it has been observed by the various surveying organisation that the online communication stimulate young generation social connectedness and well-being. In simple terms technology will never stop from moving forward. The introduction of internet had changed the life of common man a lot. Today, people can use home computers and internet in many different ways and to fulfil varied purpose as entertainment, education, information, communication, email, chatting etc., which reduces the difficulty of co-ordinating and interaction and as well as helps to strengthen the relational bond with large number of friends and relatives (Kraut et al., 1998).

Furthermore, if we start going into deeper thought process to evaluate the sociological changes due to the technological advancement we can see how technological reflection has coloured the image of well-being in its own way. At present human well-being rests on the three pillars which constitute the core of societal foundation: Economic conditions and processes consisting of production employment, income, trade and the supporting technologies that facilitates all of this; Socio-political conditions and processes consisting of national and personal security, liberty, justice, education, rule of law, health care and pursuit of science and arts; Environmental conditions and processes consisting of planet, air water soil, mineral resources and the technologies to exploit these environmental conditions for the development of the human race (Holdren, 2008). Therefore, with the technical transformation of human well-being it seems that society at some point of time are moving away a face-to-face interaction, instead moving towards a more technology-driven way of life. Due to this technical transformation, Neuroscience is now providing a new source of insight into understanding human behaviour, with its novel methods of generating images of how our brains are functioning. These methods and images are invaluable tools with which to understand ourselves, including how we interact with technology, but they can also be a source of popular misunderstanding.

For example, headlines that the internet is ‘rewiring’ our brains might appear alarming – as if the internet is hanging the connectivity of our otherwise ‘hard-wired’ brains (Jones, 2011). Currently, both well-being and technology came so close to each other that they became the two sides of same coin. Today our life is technologically diffused in each and every respect. The usage of technology has increased so much that it helps us to fulfil our daily routine work such as online payment of electric bill, mobile bill, making tickets for vacations or other business purpose, tickets to watch movie with seat selection criteria, obtaining daily news information etc. In simple term the technology has become mainstreamed into the society (Cotton, 2008).

Even in the area of medical science technology has contributed to the great height. Early practitioners have to rely primarily on patient description of symptoms and their personal observation. This sometimes seems to be wrong diagnosis and death of the patient. Now, with the technological evolution various machines are in existence. Medical science today uses varied modern technologies as High Power Microscope with colour enhancement, CT scanner, Telemetry Device to check patients’ vital sign, Ultrasound machines to monitor the health of a fetus, etc. The content and context of medical technology in education is a growing field of study. Yet, there are many who remain unaware and uninformed about it (Miranda, Doggett, & Evans, 2005). In general technology has transformed the society dramatically. Not surprisingly, this “transformation” has serious implications for us in the space of education. Nearly all institutions– business, industry, medicine, science and government – have harnessed aspects of these technologies for decades. Games and simulations have been a key component of training doctors and military personnel, but even businesses like PricewaterhouseCoopers used a game about a mining company in outer space to teach its employees about derivatives (Klopper, 2009).

Virtually every dilemma that confronts people and governments in contemporary societies demands significant engagement with science and technology. It is permeate every aspect of our lives, from the most private decisions to the most public choices. Therefore, it can be concluded that, the modern world rests on a foundation of science and technology.

Types of Technology: Technology has permeated every industry and created a new world. There are many areas that have been

greatly influenced by the use of technology. A lot of enhancement and productivity has been realized as a result. To understand how technology has filtered through each and every aspect of life, its type can be categorised as:

- **Medical Technology:** Medical technology can also be termed as health technology. It embraces a wide range of healthcare products and is more than just procedural methods used to treat patients during surgery or for life support. Medical technology consists of various clinical application as Chemistry, Genetics, Haematology, immunohematology (blood banking), immunology, microbiology etc., and various medical devices as tongue depressors, medical thermometers, disposable gloves and advance devices as computers which helps to conduct many medical testing. Thus, Medical technology is considered a significant, if not the most significant, driver of increased healthcare expenditure. There are concerns that these trends will continue, even accelerate, with the anticipated rapid increase in the average age of the population and with emerging advances in medical technology, based on knowledge of the human genome, offering the potential to revolutionise treatments of major diseases (Australian Productivity Commission, 31st August 2005).
- **Assistive Technology:** Assistive technology includes various automatic and semi-automatic devices for the people with disabilities. In other words ‘assistive technology devices are any item, piece of equipment, or product system (software) used to increase, maintain or improve the functional capabilities of a student with disabilities’ [Montana Office of Public Instruction (February 2004)]. This type of technologies uses specialised equipments as Hearing aid, Battery powered chair, Eye gaze communication board, Sip-and –Puff device etc., enables the disable persons to live an utmost possible normal life with the others surrounding them.
- **Information Technology (IT):** Information technology is an umbrella term for various types of tools and electronic devices such as the computers and different software’s which manages information. This technology mainly helps in storing information, protecting information, processing the information, transmitting the information as necessary, and later retrieving

information as necessary. Several industries are associated with IT which includes Computer hardware, software, Electronics, Semiconductors, Internet, Telecom equipments, E-commerce etc. In India, Information technology is mainly associated with two major components: IT Services and Business Process Outsourcing (BPO).

- **Biotechnology:** As the name suggest, biotechnology is the technology which is based on biology. The biotechnology industry is based on living organisms. The cell is the basic unit of life. All living organisms consist of one or more cells. Some organisms are unicellular, such as bacteria and yeast. Others, such as humans, are multi cellular, consisting of trillions of cells. All cells have common processes they perform in order to survive. Biotechnology harnesses these processes to make products to treat illness and improve health. [Amgen (February 2007)]. Modern biotechnology provides breakthrough technologies as Tissue culture, Organic agriculture, Genetic engineering, Recombinant DNA techniques, Antibiotics, Hybridization, Food preservation technique, Bio fuels, etc., which lead to the advancement of medical science, agricultural sector, natural resource preservation etc. Therefore, biotechnology.
- **Nanotechnology:** Nanotechnology or nanotech is an emerging arena that provides a new dimension to the spectrum of technology with new technological development. Nanotechnology is the art and science of manipulating matter at the nanoscale (down to 1/100,000 the width of a human hair) to create new and unique materials and products...with enormous potential to change society (Krause, 2014). Some of the engineered nano-gadgets that will make the trend soon are: Duo Infuser, Ava Bluetooth Phone, Self-Energy Converting Sunglasses, Morph (a flexible mobile device), Colour Shifting Contact Lances etc.
- **Robotics:** Robotics is an extraordinary branch of technology that design, construction, operation, and application of robots. Robotics is a rapidly growing field, as technological advancement continues the research, design, and building new robots serve various practical purposes, whether domestically, commercially, or militarily. Many robots do jobs that are hazardous to people

such as defusing bombs, mines and exploring shipwrecks. In simple terms robotics can be defined as: a system that contains sensors, control systems manipulators, power supplies and software all working together to perform a task. Some of the burning example of the robotics unmanned aerial vehicle (IAI Pioneer & RQ-1 Predator), DRDO Daksh, Goalkeeper CIWS, PackBot, MARCbot, Samsung SGR-A1, TALON etc. Therefore, Robots are particularly useful in wide variety of business application, such as material handling, painting, welding, inspection, and assembly. Current research efforts focus on creating a “smart” robot that can “see”, “hear”, “touch”, and make decisions (Koren, 1985).

- **Artificial Intelligence (AI):** Artificial intelligence is the branch of computer science which is develops machines and software with human like intelligence. The term was coined in 1956 by John McCarthy at the Massachusetts Institute of Technology. Artificial intelligence includes the following areas of specialization: games playing: programming computers to play games against human opponents, expert systems: programming computers to make decisions in real-life situations (for example, some expert systems help doctors diagnose diseases based on symptoms) natural language: programming computers to understand natural human languages, neural networks: Systems that simulate intelligence by attempting to reproduce the types of physical connections that occur in animal brains and robotics: programming computers to *see* and *hear* and react to other sensory stimuli. Hence, AI is one of the newest fields in science and engineering. It tries to understand *how we think*, that is how a mere handful of matter can perceive, understand, predict, and manipulate a world far larger and more complicated than itself. The field of artificial intelligence, or AI, goes further still: it attempts not just to understand but also to build intelligent entities (Russell & Norvig,2010).
- **Administrative Technology:** administrative technology basically refers to the tools and machines used to support everyday task within the office and academic institutes and helps in organising, planning and controlling the business activities. This machine includes Printers, Scanners, Desktop, laptop,

Photocopiers, Fax machines, Internet Modems, External Hard drives, Projectors, Smart Boards, Courier Services, Telephones, Industrial Vacuum Cleaners and other software to acquire skills and competences necessary to carry out the daily programs.

Each of the technology discussed above are used either in isolation or in combination and each technology has its own complexities and significant implication upon the society and towards scientific development. But from the other point of view with blessing of scientific development the society also suffers with various negative side effects with each forwarded steps of technology, which, are leading to decreasing status of well-being.

Technological Afflictions versus Well-Being: Today with the proliferation of the more and more advance technologies we are able to overcome various obstacles of time and space. Technology has provided number of tools and machines which can be used to gain an understanding of many unknown entities, meeting people over the world, maintain and strengthening family relation, effective communication and also help us to speed up the socialization process. But, if the impact of technology are to be examined from other point of view, technological advancement has cause people distracted, overly stressed and increasingly isolated. Today, technological affliction has challenged the real meaning of well-being. It has its impact on all the spheres of human existence. On the negative sight technological advancement leads to:

Social isolation- as people are now characterised by lack of normal day-to-day communication as most of them busy listening songs from the iPods and staring at the screens of latest mobile devices even if we are surrounded by the people.

Depression- which comes due to lack of human contact, overeating and lack of exercise and seating hour-to hour and getting involved with the internet surfing and not at all bothering about the family relation and friends, ultimately leading to conflict and anxiety giving pathway to depression.

Unemployment- is one of the most dangerous effects of the technological development. With the evolution of sophisticated software's and rapid mechanization process the labour-displacement has become a major criteria in today's scenario. For instance due to

introduction of computers in the banking sector of India, many employees lost their jobs and even taken voluntary retirement due to lack of knowledge and computer skills.

Social Networking Horror activities have increased a lot such as stealing of identity, hacking of social profiles, and threat to personal privacy that is Venerable to personal information which can go to the wrong hands and can lead to embracing moments, social engineering attacks, etc. All this basically proves challenge for well-being created by the technological development.

Social disputes the dispute comes in the form of social predicament especially for the young generation because as people do the job not only to earn money but also for a specific purpose and maintain a social decorum. But today, most of the task is done by the computer which has lead to the computerization of manual labour, which raises the question what humans are going to do. This computerization of labour has lead to the situation of income inequality which threatens social stability. In short technological development is characterised by rise of production and fall of employment and stagnated household income.

Increasing Elevated Exasperation among the children because of too much indulge in the internet games and texting. These activities have affected their psyche negatively, consequently leading to increased frustration. Now they get frustrated whenever they are asked to do anything while playing games or using internet. For instance, when they are asked to take the part in household activities they get furious instantly. This behaviour has shattered many parent-children relationships.

Deteriorated Patience- Patience is a very precious virtue and its scarcity could deteriorate a person's Will. Determination is a necessity that comes with patience and without it no individual can survive the hardships of life. According to studies, tolerance among the people is vanishing. For example, often frustration occurs while surfing the net and the page takes time to load for slow connectivity.

Declining Writing Skills- due to the excessive usage of online chatting and shortcuts, the writing skills of today's young generation have declined quite tremendously. These days, communication is characterised more or less as digital communication and which had affected our writing and thinking ability negatively. Many of the young

children don't know the spelling of different words, how to use grammar properly or how to do cursive writing.

Amplification of Pollution, today, one of the most serious problem that has been created with the technological invention like vehicles, industrialisation, agricultural chemicals for pest control, and noise pollution through musical instruments and low flying aircrafts, radiation through mobile phones which are causing various types of disease and making people to suffer almost all the time.

Therefore, modern technologies can very well said as a double-edged sword, from safety to connectedness. They do have their advantages, but as with many revolutionary inventions, they can radically change our lives, for better or worse. However, believe it or not we are just getting started. Technology will be more and more revolutionised and will be getting even better in the future.

Future of Technology for Human Wellbeing: Future is an unknown reality, which is even beyond science and technology. Though from the past decades there is a great leap in the field of technology in the form of smart phones, cloud computing, multi-touch tablets etc. Future technology emphasises human expectations or unforeseen wishes and likewise it will be completely and essentially be different with high-tech and cutting-edge technology. Here, the main thought process is about the future aspect of technology that is how the future technology will look like? But off course future technology is not inseparable from the present life and thus, it largely focuses on implementing the solution solving the real-time issues. Therefore, in order to understand the many ways in which technology will impact international development in the future, we must first broaden and deepen our individual and collective understanding of the range of possibilities (Rockefeller Foundation & Global Business Network, May 2010).

Today, computers are taking over the works of human and it does appear that we are entering into a new phase of industrial revolution. This revolutionary phase can be termed as origin of disruptive technologies that displace older technologies and enable radically new generations of existing products and processes to take over. They can also enable whole new classes of products not previously feasible (Arnall, July 2013). With this new phase of technology revolution one of the most burning truth is that we are far better off than we were centuries ago, which was characterised as no or less electricity, low level

of medical instruments, low life expectancy rate etc. Slowly, however, progress was made and time has come when computers are like human doing half of the day-to-day task. Though, there is nearly universal agreement among modern Artificial Intelligence (AI) professionals that AI falls short of human capabilities in some critical sense, even though AI algorithms have beaten humans in many specific domains like chess which is considered epitome of intelligence until Deep Blue won the world championship from Kasparov-but even these researchers agree that something important is missing from the modern AI (Bostrom. & Yudkowsky. 2011). Even according to Professor Stephen Hawkins, the technological inventions are the need of the era. He suggested that it was almost certain that a disaster such as nuclear war or global warming would obliterate the planet earth within thousand years, so it is essential we colonise the space. He stressed on the believe that over the next 100 years with the increasing technological innovation it is not far away that we will eventually establish self-sustaining colonies on Mars. He also claimed that finding intelligent life elsewhere in the universe would be the biggest scientific discovery ever.

Ongoing futuristic predictions in the field of technology can dish out some exciting or scary visions for the future of machines and science that either enhance or replace the products and activities that is near and dear to us. Forecasting the future of technology, computer companies are now encouraging the development of Zero-size Intelligence (a tiny sized computing chip in a small package), Space Exploration (Moon, Mars and more), Neurohacking (reading people's mind through machines), and Universal Translators (putting the end of global language confusion by reuniting them with one language) etc. So, the answer to our technological dilemma about what will be the future technological upcoming innovation should not be more surprising. While the past favoured those who could retain and process information efficiently, the future belongs to those who can imagine a better world and work with others to make it happen.

Conclusion: It is apparent form the above rationalization that technology has come a long way and yet to be more revolutionised for achieving the ultimate aim of human well being. May be it is good or maybe it is bad, but just as the benefits are real so as the potential cost. Therefore, designing technology and avoiding negative outcome depend mainly on the complete understanding of the limit and pattern of usage

though which the technology influence the social interaction and psychological well-being. Technological filtration within the social system has lead to evolvement of various luxury and comfort products which has played an important role to enrich our sense of execution of specific job. With the changes developed within the technology, the factors leading towards greater well-being has also changed, therefore the diffusion of technology with the circle of well-being can contribute towards a better social system. Various futuristic prediction are discussed to over view and understand the current benchmark activities going within the technological field that can lead to change of human life over the time.

The above discussion also highlighted the issue of concern occurred due to the technology and its growing size. These concerning issues are very much rising questions on whether the technology really leads to well-being with the increased rate of frustration, stress and anger due to the feeling of isolation from the social surrounding and thus, proving an obstacle for achieving the ultimate happiness. However, within the base line it can be generalised that technology given us a new direction and accordingly has positive influence around the world.

References

- Aistear (2014). *The Early Childhood Curriculum Framework* (Available online at URL http://www.ncca.biz/aistear/pdfs/PrinciplesThemes_ENG/WellBeing_ENG.pdf; assessed on 28th March 2014)
- Australian Government Productivity Commission Research Report (31st August 2005). *Impacts of Advances in Medical Technology in Australia*, (Available online at URL http://www.pc.gov.au/data/assets/pdf_file/0003/17193/medicaltechnology.pdf; assessed on 1st April 2014)
- Amgen or Applied Molecular Genetics (February 2007). *An Introduction to Biotechnology*”, an American multinational biopharmaceutical Company, (Available online at URL [http://www.amgen.gr/pdfs/An_Introduction_Biotechnology\(1\).pdf](http://www.amgen.gr/pdfs/An_Introduction_Biotechnology(1).pdf); assessed on 2nd April 2014)
- Arnall, A. H. (July 2003). *Future Technologies, Today's Choices*, A report prepared for Greenpeace Environmental Trust, London, (Available online at URL <http://www.greenpeace.org.uk/>

- MultimediaFiles/Live/FullReport/5886.pdf; assessed on 3rd April 2014)
- Barman, A. & Roy Choudhury, S (March 2014). Holistic Model of Subjective Well-Being -A Proposed Model and Exploration of Contents, *ZENITH International Journal of Multidisciplinary Research* Vol.4 (3) (Available online at URL zenithresearch.org.in; assessed on 1st march 2014)
- Bostrom. N. & Yudkowsky. E. (2011). *The Ethics of Artificial Intelligence*, (Available online at URL <http://www.nickbostrom.com/ethics/artificial-intelligence.pdf>; assessed on 4th April 2014)
- Cowan. S. R. (1976). *The "Industrial Revolution" in the Home: Household Technology and Social Change in the 20th Century*, published by the John Hopkins University on behalf of the Society for the History of Technology, (Available online at URL http://econ2.econ.iastate.edu/classes/econ321/orazem/cowan_household_tech.pdf ; assessed on 28th March 2014)
- Cotten, S. R. (2008). *Student's Technology Use and the Impact on Well-Being*, (Available online at URL <http://blog.reyjunco.com/pdf/Chapter4.pdf>; assessed on 31st March 2014)
- Dupuy, Prof. J-P. (2012). *Do We Shape Technologies, Or Do They Shape Us?* (Available online at URL: <http://306humanitiesdesignjh.wordpress.com/2012/11/06/abstract-bibliography/>; assessed on 23rd March, 2014)
- Field, Prof. J. (2009). *Well-being and Happiness*. IFLL Thematic Paper 4 (Available online at URL <http://www.niace.org.uk/lifelonglearninginquiry/docs/IFLL-wellbeing.pdf>; assessed on 14th March 2014)
- Holdren, J. P. (25th January 2008). Science and Technology for Sustainable Well-Being, article adapted from the Presidential Address at *AAAS annual meeting at San Francisco* on 15th February 2007, published by AAAS, Vol. 319 (Available online at URL <https://www.sciencemag.org/content/319/5862/424.full.pdf>; assessed on 31st March 2014)
- Isaac, E; Konrad, et.al. (2013). *Echoes From the Past: How Technology Mediated Reflection Improves Well-Being*. (Available online at URL <http://people.ucsc.edu/~swhittak/papers/Echo-CHI2013-Accepted-Final.pdf>; assessed on 29th March 2014)
- IJsselsteijn, W and et. al. (2006). *Persuasive Technology for Human Well-Being: Setting the Scene*. Eindhoven University of Technology,

- (Available online at URL <http://elisevandenhoven.com/publications/ijsselsteijn-persuasive06.pdf>; assessed on 30th March 2014)
- Jones-Howard, Dr. P. (July 2011). *The Impact of Digital Technologies on Human Wellbeing*. A State of Art Review, written for Nominet Trust, (Available online at URL <http://70.33.241.170/~neuro647/wp-content/uploads/2012/03/NT-SoA-The-impact-of-digital-technologies-on-human-wellbeing.pdf>; assessed on 31st March 2014)
- Kraut, R. and et. al. (September 1998). *Internet Paradox: A Social Technology That Reduces Social Involvement and Psychological Well-Being?*. Carnegie Mellon University, copy right by the American Psychological Association, Vol. 53, No. 9, 1017-1031, (available online at URL <https://www.cs.cmu.edu/~kiesler/publications/1998pdfs/1998-Kraut-InternetParadox.pdf>; assessed on 30th March 2014)
- Klopfer. E, Osterweil. S, Groff. J, Haas. J, (2009). *Using the Technology today, in the Classroom today*. the Education Arcade, Massachusetts Institute of Technology, (Available online at URL http://education.mit.edu/papers/GamesSimsSocNets_EdArcade.pdf; assessed on 31st March 2014)
- Krause. M, (2014). *Introduction to Nanotechnology*”, supported by VERITOX services, Texicology and Industrial Hygiene, (Available online at URL <https://www.aiha.org/aihce07/handouts/rt201krause.pdf>; assessed on 2nd April 2014)
- Koran, Y. (1985). *Robotics for Engineering*. (Available online at http://www-personal.umich.edu/~ykoren/uploads/Robotics_For_Engineers_new.pdf; assessed on 2nd April 2014)
- Merriam-Webster, An American Dictionary of English Language, a subsidiary of Encyclopaedia Britannica (Available online at URL <http://www.cantechletter.com/2013/01/what-is-technology-0103/>; assessed on 27th March 2014)
- Miranda, M. A. De; Doggett, A. M, Evans, J. T, (2005). *Medical Technology Context and Content in Science and Technology*. (Available online at URL <http://www.mychhs.colostate.edu/Michael.DeMiranda/MedTechPrimer6.0.pdf>; assessed on 31st Marh 2014)
- Montana Office of Public Instruction (February 2004). *Assistive Technology A Special Education Guide To Assistive Technology*. Linda McCulloch, Superintendent, Division of Special Education (Available online

- at URL [http://www.pluk.org /Pubs/MT/MT_AssistiveTech Guide_378K.pdf](http://www.pluk.org/Pubs/MT/MT_AssistiveTechGuide_378K.pdf); assessed on 1st April 2014)
- Russell, S. and Norvig, P. (2010). *Artificial Intelligence: a Modern Approach*. 3rd Edition, (Available online at URL <http://51lica.com/wp-content/uploads/2012/05/Artificial-Intelligence-A-Modern-Approach-3rd-Edition.pdf>; assessed on 2nd April 2014)
- Rockefeller Foundation & Global Business Network (May 2010), “*Scenarios for the Future of Technology and International Development*”, (Available online at URL <http://www.rockefellerfoundation.org/uploads/files/bba493f7-cc97-4da3-add6-3deb007cc719.pdf>; assessed on 3rd April 2014)
- Organization for Economic Co-operation and Development (OECD, September, 2000). *Policy Brief* (Available online at URL <http://di.ncl.ac.uk/publications/mcnaney-wellbeing.pdf>; assessed on 26th March 2014)
- University of Pretoria, Technology definition (Available online at URL <http://upetd.up.ac.za/thesis/available/etd-05102002-141643/unrestricted/08appendixA.pdf>; assessed on 27th March 2014)
- White, C. S. (April,2008). *But what is Wellbeing? A framework for analysis in social and development policy and practice*, Centre for Developmental Studies, ESRC Research Group on Wellbeing in Developing Countries, University of Bath UK (Available online at URL http://staff.bath.ac.uk/ecsscw/But_what_is_Wellbeing.pdf; assessed on 24th March 2014)

Biodata

Satabdi ROY CHOUDHURY is a graduate of St. Edmund’s College, Shillong with Sociology Honours at 2009 and passed Masters of Business Administration (MBA) with Human-Resource Major and Marketing from Eastern Institute for Integrated Learning in Management (EILM), Kolkata at 2012. Currently she is pursuing the PhD Degree on “Subjective Well-Being among Employees of Power Sector Organization” under the guidance of Dr. A. Barman, Associate Professor, Department of Business Administration, Assam University, Silchar. Email Address: 08satabdi08@gmail.com & roychoudhury.saabdi@gmail.com

Dr. Arup BARMAN (B. 1972) is an Associate Professor in the Department of Business Administration, Assam University, Silchar (India). He did his Ph.D (in Management) in the year 2007, and recipient of Post Doctoral Research Award from UGC, in 2009-11. He is recipient of ASDF Global Award 2013, JMS Best Reviewer Award 2011, MTC Global Award, 2011. He has published 100 numbers of research papers in various international journals. He is associating with dozens of internationally reputed journal as editor, advisor, and also attended more than 30 numbers of international seminars. He is a good event organiser. His keen interest is on macro-economic research, international and cross national research. Phone: +91-9954912377; Email Address: abgeet@gmail.com