Dynamics of Silicon Valley civilization in the Globalization

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By

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Abstract

In this Paper I have tried answering some of the questions that also would define- what is Silicon Valley civilization? And why we called it a Civilization? This paper also deals with how Silicon Valley Civilization has influenced every walk of life, particularly Education, Language, Media Technology, Religion, Gender, and Science. Globalization in terms of its definition is mostly connected with commerce, media and communication technology that have helped the world to shrink its virtual size.

Proved by the civilizations found in Mesopotamia, Babylonia, and Indus-Valleys, our species have come a long way in the industrial revolution. Silicon Valley is the birthplace of all the modern technology, which has augmented the otherwise slow paced process of globalization. We are now representing the Silicon Era, which has evolved through electric, electronic and information Eras. All these were possible only because of the communication skills and its development, the human achieved over a period of time. Silicon Valley Civilization in all about communication and exchange of ideas.

All these ages we mentioned earlier came into being with special inventions. The invention of the Computer was the major discovery in the history. Digital computer cleared the path for development of technological sides of all areas under discussion. Digital era or Cyber era started with the revolutionary discovery of computer. Computer has almost replaced human involvement in many of the works, and made life easier. Computer and the WWW enabled humans to communicate and connect to people within seconds, who are far located.

The civilization that has grown and matured in a short period of time ,which I would like refer as “Silicon Valley civilization”, is a legendary leap in the history of human, shrinking time and space considerably.

As Joshep Dionne, 1987 , explains “The industrial revolution changed the way we work in two centuries. The information revolution has done as much as in two decades” If we consider education, culture, religion, social life, media technology, and science as parameters of civilization, which are the results of human cognitive power and creativity, the computer technology has revolutionized the dimensions of these areas. In this paper the author wish to consider Education, Health, Language, and Religion, with special reference to Media technology within the Silicon society, which are the basic elements of civilization that help socialization from generation to generation .I would also like to pay reader’s attention towards the Genetic engineering happening in this new Era than the changes of ecological dimension, political, neo-liberalism, geographical, ethical, environmental or other issues related to globalization.

This paper contains two parts (a) explanations of “Civilization” and (b) impact of IT in “Globalization” with regard to the above-mentioned areas.

Major objective of this paper is to make the reader think in different angle on the concept of Silicon Valley civilization and to focus on this civilization as a reason for generating all the progressive and developmental changes happened to the modern society.

Introduction

What is Silicon Valley?

Silicon Valley is the southern part of the San Francisco Bay Area in Northern California in the United States. The term originally referred to the region's large number of silicon chip innovators and manufacturers, but eventually came to refer to all the high tech businesses in the area.

Silicon Valley encompasses the northern part of Santa Clara Valley and adjacent communities in the southern parts of the San Francisco Peninsula and East Bay. It reaches approximately from Menlo Park (on the Peninsula) and the Fremont/Newark area in the East Bay down through San Jose, centered roughly on Sunnyvale. The Highway 17 corridor through the Santa Cruz Mountains into Scotts Valley and Santa Cruz in Santa Cruz County is sometimes considered a part of Silicon Valley. First the predominated area was known as the “Valley of Heart” (***Figure 1***). From this place microchip was created and spread all over the world through computers, as microprocessor, integrated circuit, and semiconductor contained microchip.

The term *Silicon Valley* was coined by journalist Don Hoefler. He used it as the title of a series of articles "Silicon Valley USA" in a weekly trade newspaper Electronic News that started with the January 11, 1971 issue. *Silicon* refers to the high concentration of semiconductor and computer-related industries in the area; *Valley* refers to the Santa Clara Valley, located at the southern end of San Francisco Bay. The world’s first digital computer ENIAC (electronic numerical Integrated and Calculator) was introduced by

Vennever Bush in the University of Pennsylvania in 1946. Frederick Terman (***Figure 2***) who started the first electric company is known as the father of Silicon Valley.

What is Silicon (Si)?

"Silicon is an element with atomic number 14 and melting point 1414 °C. It is a gray solid non-metal, and the second most common element in the earth's crust, making its 26% of mass by weight. It is the second element in the carbon group and like carbon it forms mainly covalent compounds, with a valence of 4. It does not occur freely in nature. Very pure silicon is widely used in electronic devices. It is also doped with controlled amounts of aluminum, phosphorus, and other elements to alter its conductivity.

Silicon chips are made out of silicon, which is a very small slice of few millimeters square, on which many components are built; also called an integrated circuit. Silicon chips are now used in computers, calculators, and many modern programmed household appliances and in most electronic applications. The Silicon Valley civilization thus started with the discovery of the properties of a small but great element in the crust of the earth. After the new technological development in the Silicon Valley in the communication field, it spread to the existed patterns in the society all over the world Sociologists, Philosophers, Anthropologists, and Prophets started to forecast about this change yet to happen. All those changes in ideologies helped and built the concept of Globalization. Thus one who traces the roots of Globalization they can never miss the obvious role of Silicon valley.

Civilization

Why one should consider it as a civilization? It is the focal point of this argument and this is a comparative study. Civilization can be explained ;according to the ancient definitions as “a level of human culture or society characterized by great size and complexity and by widespread influence, often associated with such developments as writing and the growth of cities”. On the other hand in the field of archaeology and history, civilization is a major event in the long experience of mankind, an event that occurred in a few places within that period, may consider as a historical developments. This socialization continued and developed by generation to generation. On the whole, civilization made the world better place for human beings step by step. It proves the definitions of civilization

Cambridge encyclopedia explains it**:** ***“Human society with its highly developed social organizations or the culture and way of life of a society at a particular period in time….”A place that has comfortable living conditions”.***

Cambridge encyclopedia new edition explains it**:** ***“Civilization (a) a state of human society that is very developed and organized (b) a society, its culture and its way of life during a particular of time or in a particular part of the world.(c) all the people in the world and societies they live in, considered as a whole , a place that offers you the comfortable way of life a modern society”.***

Recording is British archaeologist ***V.Gordon Chide,*** Civilization could be identified as two "revolutions', the achievement of agriculture and the rise of cities. In the 19th century Russian historian ***Nikolai Danilevsky*** explained in his book, civilization theoretically through "Culture historical types". .***Giovanni Vico*** and ***Adams, Karl Wittfogel , Arnold Toynbee,*** further given theories on civilization including historical developments .(***wittfogel-1967}***

All the definitions and the theories explained that the major two civilizations- 1)Ancient and 2) Western/ Modern .These two were carried forward by using human knowledge, experiences, experiments, and achievements. The remains of the civilizations proved their inventions and innovations with creations.

After the pre historic period ,agriculture marked the beginning of civilizations. But the major creation was the development of communication methods and those which carried forward to the next age . From the primary methods of communication like symbols and writings transformed to devise. Each devise cleared the path to another. Ultimately computer became the most powerful devise, making a new civilization. It is an aggregate of all devises early made separately.

If we talk about the computer as "one" it contained type writer, vacuum tube, camera, radio, television and all the new inventions as "***all in one".*** Historical eras were created with these inventions one by one, therefore the computer technology speaks about the whole history and civilizations.

Most of sociologists and historians as well as the communication experts looked this as radical expansions of civilization also known as Western civilization. This revolution of civilization known as 'Westernization" Americanization" or "Modernization" which included the process of technological improvements.

In this juncture, communication professor of the university of Toronto Mashall Mcluhan, had forecast this as "shaping of civilization", based "Medium is the message" and added the new word "***Global village***". The word "Globalization" originated in this standpoint and spread thenceforward. Civilization and globalization are interlinked inseparably and go hand in hand.

McLuhan explained it further as follows:

"From this standpoint, the history of humanity can be divided into three period: first, the age of natural communication, through speech and gestures, involving all the senses, which was an age of magic and tribalism; secondly, the age of the tyranny of vision, opened up by alphabetical writing and printing, which was a period of abstract rationalism and nationalism; thirdly, the age of electronic transmission, which established the return of the full range of the senses…"(Mattelant-2003)

After McLuhan, many experts had explained this changes as a combination of technology and civilization. ***Lewis Mumford*** states the combination of civilization and new media as: "Every new medium brings with a new civilization." (***Mattelant-2003) .Oswald Spengler*** identified it in his book as " ***The decline of the west***"

Many authors had seen the changes of human society, with the inventions. ***Eric Hobsbawn*** argues in his "***Industrial and Empire***" as transformation of human life:

"The industrial Revolution mark the most fundamental transformation of human life since history has been held in written documents is no longer valid. We are seeing a technological change with out precedent in human history. The new communication technologies will probably have much more drastic consequences for human life".(hobsbawn-1968)

Daniel Bell's in his book "***The End of Ideology***" created new theories, based on new changes after the advent of new technology, as "Intellectual Technologies"- linear programming, simulation, information theory, cybernetics, decision theory, game theory, utility theory, are some of them***.(bell-1976)***

Amitai Etzioni, a specialist in modern organizations and professor at Harvard Business school and Columbia university, also introduced this as "Active –society and techno-communicanitarianism". For Etzioni, "the post –modern period began with the challenge to values inherited from the industrial age arising out of communication and knowledge technologies in the wake of the second war". ***(matterlant-2003)***

According to ***William F. Ogburn*** who also sees the social changes as cultural lag:

"Various areas of life are changing in complex Societies - e.g.: technology, law, education, science religion-at varying speeds, with the changers in the technical sector

happening faster…." If science has fallen so far behind the development of technology, how then can rational planning or policies in the media sector be possible? The new situation created by the fusion of communication and computing to information technology is so complex."(ugburn-1950)

Alvin Toffler considers this change as the very famous third wave, after agricultural and industrial waves, which mentions only the consequences and transformation of human life.

Samuel P. Huntington, professor for International Relations, at Harvard University, further described this as "***The clash of civilization",*** and he further says that there might be a world culture in the near future as unlikely and "A universal civilization can only be the product of universal power"(***hungtinton-1993).***

Harold Innis , attempted to show how the technology of communication determined the forms taken by power, especially the forms of imperial domination . According to him:

"…..Every step forward in the development of high-speed technologies of expression and transmission destroys components of the human community. Equalities in the speed of communication lead to "monopolies of knowledge"- another core concept- which are at once the instrument and the result of political domination."(Matterland-2003)

Radovan Richta had introduced and asserted that a new type of civilization was coming into being as "post –industrial civilization" "tertiary sector civilization".

Once during the US presidential campaign in 1992, Bill Clinton's running mate, ***Al Gore***, stated this as "***Information superhighway".*** "Relating to his introduction, computer brought tremendous changes in the way we use information and communication. The development of intelligent information systems and decision support systems attempt to endow machines with the intelligence found in human being."

In all these definitions and statements, what I observed was that they each connected one by one civilization to globalization. All the changes accelerated and carried forward by the information technology, by shaping and creating a new civilization. That is where this paper begins.

In this argument, the definitions of globalization also should be considered. Those definitions also related to the shaping of new civilization.

What is globalization? Why we talk about globalization? There is no definition in the old encyclopedia about globalization, because the term and the concept of globalization are new. This word also dominates as a catchword in respect of world economic processes, cultural super impositions and political dimensions etc. Though the dictionaries are not giving any definitions for globalization, mentions of globalization is started in the 15^{th} century, with the Marco polo's journey.

Paul Smethurst associate professor of English at the university of Hong Kong, while reviewing the book of Marco Polo's "***Description of the world travels"*** indicated praising its contents comparing how globalization linked to his travels:

"The Venetian literally changed the western view of the world. European maps in his time were based on Biblical interpretations and classical mythology. Jerusalem was at the center. At the margins the mapmakers drew monsters and savages, because there for from the Christian center, nature herself was believed to be monstrous.

Then came Polo's book describing great civilizations in the East and a world not centered on Jerusalem, politically or geographically. This recasting of the world into a more dynamic and multi-centered geographical space was the first step toward what we now call globalization".(Time -2006)

The oldest definition was given by German Author (1890-1935) ***Kurt Tucholsky*** as follows:

"***As far as the world economy is concern, it is inter linked***". ***(Kunzick1997)***

As such, the concept of globalization, Karl ***Marx*** and ***Friedrich Engels*** also wrote in 1847-48 in the Manifesto of the communist party. It explained the rise of modern industry, market, and social classes***. (marx-1966)***

Professor ***Samir Dasgupta*** mentioned his book "***The Changing Face of Globalization***"as: ***'ethno, -techno, media, -finance, and ideo- scapes"***

Friedman, 1995 distinguishes between two versions of the globalization theories.

First, ***has focused on globalization as recognition of what conceived as increasing worldwide interconnections, interchanges, and movements of people, images and commodities.***

Second, ***is the global systems approach that is characterized as kind of global historical political economy…, which has begun to tackle questions of culture and identity in global systemic terms (friedman-1994)***

Robert Robertson, 1992 argued, ***"globalization refers both to the compression of the world and to the intensification of the consciousness of the world as a whole".(Robertson-1992)***

Glenn Rikowski has considered some of the complexities and argues that there are four dimensions to the term "Globalization", Firstly; there is the (1) ***cultural dimension***. He draws attention to the fact that there are two approaches to the cultural issue, and that they are contradictory. One is the recognition and appreciation of cultural differences, while the other is the homogenization and the bringing together of different cultures into one overall global culture. He sates:

"…Globalization has been associated simultaneously with the cross fertilization and increasing hybridity of cultural forms and identities on the hand and the homogenization of culture on the other.

(2) The second dimension is concerned with the eroding of the power and significance of nation states in the face of (3) ***global capital***. The third dimension relates to "capital's rapid expansion…the processes of ***capitals expansion***…. take over and suck in, like a social vortex, all forms of social life such that they become comodified, become incorporated within capital's social universe. The forth dimension encapsulates the fact that our (4) ***labor*** takes on a particular social form…."the value –form of labor entails the

creation of value so that profit can be drawn off from the surplus value created. This is at the core of Globalization. ***(Materland, 2003)***

The increase of trade around the world, especially by large companies, producing and trading goods in many different countries are also a part of globalization. Available goods and services or social and cultural influences, gradually become similar in all parts of the world. Electronic commerce developed after the technological development happened in Silicon Valley.

Now-a-days, internet and fax machines are connecting people world over widening job availability for a person, cross-border monetary transaction is increasing, by many folds, trade patterns are altering quickly and the aftermath of an event are not confined to the national boundary but considerably affecting other countries too.

Globalization has become the focal point of attention in the social sciences since late 1980, and appeared as a paradigmatic concept in analyzing the economic, social, political, environmental, ecological, and cultural metamorphoses occurring across the modern world. The currency acquired by the concept reflects the agenda that the world today is unprecedently interconnected and interdependent.

Globalization is still debatable. In one way this process is a chronology of trends. Other way it is pervasive and overriding fact of contemporary society. But no clear chronology and per iodization. All definitions are tentative. Globalization is the present process of becoming global, including major five concepts: Internationalization, liberalization, Universalization, Westernization, Respatialization. The selected areas which this paper includes into liberalization.

On the whole, globalization is: creating a new civilization re- shaping the existing society by Information Technology. Those drastic changes clearly can be seen in the most affected areas of Education. Language, Religion, Health, and Media Technology.

Education

Education is the most important and powerful component of a civilization. Without knowledge, and discipline any of the civilization never exists and develops. Civilization is written by the education. Its noble objective is to make civilized society. Teacher-pupil relationship was a powerful tool in making whole family and tribe, or whole nation connect, which is related to collectivism. This commitment was carried forward by human quality and responsibility.

In the present day, with the revolution of computer and CDs like devises, values and norms of education has made pupil isolated. It is rapidly being commercialized.

Now the trend is that private schools are more efficient than the public schools. Unlike other public services, higher education is slowly being drown into world of market. Students are also now consumers, free to choose the best courses and there is big money to be made by private firms.

Due to Silicon Valley productions, students in Colombo, Delhi, or Dakar, or St Petersburg will be able at the click of a computer mouse to download the content of subjects being taught at the Massachusetts Institute of Technology (MIT).

The renowned American university with funding from two private foundations has decided to put some of its courses for the benefit of students and teachers all over the world. This means higher education is moving towards increased rivalry and profit. It has not escaped the demands of globalization more than any other sectors have. Lecture halls are no longer places, where courses are taught.

Students are free to choose the best course they can find in a ‘market ‘ that has become worldwide. (OECD) Organization of Education, Corporation and Development), Apollo, and sylvan learning are the biggest firms selling higher education in the USA.

New technology has revolutionized distant learning. Even though its share of world trade is still very small, on line courses and educational CD Roms will continue to grow.

Developing ***courseware (silicon teachers)*** for large numbers of students can justify the investment required to produce high quality learning materials at low unit cost. The irony is that while you can now educate yourself from home students can move around more easily than ever before. Such materials can be used successfully outside their country of origin after local adaptation and translation. The educational community should adopt the model at the open source software movement.

Imagine, a future in which teachers and institutions make their courseware and learning materials freely available on the web. Anyone else can translate and adapt them for local use provided they make their new version freely available too.

The teachers and students both are isolated. CDs and DVDs replaced the teacher. Students learn without human connection means the new silicon civilization is mere technological intervention. It will help to decline the human quality.

Language

Language is another component of a society. It was one of the early vehicles, which helped to develop the society by exchanging messages. It is the major communicative tool. Language is always the expression of a particular way of thinking that has been shaped by the different life experiences and national characters of various peoples. Language is something alive of central importance to people’s identity.

Language brings together things and events with the feelings they generate. German language philosopher ***Johann Gottfried Herder*** explained "language as the decisive catachrestic of a nation". Further, that the people to whom it belongs to their own, sovereign state.

The speaking of a foreign language would be tantamount to a nation's destroying its own culture. If one forgets one's mother tongue and its original characteristics, one was condemned to live an "artificial life" ***(Kunczik-1997***)

Due to computer-based usage of English (***silicon language***), it will dominate the world. According to the UNESCO reports, every year at least 10 languages disappear of 6000 languages currently spoken in the world. About half are threatened.

In 1999, a survey by the university of North Dakota's summer institute of Linguistics in USA showed that more than 3000 languages each are spoken by less than 10,000 people. Linguistics reckons that a language is in danger when fewer than 10000 people speak it. Languages have always been disappearing and at least 30,000 are thought to have disappeared since human beings started speaking. Though Chinese, Greek, Hebrew and Sanskrit have lasted more than 2000 years, they also at the verge of disappearance**.** ***(figure 3)***

More recently, the internationalization of world financial and the growth of electronic communication have speeded the process up further. One example is English which is spoken by less than 20% of the world 's people, but 68% of the internet 's web pages are in English. In between half of the languages spoken today will vanish over the century.

When the last speaker of a language dies it is very hard to revive it. Therefore Japan, is trying to preserve the ‘***Ainu*** ‘ language, which was spoken by only eight people on Hokkaido Island in the late 1980. Same fate appears to befall on the tongue spoken by the ***Garifuna*** people of Brazil.

Asian countries use English as communication tool. In 1835, the British Government in India designed English as the medium of education for schools and universities. The same situation was in Sri Lanka too. Now English has been taken as an associate official language.

In addition, in Pakistan, Bangladesh, Nepal, Malaysia, Brunei, Indonesia, Singapore, Philippines, and Hong Kong, English is not ***“Mother tongue”*** for a tiny minority, but it has long been a key “***Other tongue’*** of millions.

Most remarkable development is in Singapore, English is co-official with Malay Mandarin, and Tamil, but is the only language known to all younger Singaporeans. An explicit state educational policy has made them fluent in English with both a prestigious standard variety based on UK usage and a vibrant vernacular known as “***Singlish***” which serves them well informally but troubles some of their elders.

In Japan, Korea, including North Korea and China English is the foreign language of choice. English is the lingua franca that Asians now share with one another and the rest of the world.

Migration also has posed many problems on language. Countries are taking in more immigrants and have to adapt to their presence.

In the year 2000, more than a third of the population of Western Europe under age 35 was of immigrant origin; migrant people are moving across long distance and on a scale

as never before in human history. Some searching for greener pastures, others are fleeing killing fields. These human migrations are also the result of new civilization.

As in educational field, policy makers, face new issues and questions on language policy, with fresh urgency. School immigrant children are taught in mother tongue? Should all be guided towards the same ideas, the same aspirations, and the same ideality? Indeed, what is meant by "common identity", what leeway should be given for teaching or deal with problems that did not ever exist when they themselves went to schools? How should teachers be prepared to deal with problems that did not ever exist when they themselves went to school? This is a new feature of new civilization.

Religion

Religion is also a divine power of all the civilizations from ancient to new. It made the major role to civilize and socialize the society. Preacher - spectator was the society in religious background. It was the spiritual, power in a society. In the new civilization, like schools, business, governments, religious groups are also rushing online, setting up home pages, broadcasting dogma and establishing newsgroups, bulleting boards and chat rooms.

The net is changing human ideas of God; it may drastically change the ideologies and faith on God. The web is more than just a global tapestry of personal computers and fiber-optic cable. It is a vast cathedral of the mind, a place where ideas about god and religion can resonate. Where faith can be shaped and defined relies on great external forces to change the world. This World Wide Web binds Christian and Jew, Muslim and

Buddhist, together and makes them stay interconnected. We may begin to find god in places we never imagined. **(Figer-4)**

Once we believed that the "***Nirvana***' is in the heaven, some place up above the sky. Now virtually anybody could find the "cyber nirvana". ***Thripitaka, Dhammapda, Bible, Bhagavatgita*** and ***Koran*** are available in cyberspace.

The harvest is ever more bountiful on the web, where everyone from Lutherans to Tibetan Buddhist now has a home page, many crammed with technological bells whistles. Mormon sites offer links to vast genealogical data bases, while ***yaaleve, yavo*** an orthodox ***jewis*** site forwards E-mailed prayers (***silicon Preachers***)to Jerusalem, where they are affixed to the western wall. Two web sites are devoted to ***Cao, Davism*** the tiny Vietnamese sect that worships French novelist ***Victor Hugo*** as a saint, and a handful probe the mysteries of Jainism and Indian religion in which the truly faithful sweep the ground with a small broom to avoid accidentally stepping on insect or other hapless creatures.

The most ambitions site on the web is in the Vatican's Apostolic. Launched in 1995, running 24 hours a day on three powerful computers-nicknamed ***Raphael, Michael***, and ***Gabriel***. It will offer Vatican press releases. Pope's schedule and most of the Pontiff's writings, translated six languages. It will also the capacity to field thousands of simultaneous information requests from all over the world.

Computer telecommunications will fulfill the Church's mission, which the Pope called the "new evangelization". Unlike other things religions beliefs and the systems of worship have changed with the new technology.

Health

What a glimpse of the future of health care? Take a look at the way the various networks of people involved in patient care are being connected to one another, and how this new connectivity is being exploited to deliver medicine to the patient-no matter or she may be. Online doctors (silicon doctors) dishing up advice based on standardized symptoms are the most obvious example. Increasingly; however-remote diagnosis (tele-medicine) will be based on real physiology data from the actual patient.

A group from the university of Kentucky has shown that by using an off-shelf PDA (personal data assistant) such as a palm pilot plus a mobile phone, it is perfectly feasible to transmit a patient ‘s vital sign over the telephone. With this kind of equipment in a first –aid kit, the cry asking whether there was a doctor in the house will be a thing of the past. Silicon doctors replaced the doctors.

Other medical technology group are working on applying tele medicine to rural care. And at least one team wants to use tele medicine as a tool for disaster response-especially after earthquakes. Overall , the trend is towards providing global access to medical data and experience.

Can we avoid these developments or adapt. The question is the facilities But doctors in private hospitals as well as government use these methods immediately after its introduction all over the world.

Communication and Media Technology

In the media history , the first revolution was the industrial age, then electric and electronic ages marked with the invention of the computer. With the Information or Knowledge , now we are in the silicon Era.

After invention of personal computers the world has leaped unexpectedly with the world wide web .Then 1995, Microsoft windows brought it towards the multimedia stage. What is multimedia?

"It is a combination of two or more types of media, such as live performance and videotape, in the same show. Currently the integration of diverse forms of media via computer into programs featuring still photos, video, audio, and text packages. With the pluralization of personal media , interpersonal communication has come forward. Information has become the metaphorical blood supply of our modern globe society. Telecommunications is the vascular system that speeds that information throughout the world community, whether voice or data, by wireless or computer network.

Multimedia typically refers to media communications that combine aspects of sight and sound and that are at least partly controlled by users through computer.

With digitalization (the storage of media messages as computer bits) , video, audio and text can be combined in almost unlimited ways .With digitalization all the media become translatable into each other-computer bits migrate merrily-and escape from their traditional means transmission,

A movie, phone call, letter or magazine article may be sent digitally via phone line, coaxial cable, fiber optic cable, microwave, satellite, the broadcast air or a physical storage medium such as a tape or disk. If that's not revolution enough, with digitalization the content becomes totally plastic-any message, sound or image may be edited from anything into anything else.

Business as well as consumers demand high quality telecommunications that are affordable. Dependable and ubiquitous that push constantly changing needs. No small order for a system that basically moves electrons from point A to point B.

Today with the telecommunications, just about anyone can be a global businessman. E comers and having instant access to trillion- dollar capital flow raw materials and multi market information can with the click of a key remove barriers to time and space.

Every dimension of the media communication situation has changed during the past few years. For example old institutional "enemies" (cable and telephone) have become cautions new allies and partners.

As late as 1980. phone calls over copper wire could carry one page of information per second; today thin strand of optical fiber can transmit 90,000 volumes in a second.

In this scenario mass media trends towards the new commercialism with internet and cables. Fiber optics have greatly increased the efficiency and bandwidth of the cables that enter people's home.

Digital cable, especially when combined with digital compression, makes possible multiplexing , carrying two or more different signals over the same channel. Multiplexing, in turn, permits interactive cable and VOD. These same wires can be use for a host of bundled services, from local and long-distance telephone to fax to high-speed internet access.

Convergence, particularly in the form of digital television and internet-based video, is also reshaping the television landscape. All stations are expected to convert completely to digital broadcasting by 2006, although the convergence of television and the internet, just under way, holds the potential to reinvent both media, particularly because of the promise of fuller interactivity.***(black-1995***)

Book as a mass medium also went on electronic reading or e-book is a common all over the world. There is an American booknet, which is the cable channel will include another profiles, interviews, readings and publishing industry new and will feature a 24- hour shopping service enabling viewers to purchase the books discussed. Producers also plan to call in show with authors and will feature movies based on books. Magazines and newspapers have their own on-line editions.

In radio, also goes to work with CDs. Both radio and recording industry have prospered due to technological advances. Television gave radio its

new personality and, through MTV, reinvigorated the music business. Satellite delivery of music directly to radio stations, homes, and cars has made possible the proliferation of radio net works .convergence of radio and the internet promises to bring further change to the radio and recording industries.

In his book on the recording industry "***the global jukebox" Robert Hurnett*** described the future of the industry in terms of the digital revolution, "The potential for transmitting via cables, satellite or telephone lines, means that home listeners will have access to the equivalent of a global juke box. Subscribers to the digital networks connect a receiver to their own stereo systems to get dozens of channels of uninterrupted CD sound. The digital compact cassette (DCC) and the mini disc will help further. ***(hurnett)***

3G was supposed to revolutionize mobile services.. Now get ready for the next generation of hype, technology 4G.What is 4G?

It is a net work that operates on internet technology. Combines it with other applications and technologies such as wi-fi(world integrated fidelity) and runs at speeds ranging from 100 mbps(in cell-phone networks) to 1 Gbits (in local wi-fi net works). In ads that only can see and hear.

New smart-phone operating-system software developed specifically for mobile handsets by links of “Microsoft, Symbian and Palmsource. These systems make smart phones more flexible and programmable,
in short, they make the devices more like a portable PC .New capabilities can be added by simply installing additional software.

Another advancement of technology is Radio-Frequency identification (RFID) .With RFID, the family fridge will tell you when the milk is spoiled or you’re out of butter. In the store. Your grocer will know all. This with a chip perceive in our lives-used to track everything from pets to prisoners to products. Cars zip through tollbooths thanks to payment systems using RFID. More that 50 million pets worldwide are tagged with RFID chips. And for the past two years, Oscar-goers have been screened and tracked by RFID.

Now the chip can do multiple work in the media field as well as in the human body. You can buy any lost of part of you body from the shops in the near future you can see how a part of a man ‘s hand was lost .Chip refilled his hand and it can work as a normal(***figure-5)***

According to above-mentioned facts, a clear chart can be drafted on how elements differ from ancient and new civilization, which could be tabulated as given under:

Ancient	New
Education	
*Primary writings, Teacher + pupil	*Computer replaced writing systems
* Manual exercise Tribal Leader+ pupil	*CDs & DVDs replaced on teacher
*Class room-books writing material Lab experiments	* Courseware package replaced teaching materials (Silicon teachers)
*Religious leader - teacher	
Language	
*Spoken & writing, sign, symbols, gestures, postures	*Other languages replaced Mother tongue
*Tribal had 30,000 languages	*Existing 3000-6000 languages
*Alphabetical writing and printing	*English leads Computer (Silicon Language)
Religion	
*Tribal beliefs for nature	*CDs Prayers (Silicon Preachers)replaced Prayers
*Concept of "God"	*Computer based online worship
	* New evangelization
Health	
*Tribal physicians	* Surgery done by computer
*Clinical surgery& Indigenous medicines	* Online doctor(silicon Doctor)-patient health care
*Doctor + patient health cure& surgical	(Silicon Doctors)
Media & technology	
*One-to-one communication Gesture, posture, arts, writings	*Satellite, computer fiber optics, PCs, *Cellular mobile(Silicon devises)
*Postal, telephone, Morse code, Typewriter, radio, motion picture, Tape recorder	*Multimedia, DVD, cables , fiber optics

Discussion:.

*The definitions about the ancient civilization has changed with the new information technology-specially after invention of computer. Though it appears to have created a new civilization, it is a mere extension of all the part civilization.

*Globalization started ling before computers. With the world wide web this process of Globalization has became drastic and quick, and it is an ongoing progress.

*Education, Religion, Health, language and Media technology are the major components of civilization. With the IT, they all have been replaced with silicon devices

*Emergence of globalizing Gender consciousness too came into being. The genetic engineering also done successfully, which stared in silicon valley.

*With the information technology social changes can be seen, specially while using media.

One of the most important trend in recent years has been the fragmentation and segmentation of media audience. Every aspect of modern communication is now dependent on computer. In fact, yesterday's ***audiences*** are today's sovereign ***consumers*** of media messages. The next decade promises even more radical shifts in media operations. New communication theories and models reflect these shift.

We are moving into a generation of addressable users of multimedia (rather than audiences).

What does the phrase: ***addressable users of multimedia*** mean, ***Addressable*** means that media messages will no longer be sent "***to whom so ever it may concern*** ".They will be selected and "downloaded" by individuals, Personal and professional profiles are part of the media distributors database. "Users" replaces the term audience to refer to an active public that can and will select from thousands of information, on education and entertainment, some of which the users can interact with and also alter. Multimedia typically refers to media communications that combine aspects of sight and sound and that are at least partly controlled by users.

Communication expert ***Everett M.Rogers*** characterized the media revolution by three words, ***Interactive, Dimassified, and Asynchronous***.

Interactivity is the quality of the new communication systems that allow what is similar to one-on-one conversations between two people. ***De massification*** describes ability of the people using the new technologies to exchange messages with each individual member of a large audience. ***Asynchronous*** (greek "a" for not plus "syn"-for "together" plus "chronos" for 'time ' describes , the capability of new media to interact with an individual at a time convenient for that person***. (Black -1995***)

If Gender equity consciousness and Genetic Engineering were not mentioned in the text, those two also have become as a talking point with this new civilization.

Talking about reaching to a large but individually recognizable audience, it has created revolutionary changes in the way group discussions are conducted .This has helped people from different parts of the world come together, discuss or convey messages on relevant issues.

Gender issues are among those that has caught attention in this new era. Women of the world have gathered to talk on line bypassing cultural, moral religious barriers. Marginalization and exploitation of women can be seen from the ancient societies in the flow of religion, labor, and domestic level. But they have always remained silent, submissive and suppressed.

The emergence of feminism as an international movement has begun in this Era. Empowerment of women, gender equity came into being slowly. Along with it has come, an alternative conception of the role of women in the process of socio-economic development.

The concept of “Goddess” too was in far eastern countries, but all were simply discussed under religious or moral background. But after getting websites and internet facilities ,women in the world are talking their differences together. They are more united now than ever before.

Science and Technology

Computerization of the instruments used now-a-days has made the humans soar high above the ancient technologies in every field of sciences. Works which mere very monotones, cumbersome and those needed man power have been simplified to a great extend.

Genetic manipulations are also rapidly occurring with the introduction of computer. Science is close to crossing some horrendous boundaries due to this revolutionary interception of computer in science. Where there is an opportunity for human beings to decide if we're simply going to stand in the path of the technological steamroller or take control and help guide its direction. The era of cloning started also from the silicon valley, with the creation of Dolly. Dolly was the first genetic cloned sheep at the ***Roslin*** institute near Edinburgh, February 25, 1997, by ***Ian Wilmut*** and the team. Dolly was genetically identical to her mother. This was followed by cloning of a monkey named Andy.

Auther Konberg, Nobel prize winner for his studies on "how genetic information was transferred from one DNA molecular to another" ,the forerunner of Ian Wilmut was in the Stanford University, School of medicine in Palo Alto, California, which is situated in the silicon valley. Later his son Roger Kornberg continued his work in the same area and received Nobel prize in 2006.

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This work was continued also by another two scientists , prof: C.Mello, and prof:Z.Fire who are also Nobel prize winners,2006, for molecular medicine. In 1998 they published their discovery of a mechanism that can degrade mRNA from a specific gene. All those are interconnected in the silicon valley experiments.

Conclution

Education, language, health, religion, or whatever, information technology is apparently set to change everything that human beings do in advanced societies. In this study , found, only a single publication had been done related to this topic, by ***Geoffrey Simons***, in 1985 called "***Silicon Shock***", which was an oxford publication.

This paper will also help future researchers and research.

In this paper, tried to explain and compare the social and communication systems how drastically changed with the findings of silicon. Human civilization in the history were located in the area of bay or river sides , like Nile, Indus Valley, Yanzi, Euphrates Tigris.

The new silicon civilization also located in the bay area of San Francisco like above , people in the ancient civilization had used clay where they could find from the river side, made as tablets and used as writing forms.

Silicon valley industries use silicon that easily can found like writing systems, computer based electronic industries spread resulting in use of silicon. Most of the sophisticated items which are used people in the world made with silicon. Then that items have changed all the systems which people used so far.

In the past , the kinds of technologies used for handling information have often affected its quality and nature. The age of natural communication,

through speech and gestures, involving all the senses opened up by alphabetical writing and printing. Electronic transmission, which established the return of the full range of the senses.

Just as the information of the cotton gin by Eli Whitney in 1793, turned the life of society upside down in the industrial revolution, information technology has already influenced the lifestyles of millions , if not billions of people .This changes is not only just one, it create a new civilization too.

Potential of electronic networks to recreate community includes humanity as a whole. The spirit of the earth, the synthesis of individuals and people. are influenced by communication. Through the connectivity and density of communication networks, the whole of humankind is entering the last stage of human life.

In line with the argument, specially ,education, language, health, religion, media technology, were the power points in past societies. Human relationship also was a potential power .With the usage of personal media in modern society , this noble relationship had been fragmented. In this point Daniel bell defines it: "***The fundamental assumption of modernity, the thread that has run through western civilization since the 16th century, is that the social unit of society is not the group , the guild, the tribe, the city , but the person"***

I would like to go along with the social psychologists, ***Harry.C. Triandis*** who said, “perhaps the most important dimension of cultural difference in social behavior across the diverse cultures of the world, is the relative emphasis on individualism vs collectivism. Whereas from the technological resources the world could be turned into a global village, the civilizations are drifting apart. Structural globalization and cultural fragmentation were happening simultaneously***”.(triandis-1990)***

Daniel bell, Huntington, Tibi, defined this happenings as clash of civilization, universal civilization , tertiary sector civilization and so on. Once these cultural changes identified by them selves as “coming and going civilization”

Beyond questions about the production of cultural commodities and about computer –related human images lies the wider issue of “civilization”. If silicon really is the new “Fertile Crescent” as its admirers and emulators claim, what does this mean for “western civilization? Differences of opinion run deep on the shape of the cultural landscape in the “information society :running the gamut from peaceful and humane to conflict-riven, impersonal and alienated scenarios***.(iyon-1988)***

Every step forward in the development of high-speed technologies of expression and transmission destroys components of the human community. Our long human journey has come to a new stage. It is very sophisticated which with the new devices what we use. Silicon chips and new electronic methods with all these technology .The implications of developing IT, extended far beyond the advanced society. But more importantly, the restructuring of those advanced society cannot properly be understood without considering the global dimension.

If people had not found silicon and the computer based industries in the silicon valley it would have being similar to the industrial age or electronic age.

In this study, have tried to explain what changes have happened with the new technology and now a new era has come as silicon valley. Though we talk of digital, cyber, or any era we have not paid attention earlier to the silicon valley was the factor in generating all these. It is the silicon chip and electronics that enabled all these.

So this is a new civilization not and mere globalization . This idea may be accepted as a concept in future .

Reference:

1. ABD-Asia Pacific Cultural Centre for UNESCO –Tokyo from 2000-2004.
2. Cambridge Paperback Encyclopedia-David Crystal-Cambridge University press-1995.
3. Concepts of Journalism-North and South –Michael Kunczik-Friedrich-Ebert Stiftung-1995.
4. Cross –cultural contradictions of capitalism- Daniel Bell,Newyork,1976.
5. Cultural identity and global process –J.Friedman, London, 1994.
6. Das Kapital Kritik der politishen Okonomie,East Berlin,1966, and F. Engels, manifest der kommunistischen Partei,East Berlin,1963.
7. E-Trends-Making sense of the electronic Communications revolution Profile books Ltd-London-2001.
8. Education today –The newsletter of UNESCO from 2000-2002.
9. Globalization social theory and Global culture-R.Robertson,London,1992.
10. Globalization, Information and Libraries-Ruth Riskowski-Chandos Publishing, Oxford-England. 2005.
11. http://www.netvalley.com/svhistory.html.
12. Human transformation-Communication and cross cultural adaptation-Yun Kim, Multilingual matters ltd,Philadelphia,1988.
13. Industry and Empire-Eric Hobsbawn.1968.
14. Introduction Technologies for Newspaper Publishing in Asia and Pacific – Belinda Hopkinson-UNESCO Publishing, 1997.
15. Introduction Mass Communication-Jay black McGraw–Hill USA 1995.
16. Media Giants, communication manual-Michael Kunczik-Friedrich Ebert Stiftung-Germany 1998.
17. Media Technology and Society-Brian Winston –Rutledge, London 1998.
18. Oriental Despotism-Karl Wittforgal ,l968.

19. Oxford Advanced Learner's Dictionary-Ap Cowie-Oxford university press 1991-2003.

20. Social Change-W.F.Ogburn,NewYork,1950.

21. Theclashofcivilizations,Thedebate,AForeignAffairesReader-S.P.Huntington,Newyork,1993.

22. The Information Revolution- Joseph Dionne, McGraw-Hill,NewYourk-1987.

23. The Information Society–issues and illustrations. David Iyon, Billion& sons Ltd, Worcester,1988.

24. The Information Society- Armand Mattelant, Sage Publishers, New Delhi ,2003.

25. The Changing Face of Globalization-Samir Dasgupta-2005 Sage Publication, New Delhi .

26. The world book Encyclopedia –world book Inc-Scott Fetzer Com-1988.

27. **Time-July 22-2002.**

28. Time March 27-2003.

29. Time September-2006.