Computer Technology a harbinger of new life

Computer is the latest addition to the achievement of science. Computer bases technology has heralded a new life of information Technology besides its role in agriculture, biotechnology, oceanography, engineering and medicine. A computer is capable of storing and processing enormous amount of information at a lightning speed. The information is transmitted, shared and disseminated to other users via computers through a network.

In the early 1970s, computers were used only in certain sectors i.e. educational institutions or organizations, industries, scientific laboratories, space research and defense. But these machines were unable to share information among them as they were functioning independently. With the advancement of technology, the computer was used to fulfill various other human needs. Not these machines are connected in a network called Local Area Network (LAN). LAN was first employed as a project for the US Defense Department to create a network of widely scattered computers for sharing and transferring data in an emergency. But these LANs had limitations and to overcome these, new technologies like WAN, WAP and the internet were developed to tackle the problems of communications through the globe. These LANs were connected to World Wide Network electronically by the end of the 1980s. This vast space is called Cyberspace or Cyber world a world in which everyone is connected electronically. Vast resources of data and information are available on ‘ World Wide Web (WWW), which is an imaginary space of information connected to the network, can access information through the Internet.

Internet is a platform where man can access, disseminate and share information globally beyond any specified area within the firewalls of his room. This diverse and visionary technology allows man to march towards new horizons of life in every respect. He can get information about people, organizations, various research data, electronic versions of the print media, etc, within a couple of minutes. With the advent of Information Technology, man can send his mail electronically through e-mail within a matter of minutes. It is both time saving and cost effective as well as accurate. Chatting on the Internet activates the nervws and gives rise to new sensations among the youth today. They can make contact anywhere in the world. Another popular use of the internet is electronic commerce. One can negotiate deals and conduct day to day business, pay telephone and electricity bills, insurance premia, book cinema, rail and air tickets, buy and sell stocks and shares, all the while making payments through one’s credit card.

The people have access to the latest fashions, new products and drugs, electronic items, etc. Again, doing business through Internet is cost effective and time saving.

Developing nations have extracted maximum benefits from the Internet. It has been playing a significant role in India from both the economic and social point of views. During the year 1999-2000 our software exports have increased more than 50 percent. Most of these exports were directed to the USA and Canada. Our of total exports, Europe accounted for 26 percent. In recent years countries in the Asia Pacific region are looking towards India for their software solutions. Sources in National Association of Software and Services Companies (NASSCOM) say that the Indian software drive remained insulated from the economic turbulence around and pushed smoothly its drive for exports.

The Software Technology Parks of India (STPI) has taken the initiative together with a few Indian IT outfits and the Indo-German Chamber of Commerce to ensure that Indian software and service companies have a fairly good share of the cake. They have created an Indian Special Interest Group and will shortly initiate in accreditation scheme to ensure standard solutions. At present exports from STPI account for 53 percent of the country's exports. As it is, STPIs have promoted complete environment complexes for 100 percent exports units by the Department of Electronics. Thus, STPI serves as one of the largest of network exporting units in India. Meanwhile a study by NASSCOM shows that there has been a perceptible shift in the last few years from on-site services to offshore services, the later contributing to about 41 percent of the exports. Today about 90 percent of the STPI exports are through offshore development. According to sources NASSCOM has now prepared a growth profile that would make India a software super with a turnover of $ 100 billion by the year 2008.

In order to boost the availability of skilled manpower Department of Electronics has recommended the sitting up of National Visual Institute which will provide for distance education to enhance knowledge of working professionals in the software sector. This Institute will seek support from premier engineering institutions and training companies software professionals to the latest trends in the industry.

But all said and done, the Indian Software Industry is still far always from attaining a really global status. For all intents and purposes, India's software exports constitute not more than one percent of the total international market. IT experts are of the view that India is still a marginal player in the software market and its expertise is limited to the provision of on-site services and offshore software development. A study carried out by a team of experts from the institute of Technology points out by a team of experts from the Institute of Technology points out that the present industry structure prohibits India from emerging as a major

software developer and exporter in the near future. Similarly, a study by the ICICI Banking Corporation Limited lists many negative features afflicting the Indian Software industry. “New entrants into the Indian IT industry are scared of bureaucratic norms which are stumbling blocks in such ventures.”

Computer technology is playing a major part in changing the life style of people. A personal computer is found in all urban houses with the affluent people. The students are exposed to the uses of Internet and other benefits like collecting new information worldwide ideas and data in their respective fields of study. They keep themselves abreast of the rapidly changing scenario in the electronic, medical, biotechnology, business and engineering fields through the net. The Cyber world has helped to a great extent in solving the unemployment problem. Lots of professionals have been absorbed world wide in the fields and are doing very well financially and socially. The IT has opened enormous scopes for talented people in India and outside world. Indian IT professionals are working in almost all the western countries including the USA, Britain, Canada and other European countries. Besides the computer professionals may non-professionals also earn their living through the net.

Yet there are vast grey areas in the Cyber world. the first and foremost danger is from the backers. They often break the strong security systems and create havoc in the computer society. Hackers are always in searched secret data and data relating ot new developments in different fields. They recently penetrated into the server of Microsoft and downloaded the secret data pertaining to new researchers. In fact, hey are growing menace to all wed sites and ISPs. The second challenges to be faced are rapidly spreading viruses through E-mail. There is always a chance of communicable virus attack in spite of strong security fence. These numerous viruses launch their attack straightaway, halt the entire network by corrupting the program files and cause a huge loss to the users. Currently, computer viruses are like an incurable disease spreading its tentacles all over the Internet World.

Cyber terrorism is another major challenge as several terrorist organizations tend to spread rumors, misinterpret information and disseminate wrong messages via the net. They motivate and misguide the youth, encouraging them to indulge in subversive activities. Net has become the front-runner weapon in the hands of terrorist organizations today.

In the near future, disposal of electronic wastage will create a very had situations in the global community/ with several new products launched every day, old electronic components like processors, floppies, CDs, and other components, made of lead and hardcore chemicals pose a threat to mankind. Such wastage cannot by recycled naturally or artificially, thus causing environmental hazards for the future generation.

Another notable hazard of the growing computer technology is that it is making man completely dependent on man-made machines. More than 40 percent people in developed countries today depend on the net. This increasing dependency may cause people to become completely dependent on the machine and everything will lose the essential human touch. Lots of workers specialized in hand work are losing their jobs and avenues for living. But it must, however, be admitted that the benefits of the Cyber world outnumber its disadvantages. Like is becoming simpler and we do not need to stand in the serpentine queues to encash a cheque or deposit our money in a computerized bank today. The people especially in town and cities prefer going to banks with these facilities. Rapid growth o commerce and tourism has been possible on account of the computerization of rail and air reservation, local transportation etc. the admissions to colleges and universities is very shortly to be computerized which is surely going to revolutionize our present life style. Computerization has already been employed in the field of medicine also. Computerized ECG and EEG, pulmonary function analysis, drug-designing, etc., have become common, heart specialists and computer scientists have developed expert systems which can diagnose disorders of the heart using ECG recording as the input. A few such uses to which computer has been put are: PUFF (for lung disorders), VM (to monitor patients in intensive are and advise on respiratory therapy), MOLGEN (for experiments in molecular genetics), ABEL (to diagnose acid-base electrolyte disorders) and MYCIN (to diagnose bacterial blood diseases). A well-known application of computer is CAT (computerized Axial Tomography). This helps to photograph the changing conditions of an affected area and helps the doctor to correctly examine the patience. The computer is playing an important role in medical research. Computer Assisted Drug Development is very shortly leading to the formation of drugs to fight diseases like AIDS, cancer and Rheumatoid Arthritis.

Another notable field where computer is helping in a big way is CAD (computer aided designing). It has been widely used by the designers in textile and dress designing, fashions and print designing. The architects no longer use their pencil, ruler and board to design their layouts, they do it all on computers, that also very exactly, legibly, giving all details and saving lit of their time.

Computers are not only harbingers of a new life but also the binding force in today's world. they have changed the outlook and lifestyle of mankind today. A man has been educated scientifically to adopt computers to his own benefit. Reviewing some 46 discoveries between 1900 and 1950, A History of technology (Edited by Trevor I William) points out that largest intervals 50 to 80 years were taken up by the fluorescent lamp and the cotton picker, and the shortest one year by Freon Refrigerants. Computer reached us even faster. It has thus proved to be revolutionary, both in concept, and applications. It has hastened the pase of

revolution. We must, however, put it to proper use, instead of using it for rocketry and missiles. It marks a computer breakaway with the past.