Technological Revolution Essay, Research Paper

The Technological Revolution

Technological Changes of the Past and Present

The technology which surrounds almost everyone in the modern society, affects both work and leisure activities. Technology contains information that many would rather it did not have. It influences minds in good and bad ways, and it allows people to share information which they would otherwise not be able to attain. Even if a person does not own a computer or have credit cards, there is information on a computer somewhere about everyone. The technology which is just now beginning to be manipulated and harnessed is affecting the minds of small children and adolescents in ways that could be harmful. It is affecting our immediate future. It also gives another form of communication and exchange of information which was not available before, information that is both good and bad.

Technology is one of the principal driving forces of the future; it is transforming our lives and shaping our future at rates unprecedented in history, with profound implications which we can’t even begin to see or understand.

Many different elements affect how satisfied we are with our lives. The impact of technology on these elements can change how safe, healthy and happy people feel. Throughout history, people have looked for better ways to meet their needs and to satisfy their expectations. Technology has improved the way people feed, clothe and shelter themselves. Technology has also changed other aspects of everyday life, such as health care, education, job satisfaction, and leisure time activities.

People have used technology since they first chipped stone blades to improve their hunting. Yet some people call the current age the “Technological Age” because of society’s dependence on technology. For the first time in human history, almost all the goods and services people use depend on technology. The products of technology are available to almost everyone in society. The economy of a country influences how the people of the county live. Technology is often considered the key to a nation’s economic growth. Most economists would say that it is one of the factors in economic growth, but they would probably disagree about its importance.

Many economists think that if technology sparks growth in one sector of the economy in the form of increased productivity, growth will also occur in other sectors of the economy. Jobs may be lost in one industry, such as agriculture but new jobs may emerge in other sectors of the economy. There may be more jobs or, in some case, completely new kinds of jobs. Technology may also be used to solve urgent problems. Our growing population is using up infinite supplies of natural resources. Innovations in technology can allow for more efficient use of limited or scarce resources. More products might be made from the same amount of raw material using new techniques.

Technology can increase productivity to help countries compete with other countries in selling goods and services. Some say that without technological improvements, the economy would grow slowly or not at all. Society could remain the same for years, some what like the early Middle Ages in Europe, in which there was little economic change for hundreds of years.

Ways to manufacture goods have changed continuously through history. Today, several important new advances in technology are transforming. These technologies create new products; most of them also change the way people in society interact. These technologies have a tremendous impact on our monetary resources. Some of the technologies which are having the greatest effect on the economy are: robotics, automation and computerization.

Robotics: Artificial Intelligence

Although robotics have a well-established position in the Japanese industry, it has not, so far, turned out to be what many experts thought it would. Businesses in the United States and Europe have not embraced industrial robots at nearly the rate of the Japanese, and other more consumer oriented versions are very much in the development phase. Even so, industry sources believe that the use of robots to make clothes and other consumer goods will be common by the turn of the century.

This general trend (the use of robotics) is likely to change, perhaps dramatically, in the next two decades. Robots are in one sense collections of other more basic technologies: sensors, controlling and analysis software, pattern recognition capabilities and so on. Most all of these other technologies will make significant strides in capability, size, power requirements, and other design characteristics and the integration of these other advances should accrue directly to robotics.

Robots are machines which combine computer technology with industrial machines. The computers are programmed to operated the machines. Robots come in many shapes and sizes and can be programmed to perform a variety of tasks.

Robots are gradually being introduced on assembly lines in some industries. In automated factories, the amount produced by each human worker increases tremendously, but robots are very expensive for industries to buy. Only large industries such as the auto industry currently develops, though, the cost of robots is dropping and improvements to robots are making them more flexible so more manufacturers will find them useful.

The use of robotics effects our economy immensely. Robots are much more durable, faster, efficient, ,reliable and cheaper “workers”. The use of robots in industries will rise because employers will see the advantages that robots have over human employees. The utilization of robots in the workplace will have a massive effect to the unemployment rate.

Automation: Moving in a New Direction

A small number of decisions we make play a major role in shaping many other areas of our lives. For example, when we decide what (and how) we will consume, a huge system of farms, distributors, stores, manufactures, restaurants etc these respond directly to those desires. One of the most important decisions we make concerns the way we move ourselves and our commodities. Our system of transportation greatly affects how we use energy, develop technology , affect the economy and environment, and shape our social relationships.

When Henry Ford was starting out on his remarkable career in Detroit, a bustling town which gave full vent to the creative energies of some amazing innovators, the economy of was showing enormous cracks. But at the time, even the most prescient of fortune-tellers would have had trouble forecasting what was about to happen. Carriage and buggy-whip makers were still turning handsome profits in a growing market, and the few cars on the dusty, unpaved roads were little more than fanciful toys for the adventurous rich. Some of the communications technologies pioneered toward the end of the nineteenth century must have seemed just as esoteric to the leading financiers and industrialists of the day, who were doing fine bankrolling the traditional industries they knew so well. Yet, within a few short years, Ford and others would shape consumer products out of the new technologies that would set in motion an awesome economic transformation.

Henry Ford didn’t invent the automobile. Nor did he invent mass production or the assembly line. Ford is famous because he took these existing concepts and incorporated them into a n efficient, large-scale system of manufacturing inexpensive, reliable cars.

“I’m going to democratize the automobile.” Ford said, “and when I’m through, everybody will have one.” (Chase, 1997, 47)

Cars have made a big difference in the way communities have been designed. Street layout, the design of homes, and traffic laws have changed as methods of transportation has changed throughout history.

Automobiles are responsible for more than half the airborne pollution in the western world. Many plans are being developed to control air pollution. Burning cleaner fuel and burning fuel more efficiently both help the environment. Pollution controls devices for cars have also been developed. For example, catalytic systems were installed in many car exhaust systems in the 1980s. These devices change dangerous gases into harmless carbon dioxide and water. They also burn up much of the exhaust with fresh air in a chamber near the exhaust pipe. The car of the future will need new designs which make even better use of the fuel which powers them.

Cars influence the ways communities are developing. Since it is possible to drive great distances rapidly, many people choose to live far away from where they work. Many cities have a downtown core where people work and a suburban area where they live. People may spend a great deal of time commuting through rush hour traffic.

In spite of many problems , it is hard to imagine a society without cars. Cars and trucks have become so important that most people would not want to do without them. They would prefer to see the design and construction of cars changed to accommodate safety and environment concerns. The car has helped created jobs, freedom, convenience and fun as well as pollution, traffic jams and urban sprawl. The challenge facing the auto industry is to keep pace with the changing values of society and to develop the technology to do so.

Computerization: Extraordinary Technology

Computers are used in most manufacturing industries today. Computers are used to automate processes in much faster ways . These can be office procedures such as word processing or bookkeeping, or production processes such as cutting and assembling clothes.

Computers are becoming an important part of industrial design. Computer-aided design (CAD) and computer-aided manufacturing (CAM) are new terms which describe the important role computers have come to play in our industry. The wide use to computers has stimulated companies which manufacture the many parts needed to make and operate them.

Some people, however feel that computer technology has gone too far. It may create problems such as machine errors in people’s records and banks and governments may gain access to private financial information. Computerization has made it easier for banks to keep track of individual baking transactions so charges for these have increased.

Branch-bank employees worry that computers and automated tellers may replace people. While technological change has been a priority for banks over the last years, they also recognize the need to communicate in person with customers. Banks must manage money and data effectively but they must also maintain personal relations. Bank personnel may be assisted with computer and some services may work well when automated, but banks will probably never lose their staffs to machines.

A new, information-technology-driven circle of growth has replaced the aging manufacturing ring and scarcely not many have noticed. The statistics that told us so much about the economy’s health during the 1920s to the 1980s are still treated with a reverence they no longer deserve.

That’s why the experts have so much trouble explaining what’s going on now. The prophets mumbled about the severity of the recession in industry; rising unemployment; a weakening currency. Now, statistics can be managed to produce all sorts of results. But no matter how you shake or stir them, the numbers show plainly that a New Economy, embodied and driven by technology, information and innovation, has emerged, with little fanfare, in the past decade. And though it would be impossible to tell from the general statistics, this New Economy is absolutely booming, with no peak in sight.

Now with the new wave of the Internet minds of not only small children, but also adolescents and adults become influenced by this outside information. As the mind develops, things such as pornography is no longer the main concern. Now, because of the easy access to information, the fourteen years old who has just discovered that she failed ninth grade can find out how to make a bomb out of household detergents. As can the laid-off business man, the dumped boyfriend, and the deranged psycho.

My general sentiment about technology, and the Internet are simple. In light of the history of mass communication, there is nothing we can do to protect any media from the “sound byte” or any other form of commercial poisoning. But, our country’s public opinion doesn’t have to fall into a nose-dive of lies and corruption, because of it! Television doesn’t have to be a weapon against us, used to sway our opinions or to conform to people who care about their own prosperity, not ours. With the power of a critical thinking education, we can stop being motivated by the sound byte and, instead we can laugh at it as a cheap attempt to persuade us and have a little fun with it.

Technology is not all bad. The whole point of this is that people have to be sure that everyone is aware of all the good and bad aspects of technology. I feel that the advance of technology is a good trend for our society; however, it must be in conjunction with advances in education so that society is able to master and understand technology. In the future we may see many problems arising from this new wave of technology. Unemployment numbers will most probably rise, crime will increase, and We can be the masters of technology, and not let it be the masters of us.