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Technology and Society

Long Report 2

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Computer Technology

As a computer technology major in college, I have learned a lot of positive reasons for the existence of computers. The positive reasons for this technology outweigh the negative reasons, however; there are many negatives ones as well.

Computers enable us to communicate in many more ways than snail mail or telephones. Thanks to the Internet, we can send a letter to someone through electronic mail (e-mail), enabling the letter to get there in seconds rather than days. E-mail also saves us from having to buy envelopes and stamps to write a letter the old-fashioned way. E-mail is having somewhat an impact on the postal service, but not completely, because people will still need the postal service to ship packages, etc. The Internet also enables us to chat with each other in real-time through instant messaging or video conferencing software. This is having an impact on the phone companies and that is why they now offer low-priced packages that include unlimited and local long distance calling along with all the special calling features. You can get one of these phone service packages for as low as $25 to $50 monthly. The negative aspect of electronic communication is that people don't interact with each other as much on a personal basis, such as face-to-face. Although, I see more ways of being able to communicate as positive, it does cause a decrease in person-to-person contact.

"Information technology (IT), as defined by the Information Technology Association of America (ITAA), is 'the study, design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware.' IT deals with the use of electronic computers and computer software to convert, store, protect, process, transmit, and securely retrieve information." (Information Technology) It is a broad process of inputting data into digital format, combining the data into information that is understandable, and storing the data so that it can be distributed and researched in a variety of ways. The information available to us over the Internet is astounding. Researchers are able to find information on anything from how to make homemade pudding to how to file their federal and state taxes. Which we can now do on our own electronically, thanks to the Internet. Companies such as Turbo Tax have Internet sites with online software we can use to help us prepare our taxes and then file them instantly, which in turn, saves us the high cost of having them prepared and filed by agencies like H & R Block.

Information Technology has an impact on everyone. In today's world you need a computer for everything. Schools are using them in classrooms to enable better study practices for elementary level students. Colleges are using the Internet to hold virtual classes, making it easier for people to obtain degrees who may not have had the time to go to a classroom because of a tight schedule involving work, kids, and so on. Completing class work in the middle of the night rather than going to a class that is scheduled at a certain time of day, is more appealing to some. Without online classes, being able to hold a job, take care of a family, and obtain a degree would be impossible for some people.

Information technology is really having a huge impact on the workplace. More and more jobs require the skills needed to perform various tasks involving computers. For example, the clerk at Autozone not only needs a working knowledge of auto mechanics, he also needs a working knowledge of computer technology. If a customer is looking for a certain part for his or her car, the employee should know how to look it up on the computer to find the exact part needed and if they even have it in stock. This takes us to education which is supposed to promote equal opportunity. People are more comfortable with technology when they are exposed to it at school. What about the poor schools? Unequal access means unequal opportunity. We've all heard the saying, "Information is Power". If this is true, then those who have access to information will become more powerful than those who don't. I do believe however, that information technology will be more user friendly, meaning that people will need fewer skills to use it.

E-Commerce is having a big impact on society and is growing by the minute. Online storefronts are cheaper to run than physical stores. Products in digital form, such as music, video and software can be purchased and delivered via the Internet 24 hours a day. Businesses are able to advertise and sell their products and services online via the Internet by building Web sites. E-commerce is helping businesses reach millions of potential customers instead of just a select few. Another impact on society would be outsourcing. Some software firms send projects to other nations where the cost of hiring software engineers is much lower. Telecommuting is impacting the workplace by reducing the importance of distance. Computers serve as a new way for filing paperwork, plus, the Internet opens up a new way of transporting paperwork. There are so many reasons why computers impact us in positive ways. This paper would be never-ending if I tried

to cover them all. Above all, the wealth of information provided to us via the Internet couldn't be anything but positive.

The invention of the microchip by way of radio frequency identification (RFID) is enabling retailers, such as Wal-Mart, to track inventory. Companies of all sorts, including clothing stores, libraries, and so on, are jumping on this new technology. For example, have you ever noticed how the register clerks at Wal-Mart have to deactivate the tag on the music Cds you are purchasing? If they are not deactivated, the alarm will go off as you are trying to leave the store. There are many current uses for RFID besides consumer products, such as electronic toll collection, remote keyless vehicle entry, passports, electronic cash, inmate tracking, animal tracking, and believe it or not, human implants called the Verichip. You can read all about the Verichip by visiting the Verichip Corporation's Website. While this little microchip may have its positive uses, some might wonder if it is the beginning of a new world order. (VeriChip)

Some of the negative impacts of computers include hardcore pornography (including child pornography), cyber-bullying and stalking, and online gambling. Identity theft is also a huge issue. Many people are worried about their privacy along with the risk of identity theft. As long as computers have been around someone has found a way to crack, hack, and steal information. Technology will advance, but so will the hackers. Most people don't realize it, but computers collect all kinds of information about a user and store it in files hidden deep on their hard drive. Online identity theft is worse than conventional identity theft because users' important information can be stolen without them even knowing it. By the time they find out, it is usually too late. Other negative impacts of the Internet include online schemes, such as auction and

retail, work-at-home, and credit card schemes. Terrorist organizations are using the Internet for funding and the recruitment of members.

The Internet is a wonderful tool, but you must protect yourself from viruses, ad ware, and hackers. If you don't protect yourself, not only can you lose important data stored on your hard drive, you could also be opening your computer up where someone else can gain access to your important information. For example; you are a college student who uses the Internet frequently to research topics and possibly attend an online class. You also use your computer to complete your school projects. Once your projects are completed you store these completed files on your computer. All of a sudden, your computer crashes or somehow all your completed files disappeared. They somehow got erased! What could have happened is that you may have obtained a virus while being connected to the Internet or your computer was invaded by an online hacker. You should have protected yourself by installing anti-virus software and/or a firewall. Also, you should protect yourself by surfing the Internet safely. In doing this you should have anti-virus software installed on your computer. Using a firewall is not a bad idea either. Make sure your connection is encrypted.

A good way to protect your files from being lost or deleted would be to back them up to disk. Window's maintenance tools also include a backup utility. This should be done regularly especially if your computer stores important school or business files. A lot of small businesses keep track of their books using software applications stored on their computer and saving their workbooks on the hard drive. These files should be backed up on disk each time they are added to.

When banking, paying bills, or shopping online, always make sure the address in the address bar at the top of your browser starts with

"https://". Notice that the addresses of most Web pages start with just http://. The address that starts with https:// uses SSL, which is short for Secure Sockets Layer. This is a protocol that was designed by Netscape for transmitting private documents via the Internet. (Secure Sockets Layer (SSL): How It Works)

The Internet is used for a variety of things. Many use it to research topics for school papers and projects through search engines. There are different search engines such as Yahoo and Google. To use a search engine you must type in a keyword. Say for instance, "Tigers". A search engines uses "bots" or "spiders" that crawl all over the World Wide Web collecting a list of all Web pages pertaining to Tigers. This list is compiled into a directory of Websites that you can choose from. The Internet is a great tool for research, but how accurate is the information you collect. Anyone can post information. It is best to make sure the source you are using has merit. (Technology in Action Third Edition)

There are many unsolved ethical issues surrounding the use of the Internet. One that comes to mind would be the stealing of bandwidth. This also involves piggybacking someone's Internet connection. What about ISP liability? Internet service providers supply many means of communication. For example, chat rooms, list servers, bulletin boards, etc. These places are great for sharing views, or getting together with others who have the same interest as you do, but they also have downfalls. Too many people are using these types of forums to abuse their freedom of

speech. The problem with these forums is that they will show both accurate and inaccurate information, which in turn, can cause harmful or criminal damaging. Who should be held accountable? The Internet Service Provider who supplies these means of communication or the individual who is communicating false, harmful, or damaging information? I think that the future of the Internet will involve the development of a variety of systems of trust. We rely on private and public institutions to give us a certain guarantee of protection. For example, the American Medical Association governs who can be doctors and who can't. As the Internet grows you will see institutions created to govern different issues involving security and liability.

Above all, I believe that one of the most negative aspects of computer and Internet use is the lack of knowledge. Computers are used for just about everything. We can buy, sell, and trade goods online. We can do all of our shopping, banking and bill paying online without having to leave the house. Most users know how to do these simple things, but there are a lot that don't know how to protect themselves from the many types of Internet fraud.

It is hard to predict the future ten years from now, but I would say that when that time comes, smaller and definitely more powerful computers will be possible through nanotechnology. Watching the video, *Nanotechnology Takes Off*, will give you a better understanding of this special science. Unfortunately, the negative implication of identity theft will still be around along with newer types of Internet fraud, and that radio frequency identification will become more sophisticated causing more concern involving identity theft. (Nanotechnology Takes Off)

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