Transportation: reservation systems, luggage processing, navigation, scheduling and distribution, traffic simulation, smart roads and cars, fuel efficiency and traffic safety systems by Ken Moyer

A **computer reservations system** is a computerized system used to store and retrieve information and conduct transactions related to travel. Originally designed and operated by airlines, they were later extended to travel agents as a sales channel. Airlines have divested most of their direct holdings to these travel agents, and so many systems are now accessible to consumers through Internet gateways for hotel, rental cars, and other services as well as airline tickets. The good thing about travel agents are that they can sell tickets at a lower price because they massively buy the air plane tickets with a discount. So the tickets people buy from travel agents are cheaper than what people buy from airline companies.

Luggage processing has become a much stricter thing recently. Now you are allowed to bring inside only limited amounts of liquid. The whole process takes longer because they take more time with every person when checking the luggage. It became more strict because of the fear terrorists attack. The social issue involved here is that people have to limit there luggage just for the fear of a terrorist attack. They say that driving a car or riding on a bus is more dangerous than flying on an airplane. Should airline companies really be so strict about luggage? It is a difficult question to answer.

Navigation is the art and science of determining one's position so as to safely travel to a desired destination. Different techniques have evolved over the ages in different cultures, but all involve locating one's position compared to known locations or patterns. Now navigation is as simple as looking at a monitor.

Airports, train stations, and other transportation systems all distribute their **schedule for departure**. This helps passengers know when their transportation is arriving and so they can more efficiently use their time. These schedules are usually correct for airlines and trains unless there is an accident or something. But bus transportations tend to be off because of traffic.

Some people will have to wait ten extra minutes than what they expected to go on the bus. So, when the transportation schedules are inaccurate, then it creates frustrations and inefficiency in the society. So, transportation companies should all try to keep their schedules as accurate as possible. I believe that these companies are doing a pretty good job at this.

Intelligent transportation systems is a system of hardware, software and operators that allow better monitoring and control of traffic in order to optimize traffic flow. As a cost-effective solution toward optimizing traffic, ITS presents a number of technologies to reduce congestion by monitoring traffic flows through the use of sensors and live cameras or analyzing cellular phone data traveling in cars and in turn rerouting the cars as needed through the use of variable message boards, highway advisory radio, on board or off board navigation devices, and other systems. This reduces traffic and also reduces the chance of an accident. This is socially a good thing because people can efficiently travel safely.

Smart roads are roads that are safer by using high technology. There are many that are actually used due to the high costs. Smart cars are cars that are also safer. There aren't a lot of these in use due to the high costs. Smart roads and smart cars should make road transportation much safer in the future. The government not really trying to issue these smart roads and smart cars to create a better society can be a social issue.

Fuel efficiency sometimes means the same as thermal efficiency, that is, the efficiency of converting energy contained in a carrier fuel to kinetic energy or work. If drivers can travel with less gasoline, it will increase efficiency by reducing the travel time and will decrease pollution by using less gasoline. This will be a very good thing for society. But not all cars are using fuel efficiency. This can be a social issue because fuel efficiency isn't being used by some people when it is available. I am sure it is more expensive to use fuel efficient cars.

Employment: electronic employee monitoring, telecommuting, ergonomics and health, job obsolescence and retraining, online job search, employee surveillance by Roger

The modern working system depends a lot upon computers and modern technology in all sorts of areas as everyone throughout the world as come to know. It was not long ago that people were complaining about computers or machines taking over the workforce over from humans and performing not only the jobs but even better quality.

Employment in general during this "panic period" or the period where machines or computers in particular were first being introduced and people took a more dim view of it. Slowly society since those times has begun to realize and fully accept technology especially the role it came to play in helping the employment sector. Also employment in general has greatly been affected by technology in general and in all fields of employment affecting it both in a positive and negative way such as electronic monitoring where the employee might use security cameras to see what his/her employer has been up to during their working hours or their the employers activity especially on the internet on the sites visited.

This of course stirs up debate and mostly anger from the employer's claming that it is an act of the invasion of

their privacy and they take this as mistrust by their employees. It is common practice nowadays for companies to establish a guideline of some sort for its employers to follow by when working but these a just created to keep workers limited to an extent thus reducing many of the workers freedoms which they still have a right too despite being in the work area.

There is a lot of help that technology can bring to workers such as in business where they can choose to use telecommuting or tele-working where long distance traveling can be reduced through methods such as digital/video conference sent over from one party to the other without the need to travel saving traveling time and money.

Telecommunications was developed in the 1980's and used by certain people to stay home instead of going to work by staying home to work and the telecommunications do the traveling by keeping the person home in constant contact. Other areas such as ergonomics and health are part of the somewhat negative aspect to the introduction of technology into the workforce area and employment itself for the human body was being affected here just as the work being performed.

But the effects ranged because peoples bodies were different in connection to their age so forth so that was studied more in detail to reveal the connection between the physical toll on the body while working especially using technology such as the computer where one is required to sit or be in a certain position for a while thus causing the body to react naturally for the overstressing of certain limbs over a period of time.

Despite these setbacks or negative truths behind technology, the generation that gave rise to the belief that computers or technology was a untrusting thing to include in the workforce or the employment sector were changing their minds or initial thinking patterns since there was fear of job obsolescence or losing their jobs to more skilled or workers with more expertise as they lacked it especially in the technological area where newer workers had more knowledge and experience working with these new technology so there was a lot of retraining of these workers who lacked the basics or knowledge so then it was easier to compete and at least have a advantage too.

Online job searching was a major gain for all workers of all sorts of fields for it provided them with the opportunity to search for vacant or wanted ads or just seeking employment almost anywhere on the globe by just looking it on the internet whether in the comfort of your home or elsewhere instead of the old way of searching through appointments or writing formal letters etc. that sometimes an online interview was necessary to get the job without the need for a physical interview where it is the contact of person-to-person contact between the employee and the would-be employer.

So during a span of years the computer in particular as a new technology emerged as a powerful tool in helping improve the employment sector in a large way that it not only changed the very nature of jobs itself but also the way jobs were being pursued. Employment took a huge leap but there were still setbacks or flaws that existed in itself that would still need improvement but still it stood out that employment had indeed changed from what it was known to be.

Through this boost or change in employment of course comes changes many other aspects of society such as trading/business, health, and other areas because employment is the key factor as it counts for all the workers who are working in their field of work. Thus the increase in one may also mean the increase or demand too so it also provides job opportunities thus it a demand in other areas besides the employment sector which benefits the nation.

The nation may not necessarily be affected by it but also other nations globally too since technology these days contain and spread information it may benefit nations worldwide too as we live in the age of information and the spreading often is really fast especially with the development of the new technological developments in all forms of electronics from computers (internet) to the express mail service or telegram.

Banking and finance: EFT, ATMs, Internet banking and brokerage, electronic cash, insurance by Su Chen

Electronic banking also known as electronic funds transfer EFT, is simply the use of electronic means to transfer funds directly from one account to another, rather than by check or cash. You can use electronic funds transfer to:

Have your paycheck deposited directly into your bank or credit union checking account. Withdraw money from your checking account from an ATM machine with a personal identification number (PIN) at your convenience store,   day   or   night.
Instruct your bank or credit union to automatically pay certain monthly bills from your account, such as your auto loan or your mortgage payment. Use your computer and personal finance software to coordinate your total personal financial management process, integrating data and activities related to your income, spending, saving, investment,   etc.

Other types or systems of electric banking include Automated Teller Machines known as ATM, Direct Deposit and Withdrawal Services, Pay by Phone Systems, Point-of-Sale Transfer Terminals.

Briefly description:
Automated Teller Machines also called 24-hour tellers that are electronic terminals which give consumers the opportunity to bank at almost any time. To withdraw cash, make deposits or transfer funds between accounts, a consumer needs an ATM card and a personal identification number.

Direct Deposit and Withdrawal Services allow consumers to authorize specific deposits, such as paychecks or social security checks, to their accounts on a regular basis. Pay by Phone Systems let consumers phone their financial institutions with instructions to pay certain bills or to transfer funds between accounts.

Point-of-Sale Transfer Terminals allow consumers to pay for retail purchase with a check card.
These are different types of internet banking and finance. As internet is widespread over the world, the role of internet becomes more and more important in our daily activities. Internet becomes the basic requirement for every company, not only to show how smart they are but also with the internet, it is much easier for trade over the world. Especially in the modern society, cyber shopping and internet banking becomes poplar among people. More and more people choose to use the internet banking system rather then actually go to the bank for asking this particular service.

One reason may be that it waste time to line up in the bank especially during the weekend, and second use the internet is more convenient. Since internet banking can do everything for you, same as what real people will do for you. Your request will accept immediately. Of course, internet banking and finance not only limit in these services. Before, when people need to get the money, they will have to go to the bank and wait to get their money from their account or deposit book.

Usually it takes lots of time for waiting there plus sometimes it will be confuse with other people. But in the modern society, consumers can get the money whenever and wherever they want to. Since, ATM are in everywhere, and what matters more is that it is 24—hours. Think about that when you have a emergency, but at this time you do not have enough money to pay it, and it is already 4 o'clock am. What will you do? Waite for bank to open, no of course not, you will just go to use the ATM to get the money.

Of course this is not the only function for this, by using the ATM, you also can pay your monthly bill and other activities in the same time. Although you may think it is a little thing, in fact for old people rather than actually go to the office to pay the bill they can just go somewhere near their home to pay all these. It protects the old people from some potential dangerous.

One more thing is that, recently cyber shopping becomes extremely poplar among young people. Why? Because what they need to do is just sit in front of the computer and click some buttons to find out what they want to buy then use the electronic cash or internet banking to pay the money. Then waiting for the product to come, how smart it is. It encourages the economic activities over time, trade is no longer limited in the paper but instead it can happen in everywhere.

Like everything has two sides, there are also some disadvantage of internet banking and finance. When you pay the bills or transfer the money to other account, it is very easy to make a mistake during the process. You may have to really take care about what you have filled in the form or you will just lose your money, and it is pretty complicate to correct all these mistakes you have been made. Second, because it is for people to use, what you need is only your ATM, EFT or Credit card. So in other words, you may lose your card accidentally. Then you have to go back to the bank this time, and report to them, and make a new one. If you are unlucky, some one may even use your credit card to buy things for themselves, use your money.

Overall, the advantages of internet banking and finance are greater than its disadvantages. For the society point of view, this new service increases the social welfare in the long run. People get benefit from it and it makes life much easier.

International commerce: management of transnational corporations, business concentration by Su Chen
International commerce refers to business all over the world. As we learnt in Economics, trade is beneficial for everyone. And that's why all the countries today are involved in trade with at least one other country. This is what international commerce is. However, it doesn't only refer to trade. It refers to outsourcing of jobs too. For example, a big issue today is the outsourcing of jobs in America to Indians and Chinese! That's international commerce too. Basically anything to do with money and trade and business related that has an impact internationally!

What are transnational corporations?
These are corporations that "operate in more than one country or nation at a time." They have become some of the most powerful and political entities in the world today. These corporations have far more power than the nations they operate in. An example of transnational corporation is General Motors and Ford whose combined

revenue equals the total GDP of sub-Saharan Africa! Many Japanese trading companies are transnational too and enjoy huge revenues.

Overall, fifty-one of the largest one-hundred economies in the world are corporations. Transnational corporations hold ninety percent of all technology and product patents worldwide, and are involved in 70 percent of world trade. More than half come from just five nations: France, Germany, the Netherlands, Japan and the United States. But despite their growing numbers, power is concentrated at the top. i.e., the 300 largest corporations account for one-quarter of the world's productive assets. The United Nations has justly described these corporations as "the productive core of the globalizing world economy."

One might ask how is all this related to ITGS? Well, how do you think that these companies keep in touch with each other? How does one branch of general motors keep in contact with the other branch of general motors in some other country? Through technology, through the use of video and audio conferences and of course, e-mail.

Business concentration is related to transnational companies because business concentration mainly refers to where the business is concentrated. In case of transnational companies, the business isn't concentrate in just one place or country. The business is based all over the world and managing such a huge business can be a very overwhelming task! That's where technology comes in and helps different branches of one company keep in touch with each other.

Business concentration, perhaps, also refers to the fact that the "power is concentrated at the top i.e. the 300 largest corporations account for one-quarter of the world's productive assets." Even though there are hundreds of thousands of corporations, only 300 of them are at the top!

E-commerce: teleshopping, online marketing, data mining, spy ware by Matthew

Electronic commerce: popularly known as e-commerce, is the process of distributing, selling, buying, marketing, and servicing goods and services over electronic systems such as the internet.

E-commerce is a relatively new idea, only being around for about the last thirty years. In the early 1970's e-commerce emerged with the birth of two technologies: Electronic Data Interchange and Electronic Funds Transfer. These technologies allowed companies to exchange commercial documents electronically. In the 1980's the introduction of technologies such as credit cards, automatic teller machines (ATMs), and telephone banking spread e-commerce to new levels. When the internet was made public by the United States military, e-commerce reached unprecedented heights. Advertisements on websites began to pop up, and by 1995, it was ordinary for a company to gain a significant amount of revenue from internet advertisements.

Today, e-commerce is an unavoidable part of our lives. Companies like Amazon and Ebay that have revenues of more than ten billion dollars annually have more than a million customers every year. The amount of sales generated by such websites according to Forrester Research is 12.2 billion dollars.

Teleshopping: Teleshopping occurs when a customer telephones a free toll number and orders a product. The majority of teleshopping is stimulated with infomercials (created with the combination of the words 'information' and 'commercial'). Infomercials are television commercials that advertise products. Infomercials are different from ordinary commercials in that infomercials are often times much longer, usually lasting thirty to forty minutes, the average time span of a television program. Another difference is that infomercials tend to have some sort of telephone number which a potential customer could call in order to buy the product advertised.

Online Marketing: Internet marketing is the use of the internet to advertise and sell goods and services. Some common forms of online marketing include banner advertising, pay per click advertising, email marketing, blog marketing, search engine marketing, affiliate marketing, and interactive advertising. Online marketing today is so common that it is estimated that one in three internet users have purchased a product because of online exposure to product information. Although online marketing allows companies to provide consumers with a profuse amount of online ads, excessive internet marketing has resulted in adverse effects such as spamming and annoying pop ups that don't seem to go away.

Data Mining: Data mining (also known as Knowledge-Discovery in Databases, KDD) is the process of systematically searching large volumes of data. Data mining has evolved enormously in recent years with the surge in computer science. Data mining relates to the topic of e-commerce because consumers often search, or 'data mine,' for useful data that could help in their search for the product they are looking for. Today, data mining for product information is most commonly done on the internet using search engines like Google and Yahoo.

Spyware: Spyware is computer software that collects personal information about users without their informed consent. Spyware is a rather negative result of excessive e-commerce. Personal information is secretly recorded with a variety of techniques, including logging keystrokes, recording Internet web browsing history, and scanning documents on the computer's hard disk. Spyware has led to the creation of an anti-spyware industry.

Retailing, advertising, media by Ken Moyer

Retailing is the sale of goods or merchandise, from a fixed location such as a department store or kiosk, in small or individual lots for direct consumption by the purchaser. Retailing can also include deliveries. Purchasing can be done by a business or an individual.

For example, businesses can by intermediate goods from other businesses so that they can create their products. Things like tools or natural resources can be a part of this. Individuals buying a personnel computer or a mini I-pod from a mall or a street store is also part of retailing. Shops may be on residential streets, or in shopping streets with few or no houses, or in a shopping center or mall. The difference in prices can be a social issue in this situation. In different stores, prices are different due to competition.

Although competition keeps the market at equilibrium by the individual hand in the market. But, if people have to go shopping for hours to get the best price possible, this wastes time and transportation fees. If people have to waste more time and money to shop, then there is more inefficiency in the market. But, if prices were all the same, then prices will generally be higher, and people will have less incentive to work harder since prices can not be altered to increase profit.

Advertising is paid communication through a non-personal medium in which the sponsor is identified and the message is controlled. Every major medium is used to deliver these messages: television, radio, movies, magazines, newspapers, the internet, and billboards. Advertisements can also be seen on the seats of grocery carts, on the walls of an airport walkway, and the sides of buses, or heard in telephone hold messages or in-store PA systems . Advertisements can be put almost anywhere.

Advertisements can be used in a bad way in society. Pornography or sex advertisements, drug advertisements, cigarette advertisements, or other advertisements can have bad impact on the society. I am sure these advertisements create more sexually transmitted diseases, drug addicts, cigarette smokers, young pregnancy, and other nasty things that will put society in a worse condition. Obviously, most advertisements that are seen are not bad. These advertisements share information about goods and services, which will help the economy increase their stand of living and production level. So overall, advertisements are good to the society but they can have some negative aspects.

Media is the means of communication, as radio and television, newspapers, and magazines, that reach or influence people widely. There are many different kinds of media. Print media is a process for production of texts and images, typically with ink on paper using a printing press to communicate or inform the society with information. Electronic media is media that utilizes electronics or electromechanical energy for the audience to access the content. The primary electronic media sources familiar to the general public are better known as video recordings, audio recordings, multimedia presentations, slide presentations, CD-rom and online content.

Media is a great way to inform the society with useful information but it can be used in a bad way to the society. A government can definitely use the media in a negative way. For example, a government may have a secret which they cannot let their people know. But if there was some scandal about the secret or something, then the government needs a good explanation to protect the secret.

The media can be used to communicate false information the people. So what you see in television or what you read in newspaper might be a complete lie made by the government. But, maybe it is better for the government to lie because people will be happier without knowing the truth and the society will be more stable. But it is sure not the best way to use the media, which is an excellent way of communication. It is also not such an ethical thing for a government of a country to do.