

How technology impacts your life



**ASSIGN
BUSTER**

How technology impacts your life BY COOLING Lighting – LED Technology 1.

What is it LED light bulb refers a solid-state lamp that uses light-emitting diodes as the sources of light. LED light bulb produces light when electrons move around within its semiconductor structure. It has a longer service life and high higher energy efficiency than other source of lighting such as fluorescent and incandescent light bulb though Its Minimal cost Is much higher.

LED light bulb has wide range of applications Including both general and specific. The following are some of the applications on LED technology Indicators and Signs – raffia lights, exit signs, brake light for cars Lighting – LED light bulbs, LED street lamps, LED backbit for TV and laptops Smart lighting – transmission of broadband data, wireless transmitters for data transport Sustainable lighting for architecture Optical fiber and free space optics communications – remote controls, sensors 2.

Why was it disruptive at the time it came to market As a matter of fact, the invention of LED technology does not bring much surprise to the society. As the main purpose of LED is a substitute for the incandescent light bulbs, even without this invention, it won't cause any major inconvenience to our ivies. The major benefit of the Invention Is Its Impact on environment. For example, It improves the energy efficiency of light bulbs; lengthen the usage life of light bulb by 30-50 times than an incandescent light bulbs etc. 3.

How society adapting to changes inspired by LED technology With the ample benefits of LED lighting comparing to traditional lighting such as incandescent light bulb, the world is gradually moving towards the era of

LED and the Importance of incandescent light bulb Is gradually fading out. A report estimated that by the end of 2020, people wouldn't be able to find any Incandescent light bulb In the market cause they are all replaced by LED or LED related products. In fact, governments as well as companies have put a lot of efforts in promoting extensive use of LED lighting.

For example, lighting manufacture such as CREE, SRAM has heavily invested In LED and LED technologies to put It more commonly found In our dally lives. Government has Introduced programs to encourage households to replace traditional light bulbs with LED light bulbs. For households, with higher efficiency, longer lifetime and greater flexibility of LED light bulb, many families are replacing LED light bulbs and LED tubes as the source of sighting at homes. LED lighting has a profound impact on the society. It affects our daily lives and our activities.

It is used in many applications both general and specific. With the wide range of benefits and common uses of LED, it is foreseeable that LED would dominate most of the lighting source in the market in the near future. While at the same time, more LED related technology and new products would be developed to address the short comings of the current LED limitations such as high initial cost, voltage sensitivity etc. I would suggest that companies should continue to invest in this genealogy as lighting is essential to people's life and people would surely welcome lighting source with higher efficiency.

Health Care – Human Genome Project The Human Genome Project (HOG) is the international, collaborative research program with primary goal to complete mapping and understanding all the genes of human beings. Project

Goals Identify all the approximately 20000-25000 genes in human DNA
Determine the sequence of the 3 billion chemical base pairs that make up human DNA Store this information in data base Improve tools for data analysis Transfer technologies to private sector Address the ethical, legal and social issue that may arise from the project The Human Genome Project drastically changes medicine, agriculture, and many aspects of our lives.

First, the scope of medicine will change from healing of the sick to prevention via drugs, impenetrably, or even gene therapy. It is even possible for the genetic sequence can make us produce healthier crops thus achieve better yields, disease resistant animals that may have drug value to humans. Lastly, Human Genome Project research will help to solve one of the greatest mysteries of life: How does one fertilized egg ' know to give rise to so many different specialized cell, such as cell making up muscles, brain, heart, skin etc.

For human or any organism to develop normally, a specific gene or set of gene must be switched on in the right place in the body at exactly the right moment for development; information generated by the Human Genome Project will help to answer the above questions. 3. Some of the most significance consequence and impacts to the society The mapping of human genome benefits us in many ways, it changes the way we treat the disease, from focus on curing drugs to preventive medicines or even modified the ones to eliminate the disease.

The followings are some of the examples of the Human Genome Project impacts on our lives. Alert patients that they are at risk for certain disease

With scientists discover which DNA sequence changes in a gene can cause a disease, healthy people can be tested to see whether they risk developing certain conditions. Screening newborns Blood samples test can be conducted on newborns for abnormal or missing gene products. Predictive assessment Pre-symptomatic testing can predict adult-onset disorders as a particular mutation signals the certainty of the patients who likely to develop a particular disease.

Diagnosis Doctors can use genetic tests to identify DNA changes that can signal different disease. DNA-based testing can be use to confirm a diagnosis of a symptomatic individual. Prognosis A particular mutation can provide clues as to what course the disease will take and whether it will progress rapidly or slowly. For example, a mutated pop gene may signal cancers that are likely to grow aggressively. Treatment Since up to 85% of patient's response to drugs is based on their genes, so knowing a patients carry particular mutations can help doctors to tailor made therapy to particular patients. . My opinion on the Human Genome Project It is obvious that the Human Genome Project would benefit us in many different level of discovery and definition upon the completion of the Human Genome Project. Some people may worry the use of the completed map, the privacy issues, the moral issues, the ethical issues etc. Questions such as are scientists trying to play the God's role? To what extent people should accept modifying the genes? Would it be acceptable to have absorption because the embryo carry certain kind of bad gene would may lead to bad health when he/she grow up?

Is it a valid reason for company to hire someone because he/she carry certain kind of genes? Should insurance company charge higher premiums to insured who carry certain kind of genes results in higher change of cancer? The list of questions can be endless as genetics is a relatively new to us. This is another reason I show full support to this project as the goals of project is more than just mapping our genes and let the above queries grow and grow, part of the funding would use to address the ethical, legal, and social issues that may arise from the project.

It means in the future, disputes over the use of human genome may still exist, yet regulations and norms would be developed to guide us to do the right choice. Automation – Artificial Intelligence Artificial intelligence (AI) is the intelligence of machines or software. It is an area of computer science that emphasizes the creation of intelligent machines that work and reacts like humans. The research associated is highly technical and specialized. Speech recognition, learning, planning and problem solving. Areas and Applications of AI Language Understanding Problem solving Perception Modeling Learning and Adaptive System Robots Games

Artificial Intelligence has changed the world as it brings people to new level of living standard. Before many tasks that must be performed by human can now replace by computers or robots. Computer can do many things that you expected or even unexpected. Examples such as transform your speech into written text, providing feasible solutions to a problem, the ability on self-learning and self-upgrading etc. All these technologies help us to build a more convenient world in the planet that we are living in and bring us tremendous advantages to our daily lives. . Some of the most significance

consequence and impacts to the society Taming the weather In the past weather is considered as ‘unpredictable act of God’, however experience of the weather predictor was, the weather prediction still cannot always accurate. The unpredictable weather brings many disadvantages to our lives as we cannot plan schedules ahead. But now, with artificial intelligence software, we can shift through complex data and spot patterns missed by human eyes hence improve the accuracy of weather prediction.

Tackling Dangerous/ Boring Tasks AI technology allows robots to perform dangerous tasks that previously need to perform by humans such as Bomb disposal and handle radioactive waste. This can limit the risk to human workers. With similar technology, robots can perform boring repetitive task in the assembly line such that humans can specialized in more creative required Jobs such as product research and development. Saving the planet Scientists have developed software that allows robots or other devices to clean up the environment and reduce the effects of air and water pollution.

For example, tiny microbes will consume waste products and leave good biological matter, such can minimizing damage to the ecosystem. Drivers Transport Drivers vehicle is no longer an imagination in 007 movies. It is something practical with AI. It allows you to sit back comfortably and the AI would drive you the place you thus lower the chance of having accidents. In fact, the GPS driving guide that many of us are using is part of the drivers system, it is predicted that drivers vehicles will soon come to live in the foreseeable future.

The Robot-Human Species Transmission is the ultimate application of artificial intelligence to human life. Proponents believe that artificial intelligence can improve the overall human experience by expanding limits of mind and body. It offers the opportunity to eliminate disabilities, slow aging and even stop death and make human live forever. Yet, this notion is associated with ample ethical, moral issues that need to be addressed. 4. My opinion on artificial intelligence To me, Artificial Intelligence is a double-edge sword.

On one side, it brings us many advantages and make our lives more convenient and comfortable. AY has positive impact to our lives in various aspects. For example, the speech-to-text technology saves us time by helping us transcript our speech; the cleaning robots do the boring housework for us; drivers vehicles reduce the chance of human-caused accidents once improve safety of people etc. On the other side, with the more and more advanced AY, it seems replacing us to a certain extent. For example, with robots doing the repetitive Job in the assembly line, it makes those low-skilled workers unemployed.

With the more intelligent robots develops, some people worry that would scenes like robots replacing human which used to happen in movies only happen in our real live? It is certain that AY would bring us more goods than harms. In the foreseeable future, AY would continue to develop and bring more changes to our lives. Yet, to ease the worries of robots would eventually replace human one day, ore regulations and guidelines should be set to prevent such nightmares become true. Cloud computing is a

subscription-based service where users can obtain network storage space and computer resources over the network (usually Internet).

Types of Cloud computing

a) Software as a Service (SaaS)? it gives the subscribers access to both resources and applications, such that the subscribers do not need a physical copy of software to install on the device. It also allows the same software on all the subscriber's devices at once by accessing on the cloud. Examples such as web-based emails, Google accounts are using SaaS.) Platform as a Service (PaaS) – it gives the subscribers' access to components that they required developing and operating applications over the internet.

For example, subscribers can develop their own commerce website with the entire mechanism including shopping cart, checkout, and payment system running on merchant's server. C) Infrastructure as a Service (IaaS) – it deals with the entire computational infrastructure. Subscriber can completely outsource the storage and resources if they need, including both hardware and software. It involves the optimization of resources allocation by considering network and computing sources as a unified whole.

Cloud computing is an epoch-making technology which makes our live easier. It makes people able to access information from anywhere at any time. While traditional computer setup required people to be in the same location as the data storage device; cloud computing only required the access of internet and people can access the data they need (both hardware and software) to run the applications. Other than allowing you to access the

data everywhere, cloud computing also support access of data on multiple devices including smartness, laptop, tablets etc.

It is especially helpful to business or even students, instead of printing the documents or bring an USB from one location to another, we can simply store the document in these Cloud such as Google Docs, Dropped or Everyone and get access to the document on the way to office using smartness or the school computer once 3. Some of the most significance consequence and impacts to the society Cloud computing changes our lives in multiple ways, the following are some of the examples. Computing process become invisible As the power of cloud spreads, it speeds up the computing process without interruption.

An example is when people using search engines, people cannot realize that they are accessing billion-dollar computer networks. With the increasing speed of cloud computing, it would only make the computing process more invisible, thus user's interaction with computer will be more hand free.

Timely corrections can be done Cloud computing will help people take timely actions to fix problems thus keep us ahead of problems. For example, with cloud computing, driver can be informed in advance of the car is running out of charging and the location of the nearest harming station.

Cloud computing also helps us fix problem easier, for example it help us to identify the problem and provide suitable solutions to the problem. People are able to make smarter decision Cloud computing can turn any mobile device into ' supercomputer', as all computer are inked together and people can access processing power needed to analyze complex information. For

example, investors can combine live stock market data, company news, comments by other investors, sentiment in market and public opinions and generate new insights for profitable stock choice.

With more accessible information available on the internet, people can make more informed decisions. Shopping is much easier. It is common for us to see one product online but we cannot buy it. It is because there is a separate network for the store and the Internet. With cloud computing, the stores can connect the inventory record to the Internet and makes the buying process more visible and reliable. It also leads the market nearer to a perfectly competitive market as shoppers can search and compare prices of the same product all over the Internet.

Globalization of small scale business Cloud computing help small scale business which are constrained to particular location due to shortage of funds to expand globally with reduced overhead cost. For example instead of renting a physical location to run the operations, they can now shift their operation online and rent the necessary infrastructure from service provider, thus they can keep up with the large companies. 4. My opinion on cloud computing Cloud computing completely changes our lifestyles nowadays.

From printing hardcopy in order to read the documents; need a physical CD to install a software to the age of transferring using a USB to now? the cloud computing age. It is certain we can get access to documents with the help of online storage website such as Dropped, Google Drive etc. To businesses, especially those small business, the Internet and cloud computing provides

changes for them to expand and serve the customers that are geologically unreachable without the Internet. Its benefit to our life is simply undoubted.

Yet, same as other services in the Internet, the privacy, security, reliability and legal issues should not be overseen as it may become issue of concern to users someday. These issues apparently cannot come to a solution in the reasonable future and it takes time for people to develop a thorough plan. However, it won't be a problem to us as long as we remember to protect our data well such as backup our data from time to time rather than just put everything in your Dropped, we can always enjoy the benefits bring by this invention.

Conclusion In this report, 4 technology innovations regarding lighting, healthcare, automation, and Internet were introduced. These four innovations have a positive impact on our lives, and benefit the society in different areas. Economical LED technology LED technology brings new business opportunities to the lighting industry. Companies producing incandescent light bulb can no longer dominate the market as the market is moving towards the era of LED.

The market would reward companies which willing to invest and research in the technology with market shares and profits; while punish companies which stay where they are without moving on. It gives opportunities for small companies to compete with large corporations and gain some of the market shares. The Human Genome Project The Human Genome Project brings new business opportunities mainly to medicine would no longer solely focus on

disease itself rather than on the patients. As mentioned above, patients' reaction to medicine heavily depends on their genes.

Understanding human genome allows pharmaceutical company tailor made drugs targeting at individual patients and charge a higher price on the respective medicine. It may expand their target customers from hospital to individual consumers who is affordable to pay for the huge sum for the individualized medicine. Health industries can also take this opportunity to tailor made individual health products and programs for individual consumers. Artificial Intelligence Artificial Intelligence has wide applications to different industries.

For example, in manufacturing industries, it can replace workers in the assembly line thus can maximize the efficiency such as 24 hours nonstop working; it also reduce the cost on training the workers such that the company can maximize profits. For companies making house cleaning items, they can make use of AI to invent products such as vacuum cleaning robots which can keep house clean automatically. In fact, even mobile phones industries making use of AI, Siri on phone and S Voice on Samsung are using AI technologies. All these can add value to the product and contributes to the world's economy. Cloud Computing

As mentioned in the above section, cloud computing increases the competitiveness of small business, allow them to expand the business in relatively small cost; creates new business opportunities for cloud storage website such as Dropped, Everyone or Google Drive. All these significantly contribute to the world's economy. Environmental One of the reasons for

LED technologies replacing traditional lighting is its environmental friendliness. It has higher efficiency than traditional lighting, longer lifespan than incandescent light bulb, meaning lower rate of replacement and less raw materials needed to produce the light bulb.

Moreover, the recent development on Organic LED would minimize the harm on environment. After scientists mapping the human genome, it helps to understand how different factors affect one's genes for example the environment. With this understanding, it is hopefully that scientists can come up with an environment that best suits for human to live in. As mentioned earlier, AY allows scientists to develop devices to clean up the environment while minimize damage to the ecosystem. In the past, Detergent to clean up the oil spill the sea would kill the micro-organism as well. But now, scientist