The IT World Report

By: Nguyen Manh Quoc Viet, Vu Gia Thinh and Nguyen Khang Ngo (Quiz App)

RMIT University Vietnam

Table of Contents:

[Team Profile: 1](#_Toc27344476)

[Tools: 15](#_Toc27344477)

[Industry Data: 15](#_Toc27344478)

[IT Work: 16](#_Toc27344479)

[IT Technologies 21](#_Toc27344480)

[Project Ideas: 26](#_Toc27344481)

[Feedback: 28](#_Toc27344482)

[Group Reflection: 30](#_Toc27344483)

[References: 31](#_Toc27344484)

# Team Profile:

Team name: Quiz App

Personal Information:

A person in a blue shirt

Description automatically generatedViet’s Personal Information: My name is Nguyen Manh Quoc Viet and my student number is s3759306. I was born in Hanoi, Vietnam on 16th April 1999 with my parents and my brother and we moved to Moscow, Russia, in which I was raised there, because our friends were living in Moscow. In 2004, we moved to Ho Chi Minh City, Vietnam and have lived permanently since. I didn’t have any education in Moscow, but I had education in various English schools in Ho Chi Minh City, in which I have studied English language. Then, I had enrolled in Russian school in order to improve my Russian language that I have learned when I was little in Moscow. After that, I went to Australian International School and studied in years 8 to 13. Finally, I enrolled in RMIT University Vietnam, because they accepted my AIS results. Initially, I choose to do Engineering courses, but after I have found out that they were too difficult when choosing which courses to do in Semester 3, 2019, I have switched to study IT courses. My hobby is playing piano, as playing video games is detrimental to my health and sleep and they have wasted my time for planning to do important things. My IT interests is that there were many devices with unique features like touch screens, motion sensors at home, Wi-Fi on all devices for connecting the internet and computers able to read the files when the disk was inserted. My IT experiences began in the past when I started to use a computer at an early age, and I could see many websites in the Internet when searching them clicking and their links on Google. In addition, when I open a file that requires a suitable software to run, I encounter many errors that were occurred, such as when running a Python program and when inputting a code in PyCharm Community, as they require updating my laptop’s software by sending it to expert computer engineers and mechanics, so that they could update it.

Nguyen Manh Quoc Viet

A person wearing glasses and looking at the camera

Description automatically generatedThinh’s Personal Information: My name is Vu Gia Thinh and my student number is s3820373. I was born in Ho Chi Minh City, Vietnam on 3rd May 2000. In 2015, I have been enrolled in Le Hong Phong High School for the Gifted, one of the best high schools in Ho Chi Minh City. I have studied there in 3 years, in which I became fully equipped and well prepared as a grown-up person, because of this high school’s education quality. After finishing high school, I have earned my scholarship at Kent Institute and I studied abroad in Australia in 2018. I studied nearly a year, but there was an incident that happened to my family, so I decided to go home and transfer my student record to Vietnam for continuing my bachelor’s degree. In 2019, when I sent my study results to RMIT University Vietnam, they have accepted it and exempted some of my subjects. This is a place where I could continue by bachelor’s degree. I have a lot of hobbies, such as playing video games, playing soccer, reading books and watching movies. In addition, I also play musical instruments, such as guitar and electronic keyboard, but I am more confident in playing guitar and I play it in my free time. My interests in IT is that I liked working with numbers, statistics and data when using computers. In addition, I was also interested in data analytics in computers. My IT experiences began when I had access to computer at the age of 4 or 5 and I liked to mess around with it, in which I kept digging the files and look for anything I want on the Internet. With a big curiosity, I have been thinking and wondered what makes the computer, who controls them and how do they work. I kept these questions until I was older and be able to understand the IT world.

Vu Gia Thinh

A person wearing a black hat

Description automatically generatedKhang’s Personal Information: My name is Nguyen Khang Ngo and my student number is s3822473. My interest in IT is that I am fond of playing video games when I was a child. I played many different types of games, in which they helped me to spark my imaginations of developing many types of games myself. I have chosen to study RMIT University Vietnam, because I knew that many students have succeeded in finding a job they love to do when the graduate and this university have lots of respected and knowledgeable professors that were willing to help their students to achieve their job they want.

Nguyen Khang Ngo

Personal Profiles:

Viet’s Personal Profile: After taking Myers-Briggs test, creativity test and learning style test, I found out that I was a caring, kind, helpful and organized person. This is because I have an ability to contain lots of information, read the original information carefully in order to understand, paraphrase them in order to make more sense with my understanding and organize them into sections in order to make relationships between them. In addition, when I am in a group, I need to be kind and caring to others when doing the group work, in which my group members will respect me when doing my best to contribute their and my works, as I help them to overcome the challenges we faced when doing group work. Not only that, but we divide the sections we could do for each of the group members, including me, so that after finishing these sections, we could combine them to complete a group work.

Viet’s results from the three tests:

A screenshot of a cell phone

Description automatically generated

A screenshot of a cell phone

Description automatically generated

A screenshot of a cell phone

Description automatically generated

A screenshot of a cell phone

Description automatically generated

A screenshot of a cell phone

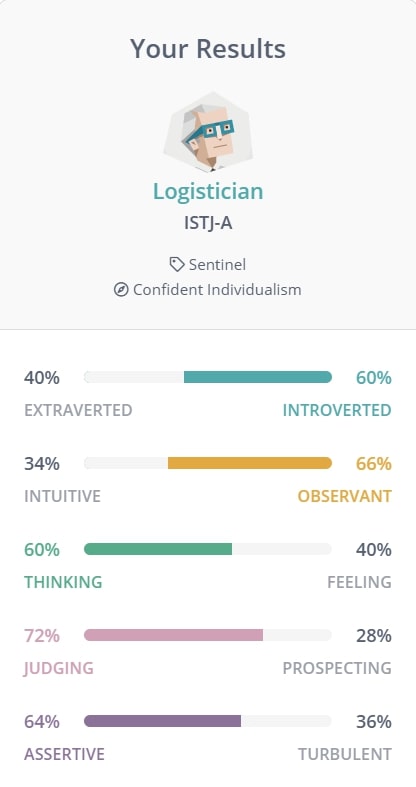
Description automatically generated

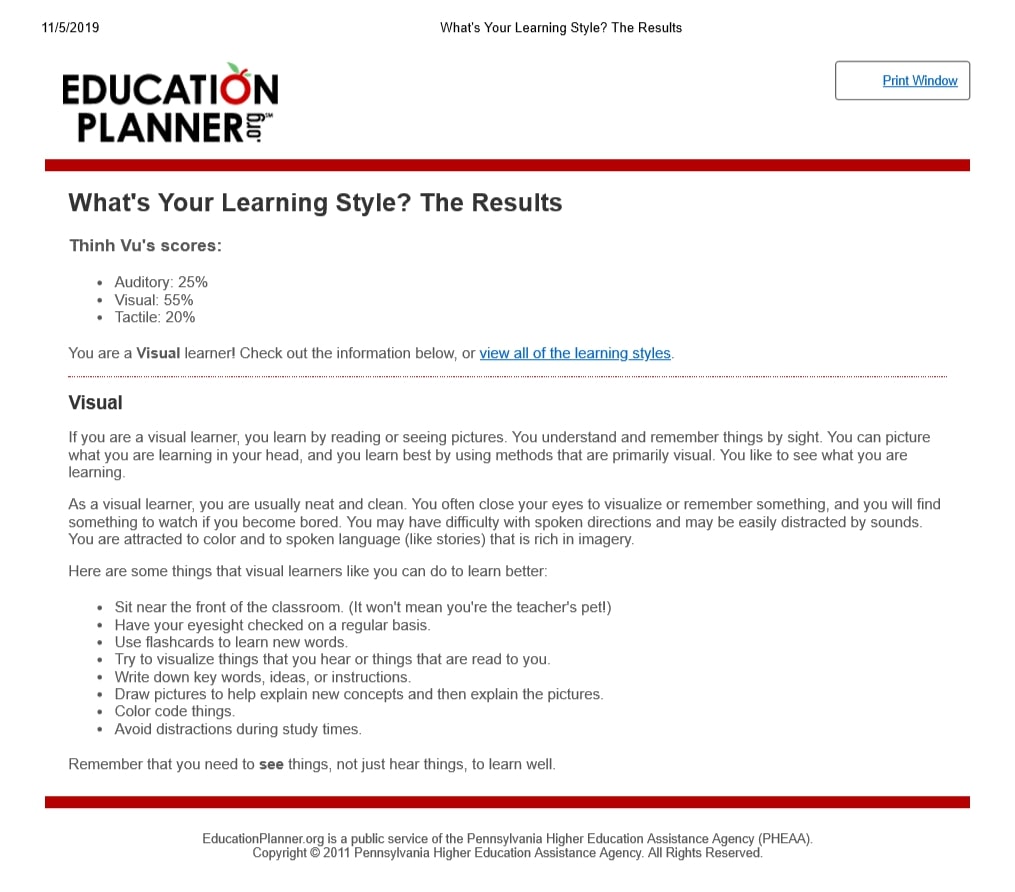
A close up of a map

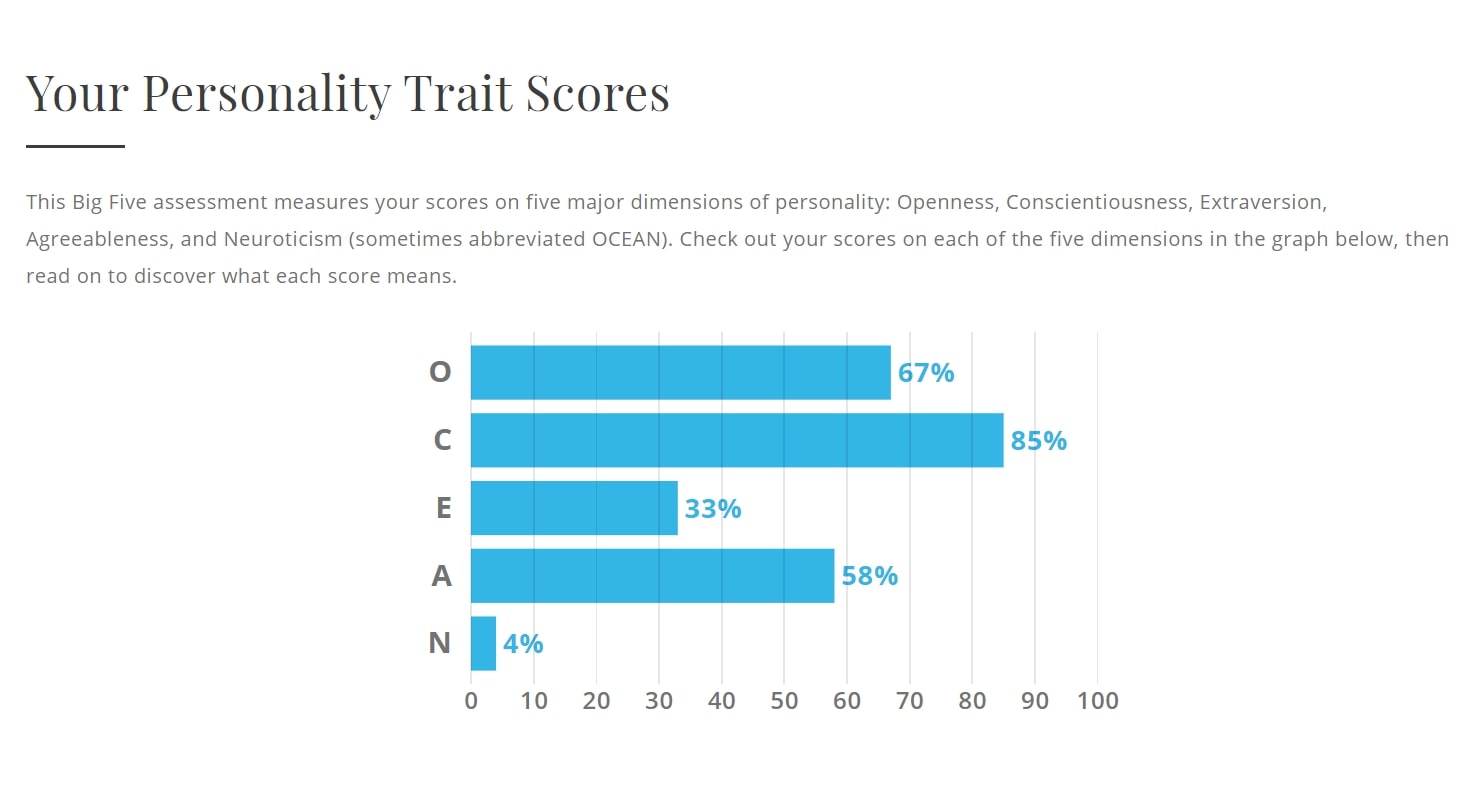
Description automatically generated

Thinh’s Personal Profile: After taking the Myers-Briggs test, learning style test and big five personality test, I was not surprised at all. This is because I have figured out who I am already, however I did find them interesting for many new aspects that I could have. These tests could help me feel more certain about myself, so I could confidently develop as planned. These results are helpful to the group, as I would always watch what my group members do. If there is anything I know, I will focus more attention on their works and contribute my thoughts to them and if I don’t understand about the unknown topics, I will simply just watch and learn. I am very open to ideas and I only conduct them if the benefits outweigh the risks, as I am not a risk taker. I want to play safe and steady within a team.

Thinh’s results from the three tests:

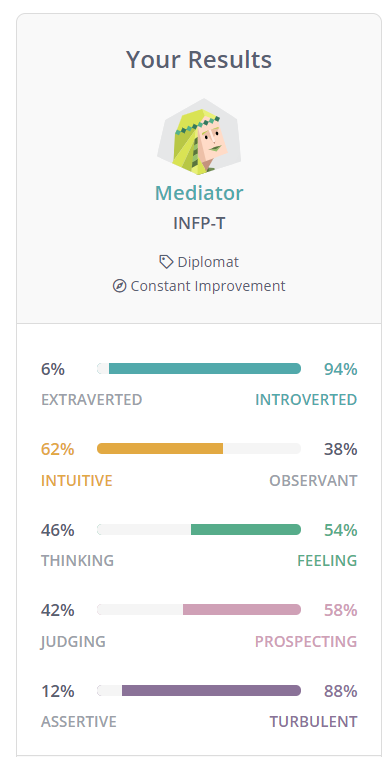






Khang’s Personal Profile: After finishing the Myers-Briggs test, the learning style test and creativity test, I have realized that all three tests were mostly correct in describing me. However, they don’t show me what kind of person I am. I know that I have better kinesthetic learning than visual learning and most importantly I was way worse compared to how these three tests describe me. These three tests will not be beneficial when working in a group, as I will have a hard time to co-operate with my teammates and as a team member, I will not be able to share my ideas to other group members because of my shyness. The best solution to overcome this problem is to build a team with people that I already knew well, especially people who could share their thoughts without being shy and having pressured me, until I give a response to the question at hand.

Khang’s results from the three tests:



A screenshot of a cell phone

Description automatically generated

A close up of a map

Description automatically generated

Ideal Jobs:

Viet’s Ideal Job: My ideal job is an AI Engineer. This job involves describing and using the right Artificial Intelligence or cognitive computing technologies for resolving the problems that customers have on their devices and creating new AI recipes for developing new technologies, as well as know the business problems, contemporary technologies’ challenges and areas of using AI technologies. It also involves creating new machine models and prototype device applications, AI platforms and AI projects through using AI recipes.

AI Engineer Advertisement:

A screenshot of a cell phone

Description automatically generated

Thinh’s Ideal Job: My ideal job is Data Analyst. This job involves managing master data, such as creation, updates and deletion; managing users and its roles, selling appropriate information for anyone that needs them, develop reports and resolving data issues. In addition, it also involves managing and designing reporting environments, such as data sources, security and metadata; checking changes and updates to source production systems and creating confidential data and information in accordance to guidelines.

Data Analyst Advertisement:

A screenshot of a cell phone

Description automatically generated

A screenshot of a cell phone

Description automatically generated

A screenshot of a cell phone

Description automatically generated

Khang’s Ideal Job: My ideal job is Game Designer. This job involves elegantly telling stories through gameplay and having a broad understanding of recent games, in which he/she must have a creativity and an ability for adding in your thoughts into reality, which makes his/her games to be used by large of group of audiences, who are always give him/her criticism and improves him/her to do better. In addition, it allows him/her to work with others who have shared the same passion as he/she do, in which it creates good agreements and disagreements about how he/she want it to go will make this job an exciting one to have.

Game Designer Advertisement:



# Tools:

My Group’s Website Link: <https://viet-1999.github.io/Quiz-App-IT-Website/>

My Group’s Git repository link: <https://github.com/Viet-1999/Quiz-App-IT-Website>

I created my new repository called “Quiz-App-IT-Website”, so that I could store any related group work files, in which me, Thinh and Khang could work together on doing the reports and creating our group website. Audit trail occurs when I have added more information or modified the section’s titles to bold in our group website, as well as sending our group report to the Git repository, so that Khang and Thinh could download it and add more information they have to it. On some occasions, Khang and Thinh could add more information or modify the group website to look more attractive if they have time, because they were busy doing their other work not related to Introduction to Information Technology.

# Industry Data:

1. Our group’s job titles are AI Engineer, Data Scientist and Game Designer. Interestingly, all of these are not in the list of top demands from employers according to Burning Glass Data.
2. Based on our job titles, we have decided the set of skills required for these jobs. The generic skills consist of: problem solving, teamwork/collaboration and analytical skills; and for the IT skills: SQL, JavaScript and Java.

* All 3 of the IT-specific skills (SQL, JavaScript and Java) in our required skill set are in the top 3 of employers’ demand.
* For the generic skills, problem solving ranked 2nd, teamwork/collaboration ranked 5th and analytical skills ranked 17th in terms of demand from employers.
* Within the top 3 generic skills according to Burning Glass, communication skills and organizational skills are not in our skill set. However, we have realized that those are the important skills and they were needed when working in a professional environment, but we just prioritizemoreon the skills in our skill set.

1. Having looked at the Burning Glass data, we still don’t change our opinion about the job titles, although we were surprised that none of them were in the list. This is because we have our passions and loving the jobs and we believe that these jobs have their potential and were needed in big organizations, industries and companies in the near future.

# IT Work:

1. (from Nguyen Manh Quoc Viet) IT professionals are type of professionals who does a specialized technology or Internet-related professional service for a fee. This service was based on a provision of having advanced knowledge in IT and IT professionals could analyze problems and/or opportunities that were related to key business functions, recommend practical solutions and help create these recommendations. Their work is implementation of new technologies. (source: <http://www.professionalrisk.com.au/pages/information/it-liability-faq/what-are-it-professionals.php>). They do variety of tasks, such as testing, building, installing, repairing or maintaining the hardware and software that were related to complex computer systems in one or more locations. Some of the jobs hire them around the world for ensuring that wide range of networks of computer systems will remain safe and secure. Internet’s nature allows IT professionals to do their jobs in any location. However, in some circumstances, such as when there was a hardware problem, they will need to physically resolve and fix the broken system. Once they were employed by IT industries, they will constantly gain new IT-related skills and training, as not every industry that IT professional service will use one coding and programming language, one operating system, one database tool or one methodology. (source: <https://www.dynamixsolutions.com/what-is-an-it-professional-and-what-does-one-do/>). Some IT professionals, such as database, network and system administrators ensure that all information systems run smoothly, while others, such as database, network and system analysts help design the information systems when following organization’s needs. In addition, software and hardware engineers help develop hardware and software for making the systems more robust, reliable and secure. Not only that but web designers and developers ensure that information was being presented to the user in a clear, useful and dynamic way. (source: <https://money.howstuffworks.com/how-information-technology-works.htm>).

(from Vu Gia Thinh) Our group got the chance to interview an IT professional for this section. His name is Tran Van Phuoc, he is a project manager and he works in the Digital Marketing field using Artificial Intelligence (AI) and Big Data technologies at VCCorp.

His daily work consists of receiving advertisement orders from customers or companies, then analyzing the difficulties/obstacles and estimating the amount of time to finish the order. After considering all the conditions, he assigns the tasks for the appropriate workers. He also has to make a board of progress to keep track of the workflow and prepare for risks or unexpected situations that could affect the deadline of the team. At the end of the day, he usually has a peer-feedback meeting with his team to evaluate the work done in that day. Once they finish the order, another meeting is conducted to propose new and suitable solutions to the company’s board of directors for the following projects.

1. (from Nguyen Manh Quoc Viet) IT professionals interacts with general public, for example Bill and Melinda Gates Foundation, which ran by Bill Gates, an American software developer, entrepreneur and philanthropist and Melinda Gates, his wife and co-chair and founder of Bill and Melinda Gates Foundation go around the world to get a chance to meet with African students in a classroom for discussing about new innovations, things going well and things not going well. (source: <https://www.youtube.com/watch?v=4mxXdCUXSSs&list=PLBsP89CPrMePNK7yIxcyRdiIFentQVHra&index=2&t=101s>). In addition, IT professionals also interacts with developers, for example Apple’s Craig Federighi brought some developers in order to bring more new creative ideas and innovations to develop new Apple products, such as Macbook Pro’s new features like sliders for adjusting brightness and volumes and choosing pictures, multitouch displays and many more. (source: <https://www.youtube.com/watch?v=gWoqwCGQIM0&list=PLBsP89CPrMePNK7yIxcyRdiIFentQVHra&index=4>). Not only that, but they also work with external partners, such as consultants, agencies and vendors for arriving at the most appropriate system or integration of multiple systems. When information technology is continuously changing, they must stay up to date on emerging technologies and potential effectiveness of these advancements in their current systems. (source: <https://study.com/articles/Information_Technology_Specialist_Job_Description_and_Requirements.html>).

(from Vu Gia Thinh) Mr. Phuoc has to work with clients almost every day to work on the orders and for the operation, he works with his colleagues (also considered as IT professionals); sometimes he also works with the board of directors/investors.

He spends most of his time negotiating with business partners outside the office, his daily work requires a lot of social relations.

1. (from Nguyen Manh Quoc Viet) IT professionals spend most of their time working with IT industries, because they, developers and manufacturers need to come up with new ideas for creating new products in order to satisfy the customers. In addition, they also get meetings with people about how they are empowering others through technology, for example Microsoft’s CEO Satya Nadella get meetings with other people in the mornings, in which makes him super busy and helps him to represent the company to get a clear vision for its future. (source: <https://www.youtube.com/watch?v=ux4R5GeKMUU&list=PLBsP89CPrMePNK7yIxcyRdiIFentQVHra&index=7>). IT professionals manage projects and teams, as well as interacting successfully with IT employees, developers, manufacturers, administrators and specialists to work efficiently, as it requires their communication, creativity, determination, flexibility, leadership, negotiation and presentations skills. (source: <https://www.thebalancecareers.com/top-information-technology-it-soft-skills-2063781>). In addition, they also work in data processing industries in order to build and ensure databases, create new and efficient software applications, create strategies to decrease cybersecurity threats and provide technical support by the industries’ needs. Not only that, but they also work in telecommunications, manufacturing, telecommunications, education and finance industries. (source: <https://www.bestcollegesonline.org/faq/5-industries-where-information-technology-degrees-are-in-demand/>). IT professionals also work in car factories, as they need to program movable robotic arms to build cars and according to the interview between Marques Brownlee and Elon Musk, Tesla employees need to work hard with IT professionals to design and program the Tesla electric car in three years, in terms of its scale and the time it takes to design, program and build it. (source: <https://www.youtube.com/watch?v=MevKTPN4ozw&list=PLBsP89CPrMePNK7yIxcyRdiIFentQVHra&index=3&t=152s>).
2. (from Nguyen Manh Quoc Viet) There are many aspects that makes the position of being an IT professional difficult. First, if you are not careful when convincing manufacturers to fix the computer that is broken or is filled with various viruses, then the owner will still complain that there are still problems with his/her computer. This makes IT professional a complicated and frustrating job, because it requires patience. Second, if you do not understand the entire technological problem, your specialization, experiences and qualifications of IT then your IT employees, developers, administrators and specialists think that you are not qualified. Third, IT professionals must work long hours, because of the long work of fixing computer systems, in which it can affect his/her social and family life, sleeping routines and activities, which is depending on the intensity of the job and responsibilities. Fourth, some IT professionals may not have good relationships with customers and co-workers, in which causes long hours of problem solving, while staring at the screen, as it decreases their sleeping time and make their eyes irritable. Finally, IT professionals must work under a lot of pressure, regardless of their specialization in the technological community. (source: <https://www.leaderquestonline.com/blog/pros-and-cons-it-professional/>). When sitting in a chair for nearly 10 hours a day for 300 days in a year trying to solve a problem regarding computers, then he/she will have several acute health problems. This affects people of age group 35-45 years old and women IT professionals suffer more than men. (source: <http://www.technoparktoday.com/challenges-of-an-it-professional/>). When establishing a foundation, an IT professional must travel around the world to meet with people from different countries and talk to them about new innovations, things going well, things not going well and what things needs to be improved, as he/she wants to empower other countries with technology in order to have better lives. According to the video hangout between Marques Brownlee, the interviewer and Dennis Woodside, the CEO of Motorola, when Cyber Monday occurs there were huge spike of customers’ demands on new products. IT professional and his/her employees were overwhelmed with lots of responses of customers, as this makes them underprepared for making lots of new products. (source: <https://www.youtube.com/watch?v=kpqBNn_BfKE&list=PLBsP89CPrMePNK7yIxcyRdiIFentQVHra&index=6>). There are challenges that IT professionals must face, and they are: cloud computing, cybersecurity, remote management and talent retention. Cloud computing involves finding out who owns the data and how the provider is supposed to keep it, cybersecurity involves making new strategies against cybercrime, remote management involves IT professionals being scattered across different countries and time zones, and talent retention involves IT professionals unable to be recruited by IT companies, as they lacked talent. (source: <https://work.chron.com/challenges-information-technology-management-21st-century-28780.html>). Not only that, but there was a digital divide, as some remote areas, they lacked the electricity power, as computers were not used and in other sector, such as education, most developing countries have poor education of IT, in which makes a student not be aware of new information technologies. (source: <https://www.useoftechnology.com/5-ethical-challenges-information-technology/>).

(from Vu Gia Thinh) The most challenging aspect for Mr. Phuoc is the technology. How to process different technologies in order to make them work on the same platform is what he is trying to achieve right now.

# IT Technologies

Cybersecurity:

Cybersecurity is a system that is designed to protect the hardware, software and data from viruses, hacking, malware, spyware, logic bombs and many more. In addition, it is also designed to decrease the risk and protect IT information, such as confidentiality, integrity and availability of data from hackers and cyber attackers with malicious intent. The strategy of cybersecurity is that a strong cybersecurity requires multiple layers of protection that was spread through company’s computers, programs and networks. When cyberattacks are occurring in every 14 seconds, firewalls, antivirus software, anti-spy software, and password management tools must all work in order to reduce the incidences of cyberattacks in order to protect businesses’ important information.

Cybersecurity is important to our society and businesses, because a lack of cyber security means that there will be theft of information, cyber security breaches, having to repair affected systems, theft of money, disruption to trading and loss of business. This had led to U.S. government to create a law called “Computer Fraud and Abuse Act”. According to the book “Cybersecurity law” by Jeff Koseff in page 46 [1], the Computer Fraud and Abuse Act is a U.S. federal law that could prohibit and penalize many forms of computer hacking. It also imposes criminal and civil penalties for actions that were done by any person, who either lacks authorization to use a computer or exceeds authorized access to a computer that they could use to hack information and data from governments and organizations. In addition, according to the article called “Cybersecurity” by CACM (Communications of the Association for Computing Machinery) staff in page 1 [2], misinformation became a major cyberattack in cyber criminal’s arsenal, as there are more cyberattacks in recent years, where it tries to change public policy, sway public opinion and change people’s behaviors. Cybersecurity was created by many different governments around the world in order to reduce the incidences of misinformation and it continues to do so, as the Internet is constantly developing quickly. Cybersecurity had positively impacted on businesses, as it offers protection to their businesses from cyberattacks, such as Adware and Ransomware and it increases their productivity, as it makes businesses’ output smoother. In addition, cybersecurity protects businesses’ customers who were more vulnerable to a cyber breach by proxy. Not only that, but it also stops their websites from being closed down by a potential cyber threat, in which it saves their money from their missed transactions, as well as saving their customer trust.

In my daily life, cyber security helps me to protect my files, profiles and information from various cyber threats, such as viruses, hacking, theft, data leaks and many more. This also could affect my members of my family and my friends, as their data, files and profiles were protected by cyber security, in which their important and personal data were being safe and secure and not being lost or hacked by various cyber threats.

Robots:

A robot is a machine that was programmed by humans to do tasks that were considered repetitive, dull, boring and dangerous, in which most people don’t want or unable to do, because of size limitations or could not work at extreme environments. Its main components consists of: computation, which involves robots having a central processing unit called a controller that determines its actions; movement, which involves robots needed specific mechanical parts that allows them to move freely without the need of physical intervention from their human operators and sensors, which involves them seeing and recognizing their surroundings. According to the article called: “Mechanized creatures” by Pooya Sareh and Mirko Kovac [3], in Japan, Japanese automotive companies have advanced technological prowess on robots, such as Honda’s Asimo, a robot that is interactive and capable of recognizing movements, sounds, faces, postures and gestures, and Toyota’s Harry is a robot with nimble fingers, movable lips and a breath, in which it was designed to play a trumpet. Robots are criticized for replacing human workers, in which increases technological unemployment and the use of them in military combat raises ethical concerns.

Robots had positively impacted on society and businesses both in positive and negative ways. For example, companion robots could help and care the elderly, milking robots could get milk from cows that reduces manual labor, robotic arms in factory for building cars to make the factory’s production lines more efficient and lifesaving, self-driving cars, more jobs created involving robots and many more. However, they also had negatively impacted societies and businesses, such as unemployment and laziness of business workers; everyday people being overly attached to humanoid robots that were made in Japan and Korea, malfunctioning of robotic programs leading to various dangers to business workers in various factories and many more.

In my daily life, robots will positively affect my future, because it makes my life easier and flexible, such as waiter robots sending food and drinks to me and my family without spilling anything, robot vacuums could clean the house’s floors without the need of plugging the vacuum cleaner, service robots could check the amount of money that I spend on buying groceries and many more. In addition, it also positively affects my family members and friends, as they want a comfortable and relaxing life.

Blockchain and cryptocurrencies:

Blockchain is a system that contains record of transaction made in bitcoin or cryptocurrency which were maintained in many computers that were linked in various networks around the world. In addition, it also contains information about people’s transactions, such as date, time and money amount of their recent purchase, as well as any people who is using transactions. For the block to be added to the blockchain, the transaction must happen, be verified, stored in a block and given a unique code called a hash in various customers’ services. Cryptocurrency is a digital currency when encryption techniques were being used in order to manage the generation units of currency and check the transfer of money. In addition, many different cryptocurrencies around the world were operated independently in a central bank.

Blockchain had positively impacted on businesses in a positive way, as it reduces the incidence of stealing money, increases crowdfunding, saves foreign money transfers and transactions through cryptocurrencies, increases trust between third-party companies and customers, allows people to exchange money faster, more efficiently and securely, enables faster, safer and more trusted automated digital communication, decreases bureaucracy and gives people more control of their money. In addition, it also increases cyber security, as many hackers will not steal the money from digital banks. However, Blockchain also had negatively impacted on businesses. According to the article called: “Blockchain” by Michael Nofer, Peter Gomber, Olivier Hinz and Dirk Schiereck in page 1 [4], Blockchain was considered to be a disruptive technology, because it was driven by continuous inefficiencies, Bitcoin being a well-known cryptocurrency and application of Blockchain and a big cost issue that had impacted the Blockchain Industry. Not only that, but the financial crisis revealed that it is not always possible to find the correct present owner of an asset. For example, the US investment bank Bear Stearns had failed in 2008 and was acquired completely by JP Morgan Chase. This had led to the increased number of shares offered to the acquired, which was more than the shares out-standing in the books of Bear Stearns. In addition, it was not possible to check the accounting issues of financial crisis and JP Morgan Chase had to bear the damage from the increasing number of digital shares. Cryptocurrencies had positively impacted businesses, as it could reduce fees, in which it decreases the need of bank charges, removes barriers of trade, which allows the acceptance of payments in different currencies, faster payments and attracts new customers for making new businesses. However, cryptocurrencies also had negatively impacted businesses, as it involves cybersecurity issues, as cryptocurrencies will be a subject to cybersecurity breaches and could be used by hackers to decrease cybersecurity in banks. According to the article called “Cybersecurity” by Monia Milutinović [5], cryptocurrencies increases the power to the dark web, which was the section of the web that could not be accessed through search engine and instead requires a special software that allows people to enter the dark web, such as Tor Browser. In this web, they could make illegal transactions, in which they don’t have to give information about themselves and these transactions were powered by cryptocurrencies, such as Bitcoin. This leads to the increase of cyberattacks, when these transactions were popular around the world. In addition, there are scaling problems of cryptocurrencies, such as number of transactions that the payment companies process each day and the speed of the transaction that cryptocurrencies could not compete with the same level as payment companies. However, its problems could be reduced through several solutions, such as fast networks, sharding and staking. Not only that, but cryptocurrencies could not be controlled by banks and financial institutions and they were very unpredictable form of currency, as it allows people to launder money outside the countries, which creates more gaps and loopholes in securing and collecting data about money transactions, as well as making it difficult for banks and financial institutions to track all people’s transactions and economic activities.

Blockchain and cryptocurrencies had impacted me, my family and my friends in a positive way, because our transactions when using taxi apps will be recorded and saved, in which we know how much digital and real money we pay to taxi companies and get from banks in a digital way, such as Moca bank being implemented on Grab taxi app and Gmail notifications regarding our digital money being paid being implemented on Grab, Be and Vato taxi apps.

Natural Language Processing:

Natural Language Processing (NLP) is a network of artificial intelligence that can deal with interactions between computers and humans using natural language. Its aim is to read, decode, understand and make sense of human languages that is valuable and important and most of its techniques focused in machine learning to derive meaning from human languages. Its procedure consists of: human talking to a machine, machine captures the audio, audio to text happens, text data being made in a technological way, data to audio happens and the machine responds to a human through playing the audio file. It is used for making various useful applications, such as Google Translate, Microsoft Word, Interactive Voice Response and Siri. According to the article called: “Natural language processing” by Angel R. Martinez [6], there are concepts that were used in NLP and they are: Corpus is a set of documents with corpora that could denote the plural form or more than one set of documents, while lexicon is a set of unique words contained in corpus. In addition, morphology is a term that focuses on the structure of induvial words, while syntax is a term that focuses on the structure of sentencing and the rules of structuring them and it is important, because it helps people to determine the meaning of a sentence.

Natural Language Processing had impacted on society and businesses, as it could analyze more language-focused data and information that is unbiased in business records, manages a highly unstructured data source to be more structured and detailed, translates every word and text from one language to another for many people who are not very skillful to read a language that they haven’t learned, converts person’s spoken words into data that a computer could understand when asking a natural question to the search engine or an app (e.g. Siri, Cortana, Google Search) that has speech recognition and searches the topics that people wanted to learn more in many search engines. Not only that, but it could also be used for making apps and software that uses natural language commands.

Natural Language Processing had impacted me, my family members and my friends in a positive way, as our mistakes when typing words in Microsoft Word will be resolved, thanks to its auto-correct technology, we could search topics we want through search engines and we could translate a word that we want from one language to another through using Google Translate.

# Project Ideas:

A picture containing clipart

Description automatically generated

All three of us have different ideas for our group project in Assignment 1, however, we decided that those options are not suitable to do, because we are a bit tight on time. In addition, we do not have enough time to make a JRPG game and a troubleshooting app is way out of our league. After discussing with each other about possible ideas, we came to the conclusion that we will make a quiz app for educational purposes using MIT App Inventor 2.

We are planning to compose around 20 questions to put in the app. Our intention is to provide users knowledge on interesting facts that they might not know. The questions will cover all topics such as mathematics, literature, geography, music, etc. This quiz not only covers just international information, but also covers questions about Vietnamese culture and history to help the users have a general grasp of Vietnam. The users will answer each question on a single page, then move to the next page for the following quiz. Different types of questions will be added, for example, yes/no question, multiple-choice, text input quiz, and for the geography topics, the users have to drag and point the exact position required on the map. The app has a scoring system to grade the marks when users have answered all the questions. After each question answered, a notification system will notice the player whether if they were right or wrong. If they choose/provide a correct answer, a tick will appear. On the other hand, a cross will pop up if the player chooses/provides a wrong answer.

As mentioned before, the tool we are going to use to make this app called MIT App Inventor 2, an open-source, cloud-based service that allows you to create a mobile app on your own using a block-based programming language. You can access MIT App Inventor 2 with a browser such as Chrome, Firefox or Safari for iOS devices and start coding directly on the browser with no other IDEs required. For testing and debugging, an Android mobile phone or tablet is recommended since it can sync with your code in real-time and you can check if the app is running well or not.

The challenge for us is to get familiar with the tool because this is our first-time using MIT App Inventor 2. Luckily, we know basic concepts about programming and some of us know how to code on different languages, so we do not have much to worry about this. A more concerned problem is how to work efficiently as a group that each member is assigned suitable tasks and the coding must be clear so that everyone can view and understand them. This is a group work, so mutual understandings must be achieved between everyone.

Once everything is done, our product can be uploaded on CH Play and it can operate well on all Android devices. However, iOS devices are not supported, because MIT App Inventor 2 is only supported on Android platform, which is a huge drawback. We hope to bring joyful moments as well as interesting new information for users when they answer the questions in the app.

A picture containing indoor

Description automatically generated

Khang’s opinion of our group project: I would like to say that I agreed with the choice for our group project, as making a RPG or a smartphone app would require large knowledge and time, which are both things that we, as a team, do not have. So, what we have decided is to make a quiz-type app for education purposes. I think it is more suitable for the whole team, in which we will be able to help to achieved what we wanted partly from our own group project idea. It can be made with we have available to us, and is suitable with our limited time, as well as abilities. We will not find it to be a piece of cake of course, as we are new to both the tool we intended to use, and the project itself. We would like that with this app, we will be able to make a simple educational quiz app that has friendly user-interface, and able to give it user some interesting info/facts. Then, we believe that our group project is successful to an extent. I would also like to credit Thinh for this proposal, as he was (I believe) the person to come up with it.

Viet’s opinion of our group project: I agree with Thinh that we will make this quiz app game, because my project idea was very hard to do, in which it requires more time, skills and knowledge in order to build this virus removing app. I think that this quiz app game will be educational and useful for large audiences around the world to learn valuable knowledge for educational purposes, because it will have interesting facts that they don’t know yet from various topics about Vietnam, its history and its culture, in which they will learn them all through using this quiz app game. After playing the quiz app game for a long time and achieving good results through subsequent playing, I hope that all people from large audiences around the world will know the interesting facts in their minds, so that they could share them with their friends and family before they could go to Vietnam for a trip. I also credit with Thinh with his group project idea, as it is educational and useful for large audiences around the world to know interesting facts about Vietnam’s culture and history.

# Feedback:

Viet’s feedback: I have put much more effort on doing the group report and group website alone, as I have no group yet in weeks 6 and 7. Although there was a lot of work on doing the sections in group report, I have managed to complete most of them, with the exception of group ideas, in which I don’t have any group ideas for making our group project. Although Thinh was not in RMIT University Vietnam, because of his family matters or he is in a different schedule, he still contributes his work to the group report when he was at home, in which he could add more information he have to our group report I have sent him and send the modified version of it to me, so that I could add more information from it to our group report. In addition, he also sent me his Git account and his IT profile website, and I have used them to modify and add more information to our group website. Khang is contributing our group work slowly, because he was busy doing his other work not related to Assignment 2. However, he also sends me his Assignment 1 document to me, in which I could add more information to our current group report and website. Khang’s website is nice and beautiful, but it should have more content, such as his background, his education prior to studying at RMIT University Vietnam and when does his interests in IT starts, as well as his spellings on his website’s information and title needs to be corrected more. Overall, our group work progress is fine, and we are working hard to complete our group report on time.

Thinh’s feedback: Since our group was formed last week, I don’t get to know much about my teammates. All I can see now is Viet is a hardworking person and he prepares well for the content of the project. There is one thing I want him to improve is the appearance/presentation of the website, because it looked bland and boring. Khang is our newest member and if I have to say, I don’t know much about him at the moment since he doesn’t use social media, so I’m looking forward to the team meeting sessions to work with him. I’m trying my best to bring good results to this group, like everybody else. I will finish any tasks given although my time is restricted because I have 4 courses this semester and I have to manage my timetable well to meet the group’s requirements.

Khang’s reflection: Overall, I think that the other two members of my team does their job perfectly. However, I have trouble in contacting with one of the members throughout the assignment, but his part has been submitted and therefore, there are no real problems with this dilemma. For my part, I failed at being on time, due to my poor management in my schedule, and with this, made me the weakest link in the whole group. I believe that, for the other two members that if there were to be a next time, there would be more communication going on.

# Group Reflection:

Viet’s reflection: I have done most of the sections of our group report and group website alone, as well as creating our Git repository, in which my group members were busy doing other work not related to Assignment 2. One thing that surprised me is that during week 8 I am the only contributor in our Git repository, as my two group members were not its contributors. The GitHub log of activity have benefitted me and my group members, as we could modify or add more information to our group website and our group report that were shared to us by me. For the group report, Thinh and Khang could download our group report in our Git repository for adding more information to it and once they done adding more information, they could send the modified version of it to me, so that I could add more information to complete our current group report.

Thinh’s reflection: What really went well within the group is everyone is very corporative and happy to do the divided tasks. For the upcoming days, I hope the communication of the team will be improved by organizing meetings so that we can share the work and contribute our thoughts to each other. The surprising thing is at first, I thought that this group had only 2 people, but then 1 more was added, the more the merrier, we can use some help and make the work less burden for us. The most obvious issue about our group is we don’t have the manpower like other groups so deciding what to do and the method to achieve the goal are crucial factors for us to complete this project assessment.

Khang’s reflection: What went well is the fact that we were able to submit the assignment on time. Things that could be improved is to have proffer team meeting, a better outline of how we want to do the assignment, and better time management (especially me). One thing that is surprising is with only 3 members, we have done way better than what was anticipated at first, regarding the late start, as well as how messy it is in our commination with each other. And though this project, I learned that each member does their part, but some are not really on schedule. And seeing the activity on the GitHub page, I can say that Viet takes the role of submitting most part on to it, mainly because me and Thinh sent our part to him. I just hope that for assignment 3, things will be better.

Group’s reflection: Our group’s progress is relatively slow, because my two group members being busy with other work not related to Assignment 2. However, we are working together to complete the group report and group website on time. I divided the group report’s sections to each of my two group members, so that they could add more information to the group report I shared with them in our Git repository. I am doing Team Profile, Tools, Feedback and Reflection, Thinh is doing Industry Data and IT Technologies and Khang is doing IT Work and Group Ideas. After they have done adding more information to the two sections, they could send me their modified group report to me, so that I could add more information to our group report and group website. One thing that could be improved is that my two group members need to focus more on doing our group report, our group website, and start doing our group project as our group work progress is slow. The reason for our slow progress, because Khang and Thinh were too busy doing other courses related to IT, in which it makes their time management to be difficult, as they will have a hard time to balance between doing group work and doing other IT courses. Another reason for our slow progress is that me, Khang and Thinh do not have a group in weeks 6 and 7, in which I have a responsibility to do our group report and group website by myself, while Khang and Thinh are looking for groups to join, until our group was formed late in week 8. Moreover, Thinh is more proactive than Khang, even though he has other three courses to do other than Introduction to Information Technology, in which Khang is slowly doing Assignment 2 and his other courses. To fix this issue, Khang needs to be more proactive at doing group work collaboratively, in which we need to have a steady group work progress in order to finish our group report, group website and group project on time. In addition, Khang and Thinh needs contribute more work on adding more information to our group website, as I saw no changes on our website, in which I have to add more information to our group website by myself. Overall, our group progress is fine and going well, even though we have issues on time management.

# References:

Website References:

1. “[HCM] AI Engineers (C , Java, Python) at FPT Software,” itviec. [Online]. Available: https://itviec.com/it-jobs/hcm-ai-engineers-c-java-python-fpt-software-2535. [Accessed: 06-Nov-2019].
2. “5 Industries Where Information Technology Degrees Are In-Demand,” Best Colleges Online. [Online]. Available: https://www.bestcollegesonline.org/faq/5-industries-where-information-technology-degrees-are-in-demand/. [Accessed: 29-Nov-2019].
3. “9 Pros and Cons of Being an IT Professional,” LeaderQuest, 25-Feb-2019. [Online]. Available: https://www.leaderquestonline.com/blog/pros-and-cons-it-professional/. [Accessed: 28-Nov-2019].
4. “Benefits Of Cyber Security For Your Business,” Nouveau Solutions. [Online]. Available: https://www.nouveau.co.uk/content-hub/benefits-of-cyber-security/. [Accessed: 02-Dec-2019].
5. “Information Technology Specialist: Job Description and Requirements,” Study.com, 11-Sep-2019. [Online]. Available: https://study.com/articles/Information\_Technology\_Specialist\_Job\_Description\_and\_Requirements.html. [Accessed: 29-Nov-2019].
6. “Robot,” Wikipedia, 30-Nov-2019. [Online]. Available: https://en.wikipedia.org/wiki/Robot. [Accessed: 02-Dec-2019].
7. “What are IT Professionals,” CPR Insurance Services. [Online]. Available: http://www.professionalrisk.com.au/pages/information/it-liability-faq/what-are-it-professionals.php. [Accessed: 29-Nov-2019].
8. “What Is Cybersecurity? Why Is It Important?: Built In,” What Is Cybersecurity? Why Is It Important? | Built In. [Online]. Available: https://builtin.com/cybersecurity. [Accessed: 02-Dec-2019].
9. A. Doyle, “Top 10 IT Soft Skills That Employers Look For,” The Balance Careers, 03-Jun-2019. [Online]. Available: https://www.thebalancecareers.com/top-information-technology-it-soft-skills-2063781. [Accessed: 28-Nov-2019].
10. D. Roos, “How Information Technology Works,” HowStuffWorks, 04-Dec-2007. [Online]. Available: https://money.howstuffworks.com/how-information-technology-works.htm. [Accessed: 29-Nov-2019].
11. E. S. E. Siu, “The Effects of Natural Language Processing (NLP) on Digital Marketing,” Single Grain, 26-Jun-2019. [Online]. Available: https://www.singlegrain.com/artificial-intelligence/effects-of-natural-language-processing-nlp-on-digital-marketing/. [Accessed: 27-Nov-2019].
12. K. A. Pillai, “Challenges of an IT Professional,” TechnoparkToday.com - Techies News, Jobs, Events & Lifestyle! [Online]. Available: http://www.technoparktoday.com/challenges-of-an-it-professional/. [Accessed: 29-Nov-2019].
13. K. Ramey, “5 Ethical Challenges of Information Technology,” Use of Technology, 06-Jan-2017. [Online]. Available: https://www.useoftechnology.com/5-ethical-challenges-information-technology/. [Accessed: 29-Nov-2019].
14. L. Fortney, “Blockchain Explained,” Investopedia, 26-Nov-2019. [Online]. Available: https://www.investopedia.com/terms/b/blockchain.asp. [Accessed: 28-Nov-2019].
15. P. Staples, “Robots Used in Everyday Life,” Sciencing, 02-Mar-2019. [Online]. Available: https://sciencing.com/robots-used-in-everyday-life-12084150.html. [Accessed: 02-Dec-2019].
16. P. Thomson, “What Is Robotics? ( How It Impacts Society),” G2, 20-Aug-2019. [Online]. Available: https://learn.g2.com/what-is-robotics. [Accessed: 27-Nov-2019].
17. Publisher Due.com, “10 Ways Cryptocurrency Will Make The World A Better Place,” Nasdaq, 16-Jan-2018. [Online]. Available: https://www.nasdaq.com/articles/10-ways-cryptocurrency-will-make-world-better-place-2018-01-16. [Accessed: 28-Nov-2019].
18. R. Heibutzki, “Challenges of Information Technology Management in the 21st Century,” Chron.com, 09-Nov-2016. [Online]. Available: https://work.chron.com/challenges-information-technology-management-21st-century-28780.html. [Accessed: 29-Nov-2019].
19. R. Marselis, N. Minchev, N. Minchev, M. Yeeet, Anu, Anu, C. Maune, C. Maune, J. O. Fadare, A. Beliveau, and A. Beliveau, “Impact of Robots on Society - Positive and Negative Effects of Robots: Sogeti Labs,” SogetiLabs, 17-May-2017. [Online]. Available: https://labs.sogeti.com/social-impact-robotics/. [Accessed: 27-Nov-2019].
20. S. Boukhalfa, “What are the disadvantages of cryptocurrencies? - PreScouter - Custom Intelligence from a Global Network of Experts,” PreScouter, 04-Oct-2019. [Online]. Available: https://www.prescouter.com/2017/11/disadvantages-of-cryptocurrencies/. [Accessed: 02-Dec-2019].
21. S. McIntosh, “The business benefits of cryptocurrency,” The Global Treasurer, 08-Aug-2018. [Online]. Available: https://www.theglobaltreasurer.com/2018/08/08/the-business-benefits-of-cryptocurrency/. [Accessed: 02-Dec-2019].
22. V. Mallawaarachchi, “Living with Robots - The Good, the Bad and the Ugly on Humanity,” Medium, 22-Aug-2017. [Online]. Available: https://becominghuman.ai/living-with-robots-the-good-the-bad-and-the-ugly-on-humanity-1097f524f936. [Accessed: 27-Nov-2019].
23. “What Do IT Professionals Do,” Dynamix Solutions, 09-Oct-2019. [Online]. Available: https://www.dynamixsolutions.com/what-is-an-it-professional-and-what-does-one-do/. [Accessed: 28-Nov-2019].
24. “What is Natural Language Processing?,” SAS. [Online]. Available: https://www.sas.com/en\_us/insights/analytics/what-is-natural-language-processing-nlp.html. [Accessed: 27-Nov-2019].
25. Y. E. Council, “Eight Ways Blockchain Will Impact The World Beyond Cryptocurrency,” Forbes, 26-Mar-2018. [Online]. Available: https://www.forbes.com/sites/theyec/2018/03/09/eight-ways-blockchain-will-impact-the-world-beyond-cryptocurrency/#7f847bb01883. [Accessed: 28-Nov-2019].

Book References:

[1] J. a. Kosseff, *Cybersecurity law*. Hoboken, NJ: John Wiley & Sons, pg. 46, 2017.

[2] C. Staff, "Cybersecurity," *Communications of the ACM,* vol. 60, no. 4, pp. 20-21, 2017, doi: 10.1145/3051455.

[3] P. Sareh and M. Kovac, "Robots," in *Science* vol. 355, ed, 2017, pp. 1379-1379.

[4] M. Nofer, P. Gomber, O. Hinz, and D. Schiereck, "Blockchain," *The International Journal of WIRTSCHAFTSINFORMATIK,* vol. 59, no. 3, pp. 183-187, 2017, doi: 10.1007/s12599-017-0467-3.

[5] M. Milutinović, "CRYPTOCURRENCY," *Ekonomika,* vol. 64, no. 1, pp. 105-122, 2018, doi: 10.5937/ekonomika1801105M.

[6] A. R. Martinez, "Natural language processing," *Wiley Interdisciplinary Reviews: Computational Statistics,* vol. 2, no. 3, pp. 352-357, 2010, doi: 10.1002/wics.76.