

Emergent Technology

(CT060-3-3-EMTECH)

Individual Assignment

Name: Ng Wei Xiang

ID: TP050251

Intake: UC3F2011IS

Lecturer name: Dr Selvakumar Samuel

Date submitted: 14 July 2021

Table of content

1.0 Assignment 1: ……………………………………………………………………………. 2

1.1 Evaluate the process of speciation of the chosen technologies: …………………………. 2

1.2 Evaluate the importance of protecting their intellectual property: ………………………. 3

1.3 Evaluate the financial options available: ………………………………………………… 4

2.0 Assignment 2: ……………………………………………………………………………. 5

2.1 Technology Assessment Process such as Scoping, Searching, Evaluating, and Committing: …………………………………………………………………………………. 5

2.2 Scoping: ………………………………………………………………………………….. 5

2.3 Searching: ………………………………………………………………………………... 5

2.4 Evaluating: ………………………………………………………………………………. 5

2.5 Committing: ……………………………………………………………………………... 6

2.6 Assess the technology risk, marketing and organizational risks in adopting new technology: …………………………………………………………………………………... 6

3.0 Conclusion: ………………………………………………………………………………. 7

**Evaluate the process of speciation of the chosen technologies**

AI based technology has change way of live including healthcare sectors. Besides, digital healthcare is implemented throughout hospitals and medical centres and in healthcare sectors. Digital healthcare has allowed hospitals to save cost and time and efficiency in determining patients with covid 19 illness through advance machine learning screening. Examples are electronic medical records that are efficient and use online network to access patient’s medical history to determine if covid 19 illness has occurred. Physicians still assist patients details on covid 19 screening and the rest will be handled by digital healthcare system-based AI. Implementing newly digital healthcare in clinics and hospitals will stir some challenges and risk that may affect patients and their condition and the environment. Too much focus on implementing digital healthcare would lead to contribution of digital healthcare on individual technology and not the effective process in healthcare sectors. Privacy and ethical issues still persist in digital healthcare operations. Sensors and mobile apps are applied to determine the early stage of screening for covid 19 in places like airports, coffee shops, shopping malls and many more. Digital healthcare allows online data to be accessed by users around the globe to ensure the rate covid 19 screening is in check and determine which areas is likely to be infected by covid 19 illness. Digital healthcare also prevents covid 19 infections and reduce social distancing among patients. Since applying digital healthcare throughout the continent and some issues are faced as language accessible on the app covid 19 screening for patients. Companies with AI based technology like digital healthcare must be prepared not for emergency like covid 19 infection but for different kinds of events which needs digital healthcare AI based technology. (Jobie Budd, 2021).

In days to come, hospitals and whole of healthcare sector will be fully automated and enhance screening for covid 19 illness and others. Machine learning algorithms by developers are increasingly enhance to adapt to covid 19 screening using digital healthcare system in healthcare sectors. Still with the rise of covid 19 infections around the world, AI based technology is needed more than ever in solving covid 19 screening and also ways to eliminated covid 19 virus. Digital healthcare becoming global could pose great challenges for languages, risk, privacy, data management. Data collection by patients is needed as much as possible and could affect privacy. Digital healthcare is crucial towards covid 19 infections as the system have fewer errors of executing screening for covid 19 illness among patients than real doctors, nurses and physicians. In addition, digital healthcare also can predict future events and develop certain algorithm to counter the certain events like diagnose the illness or covid 19 screening process on patients and creating and providing best and alternative medicine and steps to avoid covid 19 illness to patients. Using related apps based on digital healthcare can increase covid 19 screening across devices and apps. Digital healthcare system not only reduce cost and time but excel in providing best services and contribution towards healthcare sectors during this covid 19 pandemics.

**Evaluate the importance of protecting their intellectual property**

With the wide use of digital healthcare in healthcare sectors, intellectual property must be concealed due to alerting other companies and spikes competitor in disrupting ideas of digital healthcare. Company producing digital healthcare system must aware that their AI based technology cannot be copied or ruin by other company because loss of profit and effort from staff will be wasted. Company must ensure planning in protecting intellectual property is only accessible by project manager and stakeholders. Without protecting intellectual property, company will lose their assets and unable to recover. Values of arts, system design, system ideas, innovation will be lost if company does not prepare proper plan to ensure development of digital healthcare system is in place. Company failure in protecting intellectual property can affect the market value for this project and cause more problems during the covid 19 pandemic events. Company special meeting to encourage staff and project manager to be on same page thus disrupting staff from stealing company AI based technology. Company with good plan in protecting intellectual property may boost economy in the market thus providing digital healthcare system to healthcare sectors efficiently. With more opportunity in protecting intellectual property company can export and correlate AI based technology brand like digital healthcare for worldwide distribution for covid 19 screening across the globe. Company with digital healthcare system must ensure ideas on the system will be handled systematically and efficiently. With protecting intellectual property, research ideas and development on digital healthcare system will be further enhance and effective algorithms in screening covid 19 illness in patients. Company can prevent hackers from retrieving sensitive of important data about patients from digital healthcare system-based AI. Standards of digital healthcare system is preserved through good planning on the company in the industry. Control access to information is important because it allows certain people to have access to it. Example, director of hospitals and stakeholders have access to the data management by the digital healthcare systems. Market value for AI based technology may drop eventually as company can carried out certain testing to test the ability of the digital healthcare system. Concept testing can be implemented to allow random people to test out the AI based system and determine if the system is viable and efficient in the healthcare sectors and the market. Digital healthcare system can boost profit for companies specializing in machine learning for healthcare sectors. Protecting intellectual property by company is not only to understand it but to understand how each criterion of intellectual property can affect company values and the system values and the healthcare values in the industry. Company should understand the importance of protecting intellectual property for the technology like digital healthcare system-based AI. In future, AI machine can protect intellectual property rather than under human management in the company. Digital healthcare system may benefit from market values and demands from healthcare sectors and company managements, innovation in company will be fully utilized and user requirements will be fulfilled. Company can promote the developed AI based technology efficiently and provide useful services to healthcare sectors for providing enhance and efficient covid 19 screening process to patients.

**Evaluate the financial options available**

Financial options mean a buyer can exercise the options of managing the chosen technologies such as digital healthcare system AI based. The options provide a rule for buyer and seller. Call options and put options are types of financial options that company would want to take into consideration. Financial options also involve risk that price of the project in the market whose values will be drop if contractors who does not fulfil the required plans of the project like Digital Healthcare system with AI based technology. (Achim Steiner, 2021)

These are the financial options available such as leasing, loans, stock rights and warrants. Leasing, company can acquire lesser to equip tools for building system like digital healthcare systems. Leasing can also find new options for finding newer tools or parts for company development in the product-based systems. Although, leasing process can be expensive considering that tools for building AI based technology may not come in handy and allowing high risk to occurred. Company can have loans to support their product, applying loans from institutions could be risky if company is unable to pay back the interest rate and the loans borrowed. Loans is a simpler way of funding for company projects because company can payback the loans to institutions with interest. Another available financial option is stock rights as company can purchase funds from existing stakeholders with set date and time. Company can raise funds when having stock rights in the company itself. Company must be careful who and when this ownership will be in whose control as the stock rights can be controlled by other stakeholders which is not from the company and could cause issue for production on the project and delay distribution for digital healthcare system to healthcare sectors and setbacks which company may not overcome. Stock rights is important to company because how the company brand and project is managed and design. Warrants can be selected by trusted contractors to carry out the operations in the company meetings. Warrants can reduce interest rates as company can easily payback the loans to the banks with little interest and funds taken from banks. Warrants can also disrupt ownership on the following projects. Company should plan how warrants can be use in the financial option available for the project development into market investment. Company must plan, decide, organize which available financial options is suitable for the project development that will be distributed into market and provide for healthcare sectors. Understanding which financial options available is better than simply selecting the ones suitable but not efficient for the company profits and the AI based system values. In conclusion, each financial options available are efficient and important and company must decide which one to pursue because each financial options control some aspects which contribute to the system development process. Project manager and stakeholders can conduct meetings on which financial options available are efficient and also carried out different experiments and evaluate each result for the final selection of the financial options available. (Putra, 2021).

**Technology Assessment Process such as Scoping, Searching, Evaluating, and Committing**

Technology assessment process has ensured how these chosen technologies that may impact the healthcare in covid 19 screening and patients’ consciences. There is scoping, searching, evaluating and committing are part of the technology assessment process. Technology assessment process dictates how the technology is being access by four processes of the technology assessment like scoping, evaluating, searching and committing. As these four-technology assessment process will be briefly explained below.

Scoping, company should consider the challenges and risk to be taken when building the digital healthcare system-based AI. Company needs to be creative in balancing constraints of the firm and its properties to grow the technology developed. Effective teams can take place to secure and control access to the developed technology and make sure all scope requirements are fulfilled by the project manager and teams. Scoping also helps developed technology like digital healthcare influence the market values and benefits from how well the system will operate in the industry like healthcare sectors. Company can apply new or existing knowledge from the market based into the system development. Scope process also changes when adopting new technologies from market and other AI based technology industry. (Brown, 2021).

Practices of scoping may be useful as breaking each task for efficiency for project managers in handling AI based system technology in digital healthcare. A successful project will lead to good scoping of the AI based system digital healthcare. (Johns, 2021).

Searching, this process allows firm to explore more opportunity for developing better technology-based AI for healthcare system. Company can conduct project kick off meeting to ensure that chosen technology is new and innovative and apply to the company requirements. Project manager and team can decide how the findings of new technology can affect overall performance of the project for digital healthcare AI based system. Without proper planning in the project for searching other new technologies the project will fail as cost and time will be wasted and company will lose to other competitors. Project managers in company can bring team members up to date regarding the new knowledge obtain in other market areas and how it will impact the current project development on digital healthcare AI based systems. Searching techniques with enhance methods can be applied to explore more and systematic technology to develop and assess whether these searching methods proven useful in how the ideas from different areas implement to build a robust system like digital healthcare with AI based technology. (Brown, 2021).

Evaluating, this process focus more on how the selected technology is evaluated through different options and methods to ensure the developed system benefits the company and the technology assessment process. Evaluation can include financial options that may benefits how the technology will be evaluate through market values and consumer needs. Company can create strategy plan in executing the evaluation process in evaluating the specific technology. Uncertainty issues can be resolved in terms of market-based planning. Evaluating can also prevent misused of irrelevant technology tools in developing the required technology for digital healthcare for healthcare sectors. Evaluating can also include deploying the technology through advertisement or commercialization through internet and boost demands among users to acquired it in the growing industry. Evaluating process also determine if risk and challenges present during the launching and evaluation of the digital healthcare AI based system. Company must explore and identify which tools and techniques are useful for evaluating the system and to prepared for distribution on the market and target areas. (Brown, 2021)

Committing, process of underlying which properties can lead to success of developing advance and enhance AI based technology. Besides, company must be able to shield the risk process in strategy plan for the developed systems. Company should take actions in committing to building a better AI based system for the healthcare operations like clinics. Firm must ensure that sufficient tools to proceed with good strategy in promoting the developed technology to market areas and good target areas also. Firms believe that the developed technology should be leading in the market application thus fulfilling requirements for consumer rights and healthcare areas. (Brown, 2021).

**Assess the technology risk, marketing and organizational risks in adopting new technology**

Technology risk is a process of how the technology will fail due to other circumstances and risk in the market. Incidents such as loss of data, theft on security and cyberattacks since digital healthcare system is online and can be hack to endanger lives of patients in healthcare sectors considering many systems of digital healthcare are implement in clinics and hospitals. Company should identify this technology risk and resolve them quickly as the impact on the developed technology could be bad for the company reputations. Company can appoint project manager to discuss with project teams to ensure which parts of the system will be affected by the technology risk and take actions to prevent from occurring. (Garcia, 2021)

Marketing risk reflects how customer view the product or AI based technology on its benefits and downfall towards the market and target areas like hospitals and clinics. Company must handle marketing risk positively because branding, marketing strategy and values are important in building and launching a perfect product or AI based technology like digital healthcare systems. Branding of the digital healthcare system can be disrupted by any competitor to expose fake product from the company thus reducing profits and technology usage in healthcare areas like hospitals. Marketing strategy should be focus on which target areas in which the system is most suitable like in hospitals or clinics areas. Company should avoid disrupting values of the AI based technology system as it would allow other companies to take control of the market and boost their financial areas and customer requirements. Certain type of testing can be carried out towards each category of customer to ensure how their AI based technology system will be viable and useful for the environment not only in healthcare sectors but for business, schools, university, housing areas, and others. (Buccella, 2021)

Organizational risk is important to company as it relates on how the organization will prepare to avoid this risk from disrupting the development strategy and process. Organizational risk is difficult to find if not found early during development of the AI based technology systems. Miscommunication, security and not moving forward in terms of progress are terms that company need to address and resolve this risk to ensure success of the AI based systems. (Walker, 2021).

**Evaluate the public policies related to new technology**

Evaluating public policies relating to new technology for healthcare is crucial and important as how the technology is used on patients and how it can be control by other external users like hackers who wants to disrupt the healthcare operations and also other sectors like business, university and so on. This type of AI based technology must be understand completely before implementing public policies and the company and stakeholders can decide on the final decision for the developed AI based systems. Likely, company and government agencies can determine whether this system is not only efficient for healthcare in covid 19 screening but also how its properties reflect on society and how society view them. Creating a better public policy could lead to ensuring the handling of the AI based technology in healthcare is in good hands and only have access to medical centres and government agencies with enhanced security. Public policy also enables better understanding on why this technology with AI based is distributed to healthcare sectors with strict rules and regulations, covid 19 screening with AI based technology in digital healthcare is reviewed by company and government agencies to ensure that public policies is followed by employee and project managers. Public policy also dictates how the AI based technology being used on society whereas how people or patients lives will be when applying this type of AI based technology in each sector for business, university, schools, and others. (Schneier, 2021).

Public policy also changed by new technology like digital healthcare system for clinics and hospitals. Filling knowledge, better policies, important information to be accessed are ways that new technology can affect or impact public policies in the company. Filling knowledge about the technology with public policies will ensure which party will have the knowledge to access it with proper care. Zoning areas which in needs of new technology will be implemented into the system models. Making new policies to ensure current policies won’t be affected by new policies in company making for the AI based technology. Although, going through previous policies to determine which areas is suitable and efficient to implement into the company development for the AI based technology systems. By making new policies to not only benefits the development of the AI based system but ensure which possibilities to be explored and find the best and optimal policies to execute. Company can review and determine in the policies in which target areas has access to this type of AI based technology like hospitals, business, and schools. Company should be very careful to know who has access and how they handle the developed AI based technology like Digital Healthcare systems. New technology created has change ways of public policy being reviewed by company, AI based technology will influence decision on making better policies and safeguards it values and prevent theft from external parties from occurring. (Graham MacDonald, 2021)

In conclusion, digital healthcare will be optimized with machine learning enhancing covid 19 screening and increase testing time and alert if patients have illness like symptoms in covid 19. Besides, all healthcare sectors will be fully automated with digital healthcare system in near futures and minimize workflow of doctors and nurses and physicians. In near future, digital healthcare will not only change in terms of providing services but allow users to understand its concept and criteria thus fulfilling user requirements in healthcare sectors for covid 19 screening and even provide best methods or vaccine to eliminate covid 19 illness or symptoms. Covid 19 cases are still spreading across Malaysia and still AI based technology is new and untested. Vaccine created from lab only sustain the covid 19 illness and not eliminating it. AI based technology not only use for medical purpose but also on academics for students and allow them to understand importance of AI based technology and how it has reflected and change ways of lives around the globe. With better AI based technology in covid 19 screening, cases of covid 19 infections will reduce instantly in Malaysia and the worldwide. Company can include better planning in policies and strategy in preparing digital healthcare system to be distributed to market and provide better services and enhance experience for healthcare systems. Digital healthcare has many types of application proven useful for patients and elderly people to use during their recovery time. With AI algorithm, digital healthcare system will be distributed to target areas of low income and age group. Company can further enhance experience of the digital healthcare system for covid 19 screening. Traditional ways of covid 19 screening will be disposed eventually when AI based technology take over the industry and automate the covid 19 screening and give better feedbacks to people of all age and nationality. Digital healthcare system for covid 19 screening should be based on rules but on encouraging demands for patients and people to acquire this technology more. Machine learning is very important in artificial intelligence as it is being used in system like digital healthcare system for hospitals, restaurant, schools, university and business too. Project managers in company not only understand how the technology and public policies affiliate with each other but how the customer and users view it as an idea or concept that can enhance and optimize daily task. Project manager can apply project management process to develop better AI based technology system in variations from different products deployed on the market areas as creative and innovative ideas. To provide best performance and experience for patients in digital healthcare system, company can implement better management to overcome challenges and risk. Company must think out of the box and be innovative in developing AI based technology which has distinctive features in which varies from other AI based technology system and create demands and interest in customers and organizations to acquired the AI based systems.

# References

Achim Steiner, P. S., 2021. *Financial Options.* [Online]   
Available at: https://www.economywatch.com/financial-options  
[Accessed 23 November 2010].

Brown, W. J., 2021. *UM MBA Program: Technology Assessment Process.* [Online]   
Available at: https://www.slideshare.net/wjbrown2009/um-mba-program-technology-assessment-process  
[Accessed 30 March 2010].

Buccella, D., 2021. *Top 5 Risks that Marketing Departments Face.* [Online]   
Available at: https://www.resolver.com/blog/top-5-risks-marketing-teams/  
[Accessed 18 February 2021].

Garcia, T., 2021. *What is Technology Risk?.* [Online]   
Available at: https://reciprocitylabs.com/resources/what-is-technology-risk/  
[Accessed 25 June 2020].

Graham MacDonald, K. O., 2021. *Three ways tech is changing public policy.* [Online]   
Available at: https://next50.urban.org/article/three-ways-tech-changing-public-policy  
[Accessed 20 November 2018].

Jobie Budd, B. S. M. E. M. M. V. L., 2021. *Digital technologies in the public-health response to COVID-19.* [Online]   
Available at: https://www.nature.com/articles/s41591-020-1011-4  
[Accessed 12 6 2021].

Johns, K., 2021. *5 best practices for successful project scoping in Software Development Projects.* [Online]   
Available at: https://www.ishir.com/blog/5858/5-best-practices-successful-project-scoping-software-development-projects.htm  
[Accessed 16 June 2021].

Putra, L. D., 2021. *Advantages and Disadvantages Of Financing Options.* [Online]   
Available at: http://accounting-financial-tax.com/2009/05/advantages-and-disadvantages-of-financing-options/  
[Accessed 13 6 2021].

Schneier, B., 2021. *Policymaking must catch up with technology - before it's too late.* [Online]   
Available at: https://www.weforum.org/agenda/2019/11/we-must-bridge-the-gap-between-technology-and-policy-our-future-depends-on-it/  
[Accessed 12 November 2019].

Walker, D., 2021. *5 Most Crucial Organisational Risks You Need To Know.* [Online]   
Available at: https://www.readinow.com/blog/crucial-organisational-risks-you-need-know  
[Accessed 24 October 2017].