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INNOVATIVE SYSTEMS PORTFOLIO

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ABSTRACT

The efficiency of our workplaces may be substantially improved by the use of artificial intelligence. The human workforce is freed up to focus on tasks that require creativity and empathy, among other skills, when AI is used to perform repetitive or dangerous tasks. The technology's complexity and manufacturers' lack of confidence in its capabilities are major impediments to widespread AI deployment. If we don't have any experience in data science, it's difficult for us to grasp how predictive modelling or data science works.

Keywords*: innovative, systems, portfolio*

I. Introduction

Using this business research helps me to improve my research skills. Big data and innovation have been learned a lot from this. But there is a wealth of information that can be gleaned by implementing this method for the benefit of business growth from big data. Keeping all preferences intact is critical for the company to satisfy the needs of customers and maximise profits. These factors contribute to the growth of the business and allow it to reach the widest possible audience. There is a need for security to be put in the systems in order to complete the data storage procedure. That module proven to be critical and helped me get as much knowledge as possible is the focus of my report. The module that has been taken under consideration are:

- The art of innovation and the psychology behind creative thinking
- Design thinking
- The world belongs to Artificial Intelligence
- Big data and its impact on us

II. Discussion and Analysis

Challenges

The art of innovation and the psychology behind creative thinking

A contrast between innovation practise and support approaches is evident: the latter focuses on social action, whereas most of the work on instances of creativity suggests solitary engagement (Paut, Sabatier, & Tchamitchian, 2018). Innovative thinking is concerned with putting creative ideas into action in order to create something new that benefits individuals, society, and the nation as a whole.

Design thinking

Design thinking comes with its own set of difficulties, including determining if a solution is desirable, viable, and/or feasible. It takes time to get to know them well enough to identify the correct problem to fix. Design Thinking teams are instructed to take shortcuts and reduce critical ethnography/immersion work to phone interviews and limit the creative period for ideation to only four hours of a two-day session, with devastating effects (Dmitrievsky, *et al.* 2021). It is common for Design Thinking initiatives to run into difficulties because they fail to maintain alignment throughout the whole process. Project sponsors, core team members, and workshop participants all have a role to play in a Design Thinking project, but it's the practitioners who spend the most time with the client's consumers and sift through the data to generate insights that are the most advanced in the process (Rydberg, 2018).

Big data and its impact on us

Information that citizens are informed by is manipulated, possibly leading to disinformation and weakening democratic and political processes and social welfare. Big data is a threat to both society and politics (Laurent, Beauregard, & D'Amours, 2021)." Big data solutions enable firms to gain insights and make well-informed decisions, detect patterns, and increase productivity. There's more to big data than that. Big data has a significant influence on businesses, the workforce, and society because of its wide range of applications. The following are the difficulties:

1. Data siloes and low information quality
2. Lack of cooperation in steering big data and artificial intelligence projects
3. A scarcity of expertise
4. Attempting to solve the incorrect problem

5. Out-of-date data and a lack of capacity to put findings into practise

III. Research questions

1. How the world has started belonging to the artificial intelligence?
2. How are big data important?
3. What are the impacts of big data on the business?
4. What is the art of innovation?
5. What is the psychology behind creative thinking?

IV. Benefits/Risks

The art of innovation and the psychology behind creative thinking

Exposure to the arts and the chance to engage in creative activities can help develop young children's creative thinking (Graziano, 2021). If done in a careful manner, learning about colour may help children develop language, advanced thinking, and a strong sense of observation. Creative thinking may frequently lead to innovative ideas, which shows us that there are many ways to solve a particular problem.

Design thinking

Thinking outside the box may also assist create the optimal conditions for getting a firm handle on what customers are saying in a deeper and more comprehensive way. We will be able to communicate with current and potential customers without having to resort to a one-way exchange of study findings alone customers (Dmitrievsky, *et al.* 2021). Design thinking helps firms better understand, analyse, and solve the problems they and their customers confront. It places a higher value on finding new ways to solve problems than it does on following established procedures.

The world belongs to Artificial Intelligence

It is possible that using AI in the workplace will contribute to a broader expansion of the economy. Artificial Intelligence (AI) has the potential to become more intelligent over time thanks to deep learning and machine learning techniques. Artificial Intelligence (AI) can reduce the danger of human error by analysing data from the past, in addition to saving money. In a nutshell, AI technologies help people work more efficiently. It is possible to employ artificial intelligence (AI) to do basic, repetitive tasks faster, as well as more complex ones. Whatever we do with AI, it will never run out of energy.

Big data and its impact on us

Big Data has the potential to help businesses make ground-breaking discoveries if they know how to utilise it effectively. Big Data solutions and Big Data Analytics may empower wer workforce in a way that adds value to wer organisation, as well as support data-driven decision making.

Big Data Analytics and technologies have — many advantages.

- A variety of data sources, such as the Internet, social media platforms, online shopping sites, business databases and external third-party sources, are used to gather information.
- Real-time market and business forecasting and monitoring.
- Make business judgments based on information concealed in massive databases.
- Optimize difficult judgments for unknown occurrences and future dangers to minimise risks quickly.
- The ability to identify problems in systems and business processes in real-time is essential.
- Utilize data-driven marketing to its fullest extent.

V. Formative activities

The art of innovation and the psychology behind creative thinking

Even the arts are not exempt from the importance of innovation and originality in academic pursuits and educational activities (Al-Waely, *et al.* 2021). The creative process, like the preceding chapter's discussion of reflection, is an important part of making meaning of one's educational experiences. Creativity is included in Krathwohl's revision of Bloom's original 1956 taxonomy, which places it above assessment as a higher order thinking ability (Al-Waely, *et al.* 2021). A more true depiction of the taxonomy would be to include creativity as a process engaged in abilities at all levels of the taxonomy, and especially with higher order skills. It may be assumed that memorising facts does not necessitate the use of creative processes. In fact, the section on mind maps later in this chapter shows that imaginative techniques to recalling information may be highly useful.d

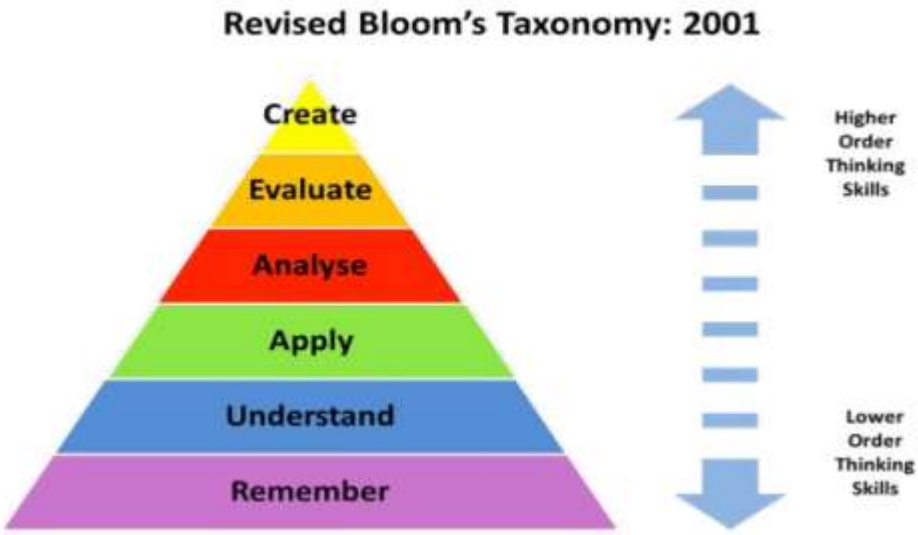

Figure 1: A revised version of Bloom's taxonomy

Design Thinking

Every class activity involving design thinking concepts has been documented in my blogs. My performance and comprehension during the class activities can be assessed by reviewing my recorded blogs. In the classroom, I learned about the business management idea of design thinking (Beilin, *et al.* 2019). For people's daily needs, design thinking is equally critical. In business management, design thinking is the process of rethinking any product or service using new ideas and innovative thinking. I've been able to learn and put into practise the design thinking skills and information I've gained via various activities and blog posts (Pomulev, & Kalmykov, 2020). In the recorded blogs, I'll be showcasing the most important lessons I've learned from the design thinking course. I learnt about the process of introducing new products in the final class session. I was able to put what I learned in this class into practise. The differences between learning launch and doing launch were also discussed. Learning launch is essentially an experiment conducted in the market in a short and cost-effective manner. The learning launch serves as a bridge between the commercial rollout and the customer co-creation (Pomulev, & Kalmykov, 2020). In learning launch, there are a number of principles, such as establishing strict boundaries, designing with focus on key assumptions, working in feedback cycles, and preparing for the unexpected. A 'learning launch' is an experiment used to study the growth of a company for future examination. I learnt about this. In addition, a learning launch requires strict restrictions and focuses primarily on the examination of an innovative company concept (Piterska, Lohinov, & Lohinova, 2019). Pfizer was a company I learned about in class

through a hands-on project. I gained an understanding of the fundamentals of the learning launch through this exercise.

The world belongs to Artificial Intelligence

Finding answers to issues using a variety of search strategies using input from people, their surroundings, sensors, and other input sources is fundamental to artificial intelligence, according to what I've learned. There are a number of factors that must be taken into consideration when searching for an answer (Zaharova, *et al.* 2018). If we are looking for the fastest way to locate a node, we are not going to find the greatest one (a depth first search may find a node faster but a breadth first search will find the shallowest node assuming a solution exists). It must also consider the computer's limits (the process may take much longer if the search method requires the storage of every node that has been read by the programme thus the measures of space and time complexity) (Fernandes, & Fragoso, 2017). To begin this semester, I described artificial intelligence as "a branch of technology that works with robots and other forms of technology that have the potential to learn, reason, adapt and react to varied situations." artificial intelligence.

Big data

Big data offers more advantages for the development of the company's business. This gives me a greater opportunity to study (Ostakhov, Artykulna, & Morozov, 2018). Because if I will work in the retail industry, which relies heavily on big data, this enhances operational efficiency and generates new income streams. The usage of big data gives the other organisation a significant edge in the competitive arena of business. Analysing the speed, volume, and variety of labour requires an understanding of big data (Rydberg, 2018). However, this necessitates the use of sophisticated procedures and technology in order to analyse, store, and capture varied firm data.

VI. Reflective statement

Among the numerous topics covered in this course is how to go about setting up and running a business from the ground up (Paut, Sabatier, & Tchamitchian, 2018). When kids start a unique business, they learn about time management, teamwork, and creativity all at the same time. Writing a reflection essay about my attitude, knowledge, and talents is what I'll be doing throughout this course.

I learned a great deal about the research process and primary data sources in this session. Research, I discovered, is all about finding, analysing, and evaluating the data needed to

answer the questions posed by the study's research questions (Laurent, Beauregard, & D'Amours, 2021). On the subject of primary data sources and their kinds, I learnt about interview, questionnaire, and semi-structured and unstructured interviews in addition to the idea of primary data source (Topka, 2019). I also learnt a lot about other techniques including panel discussions, group interviews, and the Delphi approach. In the next semester, I gained a thorough understanding of numerous design tools, such as prototypes for cutting-edge new ideas and concepts. I had the opportunity to work on a prototype and answer questions about it during a class exercise (Beilin, *et al.* 2019). Rapid prototyping and doubt testing were covered. In addition, there are a variety of prototyping methods, including 2D and paper models. I also learned about 3D printing and robot hands, which are two different methods of prototyping. Prototyping, in my opinion, would be beneficial in helping potential customers visualise fresh concepts (Graziano, 2021). I learned more about numerous prototype methods, such as paper prototyping, storyboarding, and sketching, as well as other strategies. I've gained a thorough understanding of prototyping, which is a vital element of design thinking. I was able to come up with creative answers to the difficulties I had recognised after this activity.

VI. Conclusion

It has been established that the learning process assists me to obtain adequate information about the value of big data. However, the learning procedure creates the company research project in the successful method. This project effort has enabled me to realise that the big data makes company efficiency in the current as well as in the future situation. The learning procedure has offered adequate abilities onto me and I may sprinkle this knowledge among the folks, who do not know the value of big data. I have also discovered that the big data is the vital items that the corporation employs for producing the high advance of business.

VII. References

Al-Waely, D., Al Hawamdeh, H., & Al-Taee 3rd, H. (2021). Designing an Investment Portfolio for Innovative Solutions to Control the Crisis Market during the Covid-19 Pandemic. *Indian Journal of Economics and Business*, *20*(2). http://www.ashwinanokha.com/resources/ijeb%20v20-2-27.%20IJEB.pdf [Accessed on 30-11-2021]

Beilin, I. L., Khomenko, V. V., Kadochnikova, E. I., & Yakupova, N. M. (2019). Modeling the process of portfolio investment of innovative projects of high-tech products. *Journal of Environmental Treatment Techniques*, *7*(Special Issue), 960-965. http://www.jett.dormaj.com/docs/Volume7/special%20issue/Modeling%20the%20Process%20of%20Portfolio%20Investment%20of%20Innovative%20Projects%20of%20High-Tech%20Products.pdf [Accessed on 30-11-2021]

Dmitrievsky, B., Terekhova, A., Al Knfer, S., Al Ameedee, M., & Senan, A. (2021, March). Digital management system for the formation of a portfolio of innovative projects in the agro-industrial complex. In *IOP Conference Series: Earth and Environmental Science* (Vol. 723, No. 3, p. 032029). IOP Publishing. https://iopscience.iop.org/article/10.1088/1755-1315/723/3/032029/meta [Accessed on 30-11-2021]

Fernandes, S., & Fragoso, J. L. (2017). Information Systems' Portfolio: Contributions Of Enterprise And Process Architecture. *Journal of Spatial and Organizational Dynamics*, *5*(3), 208-221. https://www.jsod-cieo.net/journal/index.php/jsod/article/view/96 [Accessed on 30-11-2021]

Graziano, V. (2021). SKiM-Project Portfolio Brief. https://repo.mel.cgiar.org/handle/20.500.11766/13664 [Accessed on 30-11-2021]

Laurent, A. B., Beauregard, R., & D'Amours, S. (2021). Activity-Based Life-Cycle Costing applied to an innovative forestry company product portfolio. *Economics, Management and Sustainability*, *6*(1), 6-26. https://jems.sciview.net/index.php/jems/article/view/118 [Accessed on 30-11-2021]

Ostakhov, V., Artykulna, N., & Morozov, V. (2018, February). Analysis of models for IT projects prioritization in telecommunication company portfolio. In *2018 14th International Conference on Advanced Trends in Radioelecrtronics, Telecommunications and Computer Engineering (TCSET)* (pp. 245-250). IEEE. https://ieeexplore.ieee.org/abstract/document/8336195/ [Accessed on 30-11-2021]

Paut, R., Sabatier, R., & Tchamitchian, M. (2018, July). Benefits of diversified horticultural systems: assessment with the modern portfolio theory. In *13. European IFSA Symposium*. https://hal.inrae.fr/hal-02737684 [Accessed on 30-11-2021]

Piterska, V., Lohinov, O., & Lohinova, L. (2019). Mechanism for forming an effective portfolio of research projects of institution of higher education. *Innovative technologies and scientific solutions for industries*, (3 (9)), 99-108. https://www.itssi-journal.com/index.php/ittsi/article/view/149 [Accessed on 30-11-2021]

Pomulev, A. A., & Kalmykov, V. V. (2020, May). Methodological aspects of credit portfolio management in financing innovative projects. In *International Scientific and Practical Conference* (pp. 372-383). Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-53277-2_45 [Accessed on 30-11-2021]

Rydberg, K. T. (2018). *A Systems Engineering Approach To Optimizing Project Selection For Portfolio-Type Research And Development Programs: A Case Study Of Navfac Exwc's Naval Innovative Science And Engineering Program*. Naval Postgraduate School. https://apps.dtic.mil/sti/citations/AD1065497 [Accessed on 30-11-2021]

Topka, V. V. (2019). The Cross-Impact Analysis of Innovative Projects in a Portfolio. *Journal of Computer and Systems Sciences International*, *58*(5), 736-746. https://idp.springer.com/authorize/casa?redirect_uri=https://link.springer.com/article/10.1134/S1064230719050149&casa_token=rFTpfkV-5_IAAAAA:ojHCc6rxZeqHH2ycYZJn_Y4eUk6wBBdxwTbv5HtXXlL4qHwDt3HQGUtZM2UQ4eBuTvPY4gLkrIAMxVFn_vw [Accessed on 30-11-2021]

Zaharova, O., Teplouhova, I., Islamuratov, M., Kisurina, A., Panfilova, E., Stepanova, V., & Ershov, A. (2018, October). Innovative strategy decision and portfolio assets

analysis instrument–Permanent model of on-line reserves and resources monitoring. In *SPE Russian Petroleum Technology Conference*. OnePetro. https://onepetro.org/SPERPTC/proceedings-abstract/18RPTC/3-18RPTC/D033S018R011/449061 [Accessed on 30-11-2021]