Industrial digital transformation IBE505

1)**UPS is an American shipping and supply chain management company that intends to use digital tools to synchronize its operations and logistics strategy to better meet customer needs. They ran interviews with a portion of their customers and concluded that there are two major customer experience challenges UPS need to deal with:1) fast delivery and 2) real-time package tracking. As a chief innovation officer (CIO)at UPS:**

a)Can you propose a solution that can significantly improve the customer and stakeholder experiences and enhance efficiencies of the company operations?

For this problem, i would propose an atempt at real time tracking of the trucks from the warehous with the use of GPS, we have to ID the trucks and let the cusomers track their package. For safety reasons there has to be a delay on the tracking, to avoid malicius intent and theft of goods

b)Describe what emerging technology you will use to implement that solution?

Here i would use an allready existing technology GPS

c)Define your role as a CIO within UPS?

My role as CIO would be managing and implementing computer and IT systems, in this case it would mainly be focused on information technology

d)If your business has a gap in the skills required to implement your innovative solution, how would you help your business to bridge that gap?

I would outscource the specific problem to a tech firm who either can implement the solution with the technology we have, or develop the technology further to reach our goals

e)The Sustainable Development Goals (SDGs) are a collection of 17 interlinked global goals designed to be a blueprint to achieve a better and more sustainable future for all. The SDGs were setup in 2015 by the United Nationsand are intended to be achieved by 2030. Which SDGsyour digital transformation solution will positively impactand how?

2)**The COVID-19 pandemic has affected the education industry and nearly all institutions have been adopted to digital education approaches that make it safer for both students and teachers to meet social distancingconstraintswhile keeping the academic standard unaffected. Major problems with remote learning arethe limited access to labs and lab equipment and inability to monitor suspicious activities such as opening tabs, chat boxing in the background, picture exchange and more while students are taking home exams.**

a)Propose a digital solution to help students to collaboratively run lab experiments from their own locations while enhancing the realfeeling of objects and their learning experience?

I propose the usage of VR and AR to simulate an authentic lab experience, where you will have the nessesary tools and equipment to make a functioning experience,

b) Propose a solution that can monitor students' activities during home exams such that it can provide real-time feedback to prohibit suspicious actions and enhance credibility and fairness of such exams in the future?

You could use programs that prohibit the use of any other webpage other than the one you are ment to use, such as in this exam inspera, This program will lock down any other webpage for the duration of the test, and will then unlock when the test is either delivered or the time runs out

c)Describe the emerging technologies you will use to develop these solutions?

For this i would use Software

d)What are the challenges that might impact online learning?

Online learning is an interesting concept thats still being worked on, there is challenges like, Adaptability issues, Technical issues, time managing, Digital Literacy, Distractions, Motivational issues,

e)Refer to 1e), which SDGs your digital transformation solution will positively impact and how?

3)**As hospitals strive to provide the right care to the right patient at the right time, healthcare providers need to do two things: evaluate patients' needs accurately and manage hospital resources effectively. Shortage in healthcare staff can lead to overworking, crowdingand hence more medical errors, and patients feel neglected.**

a)Propose a digital transformation strategy to mitigate healthcare personnel staffing shortages in hospitalsto lower operating costs and enhance services?

b)What emerging technologiesyou will use to accelerate the proposed transformation?

c)State advantages and disadvantages of implementing this solution on the cloud.State the four different cloud models?

We have the Public cloud, the private cloud, Hybrid cloud and Multi cloud

d)Hospitals and healthcare providers as non-profit/public organizations does not have the skills and resources tofinance, develop and run such projects. Can you propose a wayto accelerate and complete this solution so expected services are delivered to the publicon the right time?

e)Refer to 1e), which SDGs your digital transformation solution willpositively impact and how?

4)Industrial digital transformation can be defined as the minimum effort to stay in business.

a)In the commercial sector, industrial digital transformation is driven by two kinds of strategies: defensive and offensive strategies.Define and compare between the two strategies with examples?

Defensive strategy is about protecting the busniess from competitors and disruptions. As most other car companies have done, with producing electric cars themselves to stay in the competition with tesla

Offensive strategy is disrupting the rest of the industry, like tesla has done, by giving new techology and a price premium on cars

b)Crisis has always helped industries to identify an opportunity for transformation. A new survey finds that responses to COVID-19 have speeded up the adoption of digital technologies by several years ahead. Explain that with examples?

An example of this is schools, mandatory classes, physical rooms and exams, have now due to covid been replaced with an almost all digital experience for the past two years, with digital exams, classes and such

c)Define technical debit?

Technical Debt is implied cost in redoing/reworking caused by taking shortcuts with code development, hardware or software, its cutting costs in the short term, but could prove expencive in the long term

d)What are some of the leading indicators of failure in an industrial digital transformation?

We have three main reasons for failure

1 A misalignment between the vision and expectations for transformation, and the results that are actually achievable

2 Economic failure

3 Techincal faliure

e)What is lights-out manufacturing? How is industrial digital transformation driving lights-out manufacturing?

Lights-out manufactoring is per definition a production method that dosent require humans on site to make goods, these are automated factories or factories that are capable of being run without human pressence, Idustrial digital transformation is pushing this forward because of the option to run this between shifts to increase production and money saved by labor