Exam IBE505 Candidate 62

1) a) A way to help the efficiency of delivery would be to tag the different orders with the closest available storage facility that has the item(s) available and connect it to the customer address, and then suggesting the fastest and cost-effective ways of delivering it to its location.

   b) Here I would implement a software or AI that automatically finds the closest warehouse with the available items that were ordered. This part could also be shown to the customer to give them a fair estimation of how long the delivery might take. The software will automatically suggest the fastest and cost-effective ways to deliver the orders.

   c) A CIO refers to Chief information officer/Chief digital information officer. Within UPS I would have responsibility for information technology within the business. Which means I would be charged with overseeing a digital transformation and see that it goes smoothly.

   d) If there would be a skill gap within the business as a consequence of the implementation. I would hold courses and exercises to help the employees get more familiar with the system.

   e) The goal 17 applies to this, due to UPS not delivering their own products and would need to actively cooperate with its business partners to receive details about availability of their products. But also goal 9 to enhance infrastructure allowing people to receive for example medicines faster, which would again apply to goal 3.

2) a) A potential solution for this problem could maybe be fixed with an implementation of VR and AR technology. VR would allow the students to feel like they are physically in the lab and the AR technology would let the students see objects in real size and even move them.

   b) A technology that could be implemented to try to avoid suspicious activity to at least some degree is eye-tracking. This would allow the test holders to monitor live or as a recording. Then the test holders would be able to see if the students are watching or using help that is not permitted.

   c) VR/AR are technologies that are fast growing technologies when it comes to popular opinion. They are used in many different industries as for example the gaming industry. VR (Virtual reality) allows you to get the sense that you are in a different place with the help of VR-glasses. You can visit places all over the world from your own living room. AR (Augmented reality) allows you to see virtual objects in the real world. It would allow a student to use and see lab equipment in his or her

bedroom.
Eye tracking is a relatively new emerging technology used often to help people with disabilities. For example, Stephen Hawking's wheelchair had a screen with eye tracking that allowed him to look at the letters at a keyboard, to allow him to speak, because he was not physically able to do this himself.

d) Online learning in my opinion is suffering because of the lack of interaction. The teachers present long presentation and ask for questions not knowing that the students already might have lost the trail and not following the class. Also the fact that the classes are often so big people are afraid to ask so called "dumb questions" in fear of being humiliated.

e) AR/VR would help with Goal 3 and 4. It would allow the students to never be in any real danger doing dangerous experiments with the help of these technologies. Because they never actually being in the presence of dangerous materials. Also, it would help them to further educate themselves by testing some elements that might be dangerous in the real world.
Eye tracking would mainly impact goal 4 for quality education, by ensuring that they are obtaining their degree in a fair way.

3) a) A lot of health personnel uses a lot of time with documentation. And time is resources as they say. If you could implement a way to let the healthcare personnel document while treating the patient, this would save a lot of time. And allow them to move from patient to patient more quickly.

b) To perform this task, I would use AI that would listen to the nurse or doctor while they are treating the patient. And form there write down the nurses/ doctor's notes from that dialogue. Audio to text in other words. Then it would only need a few seconds from the nurse to doublecheck the notes before leaving the patient.

c) If you would connect this technology to the cloud, it would allow other doctors and healthy personnel to watch the notes real-time and access it on their department if the patient is moved in other words transparency to increase communication. A downside is that a patient journal is highly sensitive information a new and secure measures must be acquired to safely protect it. Another downside if the network goes down, it might be hard to access the cloud. This would be even worse if the cloud servers themselves goes offline.
The four different clouds are: Public, private, multi and hybrid cloud.

d) To fund this project I would go for a media campaign to try to rally public opinion, to then put pressure on elected officials to get more funding to the project. Maybe even influence private companies to start developing the product without public funding and then selling the finished product to the authorities.

e) This implementation would reach for goal 9 to better the innovation and infrastructure of the hospitals. But you could also argue for goal 3 where health personnel would be able to treat more patients effectively.

4) a) Offensive strategy is when a company actively tries to disrupt the rest of the market with new emerging technology, and always tries to find a way to use the new technology into their products. An example of this is Tesla and their digital twin technology to easily locate potential problems and give software updates easily to the car.

Defensive strategy can be applied to most of the car industry. The defensive strategy refers to protecting the company or business from competitors and disrupters by monitoring the market and more slowly try to implement proven technologies. Take for example when more and more cars slowly had integrated sensors to help them with different thing for example a reverse sensor that indicate when you are approaching a wall or another object and starts beeping more intensely the closer you get. Or maybe just a reverse camera so you can see what's behind you while reversing.

b) During the covid19 pandemic more and more companies was forced to work from home. Then they had to adapt to a new situation and figure out a way to easily communicate during these trying times. This led to wide implementation of Microsoft teams and Zoom. This was the best way to be able to have meetings in a safe way but still being able to hold presentations. This shows that crisis might force business to change for the better as MS Teams and Zoom are still widely used as a form of communicating even as the Pandemic cloud slowly fades.

c) Technical debit is defined as the implied cost of extra work you must put in due to implementing a cheaper approach than a more expensive solution. This applies to software as well as hardware solutions.

d) Some of the leading indicators of failure in an IDT can be:
- When there is lack of support from top-down. (Leadership does not help or give the necessary resources).
- The poor or lack of IDT strategy. (Not having a smart plan to implement new digital services)
- Not focusing on the customer perspective. (Not trying to appease the customer needs, but rather just making a product that you think they want)

e) Lights-out manufacturing is when you replace all human work power in a factory, in favor of robotics. The drive of this strategy is to achieve more efficiency at a lesser cost. Packaging is an example of where you could implement this. A human gets paid for every hour he/she is working. As well as maybe health benefits depending on the country and company. They might also get tired of doing the same thing over and

over, and this might decrease morale and efficiency. While a robot is more expensive to acquire it will be more cost effective over time. It does not need breaks, healthcare, and a salary, and can effectively workday or night.