Summary Post: Shan Swanlow

Information Systems have proven to be of great benefit to society as a whole. They provide information to people in a timely fashion, without any spatial constraints, empowering decision-making and enabling complex tasks to be completed efficiently (University of Essex Online, 2021). Furthermore, businesses have used them to overhaul existing workflows, allowing them to deliver greater value to customers at a faster rate, thereby increasing their profitability and market leadership (Bourgeois, 2014).

However, despite these advantages, information systems can be rendered useless, or even harmful, if all elements of the system are not managed. Due to the fact that information systems have a dependency on real-world data that is tied to people (Bourgeois, 2014), it is often the case that a failure in any element of an information system can negatively impact the people that are tied to the system as a whole. The case studies presented in the forum provide many examples of this across various elements of an Information System: hardware failures can ruin customer experiences at scale (Justus, 2021a), software failures can endanger lives (as per my example regarding a 911 telephone service outage), while process failures could bankrupt an entire company (Mane, 2021).

Subsequent discussions regarding the above mentioned case studies have shown that a reliable approach to guaranteeing the safety of an Information System is proper adherence to the SDLC. The SDLC provides structure- this structure provides multiple opportunities for clarification and refinement of a system and its implementation, preventing issues from occurring when it may be too late to address them. Its effectiveness can further be augmented through a focus on automation during later phases (Sigera, 2021), using all available knowledge to make better decisions (Justus, 2021b), and in the case of having limited resources, adapting the development strategy according to which constraints may exist at a certain point in time (Smirnov, 2021). Finally, the longevity of an Information System can be guaranteed through a strong focus on object oriented design. This can be achieved by applying object oriented decomposition and proper abstraction, which enables a problem can be expressed purely in terms of its own domain (Lone, 2020). This provides flexibility and extensibility, which enables the system to grow (or shrink) to match ever-changing requirements and specifications while still retaining said flexibility and extensibility.

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