**Information Systems in Organisations**

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*1. Compare and contrast Functional and Product organisations, addressing structure and features. Explain why an organisation might choose to implement each of these organisational structures.*

A functional organisation is made up of departments which are based on functions such as sales, finance and production while a product organisation is structured by grouping teams according to the specific products or output they produce. Most companies are a combination of organisation types and I have experience working with a large animation studio, Brown Bag Films, which contains features of both functional and product types.

The main features of a functional organisation are specialization and efficient allocation of resources. Within Brown Bag Films, employees are separated into various departments which are involved in the production of animated film and TV series. These include animation, 2D design, modelling, texturing, lighting and rendering. As such, skills are developed at a faster rate as people focus on their area of expertise with the company also providing expert speakers to facilitate training. Each team member knows their role which results in efficient resource allocation.

The key features of a product organisation are customer focus and flexibility. The structure of Brown Bag contains teams which are allocated to specific projects and, within these teams, are separate teams for specific areas such as animation and design. As the focus is on the product (film or TV show), the team must be flexible in order to adapt to requests from the client. With its combination of functional and product organisation, Brown Bag Films runs efficiently, allowing for specialization of skills while also focusing on client needs with the ability to move employees from one project to another if the need arises.

*2. Describe the characteristics of data, information and knowledge with reference to how and at what management level each may be used in decision making in an organisation.*

In an organisation, data, information and knowledge play an integral part in the decision-making process at various levels of management and when understood and used correctly, lead to wisdom.

Data refers to raw facts and figures relating to an organisation which, without context, cannot be converted into information. With regard to my experience within Brown Bag Films, data may include the number of frames completed by an individual artist per day or the number of animated shots which need to be redone within a team. This data is used routinely by co-ordinators to track work done and plan for day-to-day operations.

Data is converted to information when it is given meaning, allowing it to be used by humans. This happens when data is structured and presented in a way that solves a problem. For example, within Brown Bag, information is shared with the wider team at weekly meetings such as a progress report on current episode or comparing how the team’s current pace compares to initial planned goals. In this way, the line managers and team co-ordinators can reevaluate and make decisions about the upcoming period with more accuracy, perhaps requesting resources from another team if needed.

When information is gathered and processed, it can be converted into knowledge. New knowledge can then be created from this using logical inference. For example, in Brown Bag, senior management will use the knowledge gained from previous projects in order to negotiate with potential clients, for example, as the knowledge about estimated time frames within which a project can be completed has been gained. Another good example from my own experience was the way in which teams prepare thoroughly before starting into the animation process. In the same way as when chopping down a tree, you should first sharpen the axe, the animation team first created a library of cycles and poses which could then be utilised during the production of animated scenes. The library list was created by the team leads and progress tracked by the coordinator. This is a clear example of how knowledge was used to create an efficient system within the team.

*3. What is the purpose of Systems Analysis? Describe how Systems Analysis  
might be used when developing a new Management Information System to  
address a business need.*