Ryan Krage
P7

P7 - Use IT tools to produce management information

IT Tools Used to Produce the Management Information System

Databases
All information systems have a database which stores all the data entered into the system. Designing and creating a database is the first part of building an information system and there are several stages to developing one – including creating a data model. A data model represents the information in the database in a specific layout which describes the information stored and the relationships between the different sets of data in the database. Data models can be applied to both manual and computerised systems.
The information and data in the data model is then stored in a database on a hard drive or central server. To make navigating a database easier, a database contains an index which makes locating information simpler – this is especially useful for large databases.

Artificial Intelligence and Expert Systems
Artificial Intelligence (AI) and expert systems are used by an information system to make mimic business actions that an expert in a specific department would make – the computer performs actions that typically a human would do. The system will have a set of changeable rules which dictate how the system will work and allows it to mimic the actions of an expert employee. These rules allow the system to change the output of an information system by analysing the input and following the predefined guidelines on what to do with the data received.

Predictive Modelling
Predictive modelling can produce useful management information which allows a company to predict events that might occur in the future. An information system uses historic data stored within its database to develop a model which shows the future outcomes of specific changes in the company. This information can be used to predict any downfalls in the company or the expected profit for the next year; thus allowing the company to make decisions on how to improve the company's work.

Internet
Information systems can be improved by making them accessible through the Internet. Internet accessible information systems can allow the general public to access them, which is good for companies that want data from the general public etc. Alternatively, an information system connected to the Internet can be only accessible by users within the company using the information system. The system is then protected using passwords and user identification methods. There are other benefits of online information systems such as the company will not face as many network difficulties as it would otherwise. In addition, any development tools on the Internet can be used to build and improve the information system, and minimise the time spent developing the system.

Data Mining Systems
Data mining systems can look through the data input into an information system and identify and patterns or trends. This is a valued tool in all information systems as it can locate any patterns/trends in data that the company has not spotted so that they can use them for decision making. Data mining is easily usable as the system can sort the useful information into categories making it easier to understand and use. It can also be used alongside expert systems to predict future patterns by analysing current patterns and trends to work out if they are increasing or decreasing. This information can influence a manager's decision.

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