IT

1

Introduction of Information Technology

Introduction of Information Technology

Information

In the broadest sense, information is data that has a context*.
This concept is useful because the context helps us to make decision
and solve problem using data and information.
Because we have defined information in terms of data, let us examine
the relationship between the two in more detail.

* Context: 1. parts that surround a word or passage and clarify its meaning.
       2. relevant circumstances.

Introduction of Information Technology

Data

Data are simply facts, numbers, letters, or symbols, whereas information always has a context.

A simple examine illustrates this.

If I were to hand you a piece of paper with the letter A written on it, what have I given you? A piece of data – and rather raw data at that.

If I hand you the same piece of paper and tell you that it is your grade for this course, that is information.

Written by Shinobu

Introduction of Information Technology

Information Systems*

An information system is a system that take data, stores and process it, and provides information as output.

* Systems: A system is a set or arrangement of parts that act together to perform a function. The term system is used to describe organization, and it helps you to put other concepts in order. As you become more familiar with systems and computers, you will see the advantage of using this term to help organize your thinking.

Written by Shinobu

Introduction of Information Technology

Communication Systems
Communication is the transfer of meaningful information.
If no information is present, the communication becomes noise.
And if information can't be communicated, it can't be used.
In its simplest form, a communication system consists of a sender
(the technical term for sender is transmitter), a channel over which
to send the information, and a receiver.

Introduction of Information Technology

Network
Network is the term that is used to describe at least two but usually
more communication devices connected to each other.

Introduction of Information Technology

MIS (Management Information System)

MIS refers to a system that gathers, condenses, and filters data until they become information, and then makes it available on time, and in a useful forms, for use in decision making at various levels of management within an organization.

Introduction of Information Technology

IT (Information Technology) : 1/3

As the scale and complexity of a business grow, its managers can unquestionably take advantage of Information Technology – a collective term for the computer and communication hardware and system and application software – to make their employees more productive and their business more effective and efficient.

By assembling, storing, transmitting, processing, and retrieving data, Information Technology helps make information more accurate and useful, and make it available when and where it is needed.

Introduction of Information Technology

IT (Information Technology) : 2/3

For example, many businesses employ people to peruse news services and newspapers, select articles that are of interest to the business, and edit them into a daily report for management. If the articles could be captured using a scanner and optical character recognition software, edited with a word processor, and fed to management via the company's electronic-mail system, the organization could begin to benefit from information-technology tools.

Introduction of Information Technology

IT (Information Technology) : 3/3

In organization where computers are vital to operations, MIS departments are hard at work trying to understand the nature of the organization's business and to improve it with information technology. They accomplish this by carefully tailoring information technology to meet the needs of managers and other users throughout the organization.

Introduction of Information Technology

The Scope of Information Systems : 1/3

The structure of an information system often parallels the structure of the organization. An organization is often divided into functional units such as marketing, finance, administration, and manufacturing. There are management information systems for each functional unit as well as systems common to all functional areas.

Written by Shinobu

Introduction of Information Technology

The Scope of Information Systems : 2/3

Within each functional unit there are usual three levels of management whose needs an information system must address. They are:

The operational level, which is connected with the day-to-day management of the organization.

The tactical level, also known as middle management, which is concerned with achieving goals and correcting specific exceptions. Middle managers are usually responsible for more than one group of employees.

The strategic level, associated with top management, which is concerned with the long-range goals of the entire organization.

Written by Shinobu

Introduction of Information Technology

The Scope of Information Systems : 3/3

However, because no two organization have exactly the same needs, information system solutions are not generic. An organization's approach to information systems depends on a number of factors:

Size and number of facilities.

The kinds of arrangements an organization has with customers and suppliers.

The type of industry the company is in.

The speed with which the market changes.

Written by Shinobu

Introduction of Information Technology

Information Systems as A Strategic Tool: 1/2

Historically, the role of MIS involved automating the basic business transactions such as order entry, inventory control, and accounts payable and receivable, and then processing them.

But as corporations and governments evolved, increasing complexity and competition placed new demands on management.

To cope successfully, management had to place more emphasis on formulating, planning, and executing *Strategies*, which are plans of action designed to cope with change, competition, and uncertainty.

Written by Shinobu

Introduction of Information Technology

Information Systems as A Strategic Tool: 2/2

As a result, strategic management has become an important idea that guides organizational thinking and behavior, and the use of information and information systems in strategic ways has become the new and important role of MIS in the organization.

Using information strategically requires managers to think about:

(1) Where the organization is heading.

(2) How the competitive environment in which the organization operates is changing.

(3) The consequences of those changes to the organization.

2000　7

Written by Shinobu

15