

ISYS104: INTRODUCTION TO BUSINESS INFORMATION SYSTEMS

PART ONE: MIS AND YOU

CHAPTER 1: IS IN THE LIFE OF BUSINESS PROFESSIONALS

Q1) Why Management Information Systems (MIS)?

Because of **Moore's Law**, the cost of data communication and data storage is essentially zero. So future business prof need to be able to *assess, evaluate and apply* emerging info tech to business, e.g. Facebook.

Moore's Law: 'The number of transistors per square inch on an integrated chip doubles every 18 months'

- The speed of a computer chip increases in proportion to the density of the transistors (i.e. density doubles → speed doubles)
- Price/performance ratio of computers has fallen dramatically:
 - Computers are smaller
 - Less expensive

How Can I Attain Job Security?

Develop a *marketable skill* and have the courage to use it.

- Routine skills and textbook knowledge are no longer effective (these will be outsourced to the lowest bidder due to Moore's Law)

RAND's Corp. suggests marketable skills are:

- ⇒ Ability to adapt to changing tech and shifting demands
- ⇒ **Strong non-routine cognitive skills**

Robert Reich list the following necessary skills:

Skill	Description
<i>Abstract reasoning</i>	Ability to make and manipulate models
<i>Systems thinking</i>	Model system components and show how components' inputs and outputs relate to one another
<i>Collaboration</i>	Develop ideas and plans with others, provide and receive critical feedback
<i>Experimentation</i>	Create and test promising new alternatives, consistent with available resources

Q2) What is an Information System?

A group of components that interact to produce information. Five fundamental components of computer-based information systems include:



Example: Airline Reservations System

- Hardware: hundreds of computers, routers, etc. linked together
- Software: hundreds of diff programs to record customer details, reservations, promotions, etc.
- Data: about flights, customers, reservations, etc.
- Procedures: followed by airline personnel, travel agents, customers
- People: customers, travel agents, airline staff, IT personnel

Q3) What is MIS?

MIS is the development and use of information systems that help business achieve goals and objectives

Key elements of MIS:

- ➔ Development and Use
- ➔ Information systems
- ➔ Business goals and objectives

Development and use of IS

Business professionals (person who understands the systems requirements and business' needs) need to:

- ⇒ Take an active role in developing the IS to ensure that systems meet their needs
- ⇒ Understand how IT systems are constructed
- ⇒ Consider users' needs during development
- ⇒ Learn how to employ IT systems
- ⇒ Take into account ancillary IT functions → security and backup

Achieving business goals and objectives

MIS aids businesses in achieving their goals and objectives:

- ⇒ Businesses do not do anything on their own

⇒ It is the people within the business that perform work

Therefore, MIS empowers users to achieve business objectives:

⇒ IS exists to assist business people

⇒ IS exists to achieve business goals and objectives

Business people Must Ask Questions:

- What will the system do for us? What is its purpose? What will using it enable us to do?
- What goals can we accomplish through its use? How will it aid us in reaching our objectives?
- All of this technology is great, but what will it do for us? What will it do for our business and particular goals?

Q4) How does IS differ from IT?

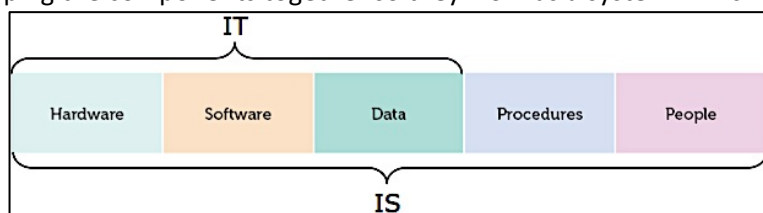
IT (Information Technology) includes raw technology such as:

- Hardware
- Software
- Data components

IT alone will not help an organisation achieve its goals until it is embedded in an information system (IS).

$$\text{IS} = \text{IT} + \text{People} + \text{Procedures}$$

IS makes IT useful by grouping the components together so they work as a system → Achieve more as a system



Q5) How do Successful Business Professionals use IS?

Emails, websites and instant messaging do not provide competitive advantage (although they are forms of IS)

Companies need IS that support the work of the business professionals. Developing the right IS requires input from those with the knowledge of business not just IT experts.

Methods to gain a competitive advantage using IS:

- Think creatively about problems, challenges and opportunities and find ways to apply IT and IS
- Create innovative applications using emerging (new) technologies, e.g. social media – Facebook
- Find ways to gain a competitive advantage with information systems

21st century business professionals should be combining:

Emerging (new) Technology + Existing Database Technology → New Business Model

Q6) What New Opportunities for IS are Developing Today?

Data storage and transmission are virtually free, which provides abundant opportunities.

Examples of commercial uses of social media:

- Facebook: - being used by businesses, e.g. YouTube uses Facebook to spotlight its most popular videos, generating big Buzz numbers as users share and repost their favourites
- Twitter: - used to document imaginative business applications by small businesses, e.g. JoAnn Hine, PackagingDiva.com - @packaging diva

Q7) What is your role in IS Security?

Security is essential in IS. Passwords are necessary:

- Should be a strong password, e.g. Qw37^T1bb?at
- Protect passwords from others (critical)
- Practise proper etiquette (never ask others for their password, never write yours down, don't share it)
- If others (e.g. IT support) have a legitimate need for your password – take the keyboard and enter it yourself and ensure that they cannot observe what you enter

Strong Passwords

- Use 7 or more characters
- Don't contain a username, real name or company name
- Do not use a complete dictionary word
- Use a different password to previous passwords used
- Use uppercase and lowercase letters, numbers and special symbols
- Users are knowledgeable analysts for a specific business function