

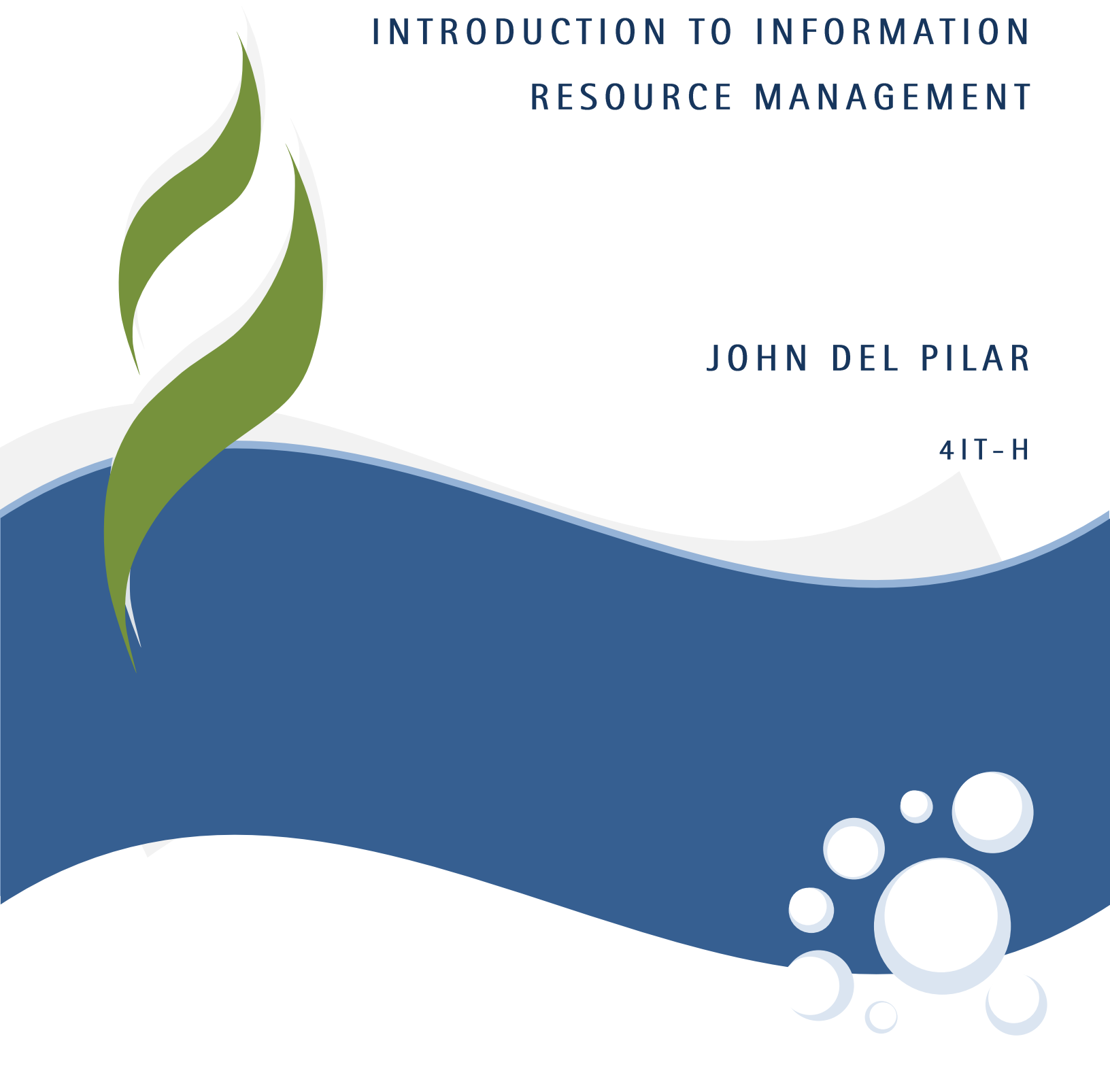
UNIVERSITY OF SANTO TOMAS

ICS 125

INTRODUCTION TO INFORMATION
RESOURCE MANAGEMENT

JOHN DEL PILAR

4IT-H





Introduction to IRM

The Firm and its Environment

- The **firm** interfaces with the environment
- The **environment** is the reason a firm exists
 - provides the resources that are required **to produce** the products and services
- The **firm owners** see the need to provide basic products or services
 - which meet specific environmental needs
 - they **invest money** to perform this task

Environmental Elements

- organizations and individuals
- exist outside the firm
- have a direct or an indirect influence on the firm
- exist in a larger system called **society**

Eight (8) Environmental Elements

- Suppliers
 - also called **vendors**
 - **supply** or **provide** the:
 - materials
 - machines
 - services; and
 - information
 - -- used by the firm to produce its products or services
- Customers
 - **receivers** of the products or services
 - produced by the firm
- Labor Unions
 - **organization** of both skilled and unskilled **workers**
- Financial Community
 - **institutions** that **influence the money resources** that are available to the firm
- Stockholders/Owners
 - people who **invest** money to the firm
- Competitors
 - **other companies**
 - competitor of the firm **in the same marketplace**

- Government
 - provides **assistance** in the form of:
 - purchases
 - information and funds
 - may provide **constraints** in the form of **laws and regulations**
- Global Community
 - geographic area **where** the firm **performs its operations**

Environmental Flow

- some resources flow more frequently than others
- **very common** flows include:
 - machine flow from suppliers
 - personnel flow from labor unions
- **less frequent** flows include:
 - money flow from the government
 - material flow to suppliers (returns)
 - personnel flow to competitors (piracy)
- **not all resources flow** between the firm and all environmental elements
 - machines normally do not flow from the firm to the stockholders
 - money shouldn't flow to competitors
 - material shouldn't flow to labor unions
- the **only resource that connects** the firm with all of the elements is *information*

Resources

- **assets**
- total means available to a company for:
 - **increasing production or profit**, including:
 - land
 - labor
 - capital; and
 - raw materials



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Resource Management

- Resources are **acquired** and **assembled** to be available for use when needed
- The assembly process entails **converting** an essentially raw material **into a refined form**
- Once the resources have been assembled, the manager strives to **maximize** their use
- The manager **replaces** these resources at a critical time
 - before they become inefficient or obsolete

Types of Resources

- Physical Resources
 - **tangible**
 - exist **physically** and can be touched
 - examples are:
 - personnel
 - materials
 - machines (facility and energy)
 - money
- Conceptual Resources
 - **non-tangible**
 - valuable for what it represents
 - managers use this to manage physical resources
 - example:
 - information (including data)

Definition of Information

- unlike other organization resources, it is:
 - **expandable**;
 - **compressible**;
 - **transportable**;
 - **diffusive** (movement/spread); and
 - **sharable**
- **collection of facts**
 - organized in a way that they **have additional value** beyond the value of the facts themselves
- should be:
 - **new**
 - repetition of previously received message is not informative

- **true**
 - false or counterfactual information is misinformation

Similarities of Information to Other Resources

- has a **value** and a **life cycle**
- **transformed from raw materials** into a finished product
- available in different:
 - grades
 - types; and
 - prices
- can be **substituted**
- its consumption can either be **expanded or capitalized**
- its cost can be **controlled** with the help of accounting techniques

Nature of Information

- Quantitative Information
- Qualitative Information
- Formal Information
- Informal Information
- Characteristics of Valuable Information

Quantitative Information

- **hard data** like:
 - test scores
 - numbers
 - statistics gathered with the use of:
 - survey instruments
 - check boxes
 - scales
- **not meant to be colored/influenced** by:
 - interpretation
 - opinion; or
 - experiences
- gives:
 - objective
 - unbiased
 - hard facts



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Qualitative Information

- individual narrative reports of **experiences or observations**
- gathered with methods that are:
 - **personal**
 - **direct**; and
 - **open-ended**, with minimal constraints on what the answers to the questions may be
 - these methods include:
 - personal interviews
 - case studies
 - formal focus groups
 - participant observation
- can allow the **discovery of new unanticipated information** relevant to your efforts
- can help you **understand perceptions and interpretations** of circumstances and events
- can allow **discoveries** of individual, and sometimes new, **experiences and perspectives**
- gives **subjective interpretation**, opinions, and personal experiences
- there are some things, such as:
 - feelings
 - emotions
 - opinions
 - human reactions, that **cannot be measured objectively**, so qualitative methods such as interviews are used

Formal Information

- **official** and **authoritative**
- meant to be **taken seriously** and is presented in a formal manner
- usually **more carefully prepared and verified** than informal information
- its **accuracy and reliability** should also be higher

Informal Information

- more:
 - **casual**
 - **less authoritative**
 - **less formally presented**; and
 - possibly **less reliable** than formal information

Characteristics of Valuable Information

- **R.V. & S.E.A.C.R.A.F.T.S**
- Reliable
 - can be **depended on**
 - depends on the reliability of the data collection method or on the source of information
- Verifiable
 - can be **checked for correctness**
- Simple
 - should be simple, **not overly complex**
 - sophisticated and detailed information may not be needed
- Economical
 - information should be **cheap to produce**
 - value of information must be **balanced** with the cost of producing it
- Accurate
 - **error free**
 - inaccurate information is generated from inaccurately processed data
- Complete
 - contains all the **important facts**
- Relevant
 - important to the decision maker
- Accessible
 - **easily accessible by authorized users** to be obtained in the right format at the right time
- Flexible
 - can be used for a **variety of purposes**
- Timely
 - delivered **when it is needed**
- Secure
 - secure from access by **unauthorized users**

Why do businesses depend on information?

- global **competition**
- strategic **advantage**
- intense **pressure** for quality
- information technology can mean the difference between survival and failure



Introduction to IRM

Management of Information

- Information is managed by **managers** different from physical resources
- The manager **ensures the necessary raw data is gathered then processed** into usable information
- The manager has to ensure that appropriate individuals **receive the information in the proper form at the proper time** so that it can be used
- The **manager discards information that has outlived its usefulness** and replaced it with information that is current and accurate

Information Management

- All of the activities presented before that is:
 - **acquiring** information
 - **using** it in the most effective way; and
 - **discarding** it at the proper time

Information Resource Management (IRM)

- IRM concepts rest under the premise that
 - information
 - information-related activities
 - technologies; and
 - personnel are **important organizational resources that deserve to be managed like any other resource** in the organization, such as
 - people
 - money; and
 - equipment

Interest in Information Management

- increasing complexity of business activity
- international economic influences
- worldwide competition
- increasing complexity of technology
- shrinking time frames
- social constraints
- improved computer capabilities

Areas of Work/Task in IRM

- Information Processing
 - Database Management
 - Records Management
 - Data Processing Management
- Data Administration/Database Administration
 - concerned with establishing and enforcing standards to support a **global view and integrated use of enterprise data**

What is IRM?

- IRM is an idea whose time has come
- **recent development in the field of information processing** had made the concept and philosophy underlying it viable and very important
- IRM is **a response to the interdisciplinary nature of information problems**
- Whatever policy, action, or procedure concerning information which management established to serve the overall current and future needs of the enterprise
- Such policies would **include considerations** of
 - availability
 - timeliness
 - accuracy
 - integrity
 - privacy
 - security
 - auditability
 - ownership
 - use
 - cost-effectiveness

Goals of IRM

1. To maintain a global view of corporate data
2. To position the chief information officer at a higher level in the corporate hierarchy
3. To integrate information and the information technologies
4. To center around the development of an architecture to facilitate long range planning, acquisition, maintenance, and dissemination of enterprise data



Manage Information

- Acquisition of Information
- Dissemination of Information

Roles of IT under IRM

- Data Manager
- Data Analyst
- Database Manager
- Records Manager
- Information Manager
- Information Management Specialist
- Information Management Adviser
- Database Administrator
- Application Developer
- Operating System Administrator
- Project Manager
- Application Functional Experts
- e-Commerce/Web Developer
- Network Engineer
- Data Scientist