INTORDUCTION TO INFORMATICS

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Contents

- Information Technology, Informatics and Information Science

- What is Informatics?

- Informatics as a course

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Information Technology

Concerned with 4 processes

- Information creation or capture

- Information transmission

- Information storage
  - How efficiently we want the information to be retrievable
  - How the information was initially packaged

- Management and control of information flow and creation of systems to accomplish this task

Informatics

- The term has increasingly been used to describe the application of information technology to other fields

- Has been emerging as an interdisciplinary field that is concerned with the study of the nature of information & technology

- Was regarded as the applied use of information science

- It's more than a computer science or information science because it includes all aspects of the computer technology and human behavior

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Information Science

Emerged around 1958 with the Institute of Information Scientists (IIS)

Various attempts to merge with other disciplines for a stronger scientific position such as :

- A move toward communication
- A merger with computer science

The field primarily concerned with the analysis, collection, classification, manipulation, storage, retrieval, movement, dissemination, and protection of information

Information Science attributes

- To be concerned with form, organization, & structure of information, only secondarily with the content

- To acknowledge the representation of information by indexing, or querying what a user needs is DIFFERENT from knowing the information

- The information perspective is the ability to see the world at both the theoretical and practical levels

Information Theory

- Information scientists are interested in the structure of information

- Information Science is interested in information as a social and psychological phenomenon with a primary focus on recorded information and people's relationship to it

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Formal definition of Informatics

- **Informatics** is a branch of information engineering

- It involves the practice of information processing and the engineering of information systems, and as an academic field it is an applied form of information science

- The field considers the interaction between humans and information alongside the construction of interfaces, organizations, technologies and systems

- Encompasses many subspecialties, including disciplines of computer science, information systems, information technology and statistics

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Informatics has been treated as an interdisciplinary field covering fields such as computer science, information technology, Information and Computer Science, information systems, business information management and health informatics

Studying Informatics

- University of Washington [Video link]
  - Data Science, Human-Computer Interaction, I Information Architecture, Information Assurance and Cybersecurity

- Indiana University [video link]
  - Internet Informatics, Data Mining and Information Analysis, Life Science Informatics, Social Computing

- University of California, Irvine
  - Informatics is the interdisciplinary study of the design, application, use and impact of information technology

Questions to ponder

- What is your project/research area? Which topic you think would be more closure to your area (Information Science, Informatics or Information Technology)? Explain.

- Which topic, in your view, should be studied in more depth in a master level course and Why?

- "Information Science works will drive the innovation in the Informatics area" – Are you agree or disagree with this statement? Give proper reasons based on your thought.

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Home assignment

1. The physical question: What are the features and laws of the recorded information universe

2. The social question: How do people relate to, seek, and use information?

3. The design question: How can access to recorded information be made the most rapid and effective?

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Q & A

Please write any feedback regarding class to
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Sub: Informatics class feedback