The Importance of MIS
by David Kroenke
GearUp: Hard Work Isn’t Enough

Jennifer lacks skills GearUp needs:

- Abstract reasoning skills
- Systems thinking skills
- Collaboration skills
- Experimentation skills
Study Questions

Q1: Why is Introduction to MIS the most important class in the business school?
Q2: What is MIS?
Q3: How can you use the five-component model?
Q4: Why is the difference between information technology and information systems important?
Q5: What is information?
Q6: What are necessary data characteristics?
Q7: 2022?
Q1: Why Is Introduction to MIS the Most Important Class in the Business School?

- Learn to assess, evaluate, and apply emerging information technology to business
- Gain marketable skills and perspectives
- Moore’s Law creates infinite opportunities for innovation
Moore’s Law
Consequences Moore’s Law

- YouTube
- iPad
- Facebook
- Woot.com
- Pandora
- Twitter
- LinkedIn
- Foursquare

What happens when data storage and communications costs are essentially zero?

Are There Cost-Effective Business Applications of Facebook and Twitter?
How Can I Attain Job Security?

- Develop non-routine cognitive skills and ability
- Knowledge and skills are your job security
- Ability to cope with rapid technological change
How Can Intro to MIS Help You Learn Nonroutine Skills?

<table>
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<tr>
<th>Skill</th>
<th>Example</th>
<th>Jennifer’s Problem at GearUp</th>
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<tbody>
<tr>
<td>Abstraction</td>
<td>Construct a model or representation.</td>
<td>Inability to model the event life cycle.</td>
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<tr>
<td>Systems thinking</td>
<td>Model system components and show how components' inputs and outputs relate to one another.</td>
<td>Confusion about how vendors provide collateral material for events.</td>
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<tr>
<td>Collaboration</td>
<td>Develop ideas and plans with others. Provide and receive critical feedback.</td>
<td>Unwilling to work with others with work-in-progress.</td>
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<tr>
<td>Experimentation</td>
<td>Create and test promising new alternatives, consistent with available resources.</td>
<td>Fear of failure prohibited discussion of new ideas.</td>
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Q1: Why Is Introduction To MIS Most Important Business Class? (Summary)

- Gives you background to assess, evaluate, and apply emerging information systems technology to business
- Helps you learn abstraction, systems thinking, collaboration and experimentation
Q2: What Is MIS?

Management, Use and Aligning IS to Achieve Business Strategies

Five-Component Framework

Hardware  Software  Data  Procedures  People
Management and Use of Information Systems

- You take an *active role* in system’s development
- You specify business needs and business requirements
- You use the system to achieve business goals
- You responsible for the system and data security
- You must ask the right questions
Business professionals need to:

- Take an active role in IS to ensure that systems meet their needs
- Understand how IT systems are constructed
- Consider users’ needs during development
- Learn how to use information systems
- Take into account ancillary IT functions (Security, Backups, etc.)
Q3: How Can You Use the Five-Component Model?
The Most Important Component — YOU

• Quality of your thinking
• Change the way your brain works
• Know how to use information systems
Q3: How Can You Use the Five-Component Model? (Summary)

- Consider high-tech vs. low-tech alternatives
- Understand scope of new systems
- Remember components ordered by difficulty and disruption
Match by using a proprietary algorithm

www.Chemistry.com (personality test)
www.Eharmony.com (compatibility matching system)
www.Perfectmatch.com (Test based on Duet)

Particular groups or interests

www.Conservativedates.com
www.Liberalhearts.com
www.Goodgenes.com
Q4: Why Is Difference Between Information Technology and Information Systems Important?

\[ \text{IS} = \text{IT} + \text{Procedures} + \text{People} \]

Avoid common mistake: You cannot buy an IS.
Q4: Why Is Difference Between IT and IS Important? (Summary)

- Can buy or lease hardware, software licenses, databases and predesigned procedures
- People require training, overcoming employees’ resistance to change, managing employees using new system
Q5: What Is Information?

- Information is knowledge derived from data
- Data in a meaningful context
  - Data processed by summing, ordering, averaging, grouping, comparing, etc.
- “A difference that makes a difference”
- Where is information?
  - It’s in Your Head
Q5: What Is Information?

Does this graph contain information?
Q6: What Are Necessary Data Characteristics?

Data Characteristics Required for Good Information

- Accurate
- Timely
- Relevant
  - To context
  - To subject
- Just sufficient
- Worth its cost
Ethics Guide: Ethics of Information from Misdirected Data

What’s the ethical thing to do?
A. You overhear a conversation between a real estate agent and the couple competing with you to purchase a condo.
B. You receive the same information by email.
C. While selling computer software, a customer mistakenly sends you an internal email that contains maximum amount they can pay.
Ethics Guide: Ethics of Information from Misdirected Data (cont’d)

What’s the ethical thing to do?

D. A friend inadvertently emails you personal medical data. You read the email and learn embarrassing information about the friend.

➢ Your friend asks if you read the email.
E. Suppose you are a network administrator with unrestricted access to mailing lists. You insert your email address into several lists and receive confidential information. One email shows that your best friend’s department is going to be eliminated. Do you warn him/her?
Ethics Guide: Ethics of Information from Misdirected Data (Summary)

• How do you define the difference between legal and ethical?
• Can something be against corporate policy and still be legal?
• What is your personal policy about dealing with information that is misdirected to you?
• Did your thoughts about this matter change as a result of this discussion? If so, how?
Q7: 2022?

- Most computers won’t look like a computer
- Everyday items will have computers in them
  - What will that mean to industry in general? Who will be the winners and losers?
- Why go to class if you have a classroom in a “box”?
Guide: Understanding Perspectives and Points Of View

• Every person speaks and acts from personal perspective.
• Everything we say and do is biased.
• Conflicting perspectives can all be true.
• Ability to discern and adapt to perspectives and goals of others makes you more effective.
Guide: Understanding Perspectives and Points of View (cont’d)

- “A problem is the difference between what is and what ought to be.”
- What can a development team do to create common definitions and understanding information requirements?
- Try to understand the perspective and goals of others.
Guide: Passwords and Password Etiquette

• Never write down or share your password
• Never ask anyone for their password
• Use “do-si-do” move
Creating a Strong Password

Rules for strong password:

1. Use nine or more characters
2. Do not use your name or company name
3. Do not use complete dictionary word
4. Use a different password from previous passwords
5. Use both upper- and lower-case letters, numbers and special symbols
Critical Skills You Need

• Learn and practice abstract reasoning, systems thinking, experimentation, and collaboration

• Future belongs to business people who creatively envision new applications of information systems and technology.
Four Things You Should Learn

1. Learn components of an IS.
2. Understand every business professional needs to take an active role in systems development.
3. Know difference between IT and IS.
4. Use strong passwords and follow professional password etiquette.
Active Review

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Case Study 1: The Amazon of Innovation
Amazon's Business Categories

- Online retailing
  - Own inventory
  - Associates program
  - Consignment
- Order fulfillment
- Cloud services
Amazon (cont’d)

• Operates on very thin margins
• Drives its employees incredibly hard
• Amazon Web Services (AWS)
  ➢ Organizations lease time on Amazon’s computer equipment
• Sells order fulfillment services
• Elastic Cloud 2 (EC2)
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