

TMGT 7200-01 MIS in Transportation Summer 2016 Syllabus for Online

Institutional Information

COURSE DESCRIPTION

- A) This course introduces the student of transportation and logistics to the theory and practice of how information systems align with and support freight transportation and logistics processes. Focus is placed on the strategic processes of operations control, decision support, and customer in multimodal environments. Process models for these environments are presented and discussed, as are the techniques for data collection and capture, processing, communication, and presentation. The ultimate objective of the course is to provide the student with a working development to deliver usable and effective information systems.
- B) Prerequisite(s): TMGT 6001 Orientation to Graduate Studies
- C) Corequisite(s): None
- D) Follow-On Courses: None
- E) Role in Curriculum: Core course
- F) Online course using Blackboard. Please go to <http://www.sunymaritime.edu/Academics/Online%20Programs/index> if you are new to Blackboard

TEXT(S)

- A) Required Text(s):
 - 1) None

Required reading is identified in the modules of this syllabus and will be accessible via Blackboard.

- B) All other material will be distributed through Blackboard.

STUDENT LEARNING OBJECTIVES

- A) Course Objectives
 - 1) The complexity of the modern global transportation system would be impractical, if not impossible, to manage without the deployment of information technology (IT). This course takes up the issues involved in using IT-enabled management information systems.

The why, what, when, who, how, and where of IT deployment will be considered. Underpinning this examination of the issues is an understanding and application of the principles associated with ethics, critical thinking skills, and communications.

This is not a technology (i.e., “speeds and feeds”) course. Technology changes too rapidly for us, in the context of what this course aims to do, to gain much value from spending much time on it. The question we address is no matter the “speeds and feeds” how do we maximize their value to the enterprise.

Opportunities to demonstrate leadership and team skills will be provided in the discussions and course project. An understanding and application of contemporary developments in IT and the context of the global transportation system will be an additional focus in this course.

There will be examples of the use of IT from the industry.

There will be a course project that analyzes the potential impact of major contemporary trends on global freight transportation.

IT and transportation are both fast changing areas. Staying tuned to the daily developments will be stressed. The course will be modified as these developments warrant.

- 2) You should be aiming to develop breadth of skill – about MIS as it affects transportation management; about the global marketplace, its myriad cultures, and the manner in the application of MIS is affected by these issues, and about the strategic issues to which MIS must respond.
- 3) At the conclusion of this course you should have skills and knowledge sufficient to discuss these topics at a high level with other interested parties (e.g., executives in transportation management firms).

The intent of the discussion is for the other party to see you as someone who can make valuable contributions to the management of the transportation firms of today and the future.

- 4) MIS, transportation and the management of each are undergoing significant, rapid change. The course will be contemporary.

COURSE ASSESSMENTS

A) Assessments in the Class

Ten on-line discussions, four issue reports, and team participation.

B) External Assessments

None

ACCOMMODATIONS FOR STUDENTS WITH LEARNING DISABILITIES

If you believe that you need accommodations for a disability (also referred to as IEPs and 504 plans), please notify me within the first week of class and contact the Office of Accessibility Services at (718) 409-7348 or email Associate Dean Will Imbriale at wimbriale@sunymaritime.edu for an appointment to discuss your needs and the process for requesting accommodations. Since accommodations may require early planning and generally are not provided retroactively, please contact Accessibility Services as soon as possible.

ACADEMIC INTEGRITY POLICY

Absolute integrity is expected of every Maritime student in all academic undertakings.

A Maritime student's submission of work for academic credit indicates that the work is the student's own. All outside assistance should be acknowledged, and the student's academic position truthfully reported at all times. In addition, Maritime students have a right to expect academic integrity from each of their peers.

Students are expected to do their own work in class, on assignments, laboratory experiments, and examinations or tests in accordance with the directions given by the instructor. It is the responsibility of all students to read and understand this statement of College policy on academic integrity. Maritime College considers the violation of academic integrity a serious matter, and one that will be treated as such.

A student who violates academic integrity may, depending on the nature of the offense, be subject to one or more of the following measures: failure of the assignment or examination, failure of the course, dismissal from the Regiment of Cadets, or dismissal from the College. Violations of academic integrity, also known as academic dishonesty, are subject to review by the Judicial Board. For details, go to http://www.thezonelive.com/zone/02_SchoolStructure/NY_SUNYMaritimeCollege/handbook.pdf

ALL ACADEMIC INTEGRITY VIOLATIONS WILL BE REPORTED TO THE DEAN OF STUDENTS

Course Information

INSTRUCTOR INFORMATION

- A) Prof. James Drogan, jdrogan@sunymaritime.edu, 718-409-7289, MAC 228.
- B) Office hours: see Faculty and Staff > Faculty/Staff Contact on the Maritime website. Scroll down to Prof. James Drogan and click on the name. Scroll down to see Office Hours.

CLASS MEETINGS

- A) Online course.

CLASS POLICIES

- A) Attendance Policy and Absences
 - 1) Attendance is mandatory. There is no extra credit or makeup work assigned in this course.
 - (a) Please notify the instructor by any available means if you expect to be absent. Arrangements will be made, if practical, to submit required work.

GRADING

- A) Composition (143 maximum points)
 - 1) On-line Discussions: 50 maximum points (10 discussions x 5 points per discussion).
 - 2) Four Issue Reports: 80 maximum points (four reports x 20 points per report).
 - 3) Team Participation on Class Project: 13 maximum points.
- B) No makeup or extra credit work will be assigned.
- C) Final grade as assigned according this table.

%	GPA	Grade
1.000	4	A
0.930	4	A
0.900	3.7	A-
0.871	3.3	B+
0.830	3	B
0.800	2.7	B-
0.771	2.3	C+
0.730	2	C
0.700	1.7	C-
0.000	0	F

The initial final grade represents the points attained divided by the total points available. This mathematical guides me in the assignment of the final grade. What this means is that the final grade I assign may be different from the mathematical grade. In assigning the final grade take into account your consideration, respect, and encouragement of others; your desire for learning and discipline in completing the assignments; your ability to bring relevant issues to the attention of the class.

Approach

The course will integrate relevant reading and writing, and discussions moderated by the. Four issue papers, based upon current issues in the maritime and related industries, will be assigned to teams of three to five students. These papers integrate the learning that takes place during the course to resolve relevant issues.

Modules

- 1. Introduction to the Course; Setting the Context
 - a. Purpose

Introduces the course; learning objectives, modules, discussions, course project(s), assessments, and relevant background.
 - b. Reading (Foundation Documents)
 - i. *TMGT 7200 Information Management Syllabus*
 - ii. *Digital Globalization: The New Era of Global Flows* (Dobbs, Manyika, & Woetzel, 2016, sec. Executive Summary)
 - iii. *2016 Future Supply Chain* (Global Commerce Initiative & Capgemini, 2008, sec. Forward, Executive Summary)
 - iv. *Ethics, Critical Thinking, and Communications* (James Drogan, 2009a)
 - v. *ACTIVE Ethics: An Information Systems Ethics for the Internet Age* (McBride, 2014)

Special note: Sections 1, 2, 4, 5 (the introduction and the first paragraph of

each of the six subsections), and 6 are assigned. You may, of course, read the entire paper and follow your curiosity as you see fit.

c. Discussion

2016 Future Supply Chain strongly focuses on change towards the consumer end of the supply chain.

How might these changes ripple upstream and affect the maritime and maritime-centric supply chain industries? Which may be the most significant? What's the likelihood that this effect will happen?

- i. The maritime industry comprises the ship engaged in the transportation of goods and commodities and the supporting facilities at the origin and destination points up to and including the terminal in-out gates and their functional equivalent in commodity shipment. This definition is meant to include anything that directly affects the performance of the ship.
- ii. A maritime-centric supply chain comprises a group of organizations involved in the movement of goods wherein the maritime portion is indispensable to the success of the supply chain. That is, removing the maritime portion causes the supply chain to fail. By failure we mean that there is no reasonable substitute for the maritime portion. Examples of such supply chains include bulk commodities such as oil and grain, containerized traffic such as furniture and electrical machinery.

2. Business Context I: The Context in Which the Firm Exists

a. Purpose

Businesses exist in, are affected by, and in turn affect, the business context. The intent here is to understand this context and its relationship with the business. It is the context and relationship that shapes the business.

b. An Example

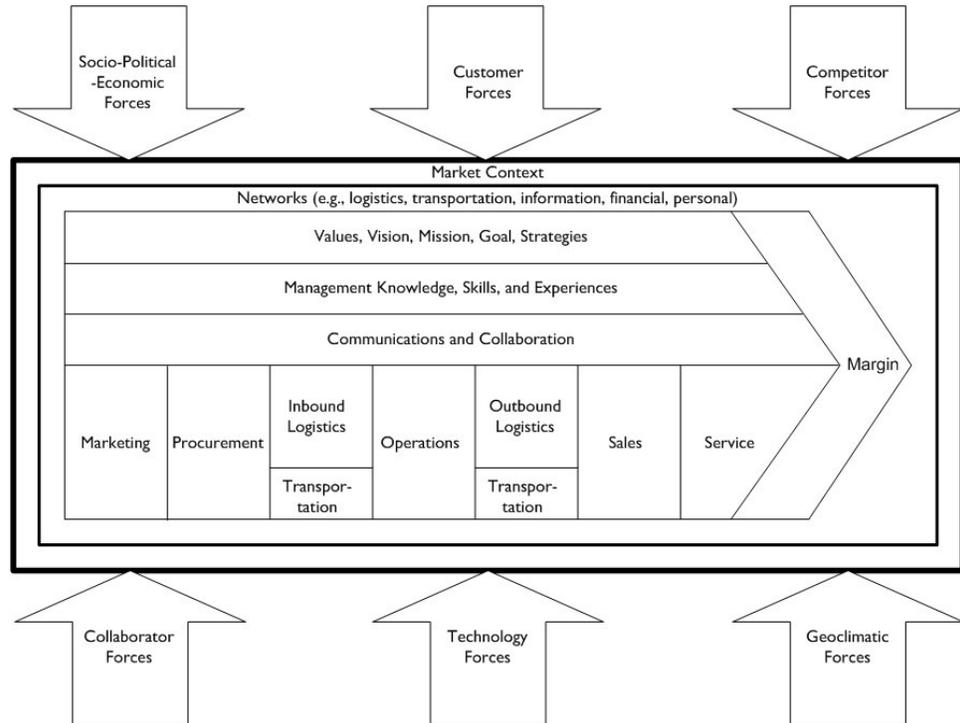


Figure 1 Example of a Business Context

c. Reading

- i. *Principles for Applying Information Technology* (James Drogan, 2005)
- ii. *The Context of Interest* (James Drogan, 2009b)

d. Discussion

In the module 1 discussion you were asked to consider the impact of a future supply chain on the maritime or maritime-centric industry. When thinking about impact on an industry, likely as not our frame of reference is a specific company or abstraction of a company in that industry.

In this discussion please focus on a company that may be or could be (the notion of “could be” allows you to imagine a company) in the industry you picked in the first discussion.

Please discuss how this company fits within the structure of the context shown in Figure 1. We don’t have time for an exhaustive discussion. Pick one of the items in the context that you think most important to the success of the company under consideration. Discuss the nature of this importance.

For example, suppose you picked Geoclimatic Forces. Why is this the most important component of the context to the success of the company?

3. Business Context II: The Configuration of the Firm

a. Purpose

The centerpiece of Figure 1 is termed a business configuration and is based on Porter (Porter, 1985). In this module the business configuration is described at a level of detail that provides the opportunity to discover how the business can be restructured at a process level to improve performance and how technology can then be introduced to improve the performance further. Formal methods of business description are introduced.

b. An Example



Figure 2 Example of a Business Configuration

c. Reading

- i. *Thinking About the Business Configuration* (James Drogan, 2007).
- ii. *The Big Shift in Business Models* (Hagel, 2016)

d. Discussion

Pick a group of nine cells (3 x 3) in the business configuration. Examine the company

you have been using in modules 1 and 2 using these nine cells (review pp 7-11 in *Thinking About the Business Configuration*).

In the discussion please address the following questions from *Thinking About the Business Configuration*.

- i. Are the statements clearly related to the component in the left column? (p 8)
- ii. Is there a plausible relationship between the Current Situation and Desired Future? (p 8)
- iii. Downwards. Does the statement in the upper box provide a clear set of guidelines from which the statement in the lower box can be derived? (p 9)
- iv. Upwards. Does the statement in the lower box enable the statement in the upper box? (p 9)

4. Technology Context I: The Building Blocks of Information Management

a. Purpose

In this module we set aside for a bit the business side and take up technology as a potential enabler of improved business performance. Technology is looked at as a set of nodes (e.g., computers, sensors) connected by networks (e.g., Bluetooth, Internet). The nodes and networks are described in cybernetic terms discovered in *An Introduction to Cybernetics* (Ashby, 1963).

“Cybernetics, too, is a ‘theory of machines’, but it treats, not things but *ways of behaving*. It does not ask ‘what is this thing?’ but ‘*what does it do?*’” (Ashby, 1963, p. 1)

The *things* composing technology change rapidly, but how the things *behave* stays more stable. Focusing on the behavior thus stabilizes, to some degree, the technological aspect of the context hence making our task of thinking about it a bit easier.

This module will also introduce a language for describing the business to be supported by the technology. Here is an example from the freight railway industry (James Drogan, 2001, p. 11).

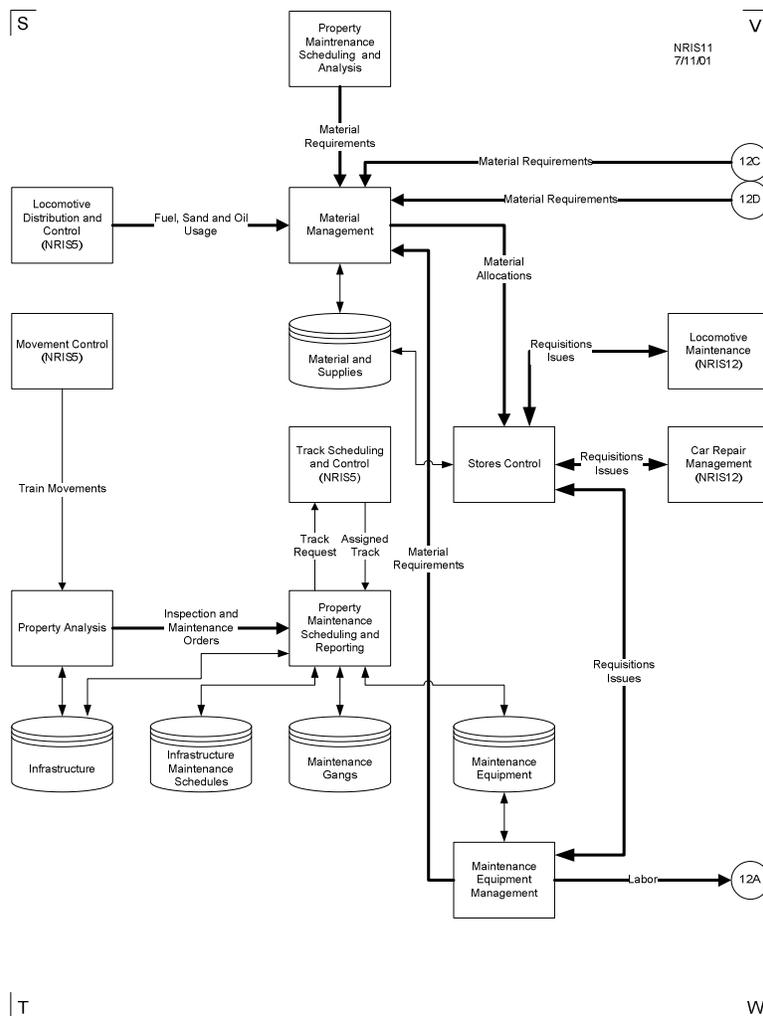


Figure 3 An Example of a Description of How a Business Works

Rectangles represent processes; cylinders on end represent collections of data; bold labeled arrows represent messages connecting processes; think unlabeled arrows represent processes creating, updating, using, and deleting data as indicated by the placement of the arrowheads.

b. Reading

- i. *An Introduction to Cybernetics* (Ashby, 1963, Chapter 1)
- ii. *Information System Fundamentals* (J. Drogan, 2005)
- iii. *A Note on Business Drivers, Business Configuration, and Information Technology Strategy* (James Drogan, 2005)

c. Discussion

This discussion presents you with two alternative topics.

First, all students at Maritime College use Maritime Self-Service. Please discuss the behavior (i.e., what it does, how well it does it) of this system. If you choose to be critical, then you must do it in a constructive fashion. The structure and content of

Information System Fundamentals and A Note on Business Drivers, Business Configuration, and Information Technology Strategy should prove useful here.

Or

Second, please discuss the behavior (i.e., what it does, how well it does it) of a different system with which you are familiar (e.g., a system you use at work). If you choose to be critical, then you must do it in a constructive fashion. The structure and content of *Information System Fundamentals and A Note on Business Drivers, Business Configuration, and Information Technology Strategy* should prove useful here.

The idea in either case is to produce a description that would be understood by the technologist.

5. Technology Context II: Principles of Information Management

a. Purpose

Technology must be actively managed if it is to yield benefits. This module looks at the means for managing technology and is summarized by:

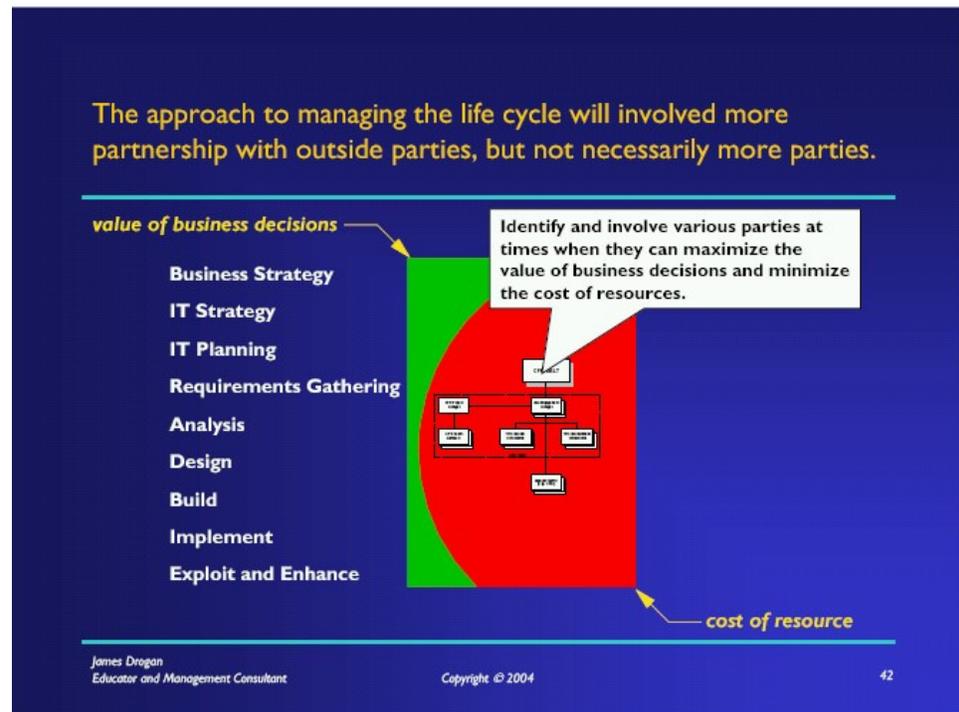


Figure 4 Example of Managing the Technology

b. Reading

- Managing Information Technology in a New Age* (IBM, 2000). Note: This may be dated and needs to be reviewed.
- Where Machines Could Replace Humans—and Where They Can't (Yet)* (Chui, Manyika, & Miremadi, 2016).

c. Discussion

In *Principles for Applying Information Technology* (James Drogan, 2005) the point is made that “The only legitimate uses of information systems are to improve the performance of the enterprise.” This requires management that is knowledgeable and involved.

Please take up this issue of managing technology with a specific focus on what you think are the two or three most significant management challenges; that which makes them significant; and what can be done to mitigate these challenges.

6. Merging the Contexts: Information Economics

a. Purpose

This module merges the two previous streams of information – business and technology – to produce a high level description of the application of technology that will improve the performance of the business. We also consider the question of what an executive needs to know to do this job properly.

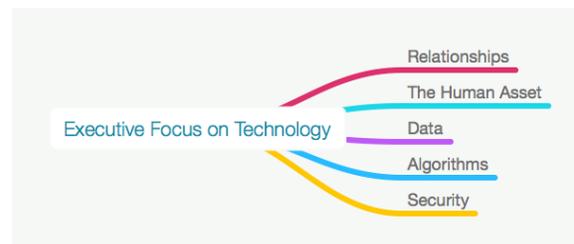


Figure 5 Example of Executive Knowledge Domains

b. Reading

- i. *Note on Building a Management System* (James Drogan, 2005)
- ii. *When Technology Fails* (James Drogan, 2008)
- iii. *An Introduction to Information Economics* (Parker & Benson, 1990)

c. Discussion

Information Economics identifies sixteen dimensions of the investment decision-making process.

Factor
1. Competitive Advantage
2. Competitive Response
3. Definitional Uncertainty
4. Innovation Valuation
5. IS Infrastructure Risk
6. Management Information
7. Organizational Risk
8. Service and Value
9. Strategic IS Architecture
10. Strategic Match
11. Strategic Uncertainty
12. Technological Uncertainty
13. Traditional Cost Benefit Analysis
14. Value Acceleration
15. Value Linking
16. Value Restructuring

Not all of these are of equal significance when making investment decisions in the maritime and maritime-centric supply chain industries.

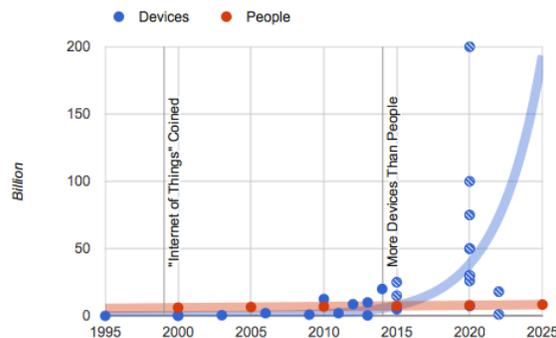
Please discuss what you think are the top three factors.

Note: The next four modules focus on the application of the learning to this point on four contemporary issues and to determine the significance of the issues and suggest the means for resolving these issues.

These modules require you to submit a report on the topic. Please conform to the following:

- a. **APA style except use single space. See <https://owl.english.purdue.edu/owl/section/2/10/> if you need help on APA. You can find APA templates on the Internet. Make sure you use the capabilities of your word processor to make your life as easy as possible.**
 - b. **No more than six pages excluding title page, abstract, and references. That is, no more than nine pages in total. Do not pad your paper to make six pages. It wastes your time and mine. Say what you have to say, then stop.**
 - c. **Format for standard letter sized paper.**
 - d. **Submit as .doc, .docx, or .rtf file type. Microsoft Word is preferred.**
 - e. **File name should be "Team n title of assignment." For example, assuming you are Team 1 submitting the first assignment the file name would be "Team 1 Contemporary Issues in Information Management I The Internet of Things (IoT)" with the "." omitted. Systems do not like the "." in the file name.**
7. Contemporary Issues in Information Management I: The Internet of Things (IoT)
- a. Purpose

Rapid developments in technology have resulted in the placement of technology virtually everywhere. Consider the following graphic (Howard, 2015).



Crewless ships are under development in the maritime industry. The modern automobile is laced with networks and sensors.

This module takes up this issue – one characterization of which is always on, always connected – and asks of its value and how that value may be best obtained.

- b. Reading
 - i. *The Internet of Things* (Chui, Loffler, & Roberts, 2010)
 - ii. *The Internet of Things: Roadmap to a Connected World* (Sarma, 2016)
 - iii. *Harnessing the True Potential of Internet of Things Technology* (Hagel, 2016)

c. Issue Report

Return to the industry you selected in module 1. Please address the following three items regarding the impact of the IoT on this industry.

- i. Identify the three “things” of the IoT you think would be of most value in your industry. Please note that you may invent or create a “thing” if you like.
- ii. Identify and quantify the impact on the industry.
- iii. Recommend implementation steps.

8. Contemporary Issues in Information Management II: How Do You Talk to Big Data?

a. Purpose

Information technology increasingly makes possible the curation of seemingly unfathomable amounts of data. The curation increasingly uses words such as analytics and phrases such as data scientist. Big data and IoT are of a piece.

This module takes up big data, what it is, what one can do with it.

b. Reading

- i. *How Do You Talk to Big Data?* (James Drogan, 2011)
- ii. *Information Without Borders* (Thomas, 2016)

c. Issue Report

Please review Example beginning on p. 8 of *How Do You Talk to Big Data?* Address the three questions that conclude this section of the paper. They are:

- i. How can BDA (big data and analytics) help?
- ii. What do I need in the way of BDA assets?
- iii. How do I talk to BDA? By this I mean what questions would you put to big data.

9. Contemporary Issues in Information Management III: Security

a. Purpose

Information management security focuses on the issues raised by being always on, always connected. This module examines the protection of information management assets from unauthorized access and use.

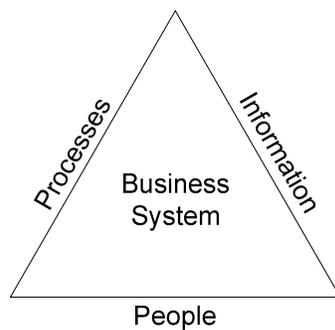


Figure 6 Example of Assets

- b. Reading
 - i. *Cyber Security* (James Drogan, 2016)
 - ii. *Protecting the Enterprise with Cybersecure IT Architecture* (Bossert, Richter, & Weinberg, 2015)
 - iii. *The Resilient Enterprise : Overcoming Vulnerability for Competitive Advantage* (Sheffi, 2005)
 - iv. *What if Apple is Wrong?* (Bergstein, 2016)
- c. Issue Report

Please take up the issue of cyber security in the context of the industries that have heretofore been our focus.

The particular focus on this report should be identification of the three principle threats, their potential impact on the industry, and what actions can be taken to deal with the threats.

10. Contemporary Issues in Information Management IV: Managing the Assets

- a. Purpose

The management of information is, in many respects, similar to the management of other assets of the business. There are differences. For example, information is an asset that, if managed properly, appreciates in value. The same cannot be said of many other asset classes.

See Figure 6 Example of Assets for an abstraction of these assets.

This module takes up the issues associated with managing the information assets supported by technology. That is, there are information assets (e.g., historical records, paper notes, etc.) that are part of the information asset base of a business; these are not considered.

- b. Reading
 - i. *Managing Information Technology in a New Age* (IBM, 2000)
 - ii. *Managing IT Transformation on a Global Scale: An Interview with Shell CIO Alan Matula* (de Looff, 2010)
- c. Issue Report

Module 9 is about managing the assets to minimize the risk of their unauthorized use. In this module we take up a related matter that is sometimes in opposition to that emphasis in module 9 – the management of the assets for optimal effectiveness and efficiency.

I would like you to take up this matter of opposition. What are the criteria to be used to decide whether the emphasis in asset management should be on management of the security risk or management for optimal effectiveness and efficiency? How and by whom should these criteria be applied? What capabilities (i.e., knowledge, skill, experience, attitude, and behavior) must these individuals possess?

11. Maintaining Competitiveness I: Business

a. Purpose

A business must remain competitive to remain a business. Technology can help, but if the fundamentals of the business are not correct, then technology can be of little benefit. This module examines the actions that businesses can take to remain competitive.

b. Reading

- i. *Achieving and Maintaining Strategic Competitiveness in the 21st Century: The Role of Strategic Leadership* (Ireland & Hitt, 1999)

c. Discussion

Keep in mind the industries – maritime and maritime-centric supply chain – which we have previously discussed.

Please insure that you have completed the reading assignment.

Discuss the mindset and actions required of senior executives in the maritime and maritime-centric supply chain industries if they are to remain competitive into the future.

12. Maintaining Competitiveness II: Technology

a. Purpose

Technology enables new kinds of thinking about actions (e.g., IoT) a business can take to improve competitiveness. Conversely, clinging to dated application of technology (e.g., fax machines) can detract from the competitive position of the business. Technology cannot assure competitiveness, but it can inhibit competitiveness.

This module takes on the actions that may be taken to assure that competitiveness is enabled by technology.

b. Reading

- i. *Four Questions Every CEO Should Ask About IT* (Weill, 2011)

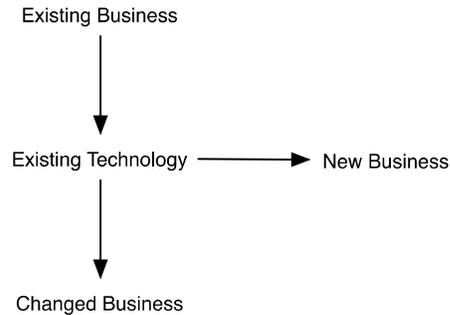
c. Discussion

To this point the independent variable has been the existing business. Recall the Principles for Applying Information Technology.

Principles for Applying Information Technology

- The only legitimate uses of information systems are to improve the performance of the enterprise.
- Information systems are inextricably intertwined with the mission, objectives and structure of the enterprise.
- Disciplined approaches to applying information systems are critical to success.
- Information systems are technology plus process plus tools plus skills plus culture.

Here I would like to you to take a different point of view – technology as the independent variable. Consider the following graphic.



The left side represents the First Principle. Now first look at the technology, then reimagine what the Business System (see the Business Configuration graphic) would look like if you could move to new sets of people, processes, and data without being constrained by the existing business system. Do not worry about whether you can actually make the move; do describe the value you think might ensue.

This is a discussion about imagination and innovation.

13. Context Management

a. Purpose

This course posits two contexts – business and technology – and takes the position that the larger context in which business (see Figure 1 Example of a Business Context) operates shapes business (see Figure 2 Example of a Business Configuration). There is likewise a larger context from which technology emerges (e.g., the technology industry and the industries using technology). This module takes up the manner in which a business's use of technology can influence both of these contexts.

b. Reading

- i. *Context Management* (James Drogan, 2015)

c. Discussion

Please focus on the matter of how technology can generate a new business, or substantially transform an existing business, in the ITM portfolio of businesses. This is loop three in Figure 1 of *Context Management*.

Think in terms of 1.) identifying or creating a technology, 2.) how it could generate a new business, or substantially transform an existing business, and 3.) how the benefit of this would be measured.

14. Cultural and Ethical Issues in Information Management

a. Purpose

The revelations of Snowden, the debate during the early months of 2016 between the advocates of privacy and the advocates of collective security, the management of information flow by various governments point towards significant, perhaps intractable issues emerging from the intersection of information, culture, ethics, and politics.

This module serves to increase your awareness of these issues, their impact on business and the larger society, and actions that may be taken to mitigate these impacts.

b. Reading

- i. *Cultural Acumen for the Global Manager: Lessons from Project GLOBE* (Javidan & House, 2001)
- ii. *Connected, But Alone?* (Turkle, 2012). Please note that this is a TED Talk.
- iii. *As Technology Gets Better, Will Society Get Worse?* (Wu, 2014)

c. Discussion

The industries central to international transportation management cross socio-economic-political boundaries. The industries are set amidst and are buffeted by major forces (see Figure 1 Example of a Business Context).

Please discuss the major cultural and ethical issues that emerge from the application of technology in this context. The discussion by Javidan and House of dimensions of cultural should be helpful here.

Schedule

Module	Topic	Syllabus	Bb	Discussion Points	Issue Report Points	Team Assessment	
1	Introduction to the Course; Setting the Context	OK	OK	5			
2	Business Context I: The Context in Which the Firm Exists	OK	OK	5			
3	Business Context II: The Configuration of the Firm	OK	OK	5			
4	Technology Context I: The Building Blocks of Information Management	OK	OK	5			
5	Technology Context II: Principles of Information Management	OK	OK	5			
6	Merging the Contexts: Information Economics	OK	OK	5			
7	Contemporary Issues in Information Management I: The Internet of Things (IoT)	OK	OK		20		
8	Contemporary Issues in Information Management II: How Do You Talk to Big Data?	OK	OK		20		
9	Contemporary Issues in Information Management III: Security	OK	OK		20		
10	Contemporary Issues in Information Management IV: Managing the Assets	OK	OK		20		
11	Maintaining Competitiveness I: Business	OK	OK	5			
12	Maintaining Competitiveness II: Technology	OK	OK	5			
13	Context Management	OK	OK	5			
14	Cultural and Ethical Issues in Information Management	OK	OK	5			
				50	80	13	143
				35%	56%	9%	

Collaboration

You will be placed on a team with three or four other members depending upon the number of students registered for the course. The composition of the teams will be one that aims at mixing cultures as much as possible. I will decide the composition of the teams.

All members of the team will receive the same grade for the papers.

At the conclusion of the course I will ask each team member to assess the performance of his or her teammates. This assessment may cause the final grade on the paper for a particular student to be changed in either direction.

This assessment is made by answering the following question for each of your teammates.

Would you like to be on a team with this person in the future? Available answers are; definitely yes, probably yes, probably no, definitely no.

Students not making assessments will receive no points in this area.

Discussions

You must read *The Grading of Online Discussions in Prof. Droган's Online Capstone Course* (James Droган, 2014). Ignore the mention of capstone as an example. The grading of discussions in all my online courses is similar except for the length of the discussion. In an eight-week course such as this, four days are allotted for a discussion; seven days are allotted in the 14-week capstone course. This means that the penalties meted out for being late with a thread starter change. Here is the table that applies in this course.

Day Posted	Penalty
1	0.00
2	0.50
3	0.75
4	1.00

References

Ashby, H. R. (1963). *An Introduction to Cybernetics*. New York: John Wiley & Sons, Inc. Retrieved from <http://pespmc1.vub.ac.be/books/IntroCyb.pdf>

Bergstein, B. (2016, April 7). What If Apple Is Wrong? Retrieved May 4, 2016, from <https://www.technologyreview.com/s/601145/what-if-apple-is-wrong/>

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