CIS 401 INFORMATION SYSTEMS FOR MANAGEMENT

Spring 2012

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“How you gather, manage, and use information will determine whether you win or lose” –

Bill Gates
“...Most great revolutions in science are preceded by revolutions in measurement. We have had a revolution in measurement, over the past few years, that has allowed businesses to understand in much more detail what their customers are doing, what their processes are doing, what their employees are doing. That tremendous improvement in measurement is creating new opportunities to manage things differently. Our research has found a shift from using intuition toward using data and analytics in making decisions. ...The implication for companies is that by changing the way they make decisions, they’re likely to be able to outperform competitors....”

(Professor E. Brynjolfsson, MIT Sloan School of Management, 2011)

To use Information Technology competitively, your organization must embed IT within its structure, culture, and business strategy. INFORMATION SYSTEMS FOR MANAGEMENT teaches you how to seize the vast opportunity presented when you do IT right.

Remember, those who know only HOW, work for those who know WHY. Therefore strategically understanding the why, is our main focus here.

- Tech skills are being “built into” jobs everywhere.
- There isn’t a single modern managerial discipline that isn’t being deeply and profoundly impacted by tech.
- Most of the jobs you are likely to land on did not exist twenty years ago.....

Our plan is to look beyond the information-age hype served up by today’s pundits and prognosticators, and to offer instead durable management principles that have proven their effectiveness through decades of practice. The course is designed to provide an eminently useful guide that facilitates a deeper understanding of the fundamental forces at work in today’s—and tomorrow’s information economy.

We plan to begin with a general overview of today's information economy, identifying some of the forces that are changing the many organizational structures. The course will then explore six major themes:

- The value of information
- Managing corporate data resources
- Developing effective information systems
- The emerging business impact of social networks
- The role of information technologies in business process innovations
- Developing network externalities as a source of unique competitive advantage

**Key Executive Takeaways:**

- Lessons in how to best use your information resources
- Strategies to improve customer intimacy using Mobile Technologies and the Internet
- Frameworks for improving the fit between IT investments and your business strategy
- Business models for strategic use of Big Data, Analytics Computing and e-commerce: what works, what doesn’t

This core class examines how modern information systems serve as the key driver for solving major business problems and how they facilitate business innovations by rapidly transforming firms’ organizational architectures, business boundaries, markets, products, and processes. The class explores some of the ways that computer mediation already affects economic transactions. These computer-mediated transactions have enabled significant improvements in the way transactions are carried out and will continue to impact the economy for the foreseeable future. For instance, it is hardly novel to suggest that contractual form depends on what is observable. What is interesting for the students is the way that progress in information technology enables new contractual forms. Specific topics include the economics of information and IT, the structure of electronic businesses, developing information systems and managing information resources, the key elements required for effective data mining and business intelligence, and how organizations should use their information technology as they translate their overall business strategy into a series of actual profit-producing activities.
Our cutting-edge course mixes current industry insights, theoretical approaches, and hands-on experience to give you an appreciation for the management issues surrounding the development and use of information technology (IT) in organizations. Its focus is on the broader managerial and organizational issues raised by new information technologies such as the Web 2.0, Relational Databases, ERP, RFID, or CRM and their role in shaping the business world of the future.

The lab is designed to provide an extensive exposure to personal computing. This lab has two major objectives. The first is to illustrate and reinforce the various concepts taught in the lectures. The second major objective is to provide advanced working knowledge of Access databases and expose students to innovative business modeling capabilities.

The class builds rapidly upon what you have learned in previous lectures, the labs and concurrent core courses. You must, therefore, constantly keep pace. You may find that much of the action in the lab has to do with the mechanics of the formulation and solution of information system problems. That is not the purpose of the course, but we believe that it is the best way of accomplishing our educational goals. The simple exercises are complemented by more comprehensive assignments that capture more realistically the complexity of managerial problems. The homework problems you will do are intended to give you practices in developing decision support models and in developing effective information systems. The feedback from these exercises should help you evaluate your progress and understanding. Much of the material builds on topics covered in previous weeks. To keep abreast, it is important that you try to solve these problems (mostly alone) on a regular basis.

*The most meaningful way to differentiate your company from your competitor, the best way to put distance between you and the crowd, is to do an outstanding job with information...*
Powerful, Successful, Most Admired
And the winners are...
Fat paychecks, sweet perks, fun colleagues, and over 150,000 jobs ready to be filled – these employers offer dream workplaces. Meet this year’s top 100, network with the winners on LinkedIn, and more. More

1. SAS
2. Bcston Consulting Group
3. Wegmans Food Markets
4. Google
5. NetApp
6. Zappos.com
7. Camden Property Trust
8. Nugget Market
9. REI
10. Dreamworks

The Best Places to Launch a Career

What’s Hot:
“Technology: One of the few industries to survive the downturn relatively unscathed, tech offers some of the best pay around for new grads”

Highest Paying Industries:
#2 Technology
#3 Consulting

“there are more job openings in IT than in any other industry except healthcare”
Information Systems: A Manager's Guide to Harnessing Technology (1.3)
By John Gallaugher
Pub Date: December 2011
Edition: 1.3,
URL http://students.flatworldknowledge.com/course/871259

Recommended:

Authors: Parsons, Oja, Ageloff, Carey

Authors: Adamski, Finnegan
For update: I suggest you look at:

- The blog (Week in Geek) can be found at http://gallaugher.com
- Prof’ Gallaugher twitter account can be followed at: http://twitter.com/gallaugher

HARVARD PUBLICATIONS and CASE PACKAGE REQUIRED

[Using unauthorized photocopies of Harvard Business School cases constitutes a violation of U.S. copyright laws.]

1. Harrah’s Entertainment, Inc.
   Jun 14, 2004 Case 9-502 – 011

2. Google Inc.
   April 11, 2011 Case 9-910-036

3. Wikis at Dresdner Kleinwort Wasserstein: (A), (B), (C)
   Aug 30, 2006 Case 9-606-074,-075,076

4. Facebook
   October 28, 2011 Case 9-808-128

5. Keda's SAP Implementation
   Jan 20, 2011 Case W11024

6. TopCoder (A): Developing Software Through Crowdsourcing
   January 15, 2010 Case 9-610-032
7.  **Best Buy's CEO on Learning to Love Social Media**  
   Dec 1, 2010  
   HBR  R1012A

8.  **Building Watson: It's not so elementary my dear!**  
   September 6, 2011  
   Case 9-612-017

9.  **Visioning Information Technology at Cirque du Soleil**  
   September 2011  
   HEC027

10.  **Mustang Music (A)**  
    Published: 2010  
    Case 910E09

11.  **Threadless: The Business of Community**  
    June 30, 2008  
    Product (DVD): 608707-MMC-ENG
General Expectations from Each Student:

Treat class sessions like business meetings. Unprofessional behavior has a negative impact on the participation grade. Specifically:

I. **Attend each class.** Send me a courtesy email if you cannot make it to class.

II. **Attend the section you are enrolled for.** Unless instructed otherwise by me, my signup sheet and my TA will not record your attendance or participation if you are in the wrong section. If you have a reason to attend the other section sometime, let me get you permission. If you have a permanent reason to be in the other section, you should switch officially through the Simon Registrar’s office.

III. **Be on time.** Late arrivals are disruptive both for instructors and students. The same applies to leaving the room temporarily during class.

IV. **No Eating in class.**

V. **Have your PRINTED name card up in every class.** Use the printed one, not a hand-written one. You **CAN NOT** attend class without those.

VI. **No laptops/ (smart) phones, iPads, etc’.** Please silence your phones and put them away. There is also no class-relevant use for a laptop; leave it off and take notes by hand. One Exception is the ‘Business Games’ where you have to use your laptop.

**GRADES:** 23% Midterm, 28% Team Assignments* and Individual class participation, Wiki (Individual) 7%, Team Project 7%, 35% Final.

(*We drop the Team Hwk assignment with lowest group assignment score).

**Attendance is normally required at all your assigned Lectures & Labs, sessions and for the full duration of the session.**

* The **midterm and final exam are closed books.** No makeup exams will be given. It is your responsibility to be at the exams on time. Please make arrangements with me ASAP if you must miss an exam.
Both the midterm and the final exam will test you on lecture as well as lab material. We reserve the right to increase a selected number of final grades when the student's final exam shows a significant improvement over their midterm exam. I also solicit written feedback on team-members' participation in the preparation of homework and the course project. This information may be used in determining your individual contribution and your score. (Please see the attached last page).

**On Class Participation:** The global competitive situation is such that managers today cannot hire a team of assistants to help them with their analytical work. They must become more effective and efficient by learning how to use computers to leverage what they know so that their specific knowledge can be applied many times and in many places. In addition, general managers spend a lot of time communicating with others. For this reason, I have given a high priority in the class to the development of interpersonal communication skills. The strength of this class will be in direct relationship to the contribution of its members. This sharing of expertise and inquiry is particularly true for core MBA classes where your experiences are so rich and diverse. Please come to class well-prepared to enter the discussion — to ask questions and provide information that will further you, your colleagues', and my understanding of the topic.

Do not limit your role to that of student but expand it to include teacher, trainer, guide and friend. You should think of the classroom as a laboratory in which you can test your ability to convince your peers of the correctness of your approach to complex problems and of your ability to achieve the desired results through the use of that approach. **Make sure you always have with you at least one printed name sign.**

Since every faculty member differs slightly in his or her expectations of students, I will outline a few of my criteria for effective class participation:

1. Is the participant a good listener?
2. Are points made relevant to the discussion and linked to the comments of others?
3. Do the comments show evidence of independent analysis of the issue? i.e., are comments more than a "rehash" of the stated facts?
4. Is there a willingness to participate?
5. Is there a willingness to test new innovative ideas, or are all comments "safe"?
6. Do comments clarify and highlight the important aspects of earlier comments and lead to a clearer statement of the concepts and managerial action plans being covered?

NOTE: Most homework assignments will require the use of a personal computer. Homework assignments may be done in teams, or individually, as directed.

**Recommended Web materials:**

Although this is not a technical class and no technology background is needed, you may once a while encounter some technical terms in your readings or in class discussions. You can find the definitions of such technical terms (and others you may encounter outside this class) on the internet. In particular, three good sources of technical information are:

- [http://www.techweb.com/encyclopedia](http://www.techweb.com/encyclopedia)

We strongly encourage you to use this valuable resource to clarify unanswered questions and to go beyond the material covered in class, according to your own personal interests.

**DATES AND TIMES**

**Room S107**

<table>
<thead>
<tr>
<th>Time</th>
<th>Course</th>
<th>Days</th>
<th>Room S107</th>
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</thead>
<tbody>
<tr>
<td>1:30-2:50</td>
<td>LECTURE</td>
<td>(Sec 31)</td>
<td>MONDAY, WEDNESDAY</td>
</tr>
<tr>
<td>3:10-4:30</td>
<td>LECTURE</td>
<td>(Sec 32)</td>
<td>MONDAY, WEDNESDAY</td>
</tr>
<tr>
<td>11:20-12:40</td>
<td>LAB</td>
<td>(Sec 31/37)</td>
<td>THURSDAY</td>
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<tr>
<td>01:30-02:50</td>
<td>LAB</td>
<td>(Sec 32/38)</td>
<td>THURSDAY</td>
</tr>
</tbody>
</table>
INFORMATION SYSTEMS FOR MANAGEMENT

Professor Abraham Seidmann

Lectures

1. M, March 26
   I. Introduction
   The economic impact of Information Technology
   Information as a good

2. W, March 28
   I. Introduction
   The economic impact of Information Technology
   Network Effect:

3. M, Apr2
   I. Introduction
   The economic impact of Information Technology
   Pricing Information
4. W, April 4  
**II. Information and Data Base Management**  
The *Harrah’s Entertainment Inc* Case  
[http://www.harrahs.com]

5. M, April 9  
**II. Information and Data Base Management**  
Organizing Business Data: EVPI

6. W, April 11  
**II. Information and Data Base Management**  
Database and query Design:  
Business Applications  
Mitigating the impact of Information Asymmetry

7. M, April 16  
**II. Information and Data Base Management**  
Using Capacity Data and Pricing Information for Supply Chain Competition:  
*The iCAPS Game*  
*Please bring your laptop*

8. W, April 18  
**III. Emerging Information Technology Systems**  
The “*Google*” Case  

9. M, April 23  
**III. Emerging Information Technology Systems**  
The “WIKIS AT DRESNER” Case  
[http://www.dresdnerkleinwort.com/eng/ ]  
An Executive Perspective on:  
Wikis, Blogs, Buzz, Webkinz, Second Life….  

10. W, April 25  
**IV. Project Management**  
Managing large-scale business projects  
Building and analyzing network models

11. M, Apr 30  
All cohorts: @ 1:00pm- 2:30pm  

**Midterm Exam: Details to follow**  
(Everything covered in lectures through Monday, April 23, inclusive and in lab last week, inclusive.)

12. W, May 02  
**IV. Project Management**  
Project Management Trade-offs  
Incorporating the role of cash-flows, bonus, penalty, and acceleration cost

13. M, May 7  
**IV. Project Management**  
Sensitivity and Risk Analysis
14. W, May 9  V. Redesigning the Modern Organization with Information Systems
   The “Keda’s SAP Implementation” Case
   [http://www.kedachina.com.cn/English/AboutKD/]
   [http://www.SAP.com]

15. M, May 14  V. Redesigning the Modern Organization with Information Systems
   Managing the Development Project: SDLC Model

16. W, May 16  V. Redesigning the Modern Organization with Information Systems
   The "Facebook" Case
   [http://www.Facebook.com]

17. M, May 21  VI. Strategic Information Systems
   The Role of Information and Technology in the Financial Markets
   *The Tradewind Business Game*  {Please bring your laptop}

18. W, May 23  VI. Strategic Information Systems
   The "Threadless: The Business of Community"
   [http://www.threadless.com]

19. W, May 30  VI. Overview and System Selection
   Using the MCDM Methodology
TEAM GRADING POLICY

Since part of your final grade will include work done in study teams, it is important to establish a grading format for the teams. Unless I hear from you, I will assume that each member of the team did his or her fair share, and points will be distributed equally among each team member. If this assumption is incorrect, please follow the procedure below and return this form to me prior to the final examination.

To allocate different points to members of your study team, take the number of members in your group (including yourself) and multiply by two (2). This will give you the number of points to be allocated to your team. In the space below, allocate the number of points you want to assign to your teammates. You must provide an explanation if you are assigning points unequally.

Study Team ____________

<table>
<thead>
<tr>
<th>Points</th>
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<tbody>
<tr>
<td>Your name:</td>
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<td>Other members:</td>
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Total Points (equal to 2 times the number of members): ____________

Explanation:

Signatures: ____________________________________________