

MIDS 458: Managing Corporate Knowledge
Fall 2005 (Tuesday 6pm – 8pm)
Professor Youngjin Yoo (youngjin.yoo@case.edu, 216-368-0790)

Background

As we move into the *Knowledge Society*, the ways by which customers interact with companies are fundamentally shifting. It is based on service, not products, and experiences, not ownership. The products are increasingly commoditized and the companies have a choice becoming (a) a low cost commodity provider or (b) a premier value-added service (a.k.a knowledge products) provider. The premise of this course is that in order to survive as independent corporations, companies will have to pursue the latter strategy. The pursuit of value-added knowledge products, however, cannot be achieved through a mere slogan or marketing campaign. It involves clear vision and strategy, systematic analysis and execution of corporate transformation, and persistent and on-going change management. It has to be supported by information technology in order to fulfill its promises, yet complemented by organizational, cultural, and behavioral changes. The resultant organization should be dynamic, knowledge-sharing, and value-adding partner. Thus, I propose *design* approach in managing corporate knowledge and innovation.

This approach is drastic contrast to traditional problem-solving approach to knowledge management. This approach typically emphasizes the cost saving and efficiency gains as a result of “best practices” sharing. While there is certainly room for such an approach to knowledge management, the focus of this course will be much more strategic, transformational, and long-term oriented. A design approach to knowledge and innovation management is driven by the belief and the commitment to put something remarkable into the world that has lasting consequences and value. It is supported by the commitment that things can get always better if we try hard enough. It emphasizes the mobilization of knowledge, social and financial resources from various actors who may not necessarily share the same goals. It respects diverse voices, and rejects the tyranny of “or” but embraces the possibilities of “and”. It is a commitment to work with the given constraints, while discovering its own identity that is constantly projected into the world.

Many leading companies are trying to understand the changing nature of their products, industry, and organizations. They are experimenting with various new *knowledge products initiatives* (although they don't call them that way) and various programs to encourage knowledge sharing internally. IBM, IDEO, Apple, GE, Samsung and P&G, just to name a few, are examples of companies that are pursuing knowledge and innovation strategy based on a design approach. Furthermore, several local companies attempt to implement similar knowledge management projects at various levels in the organization. As such, managers with a clear understanding of how a firm should develop knowledge products and necessary changes in information technology, organizational structure, and culture will be in a superior position in today's competitive labor market.

This course covers technical, behavioral and organizational bases for effective management of knowledge in organizations. Knowledge in organizations includes archived documents, various technical artifacts, expertise of individuals, and organizational routines. A conceptual framework of organizations as knowledge systems will be used to assist students to organize their view of knowledge in organizations. Building on the framework, an enterprise knowledge modeling method will be introduced as a methodology to develop a blueprint of corporate knowledge environments.

Various enabling technologies such as groupware, intranet, wireless tools, PDA, data warehouse and data mining will be discussed as means of leveraging and mobilizing knowledge distributed throughout the organization. Specific applications from various vendors will be surveyed and compared in the class.

Required Textbooks

- *The Social Life of Information* by John Seely Brown and Paul Duguid, Harvard Business School Press, ISBN: 1578517087
- *The Future of Work: How the new order of business will shape your organization, your management and your life* by Tom Malone, Harvard Business School Press, ISBN 1591391253
- *The Support Economy: Why Corporations are Failing Individuals and the Next Episode of Capitalism* by Shoshana Zuboff and James Maxmin, Penguin, ISBN 0142003883
- CWRU Note available in the bookstore.

Grading

The final grade for the course will be determined as follows:

Class participation	25%
Three individual papers	45%
Knowledge management team project	30%

Final letter grades are *not* determined according to a “curve” that specifies in advance the proportion of people to receive each grade. Instead, letter grades are determined according to the percentage of possible credit achieved by each student, computed by adding together scores for individual grading components multiplied by their percentage indicated above. This “criterion-based” grading is done to promote a cooperative climate in which assisting one’s classmates and/or studying in groups, which I strongly encourage, does not adversely affect one’s own letter grade. The course is graded using the letter grades A-F. Those earning 90% or more of the available credit will receive an A. Those earning 80% or more will receive a B. Those earning 70% or more will receive a C. Those earning 60% or more will receive a D. An incomplete will be given only for cases in which the student is unable to complete some parts of the course requirements due to verified illness or family emergencies, and must be completed within one academic semester to prevent the grade from being automatically converted to an F.

The grade cutoff points may be adjusted downward, thereby raising student grades, if the final distribution of grades is unfavorably low.

Class participation: The course will be conducted primarily as a *seminar* class. It means that students are expected to participate in the discussion and contributing to the process of constructing knowledge. The class participation grade will reflect my judgment of the quality and quantity of students' contribution during class sessions over the course of the semester. Much research has found participative and active learning to be highly effective in terms of student learning and retention. There are few assigned readings for each class and one case study. Except the first class, you are expected to study the assigned course readings and the case for a given day before coming to class. Students should be prepared to be called upon to discuss issues covered in the assigned readings.

The course will be centered on three books we will read and discuss along with other articles that I have assigned. We will discuss ideas from the books and try to apply them to the real life examples. One of the purposes of such discussion-based course is to develop you as a *reflective practitioner* who is able to make sense of novel, complex and dynamic business reality on your own.

In particular, each week I will assign couple of students to lead the discussion during the first half of the class with a short presentation that summarizes the major take-aways from the readings and relate them to the current business affairs. The students who lead the discussion should prepare few discussion questions that will facilitate the conversations during the class. Other students should also prepare few discussion points as a part of their preparation for the class as well.

The course will be interlaced with five conversations with practitioners who deal with knowledge management challenges on a daily basis. They are deliberately chosen from different industries and will present different knowledge challenges. Each will bring forth his/her own problem to the class. Students will work with the guest speaker to design solutions for their problems. Your participation during the conversation with the practitioners will be an important element of your participation grade.

Criteria for class participation credit include attendance, punctuality, level of preparation, professionalism, answering questions, discussing readings, and contributing to group activities. Tardiness disrupts the flow of class activities and often leads to having to repeat announcements or instructions. Entering and leaving the room during the class similarly distracts both students and instructors and conveys a disregard for the material being discussed. You should display your name cards throughout the semester to enhance interaction. I encourage you to engage in critical thinking, to challenge ideas without showing disrespect for others' ideas. Please use judgment when raising issues in class – do not waste the class's time on a personal matter – instead see me one-on-one. Effective participation has much more to do with the quality than with the quantity of your interaction. In other words, those who attempt to dominate air time for its own sake without contributing to the advancement of the discussion will *not* be rewarded for it.

If a student is unable to attend a class session, it is the student's responsibility to acquire the class notes, assignments, announcements, etc. from a classmate.

Three Papers: Students are required to write three papers, each count for 15% toward the final grade. The first paper is a book review. The two essential components of a book review are **1)** conveying a sense of what the book is about; and **2)** evaluating it according to a publicly accepted (or acceptable) framework. In general, the evaluation should be more than simply say, “thumbs up” or “thumbs down”. Instead, you need to situate your evaluation within a context. In this case, the context of evaluation will be other topics we discuss in the semester or other current recent social, economic, and technological phenomena. The review should be between 5-10 pages in single space with 11-point Times Roman fonts. The paper is due on Oct 25, 2005.

The second paper is an analysis of multiple meanings of familiar products. You are to choose a product or services that you are familiar with. Through multiple methods (personal experiences, interviews, observations, archival research, etc), you are seeking to establish various meanings of the products or services to different people and in different contexts. Your analysis should include different stakeholders involved in the consumption of the products and services, going beyond simple surface observations of direct buyers. The goal is to identify opportunities to

expand the meanings and usages of the products and services beyond its current usages in order to create new value-creation opportunities for the firms who sell those products and services. The paper should be between 5-10 pages in single space with 11-point Times Romans fonts. One page proposal is due on September 20, 2005. I will have one-on-one meetings with individual students to discuss their topic. In order to facilitate the meetings, I encourage you to submit your proposal as soon as you come up with one. Once you and I agree on the topic of the paper, you should begin collecting data for the paper. I encourage you to continue to discuss the progress of your ideas and paper throughout the semester. I will read the draft of your paper throughout the semester. The final paper is due on November 22, 2005.

The final paper is a reaction to one of the sessions with practitioners. You will need to choose one of the five speakers and summarize their presentations and the subsequent conversations with them and along with your reflections on them. The summary part should not exceed 1/3 of the paper and the rest of the paper should be devoted to your own reflections, which could include: (1) relating the main arguments by the speaker to your own experiences; (2) relating the readings and discussions in the class to the conversations; or (3) in-depth analysis of the situation presented by the speaker and your own analysis and recommendations. The paper is due within a week after the speaker you choose to write on. The paper should be between 5-10 pages with the same restrictions of formats.

Team Project: Students will be asked to form a team of 4-5 for a semester project. The project is to write up a case study of a company or an organization of your choosing. The focus of the case should be on the organizations efforts to transform itself for the knowledge society. The case should begin with a brief history and the goal of the organization. If it is a for-profit organization, the case should describe its original business model along with the core products and how it organized the necessary resources in order to produce them. The case then needs to identify organizational, cultural and technological challenges that the organization currently faces as a result of the changes in the society and economy. The case should conclude with an analysis of various opportunities for the organization moving forward into the knowledge economy. The case study is due on the last day of the class. The case should be between 15-20 pages (including appendix and any other supporting materials) in single space with 11-point Times Roman fonts.

Additional General Policies

Grading Policy

It is important to recognize that a grade reflects another's evaluation and judgment of your work. Different reviewers might evaluate a paper or exam differently. You are encouraged to meet me at anytime to discuss the strengths and weakness of your course work (i.e., to gain understanding of your performance). Grade appeals on course assignments and exams, however, are discouraged.

If you decide to appeal a grade, follow these steps:

1. Within seven days of receiving the grade, send me a written appeal. After seven days, I will not consider any grade appeals.
2. To file an appeal, prepare a written statement detailing why your are appealing your grade. Be sure to document your reasons by referring to grading standards, incorrect point calculations, etc.; stating simply that you feel you "deserve" a higher grade because you worked hard or based on a vague impression is not sufficient grounds for an appeal.
3. Submit the written statement together with the graded material.
4. I will consider your appeal and make a decision within a week.

Regarding final grades, changes will be considered only in cases of alleged “arbitrary and capricious grading,” which can be defined as “(a) The assignment of a course grade to a student on some basis other than performance in the course; (b) The assignment of a course grade to a student by unreasonable application of standards different from standards that were applied to other students that were in that course; or (c) The assignment of a course grade by a substantial and unreasonable departure from the instructor’s initially articulated standards.” This policy is intended to assure that grading is consistent and fair to all students.

Two key ground rules apply: 1) you must appeal a grade within one week of the time the score for you exam, homework, or project is made available to you, and 2) class time will not be used to discuss grade appeals.

Accommodation for Students with Disabilities

Any student in this class who has a documented visual impairment, cerebral palsy, hearing disability or any other disability should contact the professor during the first week of class to discuss and arrange any instructional accommodation that may be necessary. Student who would like to serve as volunteer tutors, readers, or note takers for students needing special assistance are encouraged to contact the professor during the first week of class.

Instructor Biography

Youngjin Yoo is Lewis-Progress Associate Professor in Information Systems department at the Weatherhead School of Management at Case Western Reserve University. He holds a Ph.D. in information systems from the University of Maryland. He received his MBA and B.S. in Business Administration from Seoul National University in Seoul, Korea. He joined Weatherhead School of Management in fall 1997. Dr. Yoo was selected as a participant to 16th Ernst & Young/International Conference on Information Systems Doctoral Consortium representing the University of Maryland at College Park and was the recipient of 1995 Frank T. Paine Award for Academic Achievement in Maryland Business School. He also received Walter Nord Grant for 1998 – 1999 to investigate the role of IT in managing electronic teams in global economy. He was a summer research fellow at NASA in summer of 2001 and spent a year as a research associate in 2003 – 2004 at NASA Glenn Research Center to study the implementation of the integrated financial management systems at NASA. Also in 2003 – 2004, he was a Glennan Fellow to study how to incorporate *design* approaches into management education. In summer 2004 and 2005, he was a visiting professor at Hong Kong City University. His research interests include knowledge management, the role of information technology for virtual teams, and IT-based new organizational forms. His work was published at leading academic journals such as *Information Systems Research*, *MIS Quarterly*, *Organization Science*, *the communications of the ACM*, *the Academy of Management Journal*, *the Journal of Strategic Information Systems*, *the Journal of Management Education*, and *Information Systems Management*. He also wrote several books chapters. He also presented his work at several national and international research conferences, including International Conference on Information Systems, Americas Conference on Information Systems, and Hawaiian Conference on Systems Sciences. He has researched or consulted leading companies including Andersen Consulting, American Management Systems, Lotus, NASA, Parker Hannifin, Poly One and the Department of Housing and Urban Development.

Tentative Course Topics and Assigned Readings

Week 1 – 8/30

Topic: Introduction

Readings: Chapter 1, Social Life of Information
“Design Management”, Roger Martin
Chapter 1, Managing as Designing, Boland and Collopy

Discussion Questions:

1. Pick a traditional industrial company and how its core product is being transformed into knowledge-based product.
2. What is your interpretation / reaction of a design approach to management? (How) is it different from other approaches to management?

Week 2 – 9/6

Topic: Knowledge Economy

Readings: Chapters 2-6, The Support Economy

Discussion Questions:

1. What are the key differences between knowledge economy and industrial economy?
2. What are the organizational implications of the broad changes described by Zuboff and Maxmin?
3. Be prepared to present a compelling example of knowledge economy.

Week 3 – 9/13

Topic: Changes in organization and technology

Readings: Chapters 2-3, The Future of Work
Chapter 2, The World is Flat

Discussion Questions:

1. How are the changes in technology as described by Friedman related to the organizational changes discussed by Malone?
2. What are the implications of the changes in the organization as described by Malone for managing knowledge resources?

Week 4 – 9/20

Topic: Conversation with a practitioner (1): Digital Convergence Challenge

Speaker: Tom Furnas, CTO of WCPN

Week 5 – 9/27

Topic: Promises of Digital Technologies

Readings: Chapter 2, The Social Life of Information
Chapters 10, The Support Economy

“The less, the better, perhaps: Learning from music language,” by Youngjin Yoo, In R. J. Boland, Jr., and F. Collopy (Ed.), Managing as Designing, Stanford University Press, forthcoming.

Discussion Questions:

1. Why do new technologies fail to have the anticipated outcomes?
2. What are some of the examples of technologies that have transforming effects?
3. What would be your recommendations to either (1) someone in charge of new product development or (2) someone

Week 6 – 10/4

Topic: Problems of organizations

Readings: Chapters 7 – 9, The Support Economy

"Innovation begins with an eye (Chapter 3)" and "Creating experiences for fun and profit (Chapter 10)" of The Art of Innovation (Doubleday, 2001) by Tom Kelley.

Discussion Questions:

1. How can you relate to the current approaches to management practices and education to the transaction crisis and organizational narcissism as described by Zuboff and Maxmin?
2. How can the design approach suggested by Kelley be helpful in overcoming the problems described by Zuboff and Maxmin?
3. What are the roles of information technology in creating and solving the problems of modern management capitalisms?

Week 7 – 10/11

Topic: Nature of work, knowledge and innovations

Readings: Chapters 4 - 7, The Social Life of Information

“Knowledge Dynamics,” Yoo and Ifvarsson, in Sociotechnical Strands in the Web of Knowledge, by Elayne Coakes, Dianne Willis, and Steve Clarke (Ed.), Springer-Verlag, England, 2001.

Discussion Questions:

1. How does the nature of knowledge in organizations create challenges in addressing the problems of organizations as we discussed in previous weeks?
2. Consider your own on-going work practices. Draw a map of knowledge network that consists of relationship, artifacts and people.

Week 8 – 10/18

Topic: Designing new organizations for knowledge economy

Readings: Chapters 11 – 12, The Support Economy

Discussion Questions:

1. Compare the metaprinciples of distributed capitalism to (a) the design approaches and (b) the problem-solving approaches to knowledge management we discussed earlier in the semester.
2. Apply the metaprinciples of distributed capitalism as suggested by Zuboff and Maxmin to the distributed nature of knowledge as we discussed in week8.
3. Apply the metaprinciples to the discussions we had with the practitioners so far. What advice would you give to them based on these principles?
4. What are the roles of information technology in implementing these principles?

Week 9 – 10/25

Topic: Conversation with a practitioner (2): Challenges of industrial organizations

Speaker: John Genovesi, Rockwell Automation

Week 10 – 11/1

Topic: Four organizing mechanisms in knowledge economy

Readings: Chapters 4 – 7, The Future of Work

Discussion Questions:

1. Examine the four organizing forms that Malone discussed in the context of metaprinciples of distributed capitalism.
2. What are roles of information technology for these four different forms of organizing?
3. Think of examples of these four forms from real world.

Week 11 – 11/8

Topic: Conversation with a practitioner (3): Technology Infrastructure at E&Y

Speaker: Giovanni Piazza, CTO of E&Y CBK

Week 12 – 11/15

Topic: Conversation with a practitioner (4): Managing Knowledge for Innovation

Speaker: Peter Buca, Branch Technology Director, Aerospace FMCS, Parker Hannifin

Week 13 – 11/22

Topic: Conversation with a practitioner (5): Being Knowledge Management Professional

Speakers: Susan Chakerian, E&Y, Center for Business Knowledge

Week 14 – 11/29

Topic: Case discussion

Case Managing Knowledge and Learning at NASA and the Jet Propulsion Laboratory (JPL), Harvard Business School, 2002

Discussion Questions:

1. Discuss the challenges and opportunities of NASA using the framework we discussed in the class. Consider NASA's history, organizational structure and technology infrastructure as you explore the challenges and opportunities. How would (or should) NASA look different in the knowledge economy?
2. What advice would you give to NASA administrator to "transform" NASA for the knowledge economy?
3. What technologies would you recommend to use in your suggestions?

Week 15 – 12/6

Topic: Managing in knowledge-based organizations

Readings: Chapters 9 – 11, The Future of Work

"The smart-talk trap," Pfeffer and Sutton, Harvard Business Review, 1999.

"Unleashing the power of learning: An interview with British Petroleum's John Browne," Prokesch, Harvard Business Review, 1997.

"Default," by Youngjin Yoo

Discussion Questions:

1. What are the challenges that organizations face as they try to move beyond the managerial capitalism to ubiquitous information environments?
 2. How does a design approach be applied to overcome organizational and technical challenges as organizations go through transformation process?
 3. What advice would you give to leaders in organization for the journey?
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