Peter F. Drucker Graduate School of Management

MGT 516
Management & Information Systems
Units: 2
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Room: Burkle 14
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Time: 7 PM – 10 PM

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Objective

The purpose of this course is to introduce EMBA students to current developments in information
systems (IS) from a techno-managerial point of view. The topics were selected because each involves
considerable investment of the firm's resources and time, and hence requires senior management in the
decision process.

Approach

Session 1 will provide an overview of the topics to be covered in the course with emphasis on the long-
term trends in the field.   This session will also cover the structure of the information industry including
hardware and software vendors, in-house IS groups, outsourcers, end-users, and others involved in
delivering information technology within the firm.

The next three sessions will discuss emerging infrastructure issues. The instructor will introduce the topic
and why it is important for businesses.   Students will make presentations on their firm's experiences in

dealing with the issue. (Students who do not have such experience will do presentations based on publicly available information and cases). Group discussions will also be used.

The last three sessions will deal with various application areas of IT. In particular we will try to understand how corporations are reaping the benefit of IT for business success.

Requirements

1. Each student will prepare a term paper. A list of topics is presented at the end of the syllabus. Students will be asked to make brief presentations of their findings as part of the final session.
The paper should be 20 pages in length, 1.5 points spaced, including references and figures. The term paper should examine the problem principally from the senior manager's point of view and explain the business value of the technology. Consideration should be given to such issues as suitability to the firm, competitive advantage/competitive necessity, benefits and costs, personnel issues, etc.

2. You will find a few cases in your course packet. You will be asked at appropriate times to turn in those cases with your proposed solutions. All homework cases will be announced in class.

3. We will not use a textbook since there isn't one that covers this range of topics. Rather, there will be a number of handouts for each issue. A course packet will be made available.

4. Students will go to the Internet each week and find at least 1 major article on that week's topic and email that to the entire class. A mailing list will be created for the course.

5. As and when available, a few guest lecturers (CIO's) would be invited to participate with the class.

Session   Topics

1) Overview: Trends in IS; Structure of the IS Industry
Infrastructure Topics:
2) Telecommunication Trends: Technology, Application, Convergence
3) Internet: Past, Present, Future
4) Voice/Video over IP, Wireless Data Systems
Application Topics:
5) From Electronic Commerce to E-business to M-business
6) Databases, Data warehousing, Knowledge Management
7) Outsourcing and Term paper presentations.

Grading:

Research paper and presentation	80%
Cases	20%
Total	100%

Topics

Telecommunication Trends:
Telecommunication networks have become the underlying infrastructure supporting global business today. We have come a long way from the basic telephone network. Numerous data networks, multimedia networks and wireless telecommunications are changing the way business is done. We will review these

trends and also identify the future of telecommunications where convergence is rapidly removing barriers to traditional telco, cable and data networks. Applications will also be discussed.

Internet: Past, Present and Future
The Internet has found widespread success in businesses and almost all business today use e-mails and web sites for conducting business. In this section we will review the Internet architecture. Today's best-effort delivery model is changing towards providing quality-of-service or class-based service models. We will discuss the underlying forces that are changing the Internet towards a high-speed multimedia collaborative environment.

Voice/Video over IP, Wireless Data Networks
This session will discuss current developments in Voice over IP technology as well as video-conferencing systems and their use. VoIP is an extremely low-cost and highly efficient way to do telephony on the Net. We will also review emerging WiFI data networking and 3G wireless systems that can provide voice as well as data communication to mobile users. The objective will be to understand the value of this emerging technology for business.

Electronic Commerce to electronic business to M-business
Electronic commerce refers to the use of the Internet or other communications means to conduct either business-to-business or business-to-consumer transactions. Although electronic commerce is only a small part of total business activities, it is the fastest growing part. Large sums are being spent with mixed results. Many firms are not yet on board. Principles of what is successful and what is not are beginning to be known. We will discuss Internet-based supply-chain management systems. There is currently a lot of hype surrounding mobile business. We will explore issues and principles of security in an internetwork setting.

Databases, Data Warehouses; Business Intelligence
Most companies have a number of "legacy" systems for handling on-line transaction processing data. Unfortunately, while these systems provide data about current activities, they are inadequate for making managerial decisions. Data warehouses are separate large data bases that provide information that extends over time and can be queried for analysis without risk of interfering with ongoing operations. A particularly important use of the data warehouse is for business intelligence, the

Knowledge is a fluid mix of experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It derives from minds at work. For most companies, knowledge is the key to strategic advantage. However, knowledge management requires both cultural changes (e.g., a culture of sharing) and a technological infrastructure.

IT Outsourcing; Application Service Providers;

There is a growing trend to send IT jobs and support work to countries like India and China. We will try to understand the advantages and drawbacks of such outsourcing. Why do users and managers have to participate in information system planning and development? What are some of the strategic issues to keep in mind? How is cost/benefit analysis used in making investment decisions about IS? These and other questions will be addressed.

Outsourcing refers to contracting out information services to third parties. Although specific IS tasks have been outsourced for over 40 years, outsourcing has been used on an enterprise-wide basis for the last 13 years, starting with Eastman Kodak. Outsourcing involves relinquishing internal control of all or part of IS by hiring an outside firm to perform IS functions. The results have been mixed. The latest form of outsourcing involves turning corporate data over to an "application service provider" who owns the

needed software and is prepared to do the needed processing for very large programs such as ERP. An alternative to outsourcing is systems integration. Here, the information "silos" are unified into a complete information package for the organization.

At the last session, students will also be asked to give short presentations on their term papers.

Suggested Topics for Term Papers
The following table lists suggested topics for term papers. Each student will select one topic. Students will be asked to sign up for topics at the end of Session 1.

Topic	Student
Structure of the IS Hardware Industry	
Structure of the IS Software Industry	
Enterprise Requirements Planning	
Data Warehousing	
Business Intelligence	
Customer Relationship Management	
Knowledge Management	
Business-to-Business Electronic Commerce	
Business-to-Consumer Electronic Commerce	
Peer-to-Peer Community Networking	
Application Service Providers	
Systems Integration	
Scenario Planning	
Broadband Networking	
Voice and Video Networking	
Telecommuting and other new ways of working	
Strategic Use of IS	
Data Visualization	
Business Process Reengineering	
Network Computing	
Collaboration and Team Technology	
The Virtual Organization	
Data Mining/ Knowledge Data Discovery (KDD)	
Artificial Intelligence	
Privacy	
Security	
To Outsource or Not to	
Virtual Private Networks (VPNs)	
Grid Computing & Networking	
Information Systems for Manufacturing	
Information Systems for HR	