APPLIES TO ACADEMIC YEAR 2001/2002

GRA 2349 Value Creation in a Knowledge Economy.

Program
Master of Business and Economics Program, Specialization Course

Responsible for the course
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Department
Technology Management

Term
Winter

ECTS Credits
6

Introduction

This course focuses on the key aspects of how ***value creation in the new knowledge economy is facilitated through information technology management*** . It attempts to reconcile research and professional perspectives of value creation through information technology management using a participatory learning format that emphasises dyadic critical analysis. The course builds upon the fact that the modern economy uses knowledge as its basic resource for the creation of value and that technology managers have a key role in supporting businesses operations that are increasingly processing a wide range of data and information to yield knowledge as the end product of value creation (Romer 1986). The courses also recognizes the critical contextual role of the internet as a vital catalyst and driving force in an accelerating industrial revolution where physical capital is replaced by intellectual capital, manual labor is replaced by mental processes, and industrial production is replaced by ”information refineries”. The course is structured as a series of weekly workshops on a diverse set of topics that explore the changing role of information management in creating business value in the context of a technology-intensive knowledge economy. Some of the topics covered include virtual organisations and value chains, the changing role of the CIO in organisational value creation, and the role of IT networks and innovations in value creation, knowledge modelling and validation, as well as the development of strategic knowledge networks.

Objective

The course focuses on some of the information technology management competencies required for the new industrial paradigm where the concept of “market space” is gradually replacing the traditional marketplace. In this ”market space”, technology-intensive “virtual industries” are basing their value creation on: 1) the large scale availability of unstructured, unprocessed and unrefined data-information resources, and 2) processing this raw material for producing “knowledge products” by applying advanced information technology and the global marketing, sales, and service of the knowledge products in open or proprietary networks. The major learning objectives include:

1) Understanding how value creation in the knowledge economy is changing as a result of technology application,
2) Understanding the new set of technology management competencies that are required for facilitating value creation,
3) Reconciling the research and practitioner perspectives of information technology planning, development,
implementation and management given the shift to the knowledge economy.
4) Developing a set of focused research propositions pertaining to value creation through information
technology management.

Prerequisites
Prerequisites
Familiarity with PCs, Internet/World Wide Web, with most Microsoft Office applications.

Compulsory literature

There is no single textbook that is obligatory for the course. Rather a defined set of readings is used.

Dhaliwal, J., red. 2001. *Artikkelsamling til samling: Value Creation in the Knowledge Economy.* Sandvika: BI Forlag.

Some of the readings include the following:

Rayport, J.F and J.J.Sviokla. 1995. “Exploiting the Virtual Value Chain”. *Harvard Business Review* , (Nov-Dec): 75-85.

Hamel, G. and Sampler, J. 1998. "The e-Corporation: More than just Web-based, it's building a new industrial order". *Fortune* , (December 7): 52-63.

Malone, T., R. Laubacher. 1998. "The Dawn of the E-Lance Economy". *Harvard Business Review* , (Sep.-Oct):145-152.

Venkatraman, N. and J.Henderson. 1998. “Real Strategies for Virtual Organizing". *Sloan Management Review* , 40(1): 33-48.

Drucker, P. 1999. "Beyond the Information Revolution I & II". *The Atlantic Monthly* , 284 (4): 47-57. http://www.theatlantic.com/issues/99oct/9910drucker.htm

Benbasat, I. and R. Zmud. 1999. “Empirical Research in Information Systems: The Practice of Relevance” *MIS Quarterly* , 23(1):3-16.

Hann, J. and R. Weber. 1996. “Information Systems Planning: A Model and Empirical Tests”. *Management Science* , 42 (7):

Gottschalk, P. 2000. "Strategic knowledge networks: the case of IT support for Eurojuris law firms in Norway". *International Review of Law, Computers & Technology* , 14 (1):115-129.

Gottschalk, P. 1999. "Implementation of Formal Plans: the Case of Information Technology Strategy". *Long Range Planning* , 32 (3): 362-372.

Gottschalk, P. 2001. “Key Issues in IS Management in Norway: An Empirical Study based on Q Methodology”. *Information Resources Management Journal* , 14 (2):37-45.

Veryard, R. 1992. *Information Modelling: Practical Guidance* . New York: Prentice-Hall. Chapter 1: pp. 1-25.

Dhaliwal, J and I. Benbasat. 1999. “The Use and Effects of Knowledge-based System Explanations: Theoretical Foundations and A Framework For Empirical Evaluation.”*Information Systems Research* , 7(3):

Benbasat, I. and J. Dhaliwal. 1989. “A Framework for the Validation of Knowledge Acquisition.” *Knowledge Acquisition: International Journal of Human-Computer Studies,* 1(2):

Armstrong, C.P. and V. Sambamurthy. 1999. “Information Technology Assimilation in Firms: The Influence of Senior Leadership and IT Infrastructures.” *Information Systems Research* , 10(4):304-327.

Larsen, T. 2001. "The Phenomenon of Diffusion: Red Herrings and Future Promise." *Proceedings of the IFIP WG8.6 Working Conference on Diffusing Software Product and Process Innovations, Banff, Canada, April 7-10.* Boston, MA: Kluwer Academic Publishers. pp. 35-50.

Cooper, R. R. and Zmud. 1990. “Information Technology Implementation Research: A Technology Diffusion Approach.” *Management Science* , 36( ):123-139.

Seligman, L. 2000. “Adoption As Sensemaking: Toward An Adopter-Centred Process Model of IT Adoption.” *Proceedings of the International Conference on Information Systems (ICIS)* , Brisbane, December, 2000. pp. 361-370.

Wetherbe, J. C. 1991. “Executive Information requirements: Getting It Right.” *MIS Quarterly,* (March):51-65.

Lederer, A. et. al. 1990. “Information System Cost Estimating: A Management Perspective.” *MIS Quarterly* , (June):159.176.

Dickson, G. and J. Simmons. 1970. “The Behavioral Side of MIS.” *Business Horizons, (August):*

Pare, G., M. Tremblay and P. Lalonde. 2000. “The Impact of Human Resources Practices on IT Personnel Commitment, Citizenship Behaviours, and Turnover Intentions*,” Proceedings of the International Conference on Information Systems (ICIS)* , Brisbane, December, 2000. pp. 461-466.

Boynton, A., R. Zmud and G. Jacobs. 1994, “The Influence of IT Management Practices on IT Use in Large Organisations.” *MIS Quarterly* , 18:219-318.

Jarvenpaa, S.L. and B. Ives. 1991. “Executive Involvement and Participation in the Management of Information Technology.” *MIS Quarterly* , 15: 205-227.

Sawhney, M. and E. Prandelli. 2000. “Communities of Creation: Managing Distributed Innovation in Turbulent Markets.” *California Management Review* , 42(4):24-54.

Bhatt, G. and R. Stump. 2001. “An Empirically Derived Model of the Role of IS Networks in Business Process Improvement Initiatives.” *Omega: The International Journal of Management Science* , 29:29-48.

Grover V. and P. Ramanlal. 1999. "Six Myths of Information and Markets: Information

Technology Networks, Electronic Commerce, and the Battle for Consumer Surplus." *MIS Quarterly,* 23(4):465-495.
Sawhney, M. and D. Parikh. 2001. “Where Value Lives in A Networked World.” *Harvard Business Review* , (January):79-86

Recommended literature

Arrow, K. 1994. "The Production and Distribution of Knowledge. In *The Economics of Growth and Technical Change* , edited by G. Silverberg and L. Soete, Aldershot: Edward Elgar
Cetron, M. and O. Davies. 1997. *Probable Tomorrows: How science and technology will transform our lives in the next twenty years* . New York: St.Martin. 298 pp
De Geus, A.P. 1988.."Planning as Learning." *Harvard Business Review,* (March-April):70-74.
Drucker, P.F. 1992. *The Age of Discontinuity: Guidelines to Our Changing Society* . New Brunswick: Transaction Pubs.
Hamel, Gary. 2000. *Leading the Revolution* . Boston, Mass.: Harvard Business School Press.
Hillis, D. 2000. "The Bandwidth Bomb." *Harvard Business Review,* (Sep-Oct):

Course outline

A week by week detailed course outline will be available at the first class.

Computer-based tools

Win98 or later (preferably Win2000). MS Office97 or later (preferably Office2000). Internet access (min 128Kb) i.e. double ISDN , ADSL, or LAN. RealPlayer 8 Basic.

Course structure

30 hours of lectures.

Evaluation

Research Project: 40%
Class Presentation: 20%
Critical Review Assignment: 25%
Participation/Discussion: 15%

Evaluation code(s)

GRA 23491

Aids at the examination

All

Makeup exam

At the next ordinary exam