

Economic Perspectives on IT Use - for Individual, Organisation and Society

Programme course

6 credits

Ekonomiska perspektiv på IT-användning - för
individ, organisation och samhälle

TDEI70

Valid from:

Determined by
Board of Studies for Industrial
Engineering and Logistics

Date determined

Main field of study

Industrial Engineering and Management

Course level

First cycle

Advancement level

A1X

Course offered for

- Industrial Engineering and Management - International, M Sc in Engineering
- Industrial Engineering and Management, M Sc in Engineering

Prerequisites

Industrial Economics

Intended learning outcomes

After completing this course, the students should be able to describe, perform analysis of, and reflect upon, the organizational, economic and management questions related to Economic Information Systems. This includes the students' ability to:

- identify, communicate and make nuanced assessments of the how the interaction between IT, communication and organising affects the benefits an organisation derives from its information systems (computerised or manual).
- discern connections between IT development in society and changes in industry structures.
- participate in development and use of information systems, by better interacting with managers, controllers and others concerning the business benefits and economic importance of IT.

Course content

Modern information technology provides increased flexibility in time and space and enables new ways of organising and conducting work. This gives rise to new products, new work routines and new ways of communicating, influencing industry structures, organisations and individuals. But the key to increased efficiency and better results is not IT by itself, it is how you combine new ways of working, new organising and new technology with the existing.

We study how industries have changed the past decades when work tasks and products have been digitised, when production equipment and our physical, quotidian environment has been computerised and when the spread and exchange of data becomes increasingly simple and inexpensive.

When tasks and roles change and new organisational forms emerge, it is important to understand how communication in an organisation works. Which challenges and possibilities lie in IT-supported communication? What types of communication are managers looking for to cope with their work? How is management control influenced by new IT solutions? And how can proposed IT ventures be analysed and assessed? We discuss communication possibilities and learn to handle assessment models.

The introduction of new information systems can be difficult enough. But typically, the changes in the business and work routines pose the greatest challenge - and have the greatest potential for creating benefits. The managers of tomorrow need to understand and participate in how the IT development affects the business. And those responsible for IT need to be able to discuss with controllers, accountants and business managers. This is what the course deals with, especially emphasising how responsibility and management control in an organisation can influence the realisation of IT's potential.

Teaching and working methods

The course is based on lectures, seminars and a group project.

Examination

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|------|---------------------|-----------|------------|
| UPG2 | Seminars | 1 credits | U, G |
| UPG1 | Project work | 2 credits | U, 3, 4, 5 |
| KTR1 | Written examination | 3 credits | U, 3, 4, 5 |

Grades

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Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Johan Holtström

Examiner

Alf Westelius

Course website and other links

<http://www.iei.liu.se/indek/utbildning/ekonomiska-informationssystem?l=sv>

Education components

Preliminary scheduled hours: 0 h

Recommended self-study hours: 160 h

Course literature

Kurslitteraturen består av ett urval akademiska artiklar som successivt anpassas till utvecklingen och där kursdeltagarna har möjlighet att påverka artikelurvalet. Ett exempel på kurslitteratur är följande:

Leonardi, Paul M.; Huysman, Marlene & Steinfield, Charles (2013). Enterprise Social Media: Definition, History, and Prospects for the Study of Social Technologies in Organizations. *Journal of Computer-Mediated Communication*, 19.(1), 1-19.

Majchrzak, Ann; Faraj, Samer; Kane, Gerald & Azad, Bijan (2013) The Contradictory Influence of Social Media Affordances on Online Communal Knowledge Sharing. *Journal of Computer-Mediated Communication*, Vol. 19(1) <http://www.wwf.se/vrt-arbete/ekologiska-fotavtryck/1127697-ekologiska-fotavtryck>

<http://www.renklader.se/material/rapport-om-hemtexilforetag>
Fredrik Hedenus (2011) Method for estimation of the family's greenhouse gas emissions. *Physical Resource Theory*. Report prepared for "One Tonne Life project". Chalmers tekniska högskola.

Albert O. Hirschman (1970) *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press. ISBN 0-674-27660-4.

Hirschman, Albert O. (1974) Exit, voice, and loyalty : Further reflections and a survey of recent contributions. *Social Science Information*, Volume 13 (1)

Christofides, Emily, Amy Muise, and Serge Desmarais. 2009. "Information Disclosure and Control on Facebook: Are They Two Sides of the Same Coin or Two Different Processes?" *Cyberpsychology & Behavior* 12 (3) 341–345.

Porebski, Leszek. 2002. "Three Faces of Electronic Democracy." In *ECIS 2002*, June 6-8, Gdansk, Poland, 1218–1227.

Collste, Göran. 2008. "Global ICT-Ethics: The Case of Privacy." *Journal of Information, Communication and Ethics in Society* 6 (1) 76–87.

Shirazi, Farid, Ojelanki Ngwenyama, and Olga Morawczynski. 2010. "ICT Expansion and the Digital Divide in Democratic Freedoms: An Analysis of the

Impact of ICT Expansion, Education and ICT Filtering on Democracy.” *Telematics and Informatics* 27 (1) 21–31.

Alf Westelius & Erik Lundmark (2013) Education and competence - an edge in transition? ANZAM 2013 - 27th Australian and New Zealand Academy of Management Conference, Theme: Managing on the Edge, Hobart, Tasmania, 4-6 December 2013.

Sheen S. Levine, Michael J. Prietula (2013) Open Collaboration for Innovation: Principles and Performance. *Organization Science*, Published online in *Articles in Advance* 30 Dec 2013, 1-20.

Alf Westelius - The Internet and Entrepreneurship : The Entrepreneurial LEGO. Lecture at Macquarie University, 9 Dec 2013. <http://www.youtube.com/watch?v=pyWKXWwbwck>

Alessia Contu, Hugh Willmott, (2003) Re-Embedding Situatedness: The Importance of Power Relations in Learning Theory. *Organization Science* 14(3):283-296

Mengiste, Shegaw Anagaw; Aanestad, Margunn (2013) Understanding the Dynamics of Learning across social worlds : A case study from Implementing IS in the Ethiopian public health care system. *Information & Organization*, Oct 2013, s. 233-257.

Erik Lundmark and Alf Westelius (2014, available as "Early view" from 2013-01-16) Entrepreneurship as Elixir and Mutagen. *Entrepreneurship Theory & Practice*.

Erik Lundmark and Alf Westelius (2012) Exploring entrepreneurship as misbehaviour. In special issue *Rethinking Misbehavior and Resistance in Organizations*, Lucy Taksa & Alison Barnes (eds.) *Advances in Industrial and Labor Relations*, Vol. 19, 209 - 235, Emerald Group Publishing Limited, ISSN: 0742-6186.