



## Course syllabus

Faculty of Technology

Department of Informatics

5IK501 IS/IT för organisering, kommunikation och koordinering II,  
15 högskolepoäng

IS/IT for Organizing, Communicating, and Coordinating II, 15 credits

### **Main field of study**

Informatics

### **Subject Group**

Informatics/Computer and Systems Sciences

### **Level of classification**

Second Level

### **Progression**

A1F

### **Date of Ratification**

Approved 2016-04-25

Revised 2018-06-08 by Faculty of Technology. Content, objectives, examination and literature lists are revised .

The course syllabus is valid from autumn semester 2018

### **Prerequisites**

30 credits of completed courses in Informatics at advanced level or equivalent.

## Objectives

### *Knowledge and understanding*

After completing the course students should be able to:

- identify and describe information technology's strategic role for contemporary organisations and how this role has evolved over time
- describe and explain the concepts, models and methods that can be used to explore implications of digitalization on value, competition, innovation and organisation
- describe and account for themes emerging from the literature in relation to strategizing by the virtue of IS/IT resources.

### *Skills and abilities*

After completing the course students should be able to:

- analyse information technology's strategic importance for different types of organisations
- analyse and identify challenges and opportunities in connection with the formulation of organizational IS/IT strategies
- design models for planning, managing and leading organizations' IS/IT resources.

### *Evaluation ability and attitude*

After completing the course students should be able to:

- from a holistic perspective, critically analyse and reflect on different traditions of strategic information management
- reflect on ethical issues in relation to management and governance of organizational IS/IT resources and relate to impacts on different involved stakeholder groups
- identify and value the core content of the literature used in the course.

### Content

The course focuses on the interplay between organisational and IS strategies including implications of such interplay on strategic intentions, business initiatives, organizational practices and structures.

The course includes the following elements:

- theories and approaches for strategizing in IT-enabled strategic landscapes
- the concept of digital capability in the organizational context and its implications on organisational practices
- systems thinking models and methods, including a holistic perspective of IS and organizational strategies

### Type of Instruction

Teaching consists of lectures, tutorials, supervised group work and seminars.

### Examination

The course is assessed with the grades A, B, C, D, E, Fx or F.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

Assessment of student performance is made through:

1. An individual critical reflection on sources of value in the digital economy.
2. An individual critical reflection of a main concept or theme that emerge from the literature in relation to strategizing by the virtue of IS/IT resources.
3. An argumentative essay of the concept of digital capability and its implications on contemporary organisations, e.g. implications of IOT and bigdata
4. Group assignment containing a report and oral presentation of integrated IS and organisational strategies

The different examination items are weighted as follows:

1. 10 % (one-page written presentation)
2. 20 % (PowerPoint and oral presentation)?
3. 30 % (essay)
4. 40 % (group work: report and oral presentation)

To obtain the minimum E grade, at least E on all examination items are required.

### Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

### Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

## Required Reading and Additional Study Material

Ashurst, Colin, et al. (2012). "Exploring IT-enabled innovation: A new paradigm?." *International Journal of Information Management*, 32.4: 326-336.

Amit, Raphael, and Christoph Zott. (2001). "Value creation in e-business." *Strategic management journal*, 22.6-7: 493-520.

Bharadwaj, Anandhi, et al. (2013). "Digital business strategy: toward a next generation of insights."

Börjeson, Love. (2015). "Interorganizational situations—An explorative typology." *European Management Journal*, 33.3: 191-200.

El Sawy, Omar A., et al. (2016). "How LEGO Built the Foundations and Enterprise Capabilities for Digital Leadership." *MIS Quarterly Executive*, 15.2.

Checkland, P. and Poulter, J. (2010). *Soft Systems Methodology*. In Reynolds, M. and Holwell, S. (eds). *Systems Approaches to Managing Change: A Practical Guide*. London: Springer, pp. 191–241.

[https://devpolicy.crawford.anu.edu.au/public\\_policy\\_community/content/doc/2010\\_Checkland\\_Sof](https://devpolicy.crawford.anu.edu.au/public_policy_community/content/doc/2010_Checkland_Sof)

Constantinides, Panos, Ola Henfridsson, and Geoffrey G. Parker. (2018). "Introduction—Platforms and Infrastructures in the Digital Age."

Galliers, R. D., et al. (2017). "Datification and its human, organizational and societal effects: The strategic opportunities and challenges of algorithmic decision-making." 185-190.

Ghasemaghaei, Maryam, Sepideh Ebrahimi, and Khaled Hassanein. (2017). "Data analytics competency for improving firm decision making performance." *The Journal of Strategic Information Systems*.

Günther, Wendy Arianne, et al. (2017). "Debating big data: A literature review on realizing value from big data." *The Journal of Strategic Information Systems*

Henfridsson, Ola, et al. (2018). "Recombination in the open-ended value landscape of digital innovation." *Information and Organization*, 28.2: 89-100.

Im, Ghiyoung, and Arun Rai. (2013). "IT-enabled coordination for ambidextrous interorganizational relationships." *Information Systems Research*, 25.1: 72-92.

Merali, Y., Papadopoulos, T. and Nadkarni, T. (2012). *Information systems strategy: Past, present, future?*. *Journal of Strategic Information Systems*, 21 (2): 125-153.

Marabelli, Marco, and Robert D. Galliers. (2017). "A reflection on information systems strategizing: the role of power and everyday practices." *Information Systems Journal* 27.3: 347-366.

Peppard, J. (2016). *Rethinking the concept of the IS organization*. *Information Systems Journal*. APA

Peppard, J. and Ward, J. (2004). *Beyond strategic information systems: towards an IS capability*. *Journal of Strategic Information Systems*, 13 (2): 167-194.

Queiroz, Magno, et al. (2017). "The role of IT application orchestration capability in improving agility and performance." *The Journal of Strategic Information Systems*.

Rai, Arun, and Xinlin Tang. (2013). "Research commentary—information technology-enabled business models: a conceptual framework and a coevolution perspective for future research." *Information Systems Research*, 25.1: 1-14.

Reynolds, Martin and Holwell, Sue (2010). *Introducing Systems Approaches*. In Reynolds, M. and Holwell, S. (eds). *Systems Approaches to Managing Change: A Practical Guide*. London: Springer, pp. 1–23. [http://oro.open.ac.uk/21298/1/systems-approaches\\_ch1.pdf](http://oro.open.ac.uk/21298/1/systems-approaches_ch1.pdf) See also, on the difference between hard and soft systems thinking: <https://www.youtube.com/watch?v=TWctDGpefOM>

Venkatraman, N., et al. (2014). "Theorizing digital business innovation: platforms and capabilities in ecosystems."

Wong, Christina WY, et al. (2015). "The role of IT-enabled collaborative decision making in inter-organizational information integration to improve customer service performance." *International Journal of Production Economics*, 159: 56-65.

Yeow, Adrian, Christina Soh, and Rina Hansen. (2017). "Aligning with new digital strategy: A dynamic capabilities approach." *The Journal of Strategic Information Systems*.

Yoo, Youngjin, Ola Henfridsson, and Kalle Lyytinen. (2010). "Research commentary—the new organizing logic of digital innovation: an agenda for information systems research." *Information systems research*, 21.4: 724-735.

### **Additional Study Material**

Asin Tavakoli, Daniel Schlagwein, Detlef Schoder, (2017). *Open strategy: Literature review, re-analysis of cases and conceptualisation as a practice*, *The Journal of Strategic Information Systems*, Volume 26, Issue 3, Pages 163-184.

Beer, S. (1985). *Diagnosing the system for organisations*. Chichester, UK: John Wiley and Sons

Beer, S. (1984). *The Viable System Model: Its Provenance, Development, Methodology and Pathology*, *The Journal of the Operational Research Society*, 35 (1): 7- 25.

Daniel, E.M., Ward, J.M., and Franken, A. (2014). *A dynamic capabilities perspective of IS project portfolio management*. *Journal of Strategic Information Systems*, 23: 95-111.

Checkland, P. (2011). *Autobiographical Retrospectives: Learning your way to 'action to improve' – the development of soft systems thinking and soft thinking methodology*. *International Journal of General Systems*, vol. 40 (5), pp. 487-512. <http://dx.doi.org/10.1080/03081079.2011.571437>, See also: <https://www.youtube.com/watch?v=XA2iIn-o9L0>.

Galliers, R. D., et al. (2017). "Datification and its human, organizational and societal effects: The strategic opportunities and challenges of algorithmic decision-making.": 185-190.

Golshan, Behrooz. (2018). *Digital Capability and Business Model Reconfiguration: a co-evolutionary perspective*. Diss. Linnaeus University Press.

Loebbecke, Claudia, Paul C. van Fenema, and Philip Powell. (2016). "Managing inter-organizational knowledge sharing." *The Journal of Strategic Information Svstems*. 25.1:

Markus, M. Lynne. (2017). "Datification, Organizational Strategy, and IS Research: What's the Score?." *The Journal of Strategic Information Systems*, 26.3: 233-241.

Mirjamdotter, A. and Somerville, M.M. (2009). Collaborative Design: An SSM-Enabled Organizational Learning Approach. *International Journal of Information Technologies and the Systems Approach*, 2 (1), pp. 48-69.

Peppard, J., Galliers, R.D., and Ward J. (2014). Information systems strategy as practice: Micro strategy and strategizing for IS, *Journal of Strategic Information systems* vol. 23: 1-10.

Ravichandran, T. (2017). "Exploring the relationships between IT competence, innovation capacity and organizational agility." *The Journal of Strategic Information Systems*.

Ronnie Jia, Blaize Horner Reich, Heather H. Jia, (2016). A commentary on: "Creating agile organizations through IT: The influence of IT service climate on IT service quality and IT agility", *The Journal of Strategic Information Systems*, Volume 25, Issue 3, Pages 227-231.

Saile, Anna-Sophie, Daniel Schlagwein, and Detlef Schoder. (2017). "Open Strategy: State of the Art Review and Research Agenda."

Salavati, S. (2016). Use of Digital Technologies in Education: The Complexity of Teachers' Everyday Practice. Doctoral thesis, Linnaeus University. [on how to use SSM as a research methodology].

Stephens, J. and Haslett, T. (2011). A Set of Conventions, a Model: An Application of Stafford Beer's Viable Systems Model to the Strategic Planning Process. *Systemic Practice and Action Research*, 24 (5): 429-452.

Walker, J. (1998). The Viable Systems Model a guide for co-operatives and federations, [http://www.esrad.org.uk/resources/vsmg\\_3/pdf/vsmg\\_2\\_2.pdf](http://www.esrad.org.uk/resources/vsmg_3/pdf/vsmg_2_2.pdf) accessed 20160725]

Weston, A. (1992). A rulebook for arguments. Hackett Publishing. Yoo, Youngjin, et al. (2012). "Organizing for innovation in the digitized world." *Organization science*, 23.5: 1398-1408.

Yeow, Adrian, Christina Soh, and Rina Hansen. (2017). "Aligning with new digital strategy: A dynamic capabilities approach." *The Journal of Strategic Information Systems*.

Additional papers related to the lectures will be added.