

## Data Driven Service Development

### Datadriven tjänsteutveckling

7.5 credits

7.5 högskolepoäng

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**Ladok Code:** C2DD1C

**Version:** 4.0

**Established by:** Committee for Education in Librarianship, Information, and IT 2020-12-08

**Valid from:** Spring 2021

**Education Cycle:** Second cycle

**Main Field of Study (Progressive Specialisation):** Informatics (A1N)

**Disciplinary Domain:** Natural sciences

**Prerequisites:** Bachelor's degree in informatics

**Subject Area:** Informatics/Computer and Systems Sciences

**Grading Scale:** Seven-degree grading scale (A-F)

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### Content

The aim of the course is to provide an introduction to data-driven service development at an advanced level. The course focuses on data-driven digital services. The term digital service is defined as the application of specialized competences (knowledge and skills related to data and digital technology) that enables value for another actor. The course covers the entire data-driven service development process, from data to value. Topics covered during the course are:

- the service development process
- methods, models, and tools from a data-driven service perspective
- theories in decision support, innovation, as well as service

### Learning Outcomes

After completing the course, the student will be able to:

#### *Knowledge and understanding*

- 1.1 Explain key concepts in relation to data-driven service development and how these work together to enable value
- 1.2 Describe a data-driven service development process
- 1.3 Explain methods, models, and tools that support data-driven service development
- 1.4 Explain theories in relation to decision support, innovation, and service

#### *Competence and skills*

- 2.1 Apply the service development process to further develop an existing service with the support of data
- 2.2 Analyze and formulate a systematic description of a data-driven service development process in a digital context
- 2.3 Identify the data needed to achieve the objective of a service innovation
- 2.4 Formulate a systematic description of how the objective of a service innovation can be achieved by means of data analysis

#### *Judgement and approach*

- 3.1 Choose and argue for methods in relation to data-driven service development
- 3.2 Review and evaluate data from a service perspective

### Forms of Teaching

Instruction consists of lectures, seminars and written assignments.

The language of instruction is English.

## Forms of Examination

The course is examined through the following examination elements:

Submission 1: Written Assignment – Analysis of a data-driven service development process

Learning outcomes: 1.1-1.4, 2.2 and 3.1-3.2.

Credits: 2,5

Grading scale: Fail (U) or Pass (G)

Submission 2: Written Assignment - From data-driven service ideation to novel value proposition

Learning outcomes: 1.1-1.4, 2.1, 2.3, 2.4 and 3.1-3.2.

Credits: 4

Grading scale: A-F

Seminar 1: Seminar on Submission 1

Learning outcomes: 3.1 and 3.2.

Credits: 0.5

Grading scale: Fail (U) or Pass (G)

Seminar 2: Seminar on Submission 2

Learning outcomes: 3.1 and 3.2.

ECTS credits: 0.5

Grading scale: Fail (U) or Pass (G)

For a passing grade (A-E) on the entire course, the grade Pass (G) is required on Submission 1, Seminar 1 and, 2 together with at least grade E on Submission 2. A higher grade on the entire course is thereafter determined by the grade on Submission 2.

If the student has received a decision/recommendation regarding special pedagogical support from the University of Borås due to disability or special needs, the examiner has the right to make accommodations when it comes to examination. The examiner must, based on the objectives of the course syllabus, determine whether the examination can be adapted in accordance with the decision/recommendation.

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

## Literature and Other Teaching Materials

Barrett, M., Davidson, E., Prabhu, J., & Vargo, S.L. (2015). Service Innovation in the Digital Age: Key Contribution and Future Directions. *MIS Quarterly*, (39: 1) pp.135-154. [Available electronically]

Ceccagnoli, M., Forma, C., Huang, P., & Wu, D. J. (2012). Cocreation of Value in a Platform Ecosystem: The Case of Enterprise Software. *MIS Quarterly* (36:1), pp. 263-290. [Available electronically]

Chapman, P., Clinton, J., Kerber, R., Khabaza, T., Reinartz, T., Shearer, C., & Wirth, R. (2000). CRISP-DM 1.0 Step-by-step data mining guide. [Available electronically]

Chesbrough, H., & Bogers, M. (2014). Explicating Open Innovation, In Chesbrough H., Vanhaverbeke W., West J., (eds.), *New Frontiers in Open Innovation*. Oxford : Oxford University Press, pp. 3-28. [Available electronically]

Lim, C., Kim, K. H., Kim, M. J., Heo, J. Y., Kim, K. J., & Maglio, P. P. (2018). From data to value: A nine-factor framework for data-based value creation in information-intensive services. *International Journal of Information Management*, 39, pp. 121-135. [Available electronically]

Lusch, R. F., Vargo, S.L., & O'Brien, M. (2007). Competing Through Service: Insights from Service-Dominant Logic. *Journal of Retailing*, 83(1), ss. 2-18. [Available electronically]

Lusch, R., & Nambisan, S. (2015). Service Innovation: A Service-Dominant Logic Perspective. *MIS Quarterly*. March 2015; 39(1), pp. 155-176. [Available electronically]

Nambisan S., Lyytinen K., Majchrzak A., & Song M. (2017). Digital Innovation Management: Reinventing Innovation Management Research in a Digital World. *MIS Quarterly* 41(1), ss. 223-238. [Available electronically]

Vargo, S. L. & Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing. *Journal of Marketing*, 68(1), pp. 1-17. [Available electronically]

Vargo, S. L., & Lusch, R. F. (2008). Service-Dominant Logic: Continuing the Evolution. *Journal of the Academy of Marketing Science* 36 (Spring), pp. 1-10. [Available electronically]

Vargo, S. L., & Lusch, R. F. (2016). Institutions and Axioms: An Extension and Update of Service-Dominant Logic. *Journal of the Academy of Marketing Science*, 44(1), pp. 5–23. [Available electronically]

In addition to the references above, additional teacher-selected articles of a maximum of 100 pages can be provided during the course or sought out by the students themselves

### **Student Influence and Evaluation**

The course is evaluated in accordance with current guidelines for course evaluations at the University of Borås in which students' views are to be gathered. The course evaluation report is published and returned to participating and prospective students in accordance with the above-mentioned guidelines, and will be taken into consideration in the future development of courses and education programmes. Course coordinators are responsible for ensuring that the evaluations are conducted as described above.

### **Miscellaneous**

The course is given as part of the Master programme in Informatics – Data-driven IT Management.