AALBORG UNIVERSITET

Humanistic Informatics 8th semester, Information Architecture, Aalborg

Semester description

Semester details

School: School of Communication, Art and Technology (CAT)

Study board: Humanistic Informatics

Study regulations:
http://www.fak.hum.aau.dk/digitalAssets/84/84316_curriculum_ma_information_architechture_2006_hum_aau.pdf

Semester framework theme

Det andet semester på kandidatuddannelsen i informationsarkitektur har fokus på det konkrete design af informationsarkitektur. Der arbejdes på semestret på at implementere 7. semesters teoretiske fundament i konkrete designs af informationsarkitektur. Dette indebærer sideløbende med praktisk casearbejde undervisning i IA design-, analyse- og evalueringsprocesser (og herunder IKT-værktøjer til IA design), etik i design, brugerorienteret systemdesign, kontekstforståelse og projektstyring. Casearbejdet formidles i løbet af semestret i både mundtlig form som afrapportering til rekvirent og i skriftlig form i semesterprojektet.

Semester organisation and time schedule

Semestret dækker undervisning i kurserne "Design af informationsarkitektur" (modul 4) og "It-teknik: software" (modul 5), sidstnævnte samlæses med Informationsvidenskabs modul i "Lærings-, videns- og indholdshåndtering med ikt" (Modul 13).
Formålet med semestret er at opøve kompetencer i brugerdrevet design af informationsarkitektur. Ifølge studieordningen skulle den brugerdrevne del have været samlæst med Informationsvidenskab på 7. semester, men da den del er flyttet fra IV's 7. til 8. semester i den nye studieordning, samlæses timerne på 8. semester i stedet.
Semestret på organiseres overordnet omkring arbejdet med de 3 efter hinanden følgende caseforløb. Casene dækker Design af informationsarkitektur (forløb 1), Evaluering og redesign af informationsarkitektur (forløb 2) og Udvikling af mobil informationsarkitektur (forløb 3). Sideløbende undervises i emner omkring udvikling og design af informationsarkitektur.
Kurset i IT-teknik præsenterer systemer til styring af læring, viden og indhold samt dertil knyttede processer.

Semester coordinator and secretariat assistance

Anchorperson: Tanja Svarre Jonasen

Secretarial assistance: Louise Mette Møller

Module description: “Design of Information Architecture”

Module 3: “Design of Information Architecture”

25 ECTS equals 687,5 working hours

Location

8th semester

Module coordinator

Tanja Svarre

Type and language

Project module
English

Objectives

Professional competences: Through the module the student will attain competences within:

- Design of information architectures taking point of departure in user-driven innovation
- Project management of culture-sensitive and multi-medial information architecture design processes
- Communication of design strategies.

Practical competences: Through the module the student will attain competence in:

- Designing information architectures taking point of departure in user-driven innovation
- Managing projects on culture-sensitive and multi-medial information architecture design
- Reflecting on practice with a view to the optimisation of processes and products and to the development of own competence in the design of information architectures.

Academic content and conjunction with other modules/semesters

The module focuses on training the student’s competence in user-driven design of content and structure in all kinds of information systems, irrespective of media, with a special focus on combining different cultural codes and media modalities. The student successively completes three design sequences of three to four weeks, followed by one week for reflection. In each reflection period a reflection report is produced. The design sequences are initiated by assignments set by external partners, who are subsequently presented with the results of the student’s work. Their feedback supplements the academic supervision. In each design sequence the student must exploit the theoretical knowledge attained in module 1: The rhetoric and ecology of information architecture. The module is evaluated through an individual oral test, which takes the three reflection reports as its point of departure.

Scope and expected performance

Modulet er berammet til 25 ECTS og har tildelt ca 40 K-timer. Desuden følger de studerende 13 k-timer i systemdesign på Informationsvidenskabs modul 12 i systemdesign, altså i alt 53 k-timer. Forberedelsen til timerne vil primært være i form af læsning af litteratur. Dertil kommer arbejdet med de tre successive cases, der løses og præsenteres sideløbende med undervisningen. Her vil forberedelsen bestå i indsamling af data, bearbejdning , analyse og omsætning til designforslag.

Participants

Students enrolled at the 8th semester Information Architecture

Prerequisites for participation

BA-level in studies accepted by the study board of Human Centered Informatics

Module activities (course sessions etc.)

The module consists of lectures related to the theoretical and methodical perspectives of solving real-life case work. Apart from presentation and discussion of the results of the three case periods of the semester, the following lectures will be presented:

Lecture 1 (Tanja Svarre): **Semester introduction, case presentation and IA design**

Today you will be introduced to the spring semester and the case work. Also we will have a visit from the case owner of the first case, which is the Christian Union Krifa.
Also, we will discuss design processes, analysis methods, and information architecture design to prepare the empirical work of this semester.

Literature:

Morville, P & Rosenfeld, L (2007). *Information architecture for the World Wide Web.* Sebastopol (CA): O'Reilly. 231-331.

Lecture 2 (Sandra Burri): Applied ethics

This first lecture in ethics and information architecture follows up on last years talk about classical rhetorics and persuasive design. Fundamental ethical concepts such as utilitarianism, deontology and ontology, are put to practice as we discuss and evaluate your first case assignment.

Lecture 3 (sandra Burri): Value sensitive design

This second lecture on ethics and information technology will focus on Value Sensitive Design

Value sensitive design seeks to provide theory and method to account for human values in a principled and systematic manner throughout the design process. Central to a value sensitive design approach are analyses of both direct and indirect stakeholders; distinctions among designer values, values explicitly supported by the technology, and stakeholder values; individual, group, and societal levels of analysis; the integrative and iterative conceptual, technical, and empirical investigations; and a commitment to progress (not perfection).

 Friedman & Kahn - Value Sensitive designFile

 Borning &Muller - The future of value sensitive designFile

 Albrechtslund - Ethics and Information technologyFile

Lecture 4 (Heilyn Camacho): IA within the business context

The learning objectives for the lecture are:

- Be able to discuss the relationship between business strategies and Information architecture
- Get to know the alignment of IT and business strategies
- To understand the concept of enterprise architecture and the role of the information architect within

EA

Literature (all the articles are in the folder):

1. Cataldo, A., McQueen, R. and Hardings J (2012) Comparing Strategic IT Alignment versus Process IT Alignment in SMEs. Journal of Research and Practice in Information Technology, Vol. 44 (Please note that you had this article in semester 7th)
2. Carvalho, G. and Sousa, P. (2008). Business and Information Systems MisAligment Model (BISMAM): an holistic model leveraged on misalignment and Medical sciences approaches. Proceedings of the Third International Workshop on Business/IT Alignment and Interoperability (BUSITAL'08). France, June 16-17, 2008
3. Lankhorst et al (2013). Enterprise Architecture at Work: modeling, communicationa and analysis. Third Edition. The Enterprise Engineering series. Springer Heidelberg. **From page 1 – 29.**
4. Morville, P. (2011). The system of Information Architecture. Journal of Information Architecture. Vol. 3, No. 2.

Lecture 5 (Heilyn Camacho): Project management

The learning objectives for the lecture are:

- Get a general view of global standards of project management and deeper understanding of the Project Management Institute approach.
- *Be able to distinguish between an IT project, an organizational change project and a technochange project and how to deal with each of them*
- *Be able to discuss the main reasons for IT project failures.*

Literature for this lecture:

1. Snyder, C. (2013) A User's Manual to the PMBOK® Guide—Fifth Edition. Wiley. NJ, USA. **Chapter 1 – 6** (in AUB)
2. Markus, L. (2004) Technochange management: using IT to drive organizational change. Journal of Information Technology 19:4-20. (In the folder)

Extra reading:

The CHAOS manifesto 2013: Think Big, Act Small. The Standish Group International.

Lecture 6 (Heilyn Camacho): Using business context and project management for the design of IA

- Be able to define a project proposal taking in consideration the organizational issues
- Be able to select feasible tools for collecting data about the organizational environment
- Design an information architecture products capturing the tacit knowledge of the organization.

During this session students will work on developing a case study.

Lecture 7 (Marianne Lykke): Usability/UX

The lecture will focus on the dimensions that we may use to examine and evaluate user's experience and satisfaction with elements of information architecture.

Literature

Bargas-Avila, J.A. & Hornbæk, K. (2011):. Old Wine in New Bottles or Novel Challenges? A Critical Analysis of Empirical Studies of User Experience.*Proceedings of the CHI 2011*, May 7-12, 2011, Vancouver, Canada, 2011.

Lykke, M. & Jantzen, C. (2015). Experience dimensions: A systematic approach to experiential qualities for evaluating user experience designs (Submitted for review).

Sharp, H., Rogers, Y., & Preece, J. (2007). Interaction design: beyond human-computer interaction. Chistester: Wiley. 18-32.

Lecture 8 (Marianne Lykke): Evaluation in IA

The lecture will focus on approaches to and methods for the evaluation of information architecture.

Literature

Sharp, H., Rogers, Y., & Preece, J. (2007). Interaction design: beyond human-computer interaction. Chistester: Wiley. 433-530.

Vermeeren, A.P.O.S., Lai-Chong Law, E., Roto, V., Obrist, M., Hoonhout, J., Väänänen-Vainio-Mattila, K. (2010). User Experience Evaluation Methods: Current State and Development Needs. *NordiCHI 2010*, October 16-20, 2010, Reykjavik, Iceland.

Lecture 9 (Tanja Svarre): Mobile IA development and visualizations

The lecture continues last semester's theoretical lecture on mobile development and introduces practical perspectives on mobile IA design. During the lecture, the students will be introduced to specific tools for prototyping mobile IA design.

From the HCI module in Systems development, the students are following the lectures on systems design (Introduction to systems development, Agile methods, Systems Design & Participation – an introduction, Design roles and Methods and Techniques, Agile Reflections):

Theme 1*: Introduction to systems development*

- Lecturer: PO Zander
- Literature:

Parnas, D., & Clement, P. (1986). A rational design process - How and why to fake it. IEEE Transactions on Software Engineering, 12(2), 251-257.

Royce, W. (1970). Managing development of large software systems. IEEE Wescon (pp. 1-9).

Boehm, B. W. (1988). A spiral model of software development and enhancement. *Computer*, *21*(5), 61–

72. doi:10.1109/2.59

Theme 2: Agile methods

Lecturer: PO Zander

- *Literature*:

http://www.mountaingoatsoftware.com/agile/ (Cohn's site on Agile & Scrum, good for beginners)

Beyer, H. (2010). User-centered agile methods. San Rafael, Calif. Morgan & Claypool Publishers. c) Royce, W. (n.d.). Managing development of large software systems. In IEEE Wescon (pp. 1–9)

Theme 3: Systems Design & Participation – an introduction

Lecturer: Anne Marie Kanstrup

- *Literature*:

Löwgren & Stolterman Chapter 1+2

Michael J. Muller: “Participatory Design: The Third Space in HCI” Human-computer interaction: Development process (2003): 165-185.

Sanders, E. (2008) An evolving map of design practice and design research. Interactions Magazine – November and December, 2008

Theme 4: Design roles and Methods and Techniques

Lecturer: Anne Marie Kanstrup

- Literature:

Löwgren & Stolterman Chapter 3 + 4, 6

Yanki Lee: “Design participation tactics: the challenges and new roles for designers in the co-design process”, in CoDesign, 4:1,31-50 2010.

Kanstrup & Bertelsen: “Participatory Reflections – Power & Learning in User participation”, In *What is Techno-Anthropology?* Tom Børsen & Lars Botin (eds.) Aalborg University Press, Series in Transformational Studies; Nr. 1, Vol. 2, pp. 405-430.. s)

Suchman: “located accountabilities in technology production” in Scandinavian Journal of Information Systems, 2002, 14(2): 91-105.

Theme 5: Agile Reflections

Lecturer: PO Zander

- Literature: see Agile methods above

Examination

The exam consists of an external oral individual test in: Design of Information Architecture. In the test the individual student presents his/her own proposals for designs, taking point of departure in the three reflection reports prepared in module 3. The design proposals are presented in a concept portfolio, each proposal accompanied by a sketch, pictorial illustration, scenario and commentary, the extent of which must not exceed 25 pages. The examination takes 40 minutes. An overall assessment of the concept portfolio and the oral performance is made. Emphasis is given to the concept portfolio. A grade according to the 7-point grading scale is given.

Module description: “IT technology: Software”

Module 4: “IT technology: Software”

5 ECTS equals 137,5 working hours

Location

8th semester

Study board of Humanistisk Informatik

Module coordinator

Mette Skov

Type and language

Study subject module

English

Objectives

The module introduces students to the management and adaptation of systems for learning, knowledge and content management in order to enable them to act independently when needing to adapt systems, implement prototypes and implement more complete solutions within various domains (business, cultural heritage and education). Students will gain knowledge of theory and methods regarding ICT systems for learning, knowledge and content management. Students will acquire skills in assessing, selecting and applying methods for learning, knowledge and content management; select and adapt ICT systems as well as communicate methods and solutions for ICT for learning, knowledge and content management. Students will acquire competences in taking an analytical, reflective and critical approach to selecting, adapting and applying ICT systems for learning, knowledge and content management.

Academic content and conjunction with other modules/semesters

Cf. semester description

Scope and expected performance

The module is organised with 30 lecture hours at campus for which students are expected to prepare for a minimum of 3 hours for each lecture hour through readings and exercises. Real life cases will be presented as part of the module and it is expected that students engage in case work and exercises in order to work on the ability to integrate theory and practice.

The course is co-read with module 13, ICT for learning, knowledge and content management (the master’s programme in Human Centered Informatics)

Participants

Students enrolled at the 8th semester Information Architecture

Prerequisites for participation

BA-level in studies accepted by the study board of Human Centered Informatics

Module activities (course sessions etc.)

The module is divided in three sections and will alternate between lectures, hands-on training and

workshops. More detailed descriptions and readings will be available in Moodle:

1. Introduction to knowledge management and learning theories (8 lecture hours – Heilyn Camacho and Thomas Ryberg)
2. Adoption and implementation of CMS/LMS systems. In this part of the course students will be introduced to 2-3 different CMS/LMS tools and will get hands-on experience (8 lecture hours) – Heilyn Camacho and Jacob Davidsen).
3. ICT systems for learning, knowledge and content management in various domains. Through casework students will integrate theory and practice. Two cases are used:
    1. Case 1: ICT for Learning, Knowledge and Content Management in the cultural heritage domain (mix of lectures and workshops, 7 lecture hours – Jacob Davidsen and Mette Skov)
    2. Case 2: ICT for Learning, Knowledge and Content Management within the domain of private enterprises (mix of lectures and workshops, 7 lecture hours – Heilyn Camacho)

Preliminary list of readings:

- Dohn, N. B. (2009). Web 2.0: Inherent tensions and evident challenges for education. International Journal of Computer-Supported Collaborative Learning, 4(3), 343–363. doi:10.1007/s11412-009-9066-8
- Lund, H., Bogers, T., Larsen, B. & Lykke, M. (2013). CHAOS: User-driven development of a metadata scheme for radio broadcast archives. In Proceedings of the iConference 2013. iSchools, IDEALS, s. 990-994.
- Kumar, V; Reinartz, Werner (2012) Chapter 1: Strategic Customer Relationship Management Today. In Customer Relationship Management : Concept, Strategy, and Tools. Chapter 1: / SpringerLink
- Malhotra, R. & Temponi, C. (2010). Critical decisions for ERP integration: Small business issues. International Journal of Information Management 30, pp. 28–37
- Paavola, S., Lipponen, L., & Hakkarainen, K. (2004). Models of Innovative Knowledge Communities and Three Metaphors of Learning. Review of Educational Research, 74(4), 557–576.
- Panahi, P.; Watson, J. and Partridge, H. (2013) Towards tacit knowledge sharing over social web tools. Journal of Knowledge Management, Vol. 17, No 3. pp. 379-397. Emerald Group Publishing Limited, ISSN 1367-3270
- Sfard, A. (1998). On two metaphors for learning and on the dangers of choosing just one. Educational Researcher, 27(2), 4–13.
- Shang, S. & Seddon, P.B. (2002) Assessing and managing the benefits of enterprise systems: the business manager's perspective. Info Systems Journal 12, 271–299.
- Srinivasan, R., Boast, R., Furner, J., & Becvar, K. M. (2009). Digital museums and diverse cultural knowledges: Moving past the traditional catalog. The Information Society, 25(4), 265-278.
- Wiig, K.M. (1997) Knowledge Management: An Introduction and Perspective. The Journal of Knowledge Management Volume 1 Number 1.

Examination

The module is completed through an internal, written examination in English. The examination is a three-day take-home assignment on a set topic. On the basis of the module, students will respond to one or a number of questions and assignments within the subject area of the module. The assignment paper must not exceed ten pages, and it must be prepared individually.
Evaluation: Grading according to the 7-point scale.

The study elements on which the examination is based are equivalent to 5 ECTS.