



AALBORG UNIVERSITY
DENMARK

Study Board of
Communication and Digital Media
Fall 2016

Semester description 7th semester Information Studies, Aalborg

Semester details

School:	School of Communication, Art and Technology (CAT)
Study Board:	Studyboard of Communication and Digital Media
Study	Regulations and curriculum for the master's programme in information technology
Regulation:	(information studies), September 2016: http://www.fak.hum.aau.dk/digitalAssets/153/153006_ka_information-studies_2016_hum_aau.dk.pdf

Semester framework theme

Semester theme: *Analysis of ICT in Practice*

The semester consists of three modules and an elective course:
User Practice, User Analysis and Pilot Studies (project module, 15 ECTS)
ICT based Data Collection and Analysis (course module, 5 ECTS)
Professional inquiry (course module 5 ECTS)
Elective course (course module, 5 ECTS)

The overall purpose of studying Information Studies is to learn how to understand and inform the design of well-reflected and useful ICT solutions in various contexts. The master's programme particularly emphasizes the importance of understanding what the use or introduction of ICT means to practice, as it always entails changes in organizational practices - changes which give cause to rethink, reformulate, or remediate practices in a given context. The domains relevant for this area of study are many, but the focus is on the use of ICT in practices relating to work, learning, and knowledge sharing processes within both public and private sectors.

The scope of the project work this semester is Analysis of ICT in Practice. The aim of the course, readings, and project activities within this framework is that you gain such a degree of theoretical, analytical and methodical knowledge and skills that you can complete a semester project and exam within the subject of User Practice, User Analysis and Pilot Studies (curriculum §9). You are free to choose your empirical case and methodological approach within this framework, but the central challenge of this semester's project work is to show that you can question, evaluate and argue for your empirical and methodological choices, analytical approaches, and conclusions. Some of you may be new to problem based project (the Aalborg PBL model). You can read more about it and watch videos about this pedagogical model [here](#) and in the course Professional Inquiry this model will be introduced and practiced in more depth.

Semester coordinator and secretarial assistance

Coordinating teacher: Ann Bygholm (ann@hum.aau.dk)

Secretariat assistance provider: Pia Knudsen (piak@hum.aau.dk)

Project module: User Practice, User Analysis and Pilot Studies

15 ECTS

Location

7th semester

Study board Communication and Digital Media

Module coordinator

Ann Bygholm

Teachers

Anne-Mette Albrechtslund, Helle Wentzer, Ann Bygholm

Type and language

Project module

English

Objectives

In this module students will acquire:

Knowledge of:

- theory and methods as regards the understanding of human practice and more specifically user practice in relation to technology use at the highest international level
- digital culture and practice, cultural and social phenomena related to ICT use
- cognitive, conative and emotive aspects of ICT use
- the structuring of user analyses and pilot studies directed towards various domains and processes within work life, learning and knowledge sharing.

Skills in:

- assessing strategies and methods for user analyses and pilot studies on the basis of the needs of the study and knowledge of the disciplinary theories and methods.
- choosing suitable strategies and methods for user analyses and pilot studies directed towards various domains
- data collection and analysis as regards user analysis and pilot studies
- communicating user analyses and pilot studies to peers and others.

Competences in:

- taking an analytical, reflective and critical approach to the preconditions for user analyses and pilot studies
- taking an analytical, reflective and critical approach to user analyses and pilot studies
- engaging in disciplinary and interdisciplinary collaboration on user analyses and pilot studies, with a professional approach
- identifying own learning needs and structuring own learning in relation to the subject area of user analysis for pilot studies.

Required literature

The textbook for the course is:

Nicolini, Davide (2012). *Practice Theory, Work, and Organization – An introduction*. Oxford University Press.

Additional literature appears from the description of the individual course sessions.

In-depth text reading

In general, students are expected to closely read the course literature as preparation for each class. The reading guide (see below) consists of a set of questions that you should use when reading texts. For articles via "AUB link" you need to be logged in through AUB and for others to access/be on AAUs network or VPN.

Reading guide

- What is the overall purpose of the text?
- Describe the approach presented in the text:
 - Which theoretical framework or concepts are introduced?
 - Which empirical choices have been made?
 - Which method(s) are used?
 - How are they presented?
 - What are the arguments for this approach?
- Describe the main points of the analysis: What are they? How are these documented in the text? What are the arguments for the conclusions of the analysis?

Do you have any other questions or criticisms after reading the text?

Recommended general literature (apart from the obligatory course literature):

Rogers, Y., Sharp, H., & Preece, J. (2007). *Interaction Design: Beyond Human Computer Interaction*. (accessible online through Aalborg University Library and at the university bookstore)

Tracy, S. J. (2010). Qualitative quality: Eight "big-tent" criteria for excellent qualitative research. *Qualitative inquiry* (10), 837-851.

Klein, H. K., & Myers, M. D. (1999). A set of principles for conducting and evaluating interpretive field studies in information systems.

Dourish, P. (2004). *Where the action is: the foundations of embodied interaction*. The MIT Press.

Orlikowski, W. J., & Iacono, C. S. (2006). Desperately Seeking the 'IT' in IT Research: A Call to Theorizing the IT Artifact (pp. 19-42). Chichester, UK: John Wiley & Sons Ltd.

Academic content and basis

Cf. semester description

Module activities (course plan)

1. The theory of practice

v. Anne-Mette Albrectslund & Ann Bygholm

Content:

This class introduces the overall theoretical perspectives on the concept of practice within the humanity and social sciences, and discusses why a practice-based approach is valuable in relation to ICT innovation, design and development. Furthermore, it situates the programme Information Studies within these traditions.

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Reckwitz, A. (2002). Toward a Theory of Social Practices: A development in culturalist theorizing. <i>European journal of social theory</i> , 5(2), 243-263. (Available in the course materials folder)	20		
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 1 (p. 1-22)	22		
Hirschheim, R., & Klein, H. K. (1989). Four paradigms of information systems development. <i>Commun. ACM</i> , 32(10), 1199–1216. doi:10.1145/67933.67937.	17		
Chapter 3 'Social Computing' in Dourish, P. (2004). <i>Where the action is: the foundations of embodied interaction</i> . The MIT Press. (p. 55-97)	43		
Chapter 1: 'Introduction - situated design' in. Greenbaum, J., & Kyng, M. (1991). <i>Design at Work</i> . New Jersey: Lawrence Erlbaum.	24		

Literature:

2. Understanding User Practice /Appropriation of Technology

v. Ann Bygholm

Content:

In this class we start the examination of practice theory and the understanding of the concept of appropriation as explained in the textbook and the chosen articles. The textbook focus on Practice theory in a historical perspective. Apart from reading the texts the student will in turn take responsibility for making presentation of the ongoing case in the book + summaries of the discussions.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 2 (p. 21-42)	21		
Orlikowski, W. (2000). Using Technology and Constituting Structures: A Practice Lens for Studying Technology in Organizations. <i>Organization Science</i> , Vol. 11, no.4 (Jul-Aug), p 404-428.	24		
Ortner, S.B. (1984) <i>Theory in Anthropology since the sixties</i> . <i>Comparative Studies in Society and History</i> . Vol 26 No.1 Jan., 1984) p. 126-166	41		

3. Understanding User Practice /Appropriation of Technology

v. Ann Bygholm

Content:

Continuing our examination of Practice Theory and appropriation of technology. The textbook focus on the work of Giddens and Bourdieu.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 3 (p. 44-76)	33		
Polanyi, M. (1966/2009) <i>The Tacit Dimension</i> . The University of Chicago Press	100		
Silvia Lindtner, Ken Anderson and Paul Dourish: Cultural appropriation: Information technologies as sites of transnational Imagination. CSCW 2012, February 11-15, 2012, Seattle, Washington USA	10		

4. Understanding User Practice /Appropriation of Technology

v. Ann Bygholm

Content:

Continuing our examination of Practice Theory and appropriation of technology. Focus on practice as tradition and community.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 4 (p 77—102).	26		
Lave, J. & Wenger, E. (1991) <i>Situated Learning. Legitimate peripheral participation</i> . Cambridge: Cambridge University press. Chapter 2 (p. 45-58)	14		
Ellen Balka & Ina Wagner: Making Things Work: Dimensions of Configurability as Appropriation Work. CSWV06, November 4-8, 2006, Banff, Alberta, Canada	10		

5 Understanding User Practice /Appropriation of Technology

v. Ann Bygholm

Content:

Continuing our examination of Practice Theory and appropriation of technology. Focus is on practices as activity.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 5 (p 103-133)	31		
Dourish, P. (2003). The appropriation of Interactive Technologies: Some lessons from placeless documents. In <i>Computer Supported Cooperative Work 12</i> : 465-490.	25		
Engeström, Y. (2001) <i>Expansive Learning at Work: Toward an activity</i>	24		

theoretical reconceptualization, <i>Journal of Education and Work</i> , 14:1, 133-156			
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6 Digital culture and social media I

v. Anne Mette Albrechtslund

Content:

The first lecture in this section of the course aims to give a broad introduction to the history of the Internet, and how it is shaped by changing technologies and practices.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Allen, M. (2013). What was Web 2.0? Versions as the dominant mode of internet history. <i>New Media & Society</i> , 15(2), 260–275. http://doi.org/10.1177/1461444812451567	16		
Chayko, M. (2016). Chapter 2 in <i>Superconnected: The Internet, Digital Media, and Techno-Social Life</i> . SAGE Publications. (SCAN)	22		x
O'Reilly, T. (2005). What Is Web 2.0: Design patterns and business models for the next generation of software. http://oreilly.com/web2/archive/what-is-web-20.html	(webartikel, måske 10 sider?)		
Dijk, J. van. (2013). Chapter 1 in <i>The Culture of Connectivity: A Critical History of Social Media</i> . Oxford University Press. (p 3 - 23)	20		x

7 Digital culture and social media II

v. Anne Mette Albrechtslund

Content:

The second lecture discusses the role of the Internet in personal and professional practice, and how we may conceptualize this in relation to practice theory. We mainly focus on online communities and digital social practices.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Chayko, M. (2016). Chapter 8 in <i>Superconnected: The Internet, Digital Media, and Techno-Social Life</i> . SAGE Publications.	24		x
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 7 (p 162 - 189)	26		
Willson, M. (2010). Technology, Networks and Communities. <i>Information, Communication & Society</i> , 13(5), 747–764. http://doi.org/10.1080/13691180903271572	17		
Hercheui, M. D. (2011). A Literature Review of Virtual Communities.	23		

<i>Information, Communication & Society</i> , 14(1), 1–23. http://doi.org/10.1080/13691181003663593			
Rheingold, H. (1993). <i>The virtual community: homesteading on the electronic frontier</i> . MIT Press. Online version: http://www.rheingold.com/vc/book/intro.html		Whole book: 447	

8 Understanding User Practice /Appropriation of Technology

v. Ann Bygholm

Content:

Continuing our examination of Practice Theory and appropriation of technology. Focus is on Practice as accomplishment

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 6 (p 134-161)	28		
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 9 (p 213-242)		30	
Salovaara, A. (2008). Inventing new uses for tools: A cognitive foundation for studies on appropriation. <i>Human Technology</i> vol. 4 (2), 209-228	19		

9 Digital culture and social media III

v. Anne Mette Albrechtslund

Content:

This lesson introduces and discusses methods for studying practices with digital media with a focus on qualitative methods such as ethnography and discourse studies. There will be small assignments and group discussions.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Orgad, S. (2009). How Can Researchers Make Sense of the Issues Involved in Collecting and Interpreting Online and Offline Data? <i>Internet Inquiry: Conversations About Method</i> (eds. Baym, N. & Markham, A.). Sage. (p. 33 - 53)	20		
Nicolini, Davide (2012). <i>Practice Theory, Work, and Organization – An introduction</i> . Oxford University Press.: Chapter 9 (p 213 - 243)	30		
Mélanie, R. (2009). From Embodied Ethnography to the Anthropology of Material Culture: Gaming in the Field. In P. Vannini (Ed.), <i>Material Culture and Technology in Everyday Life</i> . Peter Lang. (p 89 - 100)	11		

Bassett, E. H., & O’Riordan, K. (2002). Ethics of Internet Research: Contesting the Human Subjects Research Model. <i>Ethics and Information Technology</i> , 4(3).	14		
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10 Digital culture and social media IV

v. Anne Mette Albrechtslund

Content:

The last lesson in this course section focuses on the question of materiality in relation to practices with digital media. A main example used in this lesson will be books and e-books.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Richardson, I., & Third, A. (2009). Cultural Phenomenology and the Material Culture of Mobile Media. In P. Vannini (Ed.), <i>Material Culture and Technology in Everyday Life</i> . Peter Lang. (p 145 - 157)	22		
Marshall, C. C. (2010). Chapters 1 and 2 in <i>Reading and Writing the Electronic Book</i> . Morgan & Claypool Publishers. (online access via AUB)	36		
Petersen, S. M. (2007). Mundane Cyborg Practice: Material Aspects of Broadband Internet Use. <i>Convergence: The International Journal of Research into New Media Technologies</i> , 13(1), 79–91. http://doi.org/10.1177/1354856507072859	12		
Verbeek, P.-P. (2005). Chapter 6 in <i>What Things Do: Philosophical Reflections on Technology, Agency, And Design</i> . Pennsylvania State University Press. (p 173 - 200)	27		x

11 ICT practices from everyday life: Health

v. Helle Wentzer

Content:

This and the next sessions present challenges from technology appropriation in health care practices, especially implementation, user-interaction, and unintended consequences.

Health is omnipresent in human activities, as well as technologies permeate and mediate medical solutions, whether they are conceived therapeutic, or as tools for (re-) organizing the complex sources of medical knowledge, and patterns of collaboration. But how are these complexities and interdependencies of ICT in health care practices to be studied and analyzed? Theories, empirical studies and models of analysis are presented.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload

Wentzer , H., Böttger, U., Boye, N. Unintended Transformations of Clinical Relations with a Computerized Physician Order Entry System. International Journal of Medical Informatics. 2007;76:456–S461 (AUB link)	5		
E.M. Cambell, D.F. Sittig, J.S. Ash, K.P. Guappone, R.H. Dykstra, Types of unintended consequences related to computerized provider order entry, J. Am. Med. Inform. Assoc. 13 (5) (2006) 547–556.	9		
Berg: (1998): 'The politics of technology - bringing Social theory into design'. Pp.456-490	34		
Wentzer , H, Bygholm A. Attending Unintended Transformations of Health Care Infrastructures International Journal of Integrated Care, 14 November 2007 - ISSN 1568-4156 http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2092400/	13		
B. Latour: On Humans and Non-humans. I: Pandora's Hope. Cambridge. Harvard University Press 1999. Also published in B. Latour: On technical mediation. Common Knowledge 3, 1994:29-67	38		
J. Horsky, J. Zhang, V.L. Patel, To err is not entirely human: complex technology and user cognition, J. Biomed. Inform. 38 (2005) 264–266.		2	
E.H. Shortliffe, CPOE and the facilitation of medication errors, J. Biomed. Inform. 38 (2005) 257–258 (Editorial).		1	
Wentzer , H; Meier, N (2014): <i>At skabe sikkerhed, effektivitet og tryghed. Operationsassisterende arbejde på hospitaler.</i> København: KORA.		125	
Sittig DF, Singh H (2010) A new sociotechnical model for studying health information technology in complex adaptive healthcare systems. Qual Saf Health Care. 2010 Oct;19 Suppl 3:i68-74. http://www.ncbi.nlm.nih.gov/pubmed?linkname=pubmed_pubmed&from_uid=20959322	6		
Sittig DF, Singh H (2010) A new sociotechnical model for studying health information technology in complex adaptive healthcare systems. Qual Saf Health Care. 2010 Oct;19 Suppl 3:i68-74. http://www.ncbi.nlm.nih.gov/pubmed?linkname=pubmed_pubmed&from_uid=20959322	6		

The first session is about health care infrastructure, and the intentions and the unintended consequences of implementing electronic communication tools for storing patients' data, and for making intra- and interorganizational collaboration more safe and efficient. The empirical case is the implementation of electronic patient records.

12 ICT practices form everyday life: Health

v. Helle Wentzer

Content:

The second session on ICT in health care is about teamwork in health care practices and the prospects and dependencies on ICT infrastructures. Ethnographic case studies are presented on: i. creating safety in operation theaters and in intermediate care as socio-technical achievements in multi-modal communicative teamwork practices. ii. Innovating intermediate care by creating cross sectorial teamwork.

Literature:

	Mandatory lit. no of p..	Sec. lit. no of	Dig. upload

		p.	
Zimmermans, S. and Berg, M. (2003). Epilogue: The Quest for Quality. Cp.: The Golden Standard. The Challenge of Evidence-Based Medicine and Standardization in Health Care. Temple University Press, Philadelphia. Pp. 195-216.	21		
Ryberg, T., Buus, L., Tom Nyvang, T., Georgsen, M., and Davidsen, J. (2015). Introducing the collaborative e-learning design method (CoED). (75-91). Red. Mor, Y., Craft, B. and Maina, M. Technology Enhanced Learning. Art & Sciences of Learning Design. Sense Publishers, Rotterdam.	16		
Hjelmar, U., Hendriksen, C., and Hansen, K. (2011). Motivation to take part in integrated care - an assessment of follow-up home visits to elderly persons. International Journal of Integrated Care. Vol. 11, July-September.		5	
Pols, J: Care at a Distance, On the closeness of technology. Amsterdam University Press 2012, P. 204		204	
Mol, A, Moser, I, Pols, J (2015). Care in Practices. On Tinkering in Clinics, Homes and Farms. Transcrip Verlag (first published 2010) pages 326		326	
Wentzer , H (2013), Opfølgende hjemmebesøg med video - Et telemedicinsk eksperiment til innovation af tværsektorielt samarbejde. KORA, http://www.kora.dk/media/173140/projekt3446_beskyttet.pdf		60	
Ballegaard, SAA, Thorsen, MK, Bro, LL. Wentzer , HS (2012) Hjemmeteknologi til patienter med KOL. Patient, professionelle og organisatoriske perspektiver. KORA, http://dsi.dk/udgivelser/?mode=product&id=360&type=book_whole&project_id=3331		118	
Ballegaard, Stinne Aaløkke; Mille Kjærgaard Thorsen og Helle Sofie Wentzer (2015): TeleMatchmodellen kan være en hjælp ved valg af den rigtige telemedicinske løsning. Kvalitetsudviklingsartikel. Ugeskrift for Læger, 177 (V11130673):2-4.		3	
Wentzer, H. (2015). Koordinering af teamsamarbejde i opfølgende hjemme-besøg med video – et eksperiment til innovation af tvær-sektorielle patientforløb. Sammenhænge i sundhedskommunikation. Aalborg Universitetsforlag, 2015, side 83-130		47	
Virkkunen, J. & Newnham, D. S. (2013). The Change Laboratory. A Tool for Collaborative Development of Work and Education. Rotterdam: Sense Publishers.		238	

Examination (Examination 2)

An external oral examination in: “User Practice, User Analysis and Pilot Studies”.

The examination is a conversation between the student(s) and the examiner and external examiner based on a project report produced individually or in a group. The project report/written work will be considered the shared responsibility of the group. Students will be examined and assessed on the basis of the entire project report, and one combined grade will be awarded each student for the project report and the oral performance.

Literature foundation: 1500 standard pages' supervisor approved, self-selected literature related to the project. The project report: the total number of pages must be no less than 15 pages and no more than 20 pages per student in a project group, and 30 pages if written individually.

Duration of examination: 20 minutes per student and 10 minutes per group for assessment and announcement of result, although no longer than a total of two hours. 30 minutes in total for individual examinations.

Evaluation: Grading according to the 7-point scale.

At oral group examinations, the examination must be conducted in such a way that individual assessment of each individual student's performance is ensured.

Credits: 15 ECTS.

The project report and the conversation must demonstrate that the student fulfils the objectives for the module stated above.

In the evaluation of the examination performance, the grade 12 will only be awarded to students who give an excellent performance and demonstrate that they have fulfilled the above objectives exhaustively or with only few insignificant omissions.

Any re-examinations will be held on the basis of the revised project report.

Project module: ICT based Data Collection and Analysis

5 ECTS

Location

7th semester

Study board Communication and Digital Media

Module coordinator

Mette Skov

Teachers

Mette Skov, Tanja Svarre Jonasen, Lone Dirckinck-Holmfeld and Peter Øhrstrøm.

Type and language

Project module

English

Objectives

In this module students will acquire:

Knowledge of:

- theories and methods at the highest international level as regards qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- ICT systems for data collection and analysis in relation to user analyses and pilot studies
- principles, including ethical principles, for managing ICT systems for data collection and analysis in relation to user analyses and pilot studies.

Skills in:

- assessing and selecting a method for qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- selecting, configuring and adapting ICT systems for qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- communicating methods for ICT based data collection and analysis to peers and laymen
- communicating results on ICT based data collection and analysis to peers and laymen.

Competences in:

- taking an analytical, reflective and critical approach to qualitative and quantitative oriented data collection and analysis in relation to user analyses and pilot studies
- engaging in interdisciplinary collaboration on ICT based data collection and analysis in relation to user analyses and pilot studies
- identifying own learning needs and structuring own learning in relation to the subject area of ICT based data collection and analysis in relation to user analyses and pilot studies.

Scope and expectations

The module equals 5 ECTS points corresponding to a student workload of app. 137,5 working hours.

Participants

7th semester IS students

Academic content and basis

1. Introduction to ICT based data collection and analysis

v. Mette Skov

Content:

This first lecture will introduce the module including group work, reading, requirements and exam. Secondly, the lecture will introduce to (new) ICT based forms of data in HCI such as big data, log data, eye-tracking, sensor data etc.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Boyd, D., & Crawford, K. (2012). Critical questions for big data: Provocations for a cultural, technological, and scholarly phenomenon. <i>Information, communication & society</i> , 15(5), 662-679.	17		
Bryman, A. (2016). <i>Social research methods</i> . Oxford University Press. Chapter 3 (Research designs)	33		

2. & 3. Computer-assisted qualitative analysis I + II

v. Mette Skov

Content:

Empirical qualitative research often generates large amounts of data in the form of field notes, interview transcripts, data from open-ended questionnaires etc. In two lectures we will work with computer-assisted qualitative data analysis using the Nvivo software as example.

Bring your laptops and please install Nvivo beforehand (free campus license can be downloaded here: <http://www.ekstranet.its.aau.dk/software/nvivo/download-nvivo>)

Literature:

	Mandatory lit. no of p..	Sec. lit. no of p.	Dig. upload
Bryman, A. (2016). <i>Social research methods</i> . Oxford University Press. Chapter 17 (The nature of qualitative research), Chapter 18 (Sampling in qualitative research), Chapter 24 (Qualitative data analysis) and Chapter 25 (Computer-assisted qualitative data analysis: using Nvivo).	96		

4. Selected ethical problems related to ICT based data collection and analysis

v. Peter Øhrstrøm

Content:

The aim of this lecture will be to discuss some selected ethical problems related to ICT based data collection and analysis. In order to deal with these problems, some classical and relevant types of ethical reasoning will be presented. In particular, we shall consider ethical arguments dealing with various types of surveillance and the importance of privacy. The notion of informed consent and the practical use of it in various contexts will also be discussed.

We shall focus on ICT based data collection for research purposes. We shall refer to a number of ethical issues related to some selected research projects. In addition, we shall discuss the use of ethical boards or panels in research projects.

During the lecture, references will be made to ideas discussed in the following papers in which the various research projects and the ethical problems are presented.

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Anne Gerdes & Peter Øhrstrøm: "The role of credibility in the design of mobile solutions to enhance the social skill-set of teenagers diagnosed with autism", <i>Journal of Information, Communication & Ethics in Society</i> , Vol. 9 No. 4, 2011 pp. 253-264	12		
Peter Øhrstrøm: "Helping Autism-Diagnosed Teenagers Navigate and Develop Socially Using E-Learning Based on Mobile Persuasion", <i>International Review of Research in Open and Distance Learning</i> , Vol. 12.4, May 2011, 54-71	18		
Jespersen, Julie Leth ; Albrechtslund, Anders; Øhrstrøm, Peter ; Hasle., Per F. V.; Albretsen, Jørgen: "Surveillance, Persuasion, and Panopticon". In: <i>Persuasive Technology: Second International Conference on Persuasive Technology</i> , Persuasive 2007: Revised Selected Papers. Berlin/Heidelberg: Springer, 2007 pp. 109-120 (Lecture Notes in Computer Science).	12		
Peter Øhrstrøm and Johan Dyhrberg: "Ethical Problems Inherent In Psychological Research Based On Internet Communication as Stored Information", <i>Theoretical Medicine and Bioethics</i> (2007) 28:221–241, Doi 10.1007/S11017-007-9037-X	20		
Thomas Ploug & Søren Holm: "Meta Consent: A Flexible and Autonomous Way of Obtaining Informed Consent For Secondary Research", <i>BMJ</i> 2015;350:h2146 doi: 10.1136/bmj.h2146	?		
Aimee van Wynsberghe and Jeroen van der Ham: "Ethical Considerations of Using Information Obtained from Online File Sharing Sites: The Case of the Piratebay", <i>Journal of Information, Communication and Ethics in Society</i> , Vol. 13 No. 3/4, 2015 pp. 256-267	12		
Anne Gerdes and Peter Øhrstrøm: "Issues in robot ethics seen through the lens of a moral Turing test", <i>Journal of Information, Communication and Ethics in Society</i> 2015 Vol 13 2 E	12		

5.& 6. Video Interaction Analysis, VIA I & II: Foundations and Practice

v. Lone Dirckinck-Holmfeld

Content: The aim of these course modules (VIA I & II) is to explore and discuss some selected foundational challenges in video Interaction Analyses related to data collections and analysis. VIA as a method has been developed for the empirical investigation of the interaction of human beings with each other and with the objects in their environment. The course will focus on framing assumptions, ways of working, recording, transcription and analysis. You should plan for intensive practice in-between the course elements, where you will have to do a collection of data (video recording of a practice), transcription and prepare for the analysis. You will also be introduced to VILA, the Video Research Lab at Aalborg University <http://www.vila.aau.dk/>

Literature:

	Mandatory lit. no of p.	Sec. lit. no of p.	Dig. upload
Bryman, A. (2016). <i>Social research methods</i> . Oxford University Press. Chapter 19 (Ethnography and participant observation, 422 – 465	43		
Jordan, Brigitte and Henderson, Austin: Interaction Analysis: Foundations and Practice The Journal if the Learning Sciences 4 (1) 39-103	62		
Derry, S., Pea, R., Barron, B., Engle, R., Erickson, F., Goldman, R., ... Sherin, B. (2010). Conducting Video Research in the Learning Sciences: Guidance on Selection, Analysis, Technology, and Ethics. <i>Journal of the Learning Sciences</i> , 19(1), 3–53. http://doi.org/10.1080/10508400903452884 (s. 1-17 & 18 – 53)	17	31	
Plowman, L., & Stephen, C. (2008). The big picture? Video and the representation of interaction. <i>British Educational Research Journal</i> , 34(4), 541-565.		24	
Laurier, E. (2014). The Graphic Transcript: Poaching Comic Book Grammar for Inscribing the Visual, Spatial and Temporal Aspects of Action. <i>Geography Compass</i> , 8(4), 235–248. http://doi.org/10.1111/gec3.12123		13	
Dirckinck-Holmfeld, Lone (1997): “Video som medium I dialogforskning og organisatorisk læring, In Alrø, H. and Dirckinck-Holmfeld, L (eds.) <i>Videoobservation</i> , Aalborg Universitetsforlag, 101-121		20	

7. & 8. Quantitative data and analysis I + II

v. Tanja Svarre Jonasen

Content: The two lectures concerns quantitative data analysis. The first lecture presents the nature of quantitative research, quantitative data collection, and data analysis (statistics and visualization). The lecture also includes hands-on exercises in the visualization tool Tableau. The second lecture continues the exercises and the students present their work with Tableau.

Literature:

	Mandatory lit. no of p..	Sec. lit. no of p.	Dig. upload
Bryman, A. (2016). <i>Social research methods</i> . Oxford University Press. Chapter 7 "The nature of quantitative research", chapter 8 "Sampling", Chapter 15 "Quantitative data analysis", Chapter 16 "Using SPSS for Windows"	90		
Heer & Shneiderman (2012). Interactive dynamics for visual analysis. <i>Queue</i> , 10(2),	26		

9. Evaluation of module

v. Mette Skov

Content: In this closing lecture students can ask question about the written exam and evaluate the module.

Examination (Examination 3)

An internal written examination in English in "ICT Based Data Collection and Analysis".

The examination is a seven-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 eight pages, and it must be prepared individually.

Evaluation: Grading according to the 7-point scale.

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

In the evaluation of the examination performance, the grade 12 will only be awarded to students who give an excellent performance and demonstrate that they have fulfilled the above objectives exhaustively or with only few insignificant omissions.

Study module: Professional Inquiry

5 ECTS

Location

7th semester HCI

Study board Communication and Digital Media

Module coordinator

Heilyn Camacho hcamacho@hum.aau.dk

Teachers

Ellen Christiansen ech@hum.aau.dk and Heilyn Camacho hcamacho@hum.aau.dk

Type and language

Study module

English

Objectives

The module comprises the development and phrasing of inquiry for the purpose of enabling students to formulate research questions and scientific problems within the field of Information Studies. This will form the basis of the problem based project work and inquiries to be carried out during the course of the master programme in Information Studies

In this module students will acquire:

Knowledge of:

- the connections and differences between empirical inquiry and research questions based on informatics
- the connection between research questions and the theory of science in the organisation of scientific research
- theory of science within the field of informatics

Skills in:

- describing empirical inquiry
- translating empirical inquiry into a scientific research question within the field of informatics
- combining a scientific research question with the theoretical basis of its investigation.

Competences in:

- preparing scientific research based on personal enquiry
- taking a reflective approach to the basis of scientific inquiry
- engaging in disciplinary collaboration on scientific problem formulation

Methodology

The master study has as its overall objective to educate graduates, who are capable of adapting and developing ICT solutions to end user practice and organisational context, and reflect critically upon what is and develop alternatives. In any case critical inquiry into a given context, and critical reflection upon own ideas is important. This *Professional Inquiry* course will teach students how to become professional inquirers. Two points are worth emphasizing: professional inquiry is a craft, learned through practicing, and it is very much a collective, collaborative act of going back and

forth over arguments, in acts of listening and questioning. Students do not become professional inquirers by following this course, but they can learn *how to* become one. Each session deals with one of the constituents of professional inquiry, the knowledge is “accumulative,” the themes are linked, and students can not skip participating actively. Also it is the teachers aim to developed a culture among students that literature must be read before class, and assignments must be carefully prepared.

The topics covered are:

- Session 1: *The philosophy behind PBL*
- Session 2: *The identity of the professional inquirer*
- Session 3: *Methods for professional inquiry into problems: reflective thinking and action learning*
- Session 4: *Tools to support the professional inquiry process and problem formulation process*
- Session 5: *Facts checking and facts presentation in the context of PBL*
- Session 6: *Scholarly ways of reading and writing about professional inquiry*
- Session 7: “Boal Forum Theater”: *Performing a job interview for a job as professional inquirer*

Scope and expectations

The module equals 5 ECTS points corresponding to a student workload of app. 137,5 working hours.

What it takes:

Reading in preparation the course literature, and showing up to the seven sessions scheduled, and uploading the seminar assignments in Moodle

Participants

Students from 7th Semester HCI

Module activities (course sessions etc.)

Main activities

- Reflective Journal: Students should write between 1 and 2 pages per week about the theme of the week (online space where to upload their writings.)
- Reading for learning: Students will be introduced to a set of mandatory readings and a set of questions for each session. All students must read the literature and answer the questions. In a number of sessions, one student/group will be in charge of chairing a professional Inquiry discussion about a selected paper.
- Writing a paper: after the 6th session, each student is required to write a 5 page academic article demonstration skills as a professional inquirer. Each student gets written feedback from one of the teachers.
- Skilled professional inquiry performance. This activity focuses on performance and feedback. Students will receive a description of a job ad emphasizing professional inquiry skills, and they have to prepare for a 10 minutes job interview in front of the class.

Session 1

Topic: *The philosophy behind PBL. In the end of the session participants should be able to answer the question: What is it demanded from you when you use PBL?*

Literature:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Kjersdam, F., & Enemark, Stig. (1994). <i>The Aalborg experiment:: Project innovation in university education</i> . Aalborg: The faculty of technology and science, Aalborg University & Aalborg University Press. From page 13-17.	5		
Dreyfus, H., Dreyfus, Stuart E, & Athanasiou, Tom. (1986). <i>Mind over machine : The power of human intuition and expertise in the era of the computer</i> (Repr. ed.). Oxford: Blackwell (paperback edition from 1988 or later). Chapter 1: Five steps from novice to expert.	40		
Piokela, E. (2005). Knowledge, knowing and problem based learning – some epistemological and ontological remarks. In: Piokela, E. and Nummenmaa, A. (editors). <i>Understanding Problem-based Learning</i> . Tampere University Press. Finland, pp 15-32	17		

Session 2

Topic 2: *The identity of the professional inquirer. In the end of the session participants should be able to answer the question: What is expected from you when performing as a professional inquirer?*

Literature:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Mackenzie, N., & Knipe, S (2006). <i>Research Dilemmas: Paradigms, Methods and Methodology</i> . <i>Issues in Educational Research</i> , 16(2), 193-205	12		
Schön, D. (1983). <i>The Reflective Practitioner : How professionals think in action</i> (New ed.). Aldershot: Arena. Chapter 2: From Technical Rationality to Reflection in Action, pp 21-75	54		
Hamby, B. (2013). "Willingness to inquire: the cardinal critical thinking virtue". Ontario Society for the Study of Argumentation Conference. May 22 nd – 25 th). University of Windsor. Download here	15		
Baldwin, J. (1962) <i>The creative process</i> . in: <i>Creative America</i> , Ridge Press. Download here		2	
Tremmel, R. (1993) <i>Zen and the Art of Reflective Practice in Teacher Education</i> In: <i>Harvard Educational Review</i> , Vol. 63, Iss. 4, 1993-12, pp. 434–459 Plus – for the enjoyment of it the novel: Robert A. Pirzig: <i>Zen and the Art of Motorcycle Maintenance</i>	23		

Session 3

Topic: *Methods for professional inquiry into problems: reflective thinking and action learning. In the end of the session participants should be able to answer the question: What is a reflective learner?*

Literature:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Revans, R. (1998). ABC of Action Learning (Review edited of 1983 edition ed.). London: Lemons & Crane.	120		
Schön, D. (1983). The Reflective Practitioner: How professionals think in action (New ed.). Aldershot: Arena. Chapter 5: The Structure of Reflection-in-Action, pp. 128-168	40		
Kensing, F. & Greenbaum, J. (2012) Having a say in: Simonsen & Robertson eds. Routledge International Handbook of Participatory Design, Routledge , pp.21-36	15		

Session 4

Topic: *Tools to support the professional inquiry process and problem formulation process. In the end of the session participants should be able to answer the question: What tools to use when I, as a professional inquirer, need to develop a proper problem formulation?*

Literature:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Marquardt, Michael (2014). Leading with questions: how leaders find the right solutions by knowing what to ask. John Wiley and Sons		150	
Chenai, R. (2011). Ten Steps for Conceptualizing and Conducting Qualitative Research Studies in a Pragmatically Curious Manner. The Qualitative Report, Vol. 16, No. 6. pp 1713-1730	18		
Van Gelder, T. (2015). Using Argument Mapping to Improve Critical Thinking Skills. In: Barnett, R and Davies, M (editors). The Palgrave Handbook of Critical Thinking in Higher Education, pp. 183-192	11		
Brandt,E, Th, Binder & L. Sanders (2012).Tools and Techniques in: Simonsen, J. & Robertson eds. (2012) Routledge International Handbook of Participatory Design, Routledge, pp. 145-182	37		

Session 5

Topic: *Facts checking and facts presentation. In the end of the session participants should be able to answer the question: How to argue sufficiently, within PBL framework, for the methods chosen?*

Literature:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Bryman, A. (2016) Mixed methods research, in Social Research Methods, Oxford University Press, pp. 634-660	26		
Greene, J., Caracelli, V., & Graham, W. (1989). Toward a Conceptual Framework for Mixed-Method Evaluation Designs. Educational Evaluation and Policy Analysis, 11(3), 255-274	20		

Session 6

Topic: *Scholarly ways of reading and writing about professional inquiry. In the end of the session participants should be able to answer the question: How to report back to the academic community about your professional inquiry?*

Literature:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Bryman, A. (2016) Writing up social research, in Social Research Methods, Oxford University Press, pp. 661-687	26		
Neil Selwyn, Learning, Media and Technology (2013): 'So What?' ... a question that every journal article needs to answer, Learning, Media and Technolog, pp 1-5.	7		
Johanson, L. (2007). Sitting in Your Reader's Chair: Attending to Your Academic Sensemakers. Journal of Management Inquiry, 16(3), 290-294	5		
Papadakis E. (1983). Why and What for?: the basis for writing a good Introduction. Materials Evaluation. Vol 41. pp 20-21	2		

Session 7

Topic: Boal Forum Theater": *Performing a job interview for a job as professional inquirer*

Literature:

	Pri. lit. no of p.	Sec. lit. no of p.	Dig. upload
Stahl, Koschmann, Suthers (2006) Computer-Supported Collaborative Learning: An historical perspective. In R. K. Sawyer (Ed.), Cambridge handbook of the learning sciences. Cambridge, UK: Cambridge University Press	20		
Boal, A. (1985). Theatre of the oppressed (Elektronisk udgave ed.). New York: Theatre Communications Group, pp 1-39	39		

Examination (Examination 1)

An internal written examination in English in "Professional Inquiry"

The examination is a seven-day take-home assignment on a set topic. Evaluation: pass/fail.

The assignment paper must demonstrate that the student fulfils the objectives for the module stated above. Alternatively, the examination may be completed by satisfactory and active participation in the module, i.e. a minimum of 80% attendance and completion of set tasks.

Substitution

Alternatively, the examination may be completed by conducting (all of) the below mentioned activities:

1. Attending 80% of the lectures
2. Handing in 4 out of the 5 journal entries
3. Leading a critical discussion of a paper (member of a group)
4. Writing a 5-page article (following the academic criteria)