Semester description

7th semester Human Centered Informatics

Humanistic Informatics, CPH

Overordnet semesterbeskrivelse

Semester details

Skole: Skolen for Communication, Art and Technology (CAT)
Studienævn: Humanistisk Informatik
Studieordning: Studieordning for bacheloruddannelserne i Humanistisk Informatik: Informationsvidenskab, Interaktive digitale medier og Kommunikation, september 2014:
http://www.fak.hum.aau.dk/digitalAssets/90/90808_ma_human_centred_informatics_2014.pdf

Semester framework theme

From the curricula:

The 7th semester of the programme comprises a 5 ECTS credits module in "Professional Inquiry", a project module of 20 ECTS credits in "User Practice, User Analysis and Pilot Studies", a 5 ECTS credits study subject module "ICT Based Data Collection and Analysis" and a 5 ECTS credits elective module.

The semester starts out with the module on "Professional Inquiry", which lets the students explore research questions and scientific problems based on a specific case that involves a pilot study in relation to a proposed audio guide for the local citizens and visitors of Sydhavnen. The case is presented and developed in collaboration with the local committee of Sydhavnen (Kgs. Enghave Lokaludvalg). Based on various methods for data collection (e.g. field observations, interviews, visual mapping methods) and a selection of relevant theoretical approaches, the students must generate knowledge on users' practices and needs in relation to the assigned case. In order to pass the course, the students must present their preliminary findings both to the local committee and as academic assignments, which primarily focus on the relationship between data analysis and research questions.

Based on the hands-on experiences with Professional Inquiry, the semester will introduce the students to project writing as a part of the project module on User Practice, User Analysis and Pilot Studies. The project module further introduces to key areas within HCI – e.g. usability, cognitive modelling, stakeholder analysis, embodied interaction, pervasive computing, and the perspectives of STS (Science and Technology Studies) and ANT (Actor Network Theory). During the project module, groups will be formed in relation to the final project exam. Each group will be assigned a supervisor.

The semester then moves on to the study subject module "ICT Based Data Collection and Analysis" and a 5 ECTS credits elective module. "ICT Based Data Collection and Analysis" introduces students to a range of different tools and methods for online data collection from web pages, social media, and publication databases, and give them hands-on experience with some of the most practical tools. In addition, methods for enrichment of the collected data will be discussed, such as sentiment analysis, information extraction, and crowdsourcing. Finally, the course highlights some of the ethical and legal aspects of data collection.

Next, follows a synopsis seminar, where each group will present their preliminary research questions and suggestions for theories, methods, and data collection. The semester finishes off with a semester evaluation after the final projects have been handed in.

Semesterets organisering og forløb

The semester will be organized in the following manner:
1) Semester introduction (1st of September)
2) Professional Inquiry (Weeks 36-39)
3) User Practice, User Analysis and Pilot Studies (Weeks 39-41)
4) ICT Based Data Collection and Analysis (Weeks 42-47)
5) Optional course (Weeks 42-47)
6) Synopsis seminar (Week 47)
7) Semester evaluation (17.12.2014)

Omfang og forventning
Semesteret udgør 30 ECTS points. 1 ECTS point svarer til 27,5 times arbejde, og 30 ECTS point svarer såle-des til **825 arbejdstimer eller 22 ugers fuldtidsarbejde** bestående af forberedelse til undervisning, undervis-ningsdeltagelse, gruppearbejde, vejledning og eksamener.

Semester coordinator and secretarial assistance
Anchorperson: Thorkild Hanghøj
Secretarial assistence: Karina Ingemann

Module description

Project module: User Practice, User Analysis and Pilot Studies
15 ECTS
Location
7. Semester Studieboard for Humanistic Informatics
Module coordinator
Thorkild Hanghøj
Type and language
Project module English
Objectives
In this module students will acquire: Knowledge of: - theory of science, 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.

Academic content and basis

Through the module, students will acquire knowledge, skills and competences in relation to the areas of user analysis and pilot studies with particular emphasis on user analysis and pilot studies in relation to the development of ICT for supporting work, knowledge and learning processes.

The module will introduce students to user analysis, user-system interaction and pilot studies within the fields of ICT innovation, design and development, which are areas of core competence within the field of informatics. This includes acquisition and application of knowledge on digital practice, organisational culture, digital culture and cognitive, conative and emotive aspects of the undertaking of user analyses and pilot studies with a view to qualifying operational processes and organisational change.

The module comprises teaching within the following areas:
- user practice, user analysis and pilot studies – theory of science and theory
- data collection and analysis methods
- user practice, user analysis and pilot studies in specific domains

Academic supervision will be offered in connection with the problem oriented project work.

Scope and expectations

The module equals 15 ECTS points corresponding to a student workload of app. 412,5 working hours.

Module activities (course sessions etc.)

Course plan:
0 – Introduction
1 – Usability
2 – Cognitive Human modelling
3 – Stakeholder analysis
4 – Embodied interaction
5 – ANT and STS
6 – Synopsis seminar
7 – Semester evaluation

ICT based Data Collection and Analysis (5 ECTS)

Location

7th Semester
Studienævnet for Humanistic Informatics

Module coordinator

Toine Bogers

Type and language

Study 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

Academic content and basis

The module will introduce students to ICT based data collection and analysis offering a number of opportunities to obtain vast amounts of data on the use of for example Web based ICT solutions with relative ease. These opportunities call for fundamental consideration of options and problems, including ethical concerns on the significance of the potentially extensive mappings of individual user behaviour.
During the course of the module, students will engage in ICT based data collection and analysis for the support of ICT user analyses and pilot projects.

The module comprises courses and exercises within the following areas:
- theory and method within ICT based data collection and analysis
- tools for ICT based data collection and analysis

Scope and expectations

The module equals 5 ECTS corresponding to 137,5 working hours.

Module acticities (course sessions etc.)

0 – Introduction
1 – Tools & methods for data collection
2 – Enrichment (information extraction & sentiment analysis)
3 – Crowdsourcing
4 – Legal and ethical aspects of data collection + course evaluation

Examination

The course module is completed with a set, individual internal written exam (max. 10 pages) graded according to the seven-point grading scale. The student is given 7 days to complete the assignment.

Module description

Module: Professional Inquiry (5 ECTS)
Location
7th semester HCI
Study board Humanistic Informatics
Module coordinator
Thorkild Hanghøj
Type and language
Study module
English
Objectives
The module comprises the development and phrasing of empirical inquiry for the purpose of enabling students to formulate research questions and scientific problems within the field of informatics. This will form the basis of the problem based project work and inquiries to be carried out during the course of the informatics study pro-gramme.

Knowledge of:
- the connections and differences between empirical inquiry and research questions based on informat-ics
- 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 inquiry
- taking a reflective approach to the basis of scientific inquiry
- engaging in disciplinary collaboration on scientific problem formulation

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.)

Case introduction

Presentation of the case
Division into groups
Working with research questions

Literature
Københavns Kommune (2013). Bydelsplan for Kongens Enghave 2013.
de Certeau, M. (1988). Chapter VII: Walking in the city. In: The practice of everyday life (S. Rendall, Trans.). Berkeley: University of California Press. (91-111)
Voegelin, Salomé (2010). Chapter 1: Listening. IN: Listening to Noise and Silence - Towards a Philosophy of Sound Art. New York/London: Continuum. (1-41)

Salome Voegelin

File 1: Chapter 1: Listening (sorry about the three page 1's)
File 2: Notes to Chapter 1.
File 2: Notes to Chapter 1.
de Certeau
Bydelsplan 2013

Research methods

Introduction to the following research methods in relation to the case:
◦Interview
◦Visual mapping
◦Observations

Literature
Hjemdahl, K. M. (2003): "When Theme Parks Happen" in Being There. New Perspectives on Phenomenology and the Analysis of Culture (red.) Jonas Frykman & Nils Gilje, Nordic Academic Press.
Pickard, A. J. (2013). Chapters on "Interview" and "Observation" in: Research Methods in Information. 2nd Ed. London: Facet Publishing.
Taylor, H. A. & Tversky, B. (1992). Descriptions and depictions of environments. Memory & Cognition, 20(5), 483-496.
Wentzel, I. W. (2013). Children's everyday lives (re)constructed as variable sets of 'field bodies': Revisiting the 'exotic' remote island – a case study. Nordic Studies in Education, No. 2, p. 112-123.
Tversky & Taylor
Ida Wenzel Winther
being there

Each group must write min. 200 words about their selected research methods – and how this relates to their

preliminary problem statement and hypothesis. Deadline is Thursday Sep 4 at 12:00am.

research methods slides

Workshop: Data Analysis

Workshop with focus on data analysis based upon Grounded Theory. Preliminary categorisation and analysis of your data material.

Preparation:

Upload "raw data" from your empirical data collection in the forum below. Data must be "printable". Data has to be uploaded by Tuesday Sep 8 at 5pm. Please add your preliminary problem statement and short description of your research methods (max ½ side).

Litterature
 Clarke, A. (2003). Situational Analyses: Grounded Theory After The Postmodern Turn. Symbolic Interaction, 26(4): 553-576.
Cresswell, J. (2008). Grounded Theory Designs. Educational Research. 3rd Ed. Pearson.
Pickard, A. J. (2013). Chapter on grounded theory

Cresswell
Clarke
GT slides

Theoretical perspectives

Introduction to theoretical concepts, which may be relevant to your analytical categories and themes.

Literature
 Latour, B. (1999). A Collective of Humans and Nonhumans. Following Daedalus's Labyrinth. Pandora's Hope. Harvard University Press. (174-215).
Sutko, D. M. & de Souza e Silva, A. (2010). Location-aware mobile media and urban sociability. New Media Society, 13(5): 807-823.
Wenger, E. (2000). Communities of Practice and Social Learning Systems. Organization, 7: 225-246.

Optional reading:
Vertesi, J. (2008). Mind the Gap: The London Underground Map and Users' Representations of Urban Space. Social Studies of Science, Vol. 38, No. 1, pp. 7-33. http://www.jstor.org.zorac.aub.aau.dk/stable/25474563
Latour
Wenger
Sutko

Teori slides

Preliminary findings

Discussion of preliminary findings

Possible design solutions

Upload preliminary findings

Presentation of findings

Presentation of findings for the Kgs Enghave local comittee

Group presentations
Examination Examination may be completed by satisfactory and active participation in the module, i.e. a minimum of 80% attendance and completion of set tasks in a portfolio posted in Moodle. Alternatively: 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.