

Villum Foundation, Velux Visiting Professor Program application

Designing Human Technologies: Ethnography, Participatory Design and Infrastructuring

Short description of motivation by Helena Karasti

I am enthusiastic about the possibility to collaborate with Prof. Jesper Simonsen, the Designing Human Technologies (DHT) group, and Roskilde University (RUC). This enthusiasm builds on my prior visits to Roskilde on several occasions in recent years. We have already had some inspiring collaborations, for instance, with the preparation of the Routledge International Handbook on Participatory Design (2012), and in relation to the annual DHT doctoral seminars (2013-2015).

I highly regard the efforts by Prof. Simonsen and colleagues in having established DHT as a strategic research initiative at RUC. They have gained momentum for the university as one of the internationally recognized centers for research on Participatory Design. I find it easy to align myself with the founding tenets of the design-oriented research area of DHT: (a) its broad definition of technology, (b) its humanistic principle of involving users and other stakeholders in design processes, and (c) its involvement in ethical and societal concerns through the practical activities of evaluating how design fulfills needs and solves problems identified by the participants.

The integration of ethnography and Participatory Design has been my lasting research interest since my doctoral studies (Karasti 2001; Blomberg & Karasti 2012, 2013). During the past decade, due to my research involvement with large-scale research networks, I started to bring ethnography and Participatory Design together with the socio-technical notion of information infrastructure, i.e. the interrelated technical, social and organizational arrangements involving hardware and software technologies, standards, procedures, practices and policies, originating from Science and Technology Studies (STS). Drawing on my research expertise in these areas, I have participated in developing the new research area of infrastructuring that focuses on the study and formation of information infrastructures (Baker et al. 2002; Karasti & Baker 2004; Karasti & Syrjänen 2004; Karasti et al. 2006, 2010; Karasti 2014; Lee et al. 2010; Karasti et al. forthcoming).

The above areas of my expertise and my prior experience in the domains of healthcare and ecological/environmental research are both relevant and complementary to many researchers and doctoral students in the Department of Environmental, Social, and Spatial Change (ENSPAC), as well as in the Department of Communication, Business, and Information Technologies (CBIT). For me, the visit would offer an opportunity to collaborate with, discuss and get valuable feedback from a large interdisciplinary group of intrepid researchers and students who share similar interests.

I very much look forward to engaging in collaborative research with Prof. Simonsen and his colleagues. I believe we have a good combination of shared understanding to enable us to swiftly begin meaningful collaboration and enough complementary expertise to create opportunities for mutual learning, to the extent that something really thought-provoking and novel may result.

Project description

The objective The objective for Helena Karasti's visit is to bring in her interdisciplinary expertise and experience in ethnography, Participatory Design and infrastructuring into the strategic research initiative of DHT. Karasti will intensively collaborate on these topics with local researchers and students in order to further enrich and strengthen DHT's position as a leading research field at Roskilde University, and as a world-known center for Participatory Design research.

The overall problem of the project to be addressed together with prof. Jesper Simonsen and colleagues is: how to integrate over ethnography, participatory design and infrastructuring in ways that are plausible and relevant for participatory design projects that design for infrastructural systems through the use of situated methods (Simonsen, et al. 2014). More specifically, the focus will be on developing the notions of 'scoping the field' and 'multi-scoped infrastructuring' both as methodological approaches and theoretical conceptualizations. One of the outcomes of these activities are co-authored publications.

Activities Karasti's involvement with and contribution to DHT will take place via participation in ongoing research projects, supervision of Master's and doctoral students, lecturing and holding seminars.

Karasti will actively participate in one of DHT's largest ongoing research projects: Clinical Communication. The empirical case in question is conducted at Nykøbing Falster Hospital, the first hospital in Denmark to be equipped with an infrastructure of large electronic whiteboards throughout all departments. The vision is that the integrated whiteboards will support coordination between clinical departments, and this may drastically improve patient flow, patient treatment, and shared care. The project aims at supporting local clinical practices analyzed through ethnographic approaches. Another aim is to provide clinicians with competences to utilize the technology, and to co-construct needed local and global protocols and standards of this emergent information infrastructure by engaging them in Participatory Design (Simonsen & Robertson 2012). Karasti will play a key role by helping to analyze both empirical data and project practices, through which it becomes possible to explore how to integrate across ethnography, Participatory Design and infrastructuring in the use of design oriented and situated approaches and methods (Simonsen et al. 2014).

Karasti will participate in supervising and mentoring masters and doctoral students, some of whom she already knows through the annual DHT doctoral seminars. In addition, she will:

- give lectures on Information and Knowledge Infrastructures, among others as part of existing courses (at least the following five courses have expressed interest in such lectures: Sundhedsteknologi, IT-anvendelser i Organisationer, Organisation og ledelse af designprocesser, Organisationsforandring og IT, Participatory Design)
- give a course 'Ethnography in Participatory Design'. The course could include topics: ethnographic fieldwork for design, constructing the field, reflexivity, integrations of ethnography and design, and current challenges and debates (Blomberg & Karasti 2012, 2013)
- organize a series of seminars on 'Infrastructuring in Participatory Design'
- co-supervise Ph.D. students (6 Ph.D.-students from DHT have expressed interest so far)
- supervise Master's thesis students at CBIT and ENSPAC

References

Karasti, H. – please, see List of selected publications in the end of this document.

Simonsen, J. & T. Robertson (Eds.) (2012) Routledge International Handbook of Participatory Design. Routledge.

Simonsen, J., C. Svabo, S.M. Strandvad, K. Samson, M. Hertzum & O.E. Hansen (2014) Situated Design Methods. MIT Press.

Curriculum Vitae

Date: November 28, 2014

1. Personal details

Full name: Karasti, Teija Helena

Date and place of birth: March 22nd 1964, Oulu, Finland

Citizenship: Finnish

Gender: Female

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2. Education and degrees awarded

- Docent, Information Systems with specialization in Computer Supported Cooperative Work (CSCW), Univ. of Turku, Finland, Aug 5 2008.
- Doctor of Philosophy, University of Oulu (UOulu), Finland, major subject: Information Processing Science, grade: laudatur, May 30 2001.
- Master of Science, UOulu, Finland, major subject: Information Processing Science, grade: eximia cum laude approbatur, March 17 1993.

3. Current and recent positions

- Professor, Information Systems, Dept of Computer Science, Electrical and Space Engineering, Luleå University of Technology (LTU), Sweden, Jan 1 2011 – Sept 30 2014 (80 % leave of absence); full time Oct 1 2014 - ongoing.
- Academy Research Fellow, Academy of Finland, Dept of Information Processing Science, UOulu, Finland, Oct 2007 – Oct 2014.
- Professor (acting, 20%), Work Informatics, Dept of Information Technology, Univ. of Turku, Finland, January 2009 – July 2009.
- Professor (acting), Dept of Information Processing Science, UOulu, Finland, Jan 2003 – Sept 2007.

4. Research projects, funding, leadership, and supervision

Main research projects related to the application topic area

- The Challenge of the Long-Term Perspective for Data-Intensive Collaboration in e-Research. PI: Karasti, Research Fellow grant, Academy of Finland (2007-2014).
- Data Observation Network for Earth (DataONE), invited member of Socio-cultural issues working group, NSF DataNets grant (2010-2011).
- ALTER-Net, invited member of Work Package I6: A framework for effective information and knowledge management, EU FP IV, Network of Excellence (2008-2009).
- Finnish Long-Term Socio-Ecological Research (FinLTSER) network, co-PI (2006 –).
- Designing an Infrastructure for Heterogeneity in Ecosystem Data, Collaborators and Organizations, NSF BioDiversity and EcoInformatics grant, PIs: K.S. Baker & G.C. Bowker (2002).

Aggregate amounts of research funding

- Doctoral research (until 2001) 173.300 FIM, several Finnish foundations.
- Post doctoral research (2002-2007) 167.000 EUR, Finnish Cultural Foundation, UOulu, Academy of Finland.
- Research fellow research (2007-2014) 780.000 EUR, Academy of Finland.
- Other research 30.000 EUR, The Finnish Work Environment Fund, 2010-2011.

Leadership in research work

- Academy research fellow project ‘The Challenge of the Long-Term Perspective for Data-Intensive Collaboration in e-Research’ (2007-2014).
- OpenRisk project in Dept of Information Processing Science, UOulu (2010 - 2011).
- Everyday informatics research group, Dept of Infor. Processing Science, UOulu (2006-2009).

Officially appointed supervisor to doctoral students

- Heidi Hartikainen, Licentiate graduation May 2013, LTU, primary supervisor.
- Anna-Liisa Syrjänen, Doctoral graduation 2007, UOulu, secondary supervisor.
- Tonja Molin-Juustila, Doctoral graduation 2006, UOulu, secondary supervisor.
- Anna-Liisa Syrjänen, Licentiate graduation 2004, UOulu, secondary supervisor.

Doctoral Dissertations Under Supervision

- Banji Li, graduation 2015, Dept of Info Proc. Science, UOulu, primary supervisor.
- Teija Oikarinen, expected graduation fall 2015, general archaeology, Faculty of Humanities, UOulu, one of three interdisciplinary supervisors.
- Pihkala, Suvi, expected graduation by end of 2018, Women and Gender Studies, Faculty of Education, UOulu), primary supervisor.

5. Merits in teaching and pedagogical competence

Pedagogical training and competence

- Study Module in Education Science (15 CU, October 12 1988), since then several courses including University Pedagogics, Computer-Aided Teaching, Teaching Portfolio Training, Using Groups in Scientific Community Teaching Situations, New Learning Theory.

Formal evaluation of teaching skills

- Docent lecture, Dept of Information Technology, Univ. of Turku, June 2008.
- Evaluation of teaching skills, Dept of Information Proc. Science, UOulu, May 1998.

Implementation of courses

I have designed and taught a variety of courses since 1987. Most relevant to current proposal:

- Computer Supported Cooperative Work (lecturer), UOulu, 1994, 2007, 2009
- Masters Thesis Group (seminars and supervision) LTU, 2011-2014
- Qualitative Data Analysis (lecturer), UOulu, 2001, 2003-2004
- Qualitative Research Methods in Information Systems (lecturer), UOulu, 2004
- Research Methods (lecturer), UOulu, 2005, 2007
- Research Seminar on Scientific Writing and Publishing (coordinator) LTU, 2011-2014
- Scientific Methods (coordinator & lecturer), LTU, 2014-2015

Guest teaching

- Annual ‘docent’ teaching for Work Informatics Masters’ program at Turku School of Economics, Univ. of Turku, Finland, since 2008.
- Designing Human Technologies, PhD course, Roskilde Univ., Denmark, (2013-2015).
- Numerous visiting lectures and seminars given at UOulu, LTU, and Univ. of Turku.

Experience as officially appointed supervisor to undergraduate students

- 23 supervised Masters theses

Awards for developing education

- Teaching development grant for integrating a qualitative research approach into project work, Dept of Information Proc. Science, UOulu with Molin-Juustila & Saukkonen (2007).
- MOTTI project (Cross-Disciplinary Collaboration in Research Training and Supervision), Campus Futurus, Finnish Virtual University (2006-2008).
- Developing tutoring in the Dept of Info Proc. Science, UOulu, with Favorin (1994).

6. Other academic merits

Pre-examiner or opponent of doctoral dissertations, member in dissertation committee

- On seven occasions (2005-2014) at ITU at Copenhagen; Roskilde University; University of Tromsø; MidSweden University at Umeå; Uppsala University; Luleå University of Technology.

Editorship

- Member of the Editorial Advisory Board for Computer Supported Cooperative Work (CSCW): The Journal of Collaborative Computing and Work Practices (2015 – ongoing).
- Co-guest editor for Special Issue ‘Knowledge Infrastructures’ for Science & Technology Studies. H. Karasti, F. Millerand, C.M. Hine & G.C. Bowker (in preparation, to appear 2016).
- Co-guest editor for Special Issue ‘Sociotechnical Studies of Cyberinfrastructure and e-Research: Supporting Collaborative Research’ for Computer Supported Cooperative Work. C.P. Lee, D. Ribes, M.J. Bietz, H. Karasti & M. Jirotko (2010):19(3-4).
- Member of editorial board, ‘Naistutkimus – Kvinnoforskning’ (2008-2010).

Referee for scholarly journals and scientific conferences

- I review regularly articles for: Computer Supported Cooperative Work: The Journal of Collaborative Computing and Work Practices, Scandinavian Journal of Information Systems
- I have also reviewed for: Transactions on Computer-Human Interaction, Information Systems Research, Interacting with Computers: The Interdisciplinary Journal for Human-Computer Interaction, HumanTechnology: An Interdisciplinary Journal on Humans in ICT Environments, Ecological Informatics: An International Journal on Ecoinformatics and Computational Ecology, Journal of Environmental Informatics, Naistutkimus - Kvinnoforskning
- I review regularly for: Participatory Design (PDC), European Computer Supported Cooperative Work (ECSCW), and E-Science conferences
- I have also reviewed for CSCW, CHI, ECIS, ICIS, IRIS, NordiCHI, WWC conferences.

Responsibilities with Organizing Conferences

- I have served as a member of Program Committee for: Participatory Design Conference (PDC) 2010, 2012, 2014; eScience 2010, 2013, 2014; European Computer-Supported Cooperative Work (ECSCW) 2003, 2011, 2013; NordiCHI 2000; WWC 2000; International Conference on Collaboration Technologies and Systems (CTS 2012); International Symposium on End-User Development (IS-EUD 2011); Aalto Event on Science and Technology in Society 2010; IADIS Multi Conference on Computer Science and Information Systems 2009; Social Thinking - Software Practice conference 1999.

7. Major visits abroad

- Research visit to Shortgrass Steppe LTER (SGS-LTER) and Natural Resource Ecology Laboratory (NREL) at Colorado State Univ. (April 2013, September 2012).
- Research visit to Taiwan Ecological Research Network (TERN) and Taiwan Forest Research Institute (TFRI), Taipei, Taiwan (November 2011).
- Visiting Scholar, Institute for Advanced Studies on Science, Technology and Society (IAS-STS), Graz, Austria (February – March 2011, October – November 2010).
- Postgraduate Researcher, Dept of Communication, Univ. of California at San Diego (UCSD), (January – December 2002).

8. Positions of trust in society

- European representative for International Long-Term Ecological Research Network Information Management Committee (ILTER IMC) (2008-ongoing).
- Member of LTER-Europe Network Information Management Expert Panel (2008-ongoing).
- Co-lead for Information Management Group in Finnish Long-Term Socio-Ecological Research (FinLTSER) Network (2006- ongoing).
- Member of Steering Group for FinLTSER Network (2008-ongoing).

List of recent peer-reviewed publications, selected as relevant for the application topic area

- Karasti, H. (2014) Infrastructuring in Participatory Design. Participatory Design Conference, October 6-10, 2014; Windhoek, Namibia, pp. 10.
- Blomberg, J. & H. Karasti (2013) Reflections on 25 Years of Ethnography in CSCW. *Computer Supported Cooperative Work (JCSCW)*, Jubilee Issue: The 1st Quarter Century, 22(4-6): 373-423.
- Blomberg, J. & H. Karasti (2012) Ethnography: Positioning Ethnography within Participatory Design. In Simonsen, J. & T. Robertson (Eds.) *Routledge International Handbook of Participatory Design*. Routledge: New York, NY, USA. Pp. 86-116.
- Karasti, H. (2010) Taking PD to Multiple Contexts: A Response to Kyng. *Scandinavian Journal of Information Systems*, 22(1): 85-92.
- Karasti, H., K.S. Baker & F. Millerand (2010) Infrastructure Time: Long-Term Matters in Collaborative Development. *JCSCW* 19(3-4): 377-415.
- Karasti, H. & K.S. Baker (2008) Community Design: Growing One's Own Information Infrastructure. Participatory Design Conf. (PDC'08). Oct 1-4 2008, Bloomington IN. CPSR, pp. 217-220.
- Karasti, H., K.S. Baker & Eija Halkola (2006) Enriching the Notion of Data Curation in e-Science: Data Managing & Information Infrastructuring in the Long Term Ecological Research (LTER) Network, *JCSCW*, 15(4): 321-358.
- Karasti H. & Anna-Liisa Syrjänen (2004) Artful infrastructuring in two cases of community PD. Proceedings of the Eight Participatory Design Conference 2004 (PDC'04), July 27-31, 2004; Toronto, Canada. ACM. pp. 20-30.
- Karasti H. & K.S. Baker (2004) Infrastructuring for the Long-Term: Ecological Information Management, Hawaii Intl Conference on System Sciences (HICSS'37), Jan 5-8 2004, HI, USA.
- Baker K., G.C. Bowker & H. Karasti (2002) Designing an Infrastructure for Heterogeneity in Ecosystem Data, Collaborators and Organizations, DG.O 2002 National Conference for Digital Government Research, May 19-22, 2002, Los Angeles, CA, USA.
- Karasti, H. (2001) Bridging work practice and system design - Integrating systemic analysis, appreciative intervention and practitioner participation, *JCSCW*, 10(2): 211-246.