HumanIT Annual Report 2011

the HumanIT working year starts March 1st and ends February 29th

HumanIT is a multi-disciplinary research centre at Karlstad University, Faculty of Economy, Communication and IT. The research centre aims at reinforcing research on ICT (Information and Communication Technology) from a user perspective through collaboration between different researchers, but also in close cooperation with the industry and with the public sector.

Profile Areas

HumanIT has discerned two research profiles at the faculty concerning research on IT from a user perspective;

1) ICT for Development
2) Surveillance and Integrity in Information Society

In the first research profile, Caroline Wamala, postdoc researcher at Gender Studies has taken over the position as ICT4D co-ordinator at HumanIT from Gudrun Wicander since January 2012. Because of the switch of ICT4D co-ordinators it was decided to postpone the production of a new portal paragraph in ICT4D in order to involve Caroline Wamala in this process.

Currently on the HumanIT webpage there is only a few sentences written on this research profile, especially underlining the work in M4D at HumanIT (Mobile Communication for Development).

In the second profile area HumanIT organized a round table discussion the 2nd of September for researchers to discuss and find commonalities. The outcome of this seminar was used to propose a portal paragraph in this research profile. The paragraph adopted is as follows:

At the Centre of HumanIT research on Surveillance and Privacy in Information Societies is carried out in Computer Science, Information Systems, Law, Media and Communication Studies and Psychology. The research covers a wide range of social and technological aspects of surveillance, privacy and identity management and its intersections. The strength of the research is on user perspectives and experiences of surveillance and privacy as societies grow more and more dependent on digital technologies. Interdisciplinarity is an explicit goal of HumanIT and a majority of the research projects on surveillance and privacy are interdisciplinary. The research is of high international quality and the researchers are connected to a range of different international networks.

HumanIT has begun working for a third profile area; ICT for Disaster Management and Crisis Communication, together with Centre for Climate and Safety at Karlstad University. During spring 2011 meetings took place with the Centre for Climate and Safety, Grants and Innovation
Office, researchers at Karlstad University, partners from the industry and the public sector. Proposed as possible funders for this research profile are KK-stiftelsen, Vinnova, MSB and Google. In January 2012 the work with funding process started.

A formal portal paragraph has not yet been adopted but with this profile HumanIT underlines that we will bring together expertise within Climate and Safety with expertise within Computer Science, Information Systems and Media and Communication Studies. Primarily studies of water systems and flood hazards in Nordic conditions will be targeted. Project leader for the ICT for Disaster Management and Crisis Communication profile is Göran Frödin and co-ordinator is Monika Magnusson.

**Research**

**PhD Research**
During the year HumanIT has continued to directly finance two PhD students, one within each profile area. In profile area 1 - Ilkin Mehrabov has completed five doctoral courses, taught at both undergraduate and master levels at Karlstad University. He has presented at conferences and seminars in Karlstad, Uppsala, Stockholm, Istanbul and Akureyri (Iceland). Ilkin Mehrabov is doing his PhD in Media and Communication Studies.

Frank van Geelkerken PhD student in research profile area 2 - has spent the year gathering empirical material (documents) and studying them for his research. He has presented at conferences and seminars in Copenhagen, Lisbon, Frankfurt, Dar-Es-Salaam, Berlin, Hamburg and Rovaniemi (Finland). He has also taught at the departments of Law, Computer Science and Information Systems at Karlstad University. Frank van Geelkerken is doing his PhD in Law.

Julio Angulo, PhD student in Interaction Design is not directly funded by HumanIT but doing his research for the HumanIT related PET project (Privacy Enhancing Technologies – see Google Research Award below). During the year he has completed three doctoral courses and was involved in the teaching of three undergraduate courses at Karlstad University. He has participated in three different research projects with important external partners within industry (such as Google, Nordea Bank, Gemalto, IBM, Microsoft, SAP, and others) as well as other universities and research centres around Europe. The work carried out during his participation in these projects resulted in the publication of three research articles and presentations at conferences in Italy, England, Switzerland and Sweden.

Florence Enghel, PhD student in Media and Communication Studies is working on topics related to research on ICT for development. During the year she has completed doctoral courses
to the amount of 49,5 ECTs and finalized her dissertation proposal. She was a Visiting Researcher at the Department of Film-Radio-TV of the University of Texas at Austin in the US, and attended the ICA (International Communication Association) and IAMCR (International Association for Media and Communication Research) international conferences in Boston, US and Istanbul, Turkey, where she presented work in progress. She acted as Vice-Chair of the Participatory Communication Research Section of IAMCR, and co-directed Karlstad University’s Master Program in Global Media Studies with André Jansson.

Gudrun Wicander, former ICT4D coordinator at HumanIT, defended her thesis *Mobile Supported e-Government Systems: Analysis of the Education Management Information System (EMIS) in Tanzania* the 11th of November 2011. Her dissertation work has been sponsored by HumanIT. During the year Gudrun also presented at the IFIP 9.4 2011 ICT4D conference in Nepal as well as coordinating IPID until June 2011 (see next section).

**Research Funding and Research Projects**

**Digital Media in Globalised Societies**

Miyase Christensen and André Jansson have been allocated 12 million SEK for two projects from The Swedish Research Council (Vetenskapsrådet). One project will study what happens with stability and relationships in a globalised society by researching groups within academia, business and international aid. The second project studies how so-called new media channels can be used by marginalised groups to be seen and relate to societal norms and power structures. The project includes three groups or phenomena: people who explore and document cities’ hidden zones, alternative street art and sexually expressive groups.

**DSID**

In 2011, Ge Zhang and Simone Fischer-Hübner got a grant from Internetfonden (.SE) for about 270,000 SEK for the Project on “Denial of Service on SIP Infrastructures using DNS (DSID)”, see [www2.kau.se/dsid/index.php/Main_Page](http://www2.kau.se/dsid/index.php/Main_Page).

**E-Participation and iCitizens/ Digitalization and Rationalities of Political Participation**

During the working year Jakob Svensson finalized publications for the research project on E-Participation and iCitizens which was funded by the Wahlgrenska foundation. The project has continued with support from Karlstad University in form of extended research time but under a new project name and slightly different focus; Digitalization and Rationalities of Political Participation. During the year Jakob Svensson has presented at conferences in Iceland, Netherlands and the US. Jakob Svensson has also been allocated 100 000 SEK from the Nils-Eric Svensson fond for young researchers at Riksbankens Jubileumsfond (RJ) to spend three months during 2012 at the Centre E-democracy at Donau University Krems, Austria to study motivations to political participation in a digital media landscape.
Google Research Award 2011 - Usable Privacy and Transparency Tools

Google granted a one year award for furthering research on usable privacy ad transparency. The purpose of Google's Research Award programme is to facilitate more interaction between Google and academia and also nurture stronger relations and partnerships with universities. The Google-supported study at Karlstad University builds on other projects on internet privacy which Karlstad University has been involved in (such as PRIME and PrimeLife for example). Project manager is Simone Fischer-Hübner, co-workers: Julio Angulo, Erik Wästlund, Tobias Pulls. The project started in March 2011 and runs for one year.

ICTs in Teacher Education

Ulf Buskqvist and Lennart Molin finished and reported their project on connecting research on ICTs to the teacher education program. Together with Ann-Britt Enochson and Lars-Erik Nilsson (Kristianstad College University), Ulf Buskqvist have also been commissioned by the network "IT i lärarutbildningen" (ICTs in Teacher Education) to compile a research overview on ICTs related to grading and examination.

Internet in the Classroom

Dan Åkerlund at Media and Communication Studies, and PhD student at Åbo University (Finland), studies school classes in Karlstad were blogs are used as educational tools. Dan Åkerlund is also working in a project connecting school classes in Karlstad with classes in Bagamoyo, Tanzania through Skype. Once every fortnight the classes are connected and interview and present work for each other.

IPID

IPID – The International Network for Postgraduate Students in the area of ICT4D – has during the year mapped ICT4D research at Swedish universities, participated in the Seminar on ‘ICT for Democracy’ in June in Stockholm, and co-organized postgraduate activities for the IFIP 9.4 ICT4D conference in Nepal. IPID sponsored eight members to attend the conference. IPID has sent out newsletters to members (weekly), the IPID weekly Digest and IPID Mobile News (monthly). The IPID network was transferred to Örebro University in June 2011.

Living Lab and HOT Mesh

The first HOT Mesh project was evaluated with parts of the Living Lab environment reported in the annual report 2010. Deutsche Telekom has granted Karlstad University (and Stanford in USA) a continuation for 11 months starting in December 2011.

Rural Networking/Networking the Rural

This project has during the working year entered into a final phase with a book publication and
conference papers. During the year co-operations with Region Värmland and the Municipality of Arvika have been established for a final case study during 2012.

Secure Spaces: Media, Consumption and Social Surveillance
This project has during the working year entered into a final phase with book chapter publications, articles and conference papers. A book contract has been signed with Peter Lang for an Anthology Media, Surveillance and Identity: A Social Perspective, which is planned to be, published 2013.

Social Media in the 2010 Elections
This project, sponsored by the Lars Hierta foundation, entered into a final phase during the working year with conference and article publications in Austria and Iceland. The project will end 2012 with a workshop presentation in Belgium and a book chapter.

U-PrIM
U-PrIM (Usable Privacy-enhancing Identity Management for smart applications) is a research project involving the departments of Computer Science, Information Systems and Psychology in collaboration with industry partners Nordea Bank in Denmark and Gemalto in Sweden. The purpose of the project is to find ways of using future mobile technologies that are secure, privacy-friendly and easy to use. During 2011 the U-PrIM project was founded by the Swedish Knowledge Foundation KK-stiftelse (1,6 million SEK).

Last in this report we will list publications during the year where HumanIT researchers have been involved

Conferences, Seminars and Education

Conferences
During the working year 2011 a major part of the HumanIT work has been devoted to the organization of the 3rd International Conference on Mobile Communication for Development (M4D2012). The conference took place the 28th - 29th of February in New Dehli, India. SERD (the Society for Education and Research Development) was the main organizer with HumanIT acting as a co-organizer. It was a successful conference that attracted 130 participants from 22 different countries, with a majority participating from India. HumanIT sponsored participation
for six participants from developing countries (from Bangladesh, Ethiopia, India and Uganda). See the conference webpage www.m4d2012.com for full information on participants, proceedings and related activities.

HumanIT, acting as co-organizer with the director as co-chair, had to switch conference main organizer as late as October 2011. It was decided by the director, with e-mail consent from the board, to terminate HumanIT's cooperation with the former main organizer IMS Ghaziabad, as well as terminate the MoU (Memorandum of Understanding) between the HumanIT and IMS (signed 27th of July 2011). The background was the appointment of a new Director General at IMS, Mr. Aakilesh Kumar, and allegations against him faking his CV. HumanIT checked these allegations against two sources, MIT Sloan and Harvard Business School, and the allegations turned out to be true. HumanIT has taken action against Mr Aakilesh Kumar by writing officially, both electronically and with normal post, to the chairman of IMS Ghaziabad to notify the ending of the cooperation as well as informing IMS about the fake credentials of Mr Aakilesh Kumar. In addition an e-mail and an official letter has been sent to the national board in India accrediting higher learning institutions, informing them about the fake credentials of Mr Aakilesh Kumar.

HumanIT Director was invited to a PAN (Pan Asia Network) Localization conference in Lahore, Pakistan (27th of January 2012) to keynote on the topic of M4D with a special focus on local language challenges. See http://www.panl10n.net/english/Activity20121.htm for information on the conference.

During the working year HumanIT Director and ICT4D Coordinator sent in a paper proposal on M4D to the SANORD (Southern Africa-Nordic Centre) conference, due to take place in June 2012 in Aarhus, Denmark. This abstract has been accepted for presentation and HumanIT has been allocated money from the Faculty's internationalization fund to attend the conference.

**Summer school**

HumanIT allocated 10 000 SEK to the The seventh IFIP Summer School organised jointly by the IFIP Working Group 9.2, 9.6/11.7, 11.4, 11.6 in collaboration with the EU FP7 projects PrimeLife, ABC4Trust, Endorse, NESSOS, TAS3, the Norwegian PETweb II and e-Me, and the Swedish U-PrIM projects. It was a successful event with more than 50 participants from Northern America, Europe, Asia, Australia, and more than 12 keynote speakers. Post Summer School Proceedings with revised and selected papers will appear at Springer late 2012. More information on the summer school can be found at http://disi.unitn.it/security/ifip-summerschool2011/index.html
**Seminar Series**

During the 2011 working year HumanIT continued its seminar series, giving eight seminars:

- 2nd February 2012 (Designing the user experience of secure and privacy-friendly online transactions)
- 11th November 2011 (Mobile supported e-government systems in Tanzania)
- 3rd November 2011 (The purchase of digital content and the protection of consumers)
- 21st September 2011 (Communication for Social Change)
- 2nd September 2011 (Round table discussion on surveillance and privacy in information societies)
- 8 June 2011 (Seminar on Facebook)
- 28 April 2011 (Current legal challenges within the area of personal data protection)
- 25 February 2011 (Can Social Navigation Inform Interpersonal Privacy Preferences?)

**Co-organized Seminars**

During the working year of 2011 HumanIT co-organized two seminars in Ghazibad, India – one on ICT4D (March 2011) with the participation of HumanIT director delivering a talk on M4D (Mobile Communication for Development). The second seminar focused on ICT4Learning (July 2011) with the HumanIT director delivering a talk on ICT4Learning.

**MFS Scholarships**

During 2011 HumanIT applied for 100 000 SEK from SPIDER (The Swedish Program for ICT4D in Developing Regions) for MFS (Minor Field Studies) for Masters Students doing Master essay research in ICT4D. HumanIT was awarded this money and will make a call for applications March 2012.

**Indian Internships**

Four Indian Interns from IIT Guwahati came to Karlstad for eight weeks late spring term 2011. Abhishek Gupta and Bharadwaj Radhakrishna worked in the Ozlab project under the supervision of John Sören Pettersson. Abhinav Atul worked with modelling peer-to-peer selection in wireless mesh networks and Kolluru Sindhuja worked with channeling width adaptation for multi radio mesh networks, both under the supervision of Andreas Kassler.

**Cooperation**

**Centre for Climate & Safety**

In developing a third research profile in ICT for Disaster Management and Crisis Communication, the co-operation with Centre for Climate and Safety at Karlstad University has been strengthened substantially.
During the working year of 2011 HumanIT has strengthen the co-operation with Compare by their participation in the board as well as in the new statutes where Compare is given permanent representation in the board of HumanIT.

**Cost Action – Living in Surveillance Societies**

André Jansson and Miyase Christensen have been engaged in the European researchers network Cost Action – Living in Surveillance Societies in relation to their research project on Secure Spaces.

**ECC Sweden (The Swedish Consumer Agency)**

During the working year of 2011 HumanIT has strengthen co-operation with the Swedish Consumer Agency, and especially ECC Sweden (Konsument Europa), by their participation in the board. A joint seminar on Facebook was organized in June 2011 together with ECC Sweden.

**Gender Studies**

HumanIT has started a co-operation with Gender Studies at Kau with the arrival of Caroline Wamala to Karlstad University doing a postdoc in Gender Studies and being appointed ICT4D co-ordinator at HumanIT. Caroline Wamala is doing research in the intersection of technology uses and gender issues as is the newly appointed professor in Gender Studies, Ulf Mellström. Currently a joint seminar is planned for 2012 with Caroline Wamala and Ulf Mellström.

**Indian Co-operation**

The M4D Conference and workshops organized in India has tied HumanIT to indian partners, especially with SERD, but also Mukand Lal National College (MLN) in Yamuna Nager, Haryana, where HumanIT will co-organize a seminar March 3\textsuperscript{rd} 2012 and the Asia Pacific Institute where HumanIT will co-organize a seminar March 2\textsuperscript{nd} 2012.

**PAN**

By keynoting the PAN Localization conference in Lahore Pakistan, HumanIT started discussing collaboration with PAN and PAN localization. PAN (Pan Asia Networking) is a program initiative of the *International Development Research Centre* of Canada which seeks to understand the positive and negative impacts of ICTs on people, culture, the economy, and society, so as to strengthen ICT uses that promote sustainable development on the Asian continent. The PAN Localization project focus on developing local language standards and technology across Asian countries (Afghanistan, Bangladesh, Bhutan, Laos, Nepal, Mongolia, Pakistan, Sri Lanka) and address challenges associated with digital literacy of end-users using localized technology for communication and producing local language content. See [http://www.panl10n.net/english/index.htm](http://www.panl10n.net/english/index.htm) for information on the PAN Localization network.
Region Värmland & the Municipality of Arvika
In the project Rural Networking/Networking the Rural André Jansson has established co-operations with Region Värmland and the Municipality of Arvika for a final case study to be conducted 2012.

SANORD
SANORD is a collaboration of Southern African and Nordic academic institutions, committed to advancing strategic, multilateral academic collaboration as they seek to address new local and global challenges of innovation and development. In 2014 Karlstad University will host the SANORD conference.

SNITS
SNITS (Samverkan Näringsliv och IT-studenter (Collaboration between Industry and IT-Students) organizes study visits, guest lectures, internships, lunches and breakfast meetings in order to give IT students a good start in their career and regional IT companies access to future competences. The group consists of representatives from Logica, Ninetech, Prevas, Ibiz Solutions, Sogeti, Stamford, EDB ErgoGroup/SYSteam, Tieto, Ninetech, AF and the Compare Foundation. Karlstad University is represented by the departments of Information Systems and Computer Science and a number of IT students.

Stockholm University
The department of law has no formal right to examine PhD students yet, hence a cooperation with IRI (the Swedish Law & Informatics Research Institute within the Faculty of Law at Stockholm University) has been established where Frank van Geelkerken is admitted as a PhD student.

Tanzania Co-operation
Dan Åkerlund co-operates with Faculty of education at the University of Dar es Salaam, Tanzania and has been allocated internationalization funds for his research on Internet in the class room. In focus for this co-operation is a project connecting schools in Bagamoyo to schools in Karlstad via Skype.

Uganda Co-operation
In connection to the M4D2010 conference, organized by HumanIT in Kampala (Uganda) in co-operation with Makerere University, which is claimed to be the largest IT University in Africa, the Department of Information Systems and Project Management at Karlstad has started to look into the possibilities for student and staff exchange with Makerere. The Department has been
allocated money from the faculty’s internationalization funds and for projects in developing countries from the international office. Robin Larsson, former student at the Department and student volunteer at the M4D2010 conference, is also in the process of being offered a volunteer project in Uganda as a spin-off of the contacts made during M4D2010.

**Brand Management**

During the year HumanIT has worked with the Faculty Information Officer in order to develop a strategy for brand management. This work will continue during the 2012 working year.

**Organization and Information Management**

During the working year of 2011 a new board has been put in place by the rector the 4\textsuperscript{th} of March 2011 consisting of Simone Fischer Hübner from Computer Science, Göran Frödin from Astrum, Jolanda Girzl from ECC Sweden (within the Swedish Consumer Agency), Mikael Lundström from Compare, John Sören Pettersson from Information Systems and Project Management and Charu Uppal from Media and Communication Studies. Director Jakob Svensson and ICT4D Co-ordinator (previously Gudrun Wicander, now Caroline Wamala) are adjunct to the board meetings. Substitute for Mikael Lundström is Göran Österman. Substitutes for Göran Frödin and Jolanda Girzl remain to be chosen.

During the working year seven board meetings were held (15 March, 10 May, 8 June, 2 September, 21 September, 15 November & 10 January 2012).

New statutes were adopted during the working year. Minutes from the board meeting has been uploaded on the KAU intranet from January 2012 as well as Annual Plans for 2010 and 2011 and the Annual Report for 2010. The Annual Report for 2010 as well as the Annual Plan for 2011 can also be found at the HumanIT web. The organization of Internal steering group meetings remains to be implemented.

During the year a translation work with the public website into Swedish as well as an update of research projects has started. HumanIT news is managed through the e-mail list. To this list a Twitter account was activated in 2010 for easier handling of news updates on the webpage, see [www.twitter.com/Centre4HumanIT](http://www.twitter.com/Centre4HumanIT). The twitter feed is also used for news broadcasting of conferences and reports in the research fields of HumanIT to those following HumanIT on Twitter. The 29\textsuperscript{th} of February 2012 281 twitter accounts followed HumanIT (compared to 91 a year ago). HumanIT also has an open facebook group since 2010 where facebook users can
follow HumanIT and HumanIT related activities as well as post postings on the wall, see [www.facebook.com/home.php#!/group.php?gid=102738079772690](http://www.facebook.com/home.php#!/group.php?gid=102738079772690). In February 2012 HumanIT had 80 members of the facebook group (compared to 59 a year ago).

**List of Publications 2011**


Berthold, Stefan Towards a Formal Language for Privacy Options Avdelningen för datavetenskap. Conference Paper

Berthold, Stefan Towards Inter-temporal Privacy Metrics. Licentiate in Computer Science, Karlstad University.

Buskqvist, Ulf; Molin, Lennart: Forsningsanknytning och IKT: Röster från lärarutbildningen vid Karlstads universitet. Report


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1 This information is collected from a DIVA-search for publications for HumanIT related research at the University Library webpage during March 2012 and manually filtered to remove research work not connected to HumanIT.
Italy, September 2011, Pre-Proceedings, Springer


Cavalcanti de Castro, Marcel; et al.: Peer-to-Peer Selection and Channel Assignment for Wireless Mesh Networks. Conference Paper

Christensen, Miyase; et al.: The Digital Divide: The National Debate and Federal and State Level Programs. Book Chapter

Enochsson, Ann-Britt; Buskqvist, Ulf: ICT, teacher education and assessment: What is assessed and how is it done? Conference Paper


Fischer-Hübner, Simone; Pettersson, John Sören; Bergmann, Mike; Hansen, Marit “Human Computer Interfaces”, chapter in: Jan Camenisch, Ronald Leenes, Dieter Sommer (Eds.): Digital Privacy, Springer LNCS, 2011. Book Chapter


Jansson, André; Andersson, Magnus: Mediatization at the Margins: Cosmopolitanism, Network Capital and Spatial Transformation in Rural Sweden. Conference Paper

Jansson, André; Andersson, Magnus: Mediatization at the Margins: Cosmopolitan Experiences and Spatial Transformation in Rural Sweden. Conference Paper
Jansson, André; Christensen, Miyase: Cultural Citizenship and the Communicative Space of Mediated Sexual Expressivity. Journal Article

Jansson, André; Christensen, Miyase: Fields, Territories and Bridges:: Networked Communities and Mediate Surveillance in Transnational Social Space. Book Chapter

Jansson, André; Christensen, Miyase: The Encapsulated Self vs the Cosmopolitan Self: Towards a Phenomenological Conceptualization of Mediatized Communication and Complicit Surveillance. Conference Paper

Jansson, André; Christensen, Miyase; Christensen, Christian: Online Territories: Globalization, Mediated Practice and Social Space. Book

Jansson, André; Gandini, Erik: Gitmo Space: A Dialogue about Mediatized Warfare, Documentary Filmmaking and Heterotopic Truth. Journal Article


Kassler, Andreas; Brajdic, Agata; Matijasevic, Maja: QoE based Service Control for Optimizing Multimedia Delivery in IMS. Conference Paper


Mehrabov, Ilkin: Between Art and Politics: Reflections on Video Activism of Turkish Video Collective Karahaber. Conference Paper

Mehrabov, Ilkin: Can alternative Media serve as a contribution into “Spectacle”?: Case study on Turkish video activist collective Karahaber. Conference Paper

Nilsson, Jenny; Pettersson, John Sören: Effects of early user-testing on software quality - Experiences from a case study. Conference Paper

Svensson, Jakob: Theorizing Citizenship in Late Modern ICT Societies. Journal Article
Svensson, Jakob: The Expressive Turn of Citizenship in Digital Late Modernity. Journal Article


Svensson, Jakob: Global Challenges for Identity Policies. Book Review


Svensson, Jakob: Power and Participation in Digital Late Modernity: Towards a Network Logic. Conference Paper


Wästlund, Erik; Fischer-Hübner, Simone: The Users' Mental Models' Effect on their Comprehension of Anonymous Credentials. Book Chapter


Wästlund, Erik; et al. Towards Usable Privacy Enhancing Technologies: Lessons Learned from the PrimeLife Project Avdelningen för psykologi. Report

Wästlund, Erik; Fischer Hübner, Simone; Hedbom, Hans: Trust and Assurance HCI. Book Chapter.

Wästlund, Erik; Fischer Hübner, Simone; Wolkerstorfer, Peter: Usability Challenges of Privacy Technologies. Book Chapter.

Wästlund, Erik; et al: HCI for PrimLife Prototypes Book Chapter.

Wästlund, Erik; Wolkerstorfer, Peter: PET-USES Book Chapter.


Åkerlund, Dan: Social media and the boundless classroom: A multimodal design theoretical perspectives on young students' use of blogs and digital cameras in their school work. Conference paper.

Åkerlund, Dan: Social media in the classroom: Different perspectives on young students' use of blogs and digital cameras in their school work. Conference paper.

Åkerlund, Dan: Elevers foton i sociala medier från klassrummet: Om skrivandet och lärandet kan stärkas genom elevers egna fotografier och genom användning av sociala medier. Conference Paper.


Åkerlund, Dan: Ungas lärande i sociala medier. Book chapter.