



## ANNUAL REPORT 2015

Research Division

### Technoscience Studies

Profile areas:

Design for Digital Media

Feminist Technoscience

Innovation System and Development

ICT for Development

Department of Technology and Aesthetics  
Faculty of Computer Sciences  
Blekinge Institute of Technology BTH

*The Mission of the Research Division of TechnoScience Studies is to Expand and Transform Theoretical and Practical Knowledge Bases of Technology Research & Development & Innovation.*

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# **HIGHLIGHTS**

**TWO LICENTIATE DEGREES AWARDED**

...

**TWO MORE PHD STUDENTS ADMITTED TO  
THE PHD PROGRAM**

...

**TWO PROFESSOR POSITIONS TO BE ANNOUNCED**

...

**TWO MORE PHD STUDENTS HAVE JOINED  
SWEDISH FACULTY OF DESIGN**

...

**ARRANGEMENT OF THE INTERNATIONAL  
CONFERENCE GENDER, ICT, INNOVATION**

...

**PUBLISHING THE BOOK  
CHANGE@CAMPUS KARLSHAMN, OUR STORY -  
CULTURE, NORMS AND GENDER AT BLEKINGE  
INSTITUTE OF TECHNOLOGY**

...

**SICD WAS POSITIONED AT  
NATIONAL RESEARCH POLICY LEVEL BY SIDA**

...

**SEVERE CHALLENGES FOR  
TECHNOSCIENCE STUDIES WITHIN  
THE BTH  
RESEARCH ORGANISATION**

...

## Executive Summary

The research division Technoscience Studies has a *transformative ambition* in bringing a technical university like BTH closer to societal realities demanding knowledge production in high income as well as low income countries. This is done in practice underpinned by and underpinning theoretical knowledge in all four main profile areas Design for Digital Media, Feminist Technoscience, Innovation System & Development and ICT for Development.

*2 licentiate degrees* were awarded in Technoscience studies, to Carlos Acevedo and Linda Paxling.

*2 more PhD students* were admitted to the PhD program Technoscience studies resulting in 8 active PhD students during 2015.

Staff at the Research Division of Technoscience Studies (ToS) continued during 2015 to advance the *integration of the research into courses in the undergraduate education within media technology*. These education programs are profiled in 4 areas namely Digital Game, Digital Audio Production, Digital Visual Production and Web Development. The programs engage more than 300 bachelor students. The present integration of the research of ToS is part of the more radical development of the undergraduate education in media technology at the department. *The national profile of the undergraduate programs is technoscientific media technology*. To use the concept technoscientific media technology is a strong sign of the solid links between the research and undergraduate programs. This close collaboration between research and education provides added value and distinction to the department and BTH regarding the national and international context of media technology.

The Department has reinforced its position at the *Swedish Faculty for Design Research and Research Education, D!* hosted by KTH ([www.designfakulteten.kth.se](http://www.designfakulteten.kth.se)). Three PhD students at ToS are now doctoral student also at D! namely Linda Paxling, Annika Olofsdotter Bergström and Linus de Petris.

*The R&D program within the profile of Design for Digital Media* appreciated during the year the support of a very active guest professor Kåre Synnes from Luleå University of Technology. Professor Kristine Jørgensen, University

of Bergen, visited the department in November preparing continued future cooperation. *The thorough transformation of the undergraduate programs* continued during 2015. The VC decision from 2014 to merge the 4 programs into 1 or 2 programs was cancelled by the VC before summer. The results from the transformation period were however integrated in the 4 existing programs continuing. The regional relevance of the research is enhanced by involvement and collaboration in NetPort and its profile New Media. Research and undergraduate education are strongly intertwined and result in establishment of companies by students within media technology and especially so within digital games.

During 2015 the *recruitment process for two new professors* started at the department started. One of the chairs is close to the existing professor chair, but with a stronger focus in posthumanist design within media technology. The other chair is in media technology focusing digital infrastructure. A number of wanted candidates were invited to the department to hold seminars, see below.

ToS was responsible for an *international conference* at BTH campus Karlshamn September 24th with theme *Gender, ICT, Innovation*. The conference was preceded by an international workshop in the form of a *hackathon* titled *SME, Gender, ICT – a norm creative activity*. These activities were funded within the frame of the EU-program Winnet Baltic Sea Region, see below.

Two members (Linus de Petris and Pirjo Elovaara) of the ToS research groups participate in the *EU-funded COST Action TU1204: People Friendly Cities in a Data Rich World*. The Action builds on an ESF exploratory workshop on the emerging theme of smart and liveable cities. Supported by a European network of candidate cities, the Action co-ordinates a trans-disciplinary network of experts and non-experts that investigate the alignment of the hardware and software of a city with user needs in order to promote well being, good health, and a sustainable use of resources. One of the central aims of this COST action is to evolve a people-centred consultation framework for economic, cultural, and political development. The two yearly MC and WG groups meeting, 2015 took place in Glasgow and Madrid respectively.

The planning of the *Artline 2.0* project, named as *Think Tank Transbaltic*, proceeds. The first planning meeting took place in Ronneby in June and the second meeting with a number of countries around the Baltic Sea, took place in Helsinki and Ekenäs in Finland. The planning process is supported by Swedish regional funds and the Nordic Culture Point. The aim (work in progress) of the network/project is to “create and establish methods that can be transferred to digital toolkits for city developers and spatial planners in cities and regions. We will offer models for how collaboration between different disciplines can be implemented for a more socially sustainable, innovative and fair development of the cities and regions where values other than strictly economic ones are highlighted.”

Sida has produced a position paper *Support to Innovation and Innovation Systems Within the Framework of Swedish Research Cooperation*, in which the experiences of ToS and SICD are presented.

Use of Research Results in the ‘*University of Rwanda - Sweden Program for Research, Higher Education and Institutional Advancement*’ was highly recommended for funding. The budget total approved is 1 753 000 SEK 2015 and 2016. The objectives are 1) to increase the use of research and competences produced within the program, by the Rwandan society at large and 2) to increase participation of Rwandan researchers and University Community in activities related to national and regional innovation systems. Tomas Kjellqvist is the Swedish coordinator and Theophile Niyonzima, UR, the Rwandan coordinator of the program. The program will produce a baseline study showing that the University is already doing innovation. However, the collaboration is mostly with individual actors, not with clusters or multiple actors like the Triple Helix framework suggests. From the baseline the project will propose and suggestions the University of Rwanda to set up a *centre for innovation at the VC office*. The centre should also set up management structures for innovation projects that works to include researchers and students at the 6 colleges of the University in collaborative innovation. For this purpose pilot project will be set up for the next phase 2016-2018.

ToS was *requested to be partner* in the Sida sponsored 5 year bilateral research programs

for *Mozambique*. The proposal was moved to and signed by Lund University as SICD now is placed at Circle (Centre for Innovation, Research and Competence in the Learning Economy), which is part of the same university.

The last four years Technoscience studies has been one of nine partners in a 4-year EU project called *GenisLab*, within which a number of researchers at ToS have been involved. Fields of physics, nanotechnology and ICT in European universities collaborate with technical partners in Italy for advanced gender equality in the academy. The GenisLab project team worked hard to apply GenisLab’s tailored action plan (TAP) at BTH and tried to ensure that the BTH equal treatment plan, which includes the TAP, comes to concrete implementation. The equal treatment plan emphasizes the integration of *gender perspectives into the university scorecard*. BTH has not yet any scorecard in place, which make the implementation very challenging. ToS took the initiative to address the “the culture of no culture” characterizing many academic institutions including BTH by *publishing* a book titled *Change@ Campus Karlshamn, Our Story - Culture, Norms and Gender at Blekinge institute of technology*. The book can be downloaded at [www.bth.se/tks/teknovet.nsf](http://www.bth.se/tks/teknovet.nsf).

During 2015 the *InterGender consortium* was established including 11 universities in Sweden, Europe, USA, UK and Australia. ToS has organized one of the first PhD course in the InterGender consortium namely *Ontoepistemological points of departure in feminist technoscience* with the aim for the doctoral student to acquire more in-depth knowledge within the field of feminist technoscience.

The PhD course *Methods in Technoscience* continued. The course can be seen as developing common ground regarding method and methodology in Technoscience Studies.

ToS also was also *granted means* from The Design Faculty (D+) to organize a symposium/ *PhD course “Transmedia as Critical Making”*.

The highly appreciated cooperation with and support from the local government of Karlshamn continued during 2015 within the context of *NetPort*. To participate in developing NetPort as a strong innovation system has been and is an inspiring driving force for ToS, which thus is fulfilling one of the core values in the profile of BTH.

A specific quality of Technoscience studies is the strong and concrete links between BTH and governmental bodies, which constitutes examples of *co-evolution of knowledge and policy*. One of the PhD students is recruited from the local government of Karlshamn, which provides grounds for developing specific competences. Similar opportunities prevail for one of our PhD students in Bolivia, who collaborates closely with the ministry of education. Another PhD student has an advanced position at the Norwegian research council. One of our doctors has a high position at a ministry of industry and trade in Uganda and another one at a council of science and technology also in Uganda. One of our PhD supervisor colleagues at ToS is now minister of education in Uganda.

BTH strategic plan 2013-2016 emphasizes *international collaboration* and innovation in-real-life. ToS was during the year strong in realising these goals through doctoral training and research, and also through collaboration for in-real-life innovation in East African countries and Bolivia via SICD (Swedish Innovation Centre for Development).

The SICD was during the autumn moved from Technoscience studies, BTH, to *Lund university* and the unit LU Open Innovation Centre.

### **The Challenge**

The dean of the faculty, to which Technoscience studies belongs, decided to shut down the PhD program of Technoscience studies because of BTH strategy to mainstream research education into very few PhD programs. This decision *reduces severely the open academic space for the, so far, successful PhD program of Technoscience Studies*.

## Background

The research division of Technoscience Studies belongs to the department of Technology and Aesthetics (DITE) at Blekinge Institute of Technology – a profiled University of Applied ICT and Sustainable Development. From 1st of January 2014 the department belongs to the Faculty of Computer sciences in the reorganisation of the whole university. The activities at ToS began in 1998 in the then Department of Computer Science and Economics with earmarked funds appropriated by the Parliament through the research bill 1996/97:5. A professor chair in ICT and gender research was filled the 1st July 1999. ToS is a new field of technology and engineering and is highly innovative in terms of development of gender research within technoscience, media technology, methodology for ICT related research and innovation system and cluster development.

In addition to research, undergraduate and graduate education the activities embrace work with-knowledge networks, campus development, external engagements, internal work at BTH and support work for external funding of research and research collaboration.

SICD (Scandinavian Institute for Collaboration and Development) is originated from a collaboration between Swedish and East African partners since 2003 and Bolivian partners since 2007. This is a result of support from both Sida and VINNOVA. In 2008 Sida and VINNOVA decided to outsource their joint interests of Innovation System and Cluster Development to a cooperation platform placed at a Swedish university. The host organisation of SICD became Blekinge Institute of Technology (BTH), Campus Karlshamn, Sweden.

ToS is fully integrated into the profile of BTH in terms of both applied ICT and interactions in-triple helix (university-government-industry) constellations.

## **BTH campus Karlshamn**

Most staff at the Division of Technoscience Studies is involved in BTH's construction of a university campus in Karlshamn. This effort began in 2000 and has intensified as operations grow. The collaboration at NetPort pertains to all kinds of undergraduate education and student issues, cooperation with upper secondary schools and other education providers, various EU project constellations, support for research also in cooperation with experience-based learning, local government and business contacts, incubation activities with participation in the savings bank's foundation of Karlshamn Bank (Sparbankens Näringslivsstiftelse) to promote economic development, etc.

The long term support from the local Government of Karlshamn is highly appreciated and constitutes a base for a very fruitful development of NetPort and BTH campus Karlshamn.

NetPort office, companies within the NetPort focus areas and BTH are situated in the same premises. There are many activities going on at NetPort, which means visibility for BTH's presence in Karlshamn and a form of indirect marketing. The contacts with NetPort's director and staff during the year were vital for a fruitful collaboration especially in the profile area of Digital Media at BTH campus Karlshamn.



## Theoretical stance

One of the aims of Technoscience Studies is to develop complex knowledges about ICT including media technologies as reality-producing technologies as well as of the transformations that follow in its wake. This presupposes participation in the appurtenant processes of transformation and knowledge production. The epistemological base for this is found in the profile of Feminist Technoscience within Technoscience Studies. Seeing ICT as reality-producing technologies rests on the idea that all of us, researchers in the field included, are enmeshed in development processes. No innocent positions exist. ICT intervenes in and co-creates people's everyday lives. On the other hand, ICT is developed and interpreted and practiced by people. The overall aim of Technoscience Studies is thus to create theoretical bases and practices for developmental processes in ICT-related fields as well as in the context of innovation systems. The latter increased in importance for ToS with the strong and upcoming research profile in innovation system and development. Most of these activities are performed together with a number of international partners.

Within international gender/feminist research with strong links to the dominant emerging technological fields of our age – information and communication technology, biotechnology and material technology – there is a widespread understanding of the production of knowledge and technology as processes taking place in distributed systems. In these days and age knowledge is generated in the overlapping borderland of universities, industry and other regional, national and international entities as well as governmental bodies. These processes are not least apparent in our region Blekinge as well as in the cooperation countries in Africa and Bolivia and affect the way in which R&D&I work is carried out. The term technoscience connotes this understanding of the concurrent production of knowledge, technology and reality. The way in which technoscience is defined by scholars like Donna Haraway raises important questions about boundaries and transgressions between science, technology, politics and society, humans and nonhumans etc. as well as implosion phenomena within the same spheres.

The PhD program of ToS has belonged to the faculty of technology and later faculty of computing at BTH. Along with research activities based on the individual research projects, ToS also has a joint research programme organised as division seminars and courses in order to develop epistemological competences and skills for theoretical and methodological work. Prospective doctoral students and university lecturers also participate in this research programme.

## Staff

### **Administrators**

Peter Ekdahl, Head of Department, DITE

Pirjo Elovaara, Deputy Head of Department, DITE

Lena Trojer, Head of Research, DITE

Roger Tönklint, Director of Studies, DITE

Ulrika Magnusson, Research education administrator, Central Unit of Administration, BTH

Madeleine Persson, Economist, Central Unit of Administration, BTH

Christian Bladh, Economist, Central Unit of Administration, BTH

### **Researchers**

Carlos Acevedo, Doctoral student

Paul Carlsson, Doctoral student, University lecturer

Linus de Petris, Lic, Doctoral student

Peter Ekdahl, PhD, Senior lecturer

Pirjo Elovaara, Associate professor, PhD, Senior lecturer

Anders Falk, Doctoral student, University lecturer

Peter Giger, PhD, Senior lecturer

Elisabeth Gulbrandsen, Lic., Doctoral student

Kerstin Gustavsson, University lecturer

Tomas Kjellqvist, PhD, Project director

Annika Olofsdotter Bergström, Lic, Doctoral student

Linda Paxling, Doctoral student

Birgitta Rydhagen, Associate professor, Senior lecturer

Wendy Sanzetenea, Doctoral student

Kåre Synnes, Guest professor

Lena Trojer, Professor, Head of Division

### **Associated Researchers**

Christina Björkman, PhD, senior researcher

Julius Ecuru, PhD, postdoc, collaborating partner

Per Eriksson, professor, LU, SICD

Kristine Jørgensen, Bergen University, Norway

Peter Lating, PhD, postdoc, collaboration partner

Lydia Mazzi, PhD, postdoc, collaboration partner

Joshua Mutambi, PhD, postdoc, collaboration partner

Charles Otine, PhD, collaborating partner

Fatuma Simba, PhD, postdoc, collaborating partner

## Postgraduate degrees awarded

Licentiate of Technology Pirjo Elovaara	2001 02 02
Licentiate of Technology Christina Björkman	2002 06 14
Licentiate of Technology Peter Ekdahl	2002 10 25
Doctorate of Technology Birgitta Rydhagen	2002 12 18
Licentiate of Technology Annelie Ekelin	2003 01 27
Licentiate of Technology Inger Gustafsson	2004 05 07
Doctorate of Technology Pirjo Elovaara	2004 05 28
Doctorate of Technology Christina Björkman	2005 05 23
Doctorate of Technology Peter Ekdahl	2005 12 09
Licentiate of Technology Peter Giger	2006 06 09
Licentiate of Technology Peter Okidi Lating	2006 12 04
Doctorate of Technology Inger Gustafsson	2008 01 18
Licentiate of Technology Ellen Kalinga	2008 05 28
Licentiate of Technology Suzan Lujara	2008 05 28
Doctorate of Technology Peter Okidi Lating	2009 03 06
Licentiate of Technology Fatuma Simba	2010 06 28
Doctorate of Technology Ellen Kalinga	2010 12 08
Doctorate of Technology Suzan Lujara	2010 12 08
Doctorate of Technology Peter Giger	2010 12 15
Licentiate of Technology Rebecka Molin	2011 02 11
Licentiate of Technology Charles Otine	2011 03 31
Licentiate of Technology Lydia Mazzi	2011 06 01
Doctorate of Technology Maria Bäcke	2011 05 27
Licentiate of Technology Joshua Mutambi	2011 06 10
Licentiate of Technology Julius Ecuru	2011 09 24
Doctorate of Technology Fatma Simba	2012 09 27
Doctorate of Technology Lydia Mazzi	2012 11 07
Doctorate of Technology Charles Otine	2012 11 07
Doctorate of Technology Tomas Kjellqvist	2013 06 14
Doctorate of Technology Julius Ecuru	2013 11 28
Doctorate of Technology Joshua Mutambi	2013 11 28
Licentiate of Technology Linus de Petris	2013 12 19
Licentiate of Technology Carlos Acevedo	2015 11 06
Licentiate of Technology Linda Paxling	2015 12 16

## Research projects

The research projects are listed below within the four main profile areas of the research division of Technoscience Studies. The projects can either be doctoral thesis projects or research projects. In some cases the projects belong to more than one profile area.

### Design for digital media

#### **Theoretical Frameworks for ProDuSer Oriented Design for Digital Media**

*Peter Ekdahl, R&D project*

The aim is to develop a research structure as well as theoretical frameworks for the concept ProDuSer-Oriented Design for Digital Media. When starting the process of producing digital media, there are no separate roles as producer and user. The roles are intertwined in complex and dynamic relations. The understanding of these complex relations opens up for new ways of developing relevant and future oriented applications. The R&D project is closely linked to the under graduate programmes Digital Games, Digital Visual Production, Digital Audio Production, Web Development and Basics for Digital media. The project encompasses development of a deeper and more complex understanding of digital media technology and design as an area of knowledge. The aim of the project is also to define core areas and develop transformational strategies in order to find out how traditional disciplines relate to the core areas of media technology and design including serious gender perspectives.

#### **Situating Participation**

*Pirjo Elovaara, R&D project*

Together with Annika Olofsdotter Bergström and in co-operation of Think Tank Transbaltic Network the project aims to explore the notion of participation in various spaces and places. The project aims also to develop and implement playful methods in specific urban sites, and so asking questions of citizens' experiences and stories as material for spatial planning. The project will also ask questions of how games can be understood as critical participatory methods in various contexts. The project is thus connected to the field of participatory design when also studying how games can be designed by non-designers. Besides the very concrete empirical focus the projects finds its nourishment in contemporary feminist technoscientific theories, such as in Karen Barad's agential realism,

#### **Technological Difference / Creativity Lost**

*Peter Giger, R&D project*

My current research is a journey into the heart of technological difference. The aim is to examine and relate the institution of control to the philosophy of difference and practices in contemporary technology.

The reason for the project started in an understanding of contemporary society as a culture of technological control. Technological control could be said to increase logarithmically with general growth, since technology is one of the main agents in economical and general growth.

The practices of technological control are based on similarities and dissimilarities, i.e. pattern matching. Thus, control is based on the repetition of identity. It is very difficult, or impossible, to control pure difference. If technological control is increasing, a plausible thought would be that repetition of identity has precedence to repetition of difference, since this skewed balance is built

into the technological system of control. This could lead to a society without the will of creating difference since it cannot be matched to recognizable patterns.

The question is how to revitalize the practice of technological difference in a society with a predestination for technological control (and thereby a society which gives precedence to repetition of identity). How to create identity from difference and not from repetition?

The research practice is based on the philosophy of difference developed by Gilles Deleuze and inspired by conferences, readings and practices 2015. It is also a continuation of the previous research project of social media and learning done in 2014-2015.

### **Exploring æffect in media practises**

*Linus de Petris, PhD project*

My research is based in media technology and technoscience. The (onto)epistemological foundation is based on feminist technoscience and proceeds from my licentiate thesis. By transforming my findings in e-government practices, and with design and use of media technology in focus, the research starts with a literature study, which is later combined with one or more action research projects.

In different research situations, the reality production of technoscientific and media technology practices is diffracted to explore concepts such as materialities, sensualities, inscriptions and institutions. Specifically, the research starts by intertwining the concepts of effect and affect, introducing æffect.

Due to a change in employment, my research activities during 2014 have been limited in time to set a new course of action, partly by engaging more in the undergraduate programs.

### **Digitizing rituals: A technoscience perspective on games as a reality-producing and reality-transforming technology.**

*Anders Falk, PhD project*

The main research objective is to provide a technoscientific understanding of games as a reality producing practice, what realities the games produce, how these realities might intra-act with existing realities and what this might mean for the actors involved. The research will highlight examples of what games incorporate from existing cultural mechanics and what they as a subculture contribute to the mainstream culture.

The main aim of the research is to widen the understanding of games and game development for legislators, game developers and players alike.

### **Entangling technocultures : feminist technoscience, participation and social change**

*Linda Paxling – PhD project*

My research is based in feminist technoscience, media technology, cultural studies and ICT4D.

The research objective is an explorative study of how media and ICTs, intra-act with the concepts of development, social change and innovation.

My empirical material is two-fold. For my licentiate I worked with ethnographic, action-oriented and participatory methods to address commonalities and differences in the infrastructuring of mobile technologies and development in a Ugandan context.

For the remaining PhD time I am experimenting with methods of transmedial storytelling and critical design practices and entangling these methods with the concepts of situated knowledges, participatory cultures and posthumanism.

Keywords:

feminist technoscience, ICT4D, ethnography, intersectionality, transmedia, participatory design.

### **Creativity, innovation and motivation in Swedish higher Education, with focus on media technology graduate educations.**

*Paul Carlsson, PhD project*

The PhD project starts in the issue of creativity and how these factors are implemented in technical graduate educations especially in the field of media technology in Sweden.

Educational reports published over the last 20 years have consistently identified creative thinking and problem solving as among the most crucial skills necessary for success in today's workplace, and thus have called on educational institutions to do more to promote these abilities (Carnevale et al., 1990; Secretary's Commission on Achieving Necessary Skills, 1991; Partnership for 21st Century Skills, 2008).

The overarching question is how to design a creative learning environment in the context of media technology training. How to encourage creativity, innovation, motivation combined with problem solving and personal development. How to design an "education of humility" that combines technoscientific understandings with the possibilities of the 21th century.

### **Alternative fields of play**

*Annika Olofsdotter Bergström, PhD project, see below.*

## Feminist technoscience

### **The New Production of Politics**

*Elisabeth Gulbrandsen, PhD project*

The main objective is to explore conditions for developing responsible technoscientific cultures – in and beyond the academy. The linearity as well as the division of labour suggested by the "technology push" and "society pull" policy models are heavily criticized for ignoring the complexity and dynamics that emerge partly as a consequence of the success and pervasiveness of science and technology in late modernity.

Science and society have both become transgressive invading each other's domains, and policy questions are enhanced into political questions. A third, more interactive policy model is emerging figured in transdiscursive terms like "strategic science", "innovation system", "postnormal science", "technoscience", "mode 2", "agora".

### **Complexity and Depth in Contemporary Media**

*Peter Giger, R&D project, see above*

## **Epistemological Issues in Computer Science Education from Gender Research Perspectives**

*Christina Björkman, research project, quiescent during 2015*

This is a project with university teachers in computer science at a Swedish university. The focus of the project is gender, knowledge and learning in computer science, and the project aims to deepen the teacher's knowledge and experience in these areas in order to develop their teaching. In the longer perspective, this concerns how to make computer science more interesting to a larger group of people than is the case today. This can be accomplished by, for example, discussing issues such as what computer "is", and how it is presented, and to learn to respect and accommodate greater diversity among students and their backgrounds, interests, motives and understandings.

## **Theoretical Frameworks for ProduSer Oriented Design for Digital Media**

*Peter Ekdahl, R & D project, see above.*

## **Entangling technocultures : feminist technoscience, participation and social change**

*Linda Paxling – PhD project, see above.*

## **Alternative fields of play**

*Annika Olofsdotter Bergström, PhD project*

The aim of my research is to explore how site- specific games as a process can connect players to different worlds and concepts to produce new knowledge and empowerment. The node in my work is the multi-layered vision where different situated bodies will rub against each other to explore new forms of actions, transcriptions of the world and reconstructed subjectivities. I want to explore how we create intra –actions between different realities and materialities and how social and technology can be re-tangled and create novel agency.

The cross- boundary in experimenting with methods that intertwine and challenge the perception of possible combinations, constraints and intimacy; to give visibility to new knowledge production and methods, becomes absolutely crucial in my research.

I want to explore how polyphonic experiences; bodies and radically different perspectives can create new knowledge in a physical location.

Places and spaces in our society are clearly marked by gender, ethnicity, power and norms, affects us all residing there. Through intra-action with multiple agencies (people, spaces, materialities), different spatiality's can be reinvented and therefor "games could be perceived as a social technology" (Flanagan, 2009) to accomplish this.

## **The cultivated city. Urban gardening as a posthumanist expression.**

*Birgitta Rydhagen and Pirjo Elovaara, R&D project*

By using the concept cultivation we stress the simultaneous ecological and social/learning processes. The project is built on two cases of urban gardening; Adult education courses connected to the Transition movement, and neighbourhood allotments for socially vulnerable persons. Based in feminist technoscience and digital humanism, the project poses questions on formation of identity and citizenship in gardening, ecological adaptation connected to gardening, and how digital tools (websites with instructions as well as smart artefacts) connect with the gardening practices. Participation in gardening, digital documentation, interviews and workshops will contribute to a

collective knowledge production between gardeners and researchers. During 2015, short courses in gardening were initiated. The project is connected to The Seed Box (see collaboration below).

### **Exploring affect in media practises**

*Linus de Petris, PhD project, see above*

### **Feminist TechnoScience and a Shared Fragile Future - challenging the epistemological infrastructures in technology**

*Lena Trojer, R&D&I project*

The research, which is mainly practice driven in developing countries, brings forward discussions on how we, as researchers in technoscience, are deeply involved in technological transformation processes through our knowledge production. The focus is turned towards the knowledge production itself and the university as partner in distributed research processes. The contemporary situation is understood as circumstances, where the boundaries between universities, industry, public sector and other kind of institutions, organisations and authorities are exceedingly hazy concerning knowledge production and evolving into complex co-evolving processes. The discussion is kept to the role and accountability and responsibility of the actors at the universities. There is an emphasis on the need for self-reflection / diffraction in technological transformation processes as far as scientists are concerned. The ontoepistemological base for this research is found in feminist technoscience.

Results of this continuing research activities found ways and were exposed during the year in training courses for media technology students, in presentations at universities in Sweden and in Rwanda as well as in a book, a project report and papers jointly published with colleagues.

### ICT for development

#### **Entangling technocultures : feminist technoscience, participation and social change**

*Linda Paxling, PhD project see above.*

#### **Transdisciplinary Research Development in Triple Helix Context in Uganda**

*Dr Peter Okidi Lating*

The aim of this continued study is to strengthen transdisciplinary research skills of the candidate and improve graduate supervisory skills as part of the staff capacity development in the College of Engineering, Design, Art and Technology, Department of Engineering Mathematics / Computer Engineering, Makerere University, Uganda,

### Innovation system and development

#### **Understanding energy systems as innovation systems.**

#### **Understanding the role of the university in the national innovation system.**

*Tomas Kjellqvist, R&D&I projects*

Inspired by work done in the project “Solar power to the people” I started research with the aim to understand energy systems as innovation systems. The main finding from the previous project was



that implementation of solar technology in the productive sector in African countries was due to the absence of an innovation system in the energy sector. The project had also identified that the innovation system on renewable energy sources was only emerging in Sweden. Thus it had been very difficult to identify possible partnerships for collaboration between Swedish companies and companies in East Africa.

I set out to design a research program on how energy systems could be understood with the concepts derived from theories on innovation. To make the connection I realized that I had to go to the roots of Systems theory and to understand the evolution of energy systems I needed to get a better grip on theories on evolutionary economics. As the transition to renewable energy requires solutions for a decentralized energy production in distributed systems I also needed to integrate methods dating back to the quantitative revolution in economic geography back in the 1960's. The work on tying these different perspectives together is ongoing. The latest application of the perspective was to produce a concept note for the application of renewable energy in the Health sector in Mozambique., a project that we hope to start in late 2016.

As a part of my activities with the Swedish National Commission for Unesco, I wrote a small paper on the international dimension of Integrated Science. This paper was based on findings from my thesis work in 2012. This work has continued in 2015 by producing inputs to the Nordic preparations for the Unesco General Conference in November 2015. This new paper analyses the sustainable development goals and the Agenda 2030 and the implications for Unesco and its member countries as a partner in the implementation of the Agenda. One concrete example of this work is the production of inputs to the Unesco Biosphere program:

- Setting up an international network for research on biosphere areas, in line with the new strategy for the Unesco Man and Biosphere program 2015-2025.
- Initialization of the work on a research strategy for the Blekinge Arkipelag biosphere program
- Initialization of the work on a national research strategy for the Swedish Man and Biosphere program
- Research connected to Social Innovations and Social Enterprise within the Man and Biosphere program.

### **Business Incubation Systems as an integral development strategy for industrialization of Uganda**

*Joshua Mutambi, PhD, postdoc.*

The main objective of the postdoctoral study is to investigate the level of collaboration and incubation practices of institutions, agencies and university programs to promote technology transfer, business start-ups and influencing sustainable business models. All this is in the context of emerging innovation systems and improving competitiveness.

This is envisaged to inform the respective incubation institutions and policy processes and help in particular formulating relevant strategies and prospects of advancement (in terms of upgrading incubation environment and increased productivity regarding business development and competitiveness in Uganda) and growth of sustainable businesses.

### **Unlocking the Binding Constraints in Uganda's Innovation System**

*Julius Ecuru, PhD, postdoc.*

The post-doctoral work will continue exploring innovation systems in the development context in Uganda and East Africa. Many policy makers and politicians recognize how the potential role of science, technology and innovation could play in the economic development and wellbeing of their societies. However, the rhetoric is not adequately matched with allocation of resources to STI, and development of enabling policies. Uganda, for example does not have a clear policy for financing innovation, and struggles to find ways of promoting innovations and competitiveness in the coun-

try. The post-doctoral work, therefore, aims at assisting policy makers understand the dynamics of innovation systems, and hence assist them develop innovation policies that are responsive to the demands of growth and competitiveness.

### **Formation of clusters focusing generation of a co-evolution context of university and industry in Cochabamba region, Bolivia**

*Carlos Acevedo, PhD project*

Main objective is to develop knowledge about Innovation Systems and clustering processes focusing on the generation of a co-evolution based context between the university-industry-government.

Specific objectives are to:

- a) analyse national policies created to strengthen the National Innovation System.
- b) analyse the SME cluster development taken place in the region of Cochabamba, Bolivia.
- c) determine success mechanisms to make the innovation processes more dynamic in the co-evolution context between the university, firms and government.

Carlos Acevedo defended successfully his licentiate thesis November 6th at his mother university, Universidad Mayor de San Simón, Cochabamba, Bolivia. He was then formally appointed to a PhD student towards doctoral degree at Technoscience studies, BTH.

### **Innovation processes within Bolivian cluster initiatives.**

*Wendy Sanzetenea, PhD project*

The main objective is focused on analysing innovative processes within Bolivia cluster initiatives.

The specific objectives are formulated as follows:

- To study the existing cluster initiatives and the innovative processes generated.
- To analyse the role of the public university, its interactions with the government and productive sector in the cluster initiatives and also, other mechanism of knowledge creation to generate innovative processes.
- To analyse specific characteristics of development initiatives taken place in Bolivia.

# Development of the R&D profile Design for Digital Media

## Position

The development work of the Media Technology Group in the undergraduate programs indicates that the core foundation of design for digital media is evolved in the expression of the production (in Swedish *gestaltande produktionen*). Consequently there are specific demands on the epistemological and methodological bases as well as the formation of the R&D profile to support the activities.

The objectives of the R&D profile of Design for Digital Media are:

- to strengthen and more clearly articulate the design environment for undergraduate courses
- to develop Master programs and courses on graduate level
- to provide relevant qualifications for the teacher staff of Media Technology at graduate level
- to strengthen cooperation with external education and research actors nationally and internationally
- to develop co-production with the industry and the public sector.

The R&D profile of Design for Digital Media includes the following:

- Seminars developing the conceptual repertoire. The activities are open to the teacher as well as researcher staff. This enables us to identify and prioritise the needs of qualification for our teachers. The activities include seminars with guest speakers, literature and writing workshops, participation in conferences with papers.
- Courses at graduate level to qualify the teachers and invite applicants from other university sections and colleges in order to broaden our networks.
- Graduate school at the national level in collaboration with other universities. This facilitates teachers' qualifications and networking.
- Research groups focusing three areas: theory, development of design education and applied research.

## Integration of Research and Undergraduate Program

In the past year PhD students and senior researchers have worked closely with students within courses and projects in the undergraduate programs. Examples of courses are:

- Concept design for digital media. Groups of students worked together with researchers on projects involving digital story telling in physical environments. Most projects were initiated by the students and some were initiated by senior researchers and PhD students.
- Bachelor Thesis in Media Technology. Senior researchers acted as supervisors and/or examiners for undergraduate students' bachelor theses. The subjects studied by the students were selected together with senior researchers and the examiners worked throughout the semester continuously assessing the thesis.
- Techno scientific research methodology. A course on advanced level that was managed by senior researchers and PhD students. Students in the undergraduate program studied techno scientific research methodologies in preparation for their thesis work (2015).

Other collaborations between undergraduates and post graduates includes joint seminars with external researchers, development of future courses and programs and projects with external partners and funding.

## The Swedish Faculty for Design Research and Research Education

Design for Digital Media at ToS is a member of the Swedish Faculty for Design Research and Research Education. The aim of the Swedish Faculty for Design Research and Research Education

(previously the Centre for Research in Design) is to create a solid, critical and future-oriented platform for research, advanced practice and education in the field of design.

The Swedish Faculty for Design Research and Research Education was founded in December 2007 financed by Swedish Council of Research (VR) and Royal Institute of Technology (KTH) and is a national centre for design research based at KTH Royal Institute of Technology. The faculty encourages the development of design as a field of knowledge so that it can respond to social, economic and technological challenges in society in a sustainable, innovative and aesthetically aware manner. Currently the faculty is hosting 47 doctoral students from 12 of its 20 member institutions throughout Sweden. The Department has reinforced its position at the Swedish Faculty for Design Research and Research Education by now having 3 PhD students included namely Linda Paxling, Annika Olofsdotter Bergström and Linus de Petris.

Design concerns us all - everyday and everywhere, in private and in public. In this sense, design is society's biggest cultural sector. Thanks to its ability to effect renewal, design also has a decisive impact on competitiveness in many industries. Design research is needed so that design can develop its cultural and innovative role to meet the future's complex and rapidly changing world with its increased demands for sustainable development.

## Additional Research Development

The Swedish Government has launched the *Strategy for Research Cooperation and Research within Development Cooperation 2015 – 21*. Sida has responded to the strategy by - among other activities - producing a position paper *Support to Innovation and Innovation Systems Within the Framework of Swedish Research Cooperation*, in which the experiences of ToS and SICD are presented. Our experiences were followed up at Sida Science Day December 15<sup>th</sup> by Tomas Kjellqvist , who gave a key note and participated in a panel and by Lena Trojer contributing to another panel.

The R&D program within the profile of Design for Digital Media continued to be strengthened with the appreciated guest professor Kåre Synnes. The process of ‘calling’ Kåre Synnes as professor in the profile was paused because of family reasons. We expand the relationship with professor Kristine Jørgensen from Bergen University, who visited us again in 2015.

A call for two professor positions was announced late in the year – both in media technology one focusing feminist technoscience and design and one focusing infrastructure.

A thorough recruitment process by also inviting prospective candidates to seminars at Technoscience studies was a vitamin injection to the research activities at the department. A number of staff members attended at and appreciated the seminars.

## Postgraduate activities

### Visiting Scholars Program

Professor Kåre Synnes, Luleå University of technology, [www.ltu.se/staff/u/unicorn-1.10291](http://www.ltu.se/staff/u/unicorn-1.10291), was a very active guest professor at the department during 2015. This implies important addition of competence for training programs and research in linked profile. Kåre Synnes focused especially the development of media technology / design for digital media and cooperation with NetPort in Digital Learning Platforms.

The dialogue continued with acting Professor Kristine Jørgensen, Bergen University, <http://uib.academia.edu/kristinejorgensen>. Her visit to BTH campus Karlshamn took place in November 2015.

### PhD courses

#### **Methods in Technoscience**

The PhD course Methods in Technoscience continued during the year. The course can be seen as a developing common ground regarding method and methodology in Technoscience Studies. The epistemological “floor” problematizes the scientific process and we need to “walk the talk”. There is much at stake, our ambition is to improve the scientific inquiry, but we risk to be rejected by the representatives for “normal” science. We have chosen a more difficult road, with great liberty in research, but also with a great responsibility.

#### **Ontoepistemological points of departure in feminist technoscience**

Another PhD course was offered to all departments at BTH. The course was also given within the frame the InterGender consortium in collaboration with Luleå University of Technolog, which meant it became an international PhD course. The aim was for the doctoral student to acquire more in-depth knowledge within the field of feminist technoscience. The course opened up for the opportunity to reflect consciously and with nuance upon different perspectives of theories of science, and their consequences for the individual doctoral project. . Marja Vehviläinen, Tampere University, Finland was guest lecturer, and we had 12 participants including 3 from other European Universities.

#### **Research Seminars**

Staff engaged in research at Technoscience Studies as well as lecturers gather for research seminars, where research activities and fundamental choices for our understanding of the field are discussed and developed and where individual researchers present their work for discussion. The following research seminars were held during the year:

- |            |   |
|------------|---|
| 2015 02 12 | PhD student presentation Linus de Petris, Anders Falk   |
| 2015 03 18 | PhD student presentation Paul Carlsson  |
| 2015 04 28 | PhD student presentation Annika Olofsdotter Bergström   |
| 2015 05 27 | PhD student presentation Linda Paxling  |
| 2015 08 18 | Discussion on conditions and situation for the PhD students   |
| 2015 09 09 | Anna Croon Fors, Umeå University, seminar titled <i>Embracing complexities and staying with troubles ... So Far_ Or new demands for research, education and responsibilities in science and engineering</i> |

- 2015 10 06 Carlos Acevedo, presenting his licentiate thesis
- 2015 11 30 Laura Watts, IT University, Copenhagen, seminar titled *Where Data is Made from a Numberless Sunset?: the Work of a Poetic Ethnographer.*
- 2015 12 03 Sisse Finken, Linnea University, seminar titled *Getting into encounters between digital technologies and humans - methods and theories re-visited.*
- 2015 12 16 Linda Paxling, presenting her licentiate thesis.

## Internationalisation

### Partners in Developing Countries

Institute of Marine Science, Zanzibar, University of Dar es Salaam, Tanzania

Tanzania Commission for Science and Technology, COSTECH, Tanzania

Nelson Mandela African Institute of Science and Technology, Tanzania

College of Engineering, Design, Art and Technology, Makerere University, Uganda

Muni University, Uganda

University of Rwanda

Universidade Eduardo Mondlane, Mozambique

Universidad Mayor de San Simón, Cochabamba, Bolivia

Universidad Mayor de San Andrés, la Paz, Bolivia

### Partners in High Income Countries

Lund University

Linköping University

Chalmers University of Technology, Gothenburg

FGB- Fondazione Giacomo Brodolini, Italy

Norwegian Research Council

Karlshamn Local Government

Regionmuseer Kristianstad

Ronneby Cultural Centre



## Cooperation between BTH, business and the community/ politics

The cooperation profile of BTH is an explicit praxis in the activities of Technoscience Studies. Indeed, this praxis in itself constitutes empirical results for the production of knowledge, broadens the understanding of technology and innovation and creates relevance for the activities of ToS. Example of such collaboration is students award for their games Traverser (won the Gold Chip award) and Stairs. Both games were results of student start up companies. Another example is PhD student Linus de Petris, whose doctoral studies partly is due to his employment at the municipality of Karlshamn. Participation at Research Friday (forskarfredag) resulted among other things in cooperation with a school library with the aim of testing different digital media techniques.

## Publications

- Carlos Acevedo (2015) *Developing Inclusive Innovation Processes and Co-Evolutionary Approaches in Bolivia*, Licentiate Thesis, Research Division Technoscience Studies, Department of Technology and Aesthetics, Blekinge Institute of Technology, ISBN 978-91-7295-312-3
- Carlos Acevedo, Mauricio Céspedes, Eduardo Zambrana (2015) "Bolivian Innovation Policies: Building an Inclusive Innovation System" in *Journal of Entrepreneurship and Innovation Management*, Vol 4, Issue 1, pp. 63 – 82
- Carlos Acevedo, Mauricio Céspedes, Eduardo Zambrana (2015) "Development University Approaches in Developing Countries: Case of the Universidad Mayor de San Simón, Bolivia!" Submitted to Edward and Elgar.
- Christina Björkman, Peter Ekdahl, Pirjo Elovaara, Kerstin Gustavsson, Linda Paxling, Lena Trojer (2015) *Change@Campus Karlshamn - Our Story; Culture, Norms and Gender at Blekinge Institute of technology*, Research Division Technoscience Studies, Department of Technology and Aesthetics, Blekinge Institute of Technology, ISBN 978-91-7295-966-8.
- Linus de Petris, Paul Carlsson, Peter Giger (2015) "Affect and Intimacy in Generative Places", conference paper, *CITTA 8th ANNUAL CONFERENCE ON PLANNING RESEARCH / AESOP TG Public Spaces & Urban Cultures*, Port University, 2015 09 24-25.
- Pirjo Elovaara, Kerstin Gustavsson, Elin Hallgren, Linda Paxling, Lena Trojer (2015) Genislab Report, Gender Budgeting, Human Resources, *Organisational Culture-Development Of Methods, Research Division Technoscience Studies, Department of Technology and Aesthetics*, Blekinge Institute of Technology, ISBN 978-91-7295-967-5
- Angela Genova, Barbara de Micheli, Polona Pecnik, Nicoletta Rescignano, Lena Trojer (2015) "Gender budgeting as tool for gender equality in research: European pilot experiences", submitted to *European Societies Journal*.
- Elisabeth Gulbrandsen (2015) "Re-thinking, re-inventing and co-inventing innovation", paper presented at the *WINNET-conference*, BTH campus Karlshamn, 20150924
- Linda Paxling (2015) *The Reality-producing Dynamics of the Mobile Phone in Uganda*, Licentiate Thesis, Research Division Technoscience Studies, Department of Technology and Aesthetics, Blekinge Institute of Technology, ISBN 978-91-7295-317-8
- Linda Paxling (2015) "The situatedness of mobile infrastructuring in Uganda, Living in technoscientific worlds", *Living in technoscientific worlds*, University of Vienna, 2015 12 3-5
- Beattie, M., Hallberg, J., Nugent, C. D., Kåre Synnes, Cleland, I., Lee, S. (2015) "A Collaborative Patient-Carer Interface for Generating Home Based Rules for Self-Management" in *Smart Homes and Health Telematics : 12th International Conference, ICOST 2014*, Denver, CO, USA, June 25-27, 2014, Revised Papers.
- Rana, J., Kåre Synnes, Kristiansson, J. (2015) "Ad-hoc Social Network Formation for Tailored Collaboration in Shared Spaces" in *International Journal of Social Computing and Cyber-Physical Systems*, 33pp.
- Jimenez, L. L., Gomez Simon, M., Schelén, O., Kristiansson, J., Kåre Synnes, Åhlund, C. (2015) "CoMA: Resource Monitoring of Docker Containers" in Proceedings of the *5th International Conference on Cloud Computing and Services Science SCITEPRESS Digital Library*, Vol. 1, s. 145-15410 s.
- Rana, J., Kåre Synnes, Kristiansson, J. (2015) "Controlled viral distribution of digital media based on analysis of ego-centric networks" in *International Journal of Social Computing and Cyber-Physical Systems*, 37 pp
- Lena Trojer, Birgitta Rydhagen, Tomas Kjellqvist (Published online: 02 Jan 2015) "Inclusive innovation processes – experiences from Uganda and Tanzania", *African Journal of Science, Technology, Innovation and Development*, <http://www.tandfonline.com/doi/abs/10.1080/20421338.2014.970437>
- Jonsson, A.C., Rydhagen, B., Wilk, J., Feroz, R.A., Rani, A. and Kumar, A. (2015) "Climate Change Adaptation in Urban India. An Approach for Inclusive Formulation of Local Adaptation Strategies", *Global NEST Journal*. In press (available online 20141219).
- Wilk, J., Hjerpe, M., Rydhagen, B. (2015) "Adaptation Spinoffs from Technological and Socio-economic Changes", in Inderberg, T.H., Eriksen, S., O'Brien, K. and Sygna, L. (eds) *Climate Change Adaptation and Development: Transforming Paradigms and Practices*. London: Routledge.

## Media Coverage

2015 02 09 Sydöstran. Hackathon ska ge svar om datorspel. Artikel om Linda Paxlings forskning.

2015 02 10 Blekinge Läns Tidning. "Spel lockar bibliotekarier. Artikel om Linda Paxlings forskning.<https://web.retriever-info.com/go/?p=609779&a=40670&sa=2023799&x=cef4f424b28bcf6b948c1db841f8eec2&d=057313201502108e1f086468837c6d6ae11441cfe38e5e&cs=57313>

2015 02 13 Public radio. P4 Blekinge. Live radio från hackaton. Relaterad till Linda Paxlings forskning.  
<http://sverigesradio.se/sida/avsnitt?programid=730>

2015 03 13 Vetenskapsrådets webbtidning Curie, "Så ska spelbranschen bli mer jämställd" artikel om Linda Paxlings forskning.

## Commissions

Below is a presentation of commissions the staff members at the Division of Technoscience Studies had during the year, both at BTH and elsewhere. A conclusion to be drawn from the list of commissions as well as what is presented above, is that the collected expertise found at ToS is relevant in numerous important contexts.

### **Peter Ekdahl**

- Co-supervisor for the PhD student Anders Falk
- Head of Department 2014 –
- Board member of NetPort.Karlshamn, 2014 –
- Faculty Programme Director for the Media Technology Cluster
- Member of BTH board of education.

### **Pirjo Elovaara**

- Deputy head of department, DITE, 2014-
- Board member of the National Graduate School InterGender, 2008 –
- Committee member for IADIS ICT, Society and Human Beings conference , Participatory Design Conference 2015
- Member of the board of the international research school Intergender
- Member of the network Think Tank Transbaltic
- Member of the scientific organization group of the national gender research group G16
- Member of the managing committee of the EU COST action TU1204 People Friendly Cities in a Data Rich World
- Member of the development group “Gilla Alla” in co-operation with Netport Science Park and Karlshamn municipality
- Main supervisor for Annika Olofsdotter Bergström in her PhD project “ Alternative Fields of Play”
- Main supervisor for Linus de Petris in his PhD project “Exploring æffect in media technology practises”
- Reviewer of the HCI-conference, Co-Design Journal, Network Conference Media ARcademy. Participatory Design Conference, Scandinavian Journal of System Design
- Examiner of master thesis in informatics at Oslo University

### **Peter Giger**

- Member of the planning committee for the culture house, Östra Piren, Karlshamn
- Member of the research network “Digital Art and Culture in the Age of Pervasive Computing”
- Editor and technical developer of International Journal of Feminist Technoscience
- Supervisor for Anders Falk in his PhD project “The digitizing of rituals; aesthetics in digital media”
- Supervisor for Linda Paxling in her PhD project “The reality producing dynamics of the mobile artefact in East Africa”
- Supervisor for Paul Carlsson in his PhD project “Creativity, innovation and motivation in Swedish higher Education, with focus on media technology graduate educations.”

### **Tomas Kjellqvist**

- Vice-Chair of the Swedish National Commission for UNESCO
- Member of the scientific expert group for UNESCO, coordinated by the Swedish Research Council

### **Linda Paxling**

- Editor of Technoscience.se
- Moderator of editorial team, International Journal of Technoscience and Development (IJTD)
- Member, The Swedish Faculty for Design Research and Research Education, 2014-
- PhD representative, National Graduate School InterGender , 2014-
- Project Leader, Vinnova-financed pre-study A norm-critical game culture, 2014-2015
- Project member, Genislab EU-project, 2011-2014
- Representative at BTH node for the SPIDER network

### **Birgitta Rydhagen**

- Supervisor to PhD students Carlos Acevedo and Wendy Sanzetenea.
- Reviewer for International Conference on Engineering and Meta-Engineering (ICEME)
- Reviewer for the European Journal of Engineering Education (EJEE)
- Reviewer for Tidskrift för Genusvetenskap, [www.tegeve.se](http://www.tegeve.se)

### **Lena Trojer**

- Adjunct professor at Nelson Mandela African Institute of Science and Technology, Arusha, Tanzania, 2012 -
- Member of the National Steering Committee of PACF-Tanzania 2006 -
- Member of PACF Council 2010 –
- Director of Swedish Innovation Centre for Development (SICD), DITE, BTH, 2008 -
- Board member of the Swedish Faculty for Design Research and Research Education 2014 -
- Reviewer of applications for a position as professor at Tema Genus, Linköping University
- Reviewer of application for a position as senior lecturer in media technology, Royal Institute of Technology, KTH, Stockholm
- Member of Evaluation Team concerning Research in Natural Science and technology at Södertörn University
- Reviewer of application for a position as associate professor at College of Engineering, Design, Arts and technology, Makerere University, Uganda
- Reviewer of 2 Doctoral theses and 2 Master thesis, Nelson Mandela African Institute of Technology, NM AIST, Arusha, Tanzania.