

DESIGN RESEARCH

SWEDISH DESIGN RESEARCH JOURNAL SVID, SWEDISH INDUSTRIAL DESIGN FOUNDATION

#2.14



Where
are we
heading?

FOCUS
THE DESIGN
DISCIPLINE IN
TRANSFORMATION

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Twenty-five years later

This year the Swedish Industrial Design Foundation, that is, SVID, will have existed for 25 years. I have only been involved in the last few years of that development but even within that time frame the field of design has changed and developed.

Last week I was asked: “What does design mean to you?” As this issue of *Design Research Journal* tries to mirror, that question is not easy to answer. This is apparent from the interviews with three new holders of doctorates, who approached the field of design from totally different directions in their research. We can also see it in the description of the company Ocean Observations, whose business has radically altered in the past five years. This issue also contains an article about how the design perspective within the EU is closely associated with the concept of innovation, and how the trend towards using design in order to create policy is gaining ground in many countries.

In the short time I have been part of SVID’s history, the way we work has changed from running projects ourselves to creating the conditions for many people to work in a design-driven way. Via our national programmes we work with actors who implement design at various levels by reinforcing them and their efforts. In the meetings I have, including with these actors, a topic that almost always arises as being of critical importance to success is the need for courageous leaders.

When people want to work with design within a structure where design methods are not a self-evident part of the activities, courage is needed in order to dare to work in a design-driven way, because it is often easier to revert to ingrained work methods. Courage is also needed to embrace the insights we can acquire when we work in processes where one of the biggest challenges is to stop – to pause the process – and find out more information instead of rushing to a solution. Courage is also needed to implement the necessary changes.

In my job I meet many courageous leaders who are changing services, products, environments, messages and policy processes by using design at the places where they are. These people are found at various levels within organisations and society, and they often bear witness to fairly strong resistance. So that one single word is perhaps what design means to me: courage.

Eva-Karin Anderman



PHOTO: CAROLINE LUNDEN-WELDEN

Eva-Karin Anderman,
Program Director, Swedish
Industrial Design Foundation (SVID)

THE WHOLE PICTURE

Expanding perspective is fundamental to Ocean Observations, which has gone from developing mobile apps to designing and developing more multi-faceted services. It is important to start by analysing the whole picture before digging down into the details. The Ocean Observations team includes strategists, designers and engineers, all with a humanist focus, who work together to create digital solutions for everyone.

Sofia Svanteson receives me in the spacious office with empty white walls in central Stockholm. No, the company has not just moved in but the last six months have been so busy with work that there has been no time to hang the pictures at Ocean Observations. I admit I had never heard of the name until very recently and not even the English-only website had made the penny drop.

“I can explain,” says Svanteson, the company’s founder.

“Previously more than 80 percent of our clients came from outside Sweden. We worked with mobile applications and other commissions from the telecom industry: Nokia, Orange, O2, Telus. We started with user experience issues in an international arena where all the terminology is in English, so having an English-language website made

most sense. When the iPhone came, the market changed totally. Ever since 2009 to ’10 the brands have handled the development of their own mobile services; our biggest client base disappeared and we were forced to basically start all over again. We should market ourselves better here in Sweden but haven’t had the time.”

MUST BE ABLE TO INTERACT

After the crisis, the company expanded its field of work. Today Ocean Observations works mainly with digitalisation from a design perspective and explores how we can change the world with the aid of design services. A mobile phone is not a discrete unit – everything is connected; all the channels a user encounters have to function separately but also be able to interact.

“We talk about ‘design thinking’.

It means that whether or not you are a designer, you must understand that the design of products, services or organisations has great influence on people’s lives. Business leaders in particular must have this insight when they decide how and why products, services or systems should be developed. Take the Chernobyl accident, for example. It occurred due to a design fault in the nuclear reactor and caused great suffering.” If we help companies and organisations to create new services with the help of a design process in which we focus on people’s needs and forms of behaviour, we reduce the risks of both bad business decisions and dissatisfied users.”

GO INTO THE DETAILS

Ocean Observations’ to-do list includes developing digital strategies, presenting possible future scenarios in a visual way, creating and/or refining user interfaces, and developing interactive prototypes but also designing and developing complete services.

The company’s name is directly →

Ocean Observations

Ocean Observations has 17 employees in Stockholm and Tokyo. The design agency was founded in 2001 by Sofia Svanteson and others.

The company works simultaneously on between five and eight different design projects at various stages. The name was inspired by the memoir *Tuesdays with Morrie* of 1997 by Mitch Albom. The book consists largely of conversations about life, death and human existence between the ALS-ill sociology professor Morrie Schwartz at Brandeis University, USA, and the author, who was once his student.

*) Would you like to know more? Check out the following links:

http://articles.latimes.com/1986-08-23/news/mn-15781_1_design-flaws

http://en.citizendium.org/wiki/Chernobyl_Disaster
<http://www.rrl.kyoto-u.ac.jp/NSRG/reports/kr79/kr79pdf/Malko1.pdf>



PHOTO: CHRISTIAN GUSTAVSSON

Sofia Svanteson, founder of Ocean Observations.



PHOTO: YLVA SANDBERG

Digital training tool for QuizRR

The QuizRR project began when its founders *Sofie Nordström* and *Jens Helmersson*, both with experience from H&M and CSR (Corporate Social Responsibility) issues, contacted Ocean Observations. The actual starting point was to educate textile workers in Bangladesh about their rights and obligations, to help suppliers generate business, and to reduce the risks faced by global buyers. One of the key issues was

to get the workers themselves to understand and demand their rights. Nordström and Helmersson wanted to order a tool with which to educate textile workers in Bangladesh about this key issue. At the same time, the industry owners must be persuaded to perceive their obligations. There was also a conviction that the buyers, that is, CSR-aware fashion brands, especially in Europe, who use textile manufacturers in Bangladesh, would

be interested in the results. From experience, the team knew that clothing manufacturers feel a need to work with CSR issues but that most of them cannot afford to do so because it requires having people on the spot, insights into how the factories are run, etc.

The concept of a digital training tool plus a portal with measurable CSR data was presented to Ocean Observations. The customer wanted

→ linked to the last-mentioned activity. In spring 2001, when Svanteson and her then business partner were planning to launch their company, the book *Tuesdays with Morrie* was on the bestseller list. It includes a story about a wave that panics when it sees the beach and believes that it and all the

other waves will be crushed against the cliffs. “No, no,” soothes the wave beside it. “You’re not a single little wave. You’re part of us, of the ocean.”

“This holistic perspective is exactly how we work with every design commission,” Svanteson says. “It means that you can’t go into the details

before you have understood the whole. That’s how we always work.”

She graduated in civil engineering from KTH in Stockholm, where she studied human-computer interaction. She learned how to develop easy-to-use systems that met people’s needs and behaviour. But despite her technical →

Left: Ocean Observations' Kajsa Sundeson user tests a pilot version of the training tool at a textile fabric in Bangladesh.

Below: The questionnaire of workplace questions plus the last page from the training tool, which after being evaluated can now start to be constructed, funded partly by the Axfoundation.

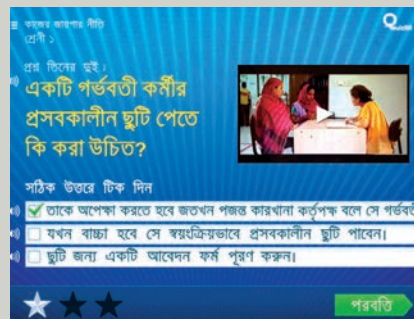
a project that would result in a live service but the Ocean Observations team suggested a design process that would lead to a simple prototype that could be tested before investing time and money in a finished service. The problem was bigger and more complex than it initially appeared and Ocean Observations wanted to be involved from square one. The clients were a bit uncertain at first but really wanted to have something that worked, which required many more questions to be answered.

The design team began by looking at the three different target groups in order to try to understand the context. An "empathy map" was drawn and used to formulate the respective needs of the factory owners, textile workers and buyers (the clothing brands in the rest of the world).

Project members visited Bangladesh and did interviews to gather insights into the environment and attitudes to on-the-job training. The next step was to construct simple prototypes and user test them on the spot in Bangladesh. It was apparent early on that the workers preferred not to do the test individually but rather as a group. This placed new demands on the design, in terms of both how

the service should be structured and how to communicate it. Other discoveries involved requirements for the design and for the text to be presented verbally, as many of the textile workers can neither read nor write. How could a test be made for them? The team then realised that doing the test as a group would be an advantage because it would more likely that someone in the group could read and write. Many workers had never seen an ebook reader before, so the graphic design had to be extremely clear – for example, "this is a button – press it". Of course the contents were also considered at the same time – what goals should be achieved with the tool.

The team also looked at what could create value for the factory owners. One of their desires was to be able to market themselves, to have an online portal that showed how progressive they were, that they worked with CSR issues and had made headway. The last step was to start looking at the buyers here in Europe, for instance to find out what they need to know about factory conditions in Bangladesh in



order to want to use one there.

There is now a finished model of how to use the training tool. The users will continue to be involved as the portal is implemented and built. So far the focus has been on Bangladesh but QuizRR is now also going into China. Studies were done there this autumn; the team used the same prototype, translated it into Chinese, and looked at whether the needs are the same or if anything needs to be changed. The result showed that some adjustments were required due to different legislation but that the whole structure of the service functioned. In China people are more used to digital products and services, so the design can be a bit different there.

We might presume that totalitarian China would have less interest in QuizRR. On the contrary, says Sofia Svanteson – research done in various types of factories shows that Chinese people believe CSR issues are important in the context of global competition.

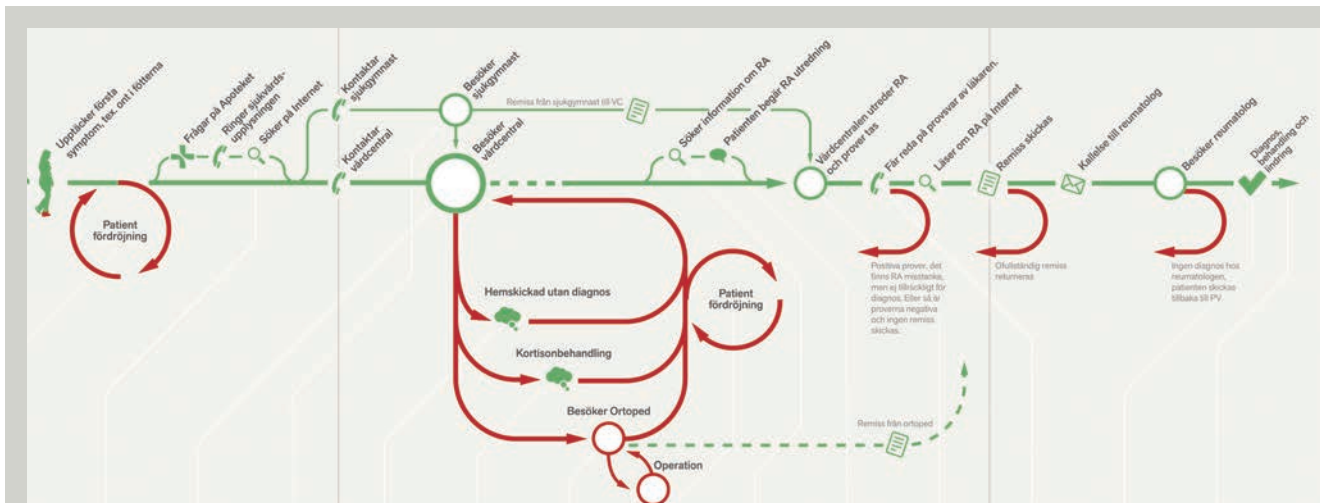


→background, her role has always been that of a designer.

"I got into the design profession via human-computer interaction. After graduation I was called an information designer – then people began saying interaction designer. Today I work as a design strategist. Together, the

seventeen of us have a wide range of expertise. It's necessary for our holistic methodology. A number of the design strategists with us look at our customers from both a business and a user perspective, which they then try to combine. They have either attended the Stockholm School of Economics or

trained in design in Umeå or at Aalto University in Helsinki. Our interaction- and graphic designers also come from a variety of backgrounds. Some have a more mathematical, problem-solving approach; others come from the cognitive sciences and have read more psychology. What's important is that →



Ontilederna.nu

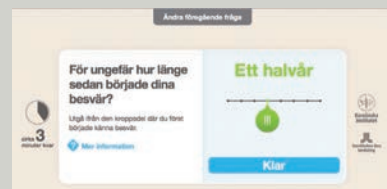
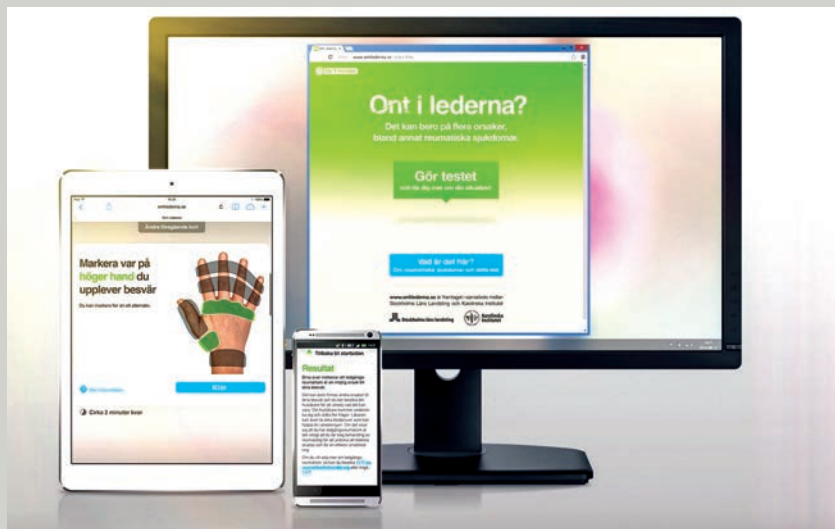
The website Ontilederna.nu is one of Ocean Observations' biggest projects in the health care field. The starting point was that the patient's journey for rheumatoid arthritis sufferers – that is, the time span from symptom to diagnosis – is far too long. Some patients are forced to wait several years in pain before they

get to see a specialist. This not only causes huge suffering but also a risk for being on lifelong sick leave. The longer the time between the start of the illness and the patient going onto medication, the worse the prognosis is for a life without functional impairment.

The commission from the clients (Karolinska Institutet and Stockholm

County Council) was more or less this: "We have a hypothesis that the time elapsed from first symptom to diagnosis can be shortened by capturing the individual earlier and guiding him or her through the health care system with the help of digital support". Ocean Observations was thus involved from the start and could map out the patient's journey. Many patients begin their health care journey online; others go to the pharmacist or phone the health care advice line. In other words, a lot happens before a patient gets to a primary care clinic. Ocean Observations interviewed patients, primary care physicians, physiotherapists, specialist physicians etc. The contextual interviews with the patients gave a lot of information and it was possible to start looking at various "touch points". After all the interviews, the events were presented in visual form. The focus lay on illustrating the positive points (when the patient is satisfied with his/her care and reception), problems (when the patient is dissatisfied) and deficiencies (situations when the patient's needs are not met). This provided insights into the causes of various delays. If a test could be developed, in collaboration with specialists, primary care





Opposite page, top: The journey for a patient with rheumatoid arthritis from the first symptoms until receiving a diagnosis. The red markings show when and how the patient's journey can go in the wrong direction.

Opposite page, bottom: Concept generation during the preliminary stages.

Above, large picture: The questionnaire at ontilederna.nu can also be found at a variety of platforms. It is important that it works equally well everywhere.

Above: The questionnaire at ontilederna.nu is graphically clear. It is also officially approved, so it can really help physicians in their assessment of the patient's illness.

physicians and patients, in which the questions were posed in such a way that the patients understood them, the results were pedagogical (so the patients could learn about their symptoms), and the results were presented in a way that primary care physicians felt that “yes, this is good, this is validated, I see that the questions are correct, and this will help me to make a diagnosis or write a referral”, then the journey to get a diagnosis could be shortened.

A prototype of an online screening program was developed in which the patient suffering joint pain could answer ten or twelve questions about his/her symptoms. The result could be taken to the primary care physician and be a support for the patient in the dialogue with the doctor, and for the doctor in reaching a decision. The

prototype was user tested and the new insights used to develop the first interactive beta version, which was user tested again in autumn 2013. The results were so good that Stockholm County Council gave the green light to go ahead with a live version and launch it throughout Sweden. The hope is to reduce the time elapsed between the first symptom and the diagnosis, and that the journey to get treatment and relief will be faster.

→ our approach is interdisciplinary.”

As examples, she describes various design projects that the office has worked on over the past year.

QuizRR (see sidebar on page 6) works to increase awareness among textile workers in Bangladesh about such issues as their social rights. A woman in Bangladesh has the legal right to take paid leave for four months after giving birth. Many people do not know this, perhaps not even the factory owners. But QuizRR involves much more: to incent the owners to improve the work environment and to give the buyers (clothes manufacturers elsewhere in the world) the knowledge and opportunity to increase their commitment to Corporate Social Responsibility (CSR). Working actively with work environment issues requires a lot of resources; today it is primarily the really big brands like Zara or H&M that can afford it. The goal is to enable smaller companies to also sit at home and get answers to questions like “Where can we make this blouse? Where can we find a factory that knows the technology? And that has a humane attitude towards textile workers?”

In brief, QuizRR is a portal for buyers and a training tool for factory workers. The clients wanted a platform that indicates which factories are willing to invest in their employees, how the employees fare after the training has been done, and how the workplace situation can be changed when the workers have gained more knowledge. The factory owners must be convinced that the platform will not mean that they lose anything in the longer term.

“QuizRR is a fine example of a holistic project,” Svanteson says. “We were able to take a step back, get the chance to understand more, and then →

→ trust that the design process would lead us to the right answers. The clients know the work environments and understand the issues faced by the buyers. They know about CSR although not digital design, but they gained great confidence in us. It's been terrific fun to develop together."

Ocean Observations has been working on QuizRR since March. A prototype now exists, as does a basis for further development and also more money. The Axfoundation (Antonia Ax:son Johnson Foundation for Sustainable Development) has given funding to start building the service.

ONTILEDERNA.NU

Another example of a service design commission focuses on patients with rheumatoid arthritis (see sidebar on page 8). Together with Karolinska Institutet and Stockholm County Council, Ocean Observations has developed a screening service, which was launched at selected primary care health clinics in June. A pilot study was done in the summer and was recently evaluated. The clients then decided to roll the service out nationally. It will be incorporated into Sweden's national online health care portal 1177.se and launched now at the beginning of December at www.ontilederna.nu. The service involves an online questionnaire for mobile phones, tablets and computers. The results enable the patient to be well prepared to visit the primary care physician, who can immediately see where in the body the problem is located, how long it has existed, and so on. Other important information that can affect rheumatism (psoriasis, smoking, genetic factors etc.) is also included, all on one A4 page.

Svanteson explains: "The clients started by explaining what they

wanted: "We want to find a way to shorten the journey from symptom to diagnosis with the help of a service design project and we want you to use the design process in the way you think it should be applied. We will support you with all our knowledge about arthritis illnesses and tell you what our physicians need. But above all, we want you to capture the patients' needs and show a process that leads to a meaningful service."

SYSTEM MUST CHANGE

She adds that some primary care physicians were initially resistant, concerned that patients would diagnose themselves, perhaps based on what they read in the evening papers. But many physicians also realise that the health care system must change in future.

"All the health care budgets are far too high today. With the help of digital services, they could be reduced a lot. In this case, physicians don't have to invest all their time in focusing on details; they can be more empathetic with the patient. The Ontilederna (Joint Pain) project suits all ages, the prototypes have been fine tuned, and the end result is as pedagogical for 70-year-old retirees as it is for 20-year-olds – a lot thanks to the fact that we were involved from the start."

A third example was a project done for Electrolux. It was the design of a new kitchen, in which eight different machines were equipped with touch screens and new user interfaces. The reference group that was tested included countryside aristocrats outside London and financiers in Manhattan; the new kitchen cost about a hundred thousand euros. This slightly unusual commission focused more on the experience of a brand than the previously described ones did.

NEED TO FEEL PARTICIPATORY

Svanteson believes that every individual needs to feel participatory in a process and also in society as a whole. That is her starting point as a designer. Some designers create chairs and start from the requirements posed by the act of sitting. Ocean Observations designs digital services, websites or applications but the design thinking is basically the same.

My final question to Sofia Svanteson is whether she and her colleagues have time to discuss their own professional role at the office, or just that of the users.

"Sometimes. But we always have to prioritise the users – their needs must dictate the results even when we make aesthetic decisions. We are far from in agreement within our group about how something should be presented in visual form. To me, design has a lot to do with doing this in a meaningful way. It's amazing to think that it's easier to write a 30-page report than to summarise a situation in graphic form on a sheet of A4 so that everyone can understand it. You have to try, retry and work in order to achieve this. You also have to take cultural differences into account. In Bangladesh it was not possible to use a loudspeaker to symbolise an audio file. No one understood. These types of obstacles pop up all the time. But that's just part of the challenges of working with design.

Lotta Jonson

Design knowledge with details and totalities

There is no longer a single truth about what design is. Both the field of study and the profession are developing in various directions. The designations are sometimes confusing. At the same time, it is claimed that design is an important contributor to social development – including within the EU when it discusses innovation issues. But which design? Where is the design field going?

Design – a field of knowledge with a dreadful identity crisis? Or one in the midst of dynamic development towards a promising future? Where is the concept of design heading? Terms like user driven, interaction, service and innovation occur often in design contexts. And the job titles are many. From the simple one of designer to materials-linked designations like furniture designer, textile designer or graphic designer. And from product designer, industrial designer, web designer and games designer to more imaginative designations like interaction designer, design strategist, process designer, service designer, business designer, concept designer, digital concept designer.... Where did the aesthetic and sculptural dimensions go to? And where is design research to be found in all of this?

From as early as the end of the 19th century, when industrial development forced the mechanisation of handicrafts, industry needed people with the ability to combine technical and aesthetic skills. But it was not until after World War II, as industrialisation accelerated again, that the profession of designer was defined. It was definitely easier

back then to describe both the sphere of work and the field of knowledge than it is today. Once again, new technology has altered the situation: due to the digital revolution linked to ever-increasing environmental awareness, the focus has shifted from making ornaments to producing services in both the private and public sectors. The industrial designer/product designer now has competition from the service designer. Service design is even predicted to become the main occupation of trained designers in future. A service designer works a lot with methodology and interactive processes in dialogue with the users. Meanwhile, the purely aesthetic aspects seem to involve presenting the concepts in visual form in order to make them more comprehensible to the world.

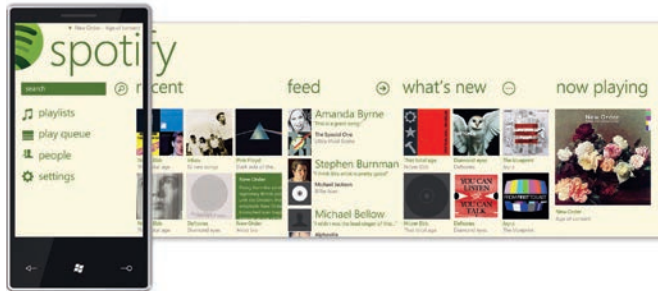
Among designers who have a more traditional focus there is some degree of frustration. In what direction are we heading? People used to joke that the highest dream of any designer was to design cars, and that was certainly true enough at first. However, in the 1970s, when Sweden finally gained its own proper higher educational programme in industrial design, many students

were more interested in working with a social focus on such projects as aids for the handicapped and improved work environments. At the end of the 1980s, more and more designers were taking part in management discussions; they began to be seen as a resource in business strategy contexts.

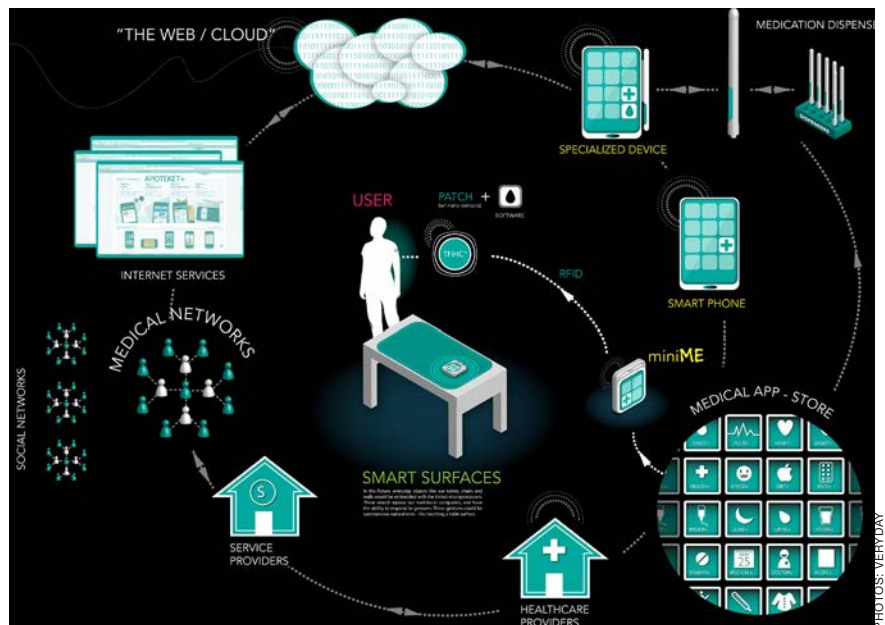
TOUGHER REQUIREMENTS

Hans Himbert was one of the first graduates in industrial design in Sweden. He is still associated with the “design and innovation agency” *Veryday* (formerly *Ergonomidesign*), which this spring won what is usually seen as the design world’s Nobel Prize: the Red Dot Design Team of the Year 2014 award.

Himbert says that the level of the design profession has been raised hugely in recent years as the requirements have been made tougher. A modern industrial designer must be able to work closely with other professional fields and import knowledge from other areas. The design field has become so all-encompassing that more designers are being forced to specialise. However, he says terms like “user driven” and “design methodology” are not new →



Top left, Hans Himbert, together with his colleague Maria Benktsen, receiving the design award. Both began working at Veryday's predecessor back in the 1970s. Otherwise the collage symbolises the development from pure product commissions back then to the development of digital solutions and entire service systems today.



→ concepts – they’ve been around as long as he can remember.

“One of the big differences compared to before is that in a project we work in a more integrated way with other people,” he says. “Our agency has hired people who are specialists, for instance in various materials, material combinations or even colour combinations. Before, each of us had to know everything but now one of these specialists is automatically brought into every project.

“From having been a company that just worked with industrial design and products, we are now a large group of people who work with everything from interaction to design strategy. We help companies and organisations to find the right path – to find their niche. Ergonomists are always involved and we have our own research department. We compete with the world elite in our field. It’s both challenging and tough. Nowadays it’s impossible to be a sole designer with major customers.”

SEVEN CHANGES

Anna Valtonen, the outgoing rector of Umeå Institute of Design, categorises the changes within the design profession under seven headings. In her thesis *Redefining industrial design: changes in the design practice in Finland (2007)*, she studied Finnish conditions but her conclusions also hold true for Sweden.

First, the international financial crises of the 1990s and beginning of the 2000 decade opened people’s eyes to the innovative importance of design. This made design a more important national issue – something that concerned not only the development of an individual company but also that of society as a whole. Second, the number of higher education programmes in industrial design and the number of newly

graduated designers have both grown explosively. Third, new technologies (IT and CAD) have radically changed how designers work. Fourth, the organisations within which designers worked have changed and created new rules, and at the same time newly graduated designers have a broader background than their predecessors. Fifth, their role has therefore changed from focusing only on product development to including such things as strategic issues and a greater understanding of users. Sixth, the expansion of the design field has made it impossible for an individual designer to grasp everything; specialisation is now a necessity. Finally, design still does not stand firmly on its own solid theoretical foundation. The designer’s role has therefore diversified and the boundaries have become diffuse.

Valtonen says the end result is that there is no longer one single truth about what design, or, for that matter, industrial design, is. Instead, many different directions have developed within the profession. Paradoxically, design is at the same time being acknowledged as an important contributor to society as a whole.

A RAPID NATURAL DEVELOPMENT

“The design field has expanded quickly,” remembers Robin Edman, CEO of SVID. “Designing services is now a huge part of the global economy. Though even thirteen years or so ago, when I started here, we were already saying that design is far more than just something that makes a noise when it’s dropped on the floor. Then people criticised us, saying ‘Back off and stick to what you know how to do.’

“Since then, what’s happened is just a natural development of something which began long ago and which is still about improving and simplifying life for

everyone. Design can’t save the world but it can be one of many tools for improving it – combined with others.” What, then, does external form – the aesthetic appearance – mean? Nothing any more?

“Actually, nothing has changed there, either theoretically or practically. Products are still needed. Product designers are specialists in form. Interest in form has not lessened at all – quite the reverse. As society’s general interest in design has grown, so, too, have the aesthetic and form demands on designers increased.”

Many people argue that researchers and industrial developers in Sweden are good innovators. Edman’s analysis suggests this is not really true. We are certainly good at having ideas here but →



Anna Valtonen

PHOTO: ANDREAS NILSSON

→ not at developing them, and we have a poor conversion rate on the concept work that is done. In order to improve the rate of return, we need design thinking and the methodology that designers learn to master. This is a huge design task.

But doesn't this expanded concept of design mean it will be even harder to explain to the world at large, to industry and to the client what a designer can really do, why design is needed and why investing in design pays off? Edman admits this might be so, but says it is also one of the challenges.

He gives the example of a recently concluded EU-level project about whether it is possible to measure design. The project group discussed how design can best be defined and agreed on the following: Design is the integration of functional, emotional and social benefits.

“If you can tick off all these three components, then something is well designed. To date, many measurements and descriptions of design have not at all focused on any possible integration of these three benefits, but were rather about the individuals, the designers. ‘Yes, this company works a lot with design – it has three designers linked to it.’ The number of designers has nothing to do with it – however practically or theoretically trained in design they are. Instead, the issue is how much the organisation works with design. Are its entire operations permeated by design thinking? The products? The goods, the services? Here in Sweden we are extremely fixated on the fact that it must be a designer and no one else who does the →



Robin Edman, CEO of SVID and vice president of BEDA (president as of June 2015).

BEDA and EU

BEDA (The Bureau of European Design Associations) plays an important role in getting the EU Commission to become more design conscious. BEDA was founded in 1969 and now has 46 member organisations from 24 EU countries. The members include both promotional bodies and professional associations, together representing about 400,000 designers (from industrial designers to interaction designers and management and branding professionals). BEDA is financed by membership fees and led by a board of directors elected every second year. Up until June 2015, Robin Edman, CEO of SVID, is BEDA's vice president. He will then automatically become president for a two-year period.

What is BEDA doing to reinforce design knowledge within the EU?

“For Europe to be able to keep up with the rest of the world we must find new ways to develop both the manufacturing industry and service sector in both the private and public sectors. That is where the greatest challenges lie. So we must ensure that we introduce methods that we

know can work. Design is one such method.”

BEDA's task is fairly simple, Edman says, namely to be a sounding board for the EU administration and thereby to introduce design thinking at all levels. But for that to succeed, everyone at the ministerial level must be on board.

“Over the past few years we've worked in three stages. The first one is already finished: that the EU should have an overall design policy. There is no debate about that. We're doing the second stage now: that design should be included in all other policies. The goal of the third stage is to use design methodology to create policy. In this respect the questions are still open: Can we develop new phenomena with the help of the design process? Is design a good tool for innovation? We have come part of the way and a lot has happened recently. The EU Commission has admitted that design is of decisive importance to innovation. However, we have to explore what we can do to get a greater return from design work.”

The intention is therefore that all members of the EU Commission should understand what design can

achieve. Edman says an openness does exist: as soon as BEDA wants to have discussion meetings, they can be arranged. Nor has he noticed that other crises within the EU are making it more difficult to access people at the administrator level. BEDA is also a large part of the current EU project EDIP/Design for Europe (see separate sidebar on page 16), because most members of the project consortium are members of BEDA.

“The development of the design field here in Sweden, which can feel alarming because it is becoming so broad and including many more people and professions, is even more obvious when we speak with our international colleagues. But they do not share the same unease – quite the contrary. Instead, they ask: ‘How can we adapt so that we can keep up with developments?’ All collaboration is about give and take. You have to be humble, make your contribution, and yet also understand that many people are worth listening to. That's how I try to work within BEDA and the EU.”
www.beda.org

→ design work. Yes, the designer is often trained to be the spider at the centre of the web. But as a designer you must be able to involve others in the design process. Other people can also work with design.

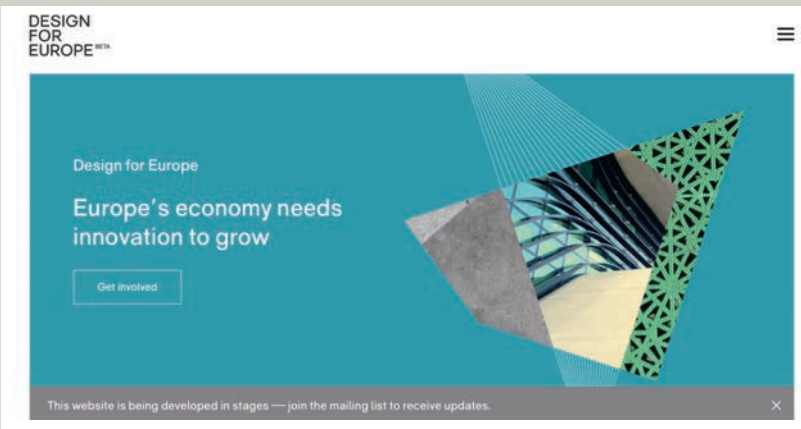
“When I started in this profession, it was regarded as a defeat if you didn't do everything yourself. If you wanted to bring in an ergonomist when you were designing a handle, the reply was ‘whatever for – you're an industrial designer’. It was important to be labelled as an industrial designer.

As an industrial designer, you were supposed to do your own analyses, to consider the user and so on. Nowadays the label of industrial designer feels limited. The design field has become more democratic. The internet has been very important in that respect, as have smartphones. Design is about being able to tame new technologies. Of using design methodology to formulate needs and then to adjust the technology accordingly, to find technology that can solve specific problems. Not the reverse. I'm happy when I think that so

many people are using design to create a society that is better for more people to live in.”

IMPORTANT SKILLS

Edman reminds us what the warnings about desktop publishing (which enabled everyone to do layout) sounded like some 20 years ago: “All the graphic designers will disappear”. That was not what happened – rather the reverse: it became more important to have special skills in graphics. Now we are being warned – totally unnecessarily, he says →



Design platform for Europe

The European Commission's website includes the following statement:

“There is political agreement in Europe that to ensure competitiveness, prosperity and well-being, all forms of innovation need to be supported. The importance of design as a key discipline and activity to bring ideas to the market, has been recognised in the commitment 19 of the Innovation Union, a flagship initiative of the Europe 2020 Growth Strategy.”

As of 2007, the word “design” has been included in discussions about Europe's future development. Various projects have been implemented. One example is “The European Design Leadership Board” (2011–12), which resulted in the publication *Design for Growth & Prosperity*. During 2014 a further six projects were concluded, including “IDeALL” (Integrating Design for All in Living Labs), which aimed to unite designers with advanced ecological technology in order to develop tools and methods for user-centred and design-driven innovation and to thereby be able to increase companies' competitiveness.

Another was called “EuroDesign – Measuring Design Value”. It aimed to formulate a new set of questions that can help the EU's Community Innovation Survey to measure and evaluate the importance of design.

All the projects are presented including links to their final reports at: http://ec.europa.eu/enterprise/policies/innovation/policy/design-creativity/projects_en.htm

At the moment only one project (of the same type as the earlier ones, co-funded by the European Commission) is underway but on the other hand it can have major consequences. It is “The European Design Innovation Platform” (EDIP), now called “Design for Europe”. It began in January and will last for three years. The project is being implemented by a consortium of 14 organisations led by the British Design Council. The project has an operating grant of just over 3 million euro. The final result will be preceded by a series of workshops, meetings, etc. and is expected to be a web-based platform that will bring together all knowledge in the design field. A taste of what the website might look like is already available at <http://designforeurope.eu>

→ – that non-professionals will take over the designer's work.

“There is a focus on prestige among many trained designers. One of the basic principles when you work with design is to bring in other expertise and involve other people in the work. This is totally contrary to that prestige-filled approach. As a designer, you should instead be humble in the face of what everyone else around you knows. You can solve problems better together. Within design research there has never been this dividing line between service- and product design. Perhaps it is a generational issue – young people can deal with a more fluid design concept.”

INTERDISCIPLINARY APPROACH

So what does *Yvonne Eriksson*, a professor at the School of Innovation, Design and Engineering at Mälardalen University, have to say? She is involved in developing the course content for one of the very latest design educational programmes, a master's degree in innovation and design, which will start in 2016.

The syllabus states: “In the various courses we work with innovation and design from diverse perspectives such as the representation of information, products and services. Technology and social science meet and offer unique opportunities to learn process- and project work from various perspectives.... The programme focuses on interdisciplinary projects in collaboration with industry and the community.”

Eriksson explains: “This can be regarded as a continuation and deepening of the degree in information design with three specialities (informative illustration, textual design and spatial representation) that we already offer. We also have a doctoral- →



PHOTO: HANS HENNINGSSON

Yvonne Eriksson, professor at the School of Innovation, Design and Engineering at Mälardalen University.

→ level subject called ‘innovation and design’, which addresses the development process from concept to finished product. The new master’s programme will instead open the door for people who want to gain research skills in the field of information design.”

Information design, information designer. Yet another hue on the broadened colour palette of the design field. Yvonne Eriksson explains:

“An information designer works with all possible information-bearing artefacts. Information design can involve conveying things that might require a spatial representation or other more hard-to-capture forms of expression. But it is the contents and way in which those are conveyed that are most important to an information designer. Often information designers

work with specific target groups in both the private and public sectors.”

Almost half the existing undergraduate programme in information design at Mälardalen University is devoted to the cognitive and perceptual processes involved in interpreting information and to various methods of attracting people’s attention. The instructors are skilled artisans, humanists and technology experts. This interdisciplinary perspective runs like a red thread through all the stages. That is interesting, because an interdisciplinary approach is precisely what is needed – in the design field as well – in a global world where everything is connected.

Lotta Jonson

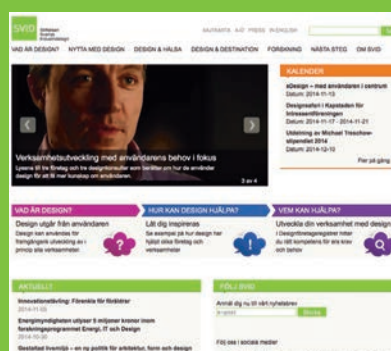
Facts about SVID

Goal

“The design process is used in all work on innovation and change.”

Vision

“Design is a self-evident driver of sustainable development.”



www.svid.se

More social policy work

SVID was founded in 1989. Then and for many years later, one of its mandates was to pair up designers with companies. Today SVID instead has an online, freely accessible database of 400 design companies.

When CEO of SVID Robin Edman came, one of the goals was to get people in industry to realise that design could play a major role in achieving commercial success.

Today, SVID’s agenda involves broader and more long-term social policy work. The overall goal and vision statements focus on the design process and the fact that design should be a tool in all innovation work.

What is SVID’s strategy in a future with an expanded concept of design?

Robin Edman: “SVID will show the effect of what design can achieve. We assemble the knowledge that exists in the design field, create networks and disseminate the expertise. The desire to understand and work with design has grown hugely since SVID was formed. But there is still a lot to do, not least among politicians and decision makers at the higher level. I wish everyone understood that design is a tool for creating a better, sustainable society for the future. But that requires that everyone, even at the ministerial level, perceives the broadened concept of design. Design means cooperation. Tomorrow’s design will increasingly involve many people than today.”

MEETING THE FOX

The Designer always meets the Fox.

Since Saint-Exupéry's *Little Prince* we know that adults identify themselves with their professions, so the first question is always "What do you do?" as if that would give anything away about the person. And the complications start there.

Personally, I studied design theory and now I am studying business and design and doing my internship at SVID as a design and policy intern. The conclusion is that I am a design theoretician, a business designer, and a design policy expert. Yet I am more and less all of them at the same time according to circumstances and requirements.

What is the role of design and the designer? Why can I understand continuous change by accommodating to it and further developing it? Am I a designer? These questions are constantly in my head, and the answers differ from time to time.

As I see it, these skills are based on a specific attitude and mindset that enable me to appropriate, apply or even just talk about design in the first place. This ability stems from a deep sensitivity to seeing holistic interconnections and interdependencies, plus a genuine will to live – that is, to think, feel, talk, and act – in this opened-up consciousness.

Not surprisingly, the role of design and designers has changed over time. Since the 20th century, the designer has been and mostly still is portrayed as a hero who now solves "wicked problems" on his own or within a

team. She is also a social entrepreneur with a mission: to use, educate, and create everything in a design-conscious way for society. But a designer can also jump into the fields of psychology, archaeology, and astronomy because she can adopt various types of knowledge to create something new within the given constraints. It is the consciousness of the good designers that divides and unites them.

Nowadays, the traditional way of describing what design and a designer are is slowly disappearing. I therefore asked myself: Am I a designer with my design theory and business and design background although I have never designed a chair, a house or a print? Or is design not design anymore but something more?

Throughout my academic life I have defined myself in several ways. I acquired a strong basic knowledge of design theory while studying disciplines such as narrative psychology, the history and philosophy of design, cultural anthropology, critical and creative writing, communication, etc. This has enabled me to perceive the continually transforming patterns of all things interconnected and interdependent. This understanding is transferable to virtually any problem area. At school I employ it when I think about why it is beneficial to use design in business and why it is important for a designer to learn business skills. I have therefore begun to think of myself as a designer, as the role of design and designer codetermine each other within the

larger context of changing civilisation.

So the next time when I am asked who I am, I will say I am a designer. But of course, if I meet the Little Prince and the Fox, I will be in trouble..

Zsófia Szatmári-Margitai

*) Antoine de Saint-Exupéry's *The Little Prince* (Le Petit Prince) is a pensively philosophising narrative for children (and adults) about a little prince who has fallen down from an asteroid to the Earth. A clever fox becomes his mentor and explains to him that we can only see clearly through our hearts: "What is essential is invisible to the eye." The book was written in 1943 and has been translated into almost 100 languages.

**) The concept of "wicked problem" is now a well-known design term, which was originally coined by Tim Brown of the American design agency IDEO.

Zsófia Szatmári-Margitai

comes from Hungary and did her bachelor's degree in Budapest. As of 2013 she is doing a master's degree in business and design at HDK in Gothenburg. During autumn 2014 she spent her compulsory internship semester at SVID.



Zsófia Szatmári-Margitai does her my internship at SVID.

PHOTO: CAROLINE LUNDEN-WELDEN

New Design Research Journal

The Swedish Design Research Journal is in its sixth year. After an initial tentative issue the magazine acquired its current form as of #2.09. It has looked the same now for another 10 issues – long enough to assess both its form and contents. The conclusion: that The Swedish Design Research Journal is needed – there is no doubt of that – but that it is time for a new look.

The next issue of The Swedish Design Research Journal will look different from this one. We are currently revising all our templates, structures, and sections and we are recharging with energy and inspiration. We want to create a journal that catches people's attention, and that promotes and develops the design field, in which both reading and publishing have obvious value.

The structure we have had in recent years will be replaced by an integrated structure without a separate section for the research articles. Instead, they will be integrated into the journal among the other contents. The overall structure will be interchangeable depending on the topic and focus of each issue. Sections like research, interviews, examples, an EU focus, international surveys, a discussion forum and a student forum will be integrated with less theoretical sections such as: a theoretical tool box, recommendations and case studies. We believe this will strengthen the contents and facilitate understanding and knowledge dissemination.

The summer issue, Design Research Journal #1.15, will focus on the future from a design perspective. Our vision is that changes will be implemented by design-conscious decision makers on all levels. A future in which tomorrow's solutions are based on creative, interdisciplinary collaborations to solve global challenges. The design process provides new ways of working together across boundaries and in new forms in order to combine the development of new knowledge with new functions for experimental and learning processes for change. By working for a paradigm shift in the awareness of and insight into design as part of the decision making process and in the public and private sectors, The Swedish Design Research Journal wants to create a platform where research is central to knowledge building and the development of the future. See you in June!

Eva-Karin Anderman

Four design researchers – different specialisations

Feminist techno-science, discussions about the dictatorship of text and the benefits of text in design activities, the importance of spaces to innovative thinking, and a design programme that encourages an experimental way of designing objects and places which enrich everyday narratives. These are some of many issues to occupy four design researchers, who tell us more about how and why.

Design research in Sweden is gaining ground, and more and more entry points to the field and aspects of it can be perceived in the theses of the constantly growing number of doctoral candidates. The number of higher education institutions that do this type of research is also increasing. One of them is Blekinge Institute of Technology, where *Linda Paxling* is writing her thesis *Imagining socio-material controversies – a feminist techno-scientific practice of methodology, action and change*, scheduled for completion in 2016.

In her thesis Paxling shows how new technology is changing our daily experiences of how we interact, play, learn and develop – for good and bad. Take the example of mobile phones. They can be used to supply health information in remote areas but also to activate a bomb.

“In my research I study mobile technology, digital games and international development,” she explains. “Players in the technology industry are driving development

towards social exclusion and power imbalance. One thing I am exploring is that if we imagine another reality with another set of players, who might they be? How could concepts like participation, democracy and equality form part of their realities? And what would the design process look like?”

Your research field is feminist techno-science (that is, it has both a technological and a social context) and design. What previous experiences led you to this field and how does the feminist perspective manifest itself in your research?

“My experiences of techno-science*) are primarily based on ethnographic studies in East Africa with themes like post-colonialism, gender and design. But my prior experiences from industry and the public sector have also been important in helping me to understand organisational structures and power positionings. Design research is an important entry point for my thesis. The more I explore the production of mobile phones and digital games, the more I realise the importance of innovative design processes. Who are the creators, who are the users and what governs their agendas? What infrastructures limit and enable

technological development?”

Paxling adds that the feminist perspective is founded on an epistemological approach to science and knowledge. Whose technology are we using and whose knowledge are we allowed to access?

She also draws on the American →

Linda Paxling, right, doctoral student at Blekinge Institute of Technology, is working on her thesis, with the working title *Imagining socio-material controversies – a feminist techno-scientific practice of methodology*.



*) The term **techno-science** was coined in 1953 by French philosopher *Gaston Bachelard* and encompasses both a technological and a social context within a technological or scientific field.

→ scientific theoretician/historian and feminist Donna Haraway's theories about the cyborg, a human-machine hybrid which consists of both biological tissue and synthetic parts, and which illustrates how humans relate to machines.

Is Haraway's cyborg the future?

"I hope so. I am very fond of Haraway's cyborg because it was my first entry point to techno-science and feminism in cyberspace. The cyborg opens up divisions into categories such as nature, body and identity and proposes a hybridisation** of technology and politics, which I believe can create a much-needed dynamism in discussions about development. We need to move beyond a humanism that places far too much focus on linguistic analyses about gender and sex, and instead move closer to a feminist materialism that involves non-human actors and embodies the relationship between humans, animals and technology. If we change our view about humans and nature, we can also create design processes that are more sustainable in the long term."

THE DICTATORSHIP OF THE WORD

One of the doctoral students who defended their theses this autumn is *Andreas Nobel* at Konstfack. His thesis is entitled *Dimmer på upplysningen – text, form och formgivning* (*A dimmer switch on enlightenment – text, form and design*). The Department of Visual Arts Education, where he is an instructor in design representation, hosted the event and the auditorium was full. One source in the know said it was the biggest audience at such an

*) **Hybridisation** actually describes a biological process that is the result of sexual reproduction between genetically different individuals. These can be of different species, populations, family groups or even families.



PHOTO: IVAR JOHANSSON

event since 1959 when *Sven Stolpe* in Uppsala defended his thesis on Queen Christina. The interest can be explained by the fact that research in artistic professions and practices is something new, and Nobel is one of the first to submit a thesis in this field. His new title, though, is Doctor of Philosophy, as he began his research before 2011, when the Swedish Higher Education Authority instituted the title Doctor in Fine Arts for the first time.

In his thesis he discusses theory transformed into text and its significance to practical knowledge in general and within the design field in particular. He says academic departments that work with text-based theoretical education are by tradition given precedence to do interpretation within educational and knowledge contexts – and that this reinforces the hierarchy between theory and practice. His thesis shows how this has influenced the field of design in the applied arts and contributed, first to

Dimmer på upplysningen – text, form och formgivning (*A dimmer switch on enlightenment – text, form and design*) was accompanied by an exhibition which included a hand-operated lathe plus sculptures and small models. Author/designer Andreas Nobel is shown here in the exhibition.

the paradoxical outcome that the form aspects of design are often neglected, and, second, to a worsened ability to experience and value the sensory and design aspects of the subject in question.

"Briefly, the aim of my thesis is to shed light on the problems that can arise when text-based theoretical knowledge culture is applied within the fields of applied art design," he explains.

With your background as an interior designer, editor and instructor, you have moved freely between theory and practice. Do you often see the hierarchy between them and how do the problems manifest themselves?

"Absolutely – it is often apparent. The problems are partly about the degree of relevance, for example the

→

→ often extremely long lists of course readings, which always look good, but how relevant are all these texts really? Just needing to ask that question creates an uncertainty in the students. Another example is when the Carl Malmsten school of furniture making became part of Linköping University. The person responsible for the guitar-building programme was told that about a quarter of the training had to consist of courses in scientific theory. So he cancelled the programme and instead starting teaching guitar building for an adult education institution. A similar example is the training programme in wood turning in Småland, which totally collapsed when the demand to include course texts was made. Unless we expand the concept of what ‘theory’ is, the ‘university-fication’ process and need to transform even practical skills into ‘science’ can end up repressing knowledge!”

The lathe is a kind of design machine to think with. Andreas Nobel says design work is influenced by the body’s movements.

Your thesis is in two parts – the main part in a text format is complemented by an exhibition containing a bow lathe and a number of objects/pieces of furniture turned using a bow lathe. What does this bow lathe mean?

“The lathe is a good tool for presenting methods and designed objects that can drive further development in the fields of both furniture and design. It is also a kind of design machine to think with. And I do not use a bow lathe in order to preserve old techniques but rather to rescue modern design. By activating and engaging the body in the design process and becoming one with the machine, we liberate bodily ideas and theories that are given visual form in the physical product.”

What do you hope your thesis will contribute to?

“I would like to see an expanded concept of knowledge in which not only text but also such things as colour, form and spatiality are given

recognition as being theory. This is a necessity for a fruitful encounter between the different knowledge cultures of science and art!”

ROOM FOR INNOVATION

“Innovation and design” is the name of the research field within which Jennie Schaeffer at Mälardalen University defended her thesis *Spaces for Innovation*. Her studies begin with the fact that workplace spaces and their relationship to innovation from a user perspective are a neglected field of research. One of the biggest challenges for a company or organisation is to create an “ambidextrous” environment in which both radical innovation and gradual improvements can be developed. We have limited knowledge about how to develop and construct such an environment but if we can succeed, this type of environment is a great advantage.

What is the aim of your thesis and what was your method?

“The aim is to develop knowledge →



PHOTO: IDA HALLING



In Spaces for Innovation Jennie Schaeffer (above) starts with the fact that workplace spaces influence the innovative ability of the people who work there. Left, a description of various spaces for innovation: Grey Zone Places, Connection Places, Temporary Places, Satellite Places, etc.

→ about how our daily workplace is linked to innovation from a user perspective. The thesis is based on studies that focus on employees' experience of their workplace in relation to innovation. Four of these studies were done in the manufacturing industry and another in a design firm," Schaeffer says.

The employees began by photographing their workplace and then used the photos as the basis for interviews. Analysing the material, Schaeffer found interesting exceptions that allowed her to formulate categories based on a description of how places are used and experienced. These exceptions indicate places that can support a culture for radical innovation within organisations dominated by incremental innovation (which involves small changes and reinforces prior knowledge within a culture).

Can you briefly describe these places?

"Based on the material and prior research, I have tried to formulate

myself so that these preliminary descriptions become a basis for discussing spaces for innovation – an issue that many people can recognise and ask questions about. I call them Grey Zone Places, Connection Places, Temporary Places, Satellite Places, Cover Story Places and Chameleon Places," she says.

For example, a Grey Zone Place is an environment that contains contradictions and appears to supply the conditions for innovation because it creates a grey zone between extremes. The production process prioritises safety, cleanliness and tidiness. But suddenly a table and some chairs are standing there on the floor. They remain there and are used as a recurring meeting place. The Grey Zone Place is not permitted – one of the people interviewed even called it illegal – but is still allowed to stay. The Grey Zone Place supports such things as autonomy and freedom – so it creates the conditions for a radical innovation

culture to enter in and co-exist with the incremental culture.

Another obvious example is the Temporary Place, which can be a coffee thermos, a whiteboard on wheels, some chairs and a cart of tools that has no special place of its own on the premises. A meeting can happen anywhere – it can be moved and held again. The location is flexible and this flexibility can be used to dissolve hierarchies and give dynamism to the meeting. The location also encourages people to think differently about their attitudes and commitment to the meeting – "I'm allowed to change things" and "I can decide on things".

How will your research results be spread so that they can benefit companies and organisations?

"I'm working on three different research projects in which I and others have the opportunity to continue working on the theme of my thesis. I welcome everyone who is particularly interested in spaces for innovation →

→ to contact me,” Jennie Schaeffer concludes.

SUSTAINABLE ACTION

En route to and from my job at Konstfack at Telefonplan in Stockholm I often think of *Loove Broms*.

An interaction designer, he was a member of the group who created the permanent installation *Colour by Numbers* in the tower of the former LM Eriksson telephone factory which now houses Konstfack. Stockholm residents can use an app in their phones to change the colour of the light in the many windows, and they manifestly do so, happily and often. *Colour by Numbers* is one of ten experiments described in the thesis *Storyforming – Experiments in creating discursive engagements between people, things, and environments*, which Broms defended at the beginning of September. Storyforming is a design programme, a kind of foundation and framework designed to experimentally explore ways in which to design objects and places so as to enrich everyday narratives. These narratives can create involvement, meaning and alternative values linked to sustainable lifestyles. In this way, design experiments can be regarded as a kind of debate contribution to the discussion about what more sustainable forms of behaviour might look like.

Among the other experiments, I recognise some that were presented during the course of the thesis work, and which focused on such themes as awareness of energy consumption.

Sustainable development has long been a central theme in your work – how did you come to it?

“That’s what my whole thesis rests on, and my commitment to sustainable development has grown as the thesis



Loove Broms presented his thesis *Storyforming – Experiments in creating discursive engagements between people, things, and environments*, at KTH in September. See also the cover of this issue.



grew. My interest began while I was at the Interactive Institute at the beginning of the 2000 decade, when I took part in a project called *Aware* funded by the Swedish Energy Agency – design for energy awareness. It was a multi-disciplinary research project with a strong design focus, and was intended to get users to notice their daily energy usage in the home. It was about then that I began being seriously interested in sustainability issues, and thanks to funding, primarily from the Swedish Energy Agency, I could work more on these aspects. The idea with my thesis was then to develop the issue

of sustainability linked to design. I wanted to show ways in which we can give greater consideration in the design process to interactions between users, objects and environments, and thereby to contribute alternative experiences that can feel meaningful but are in contrast to the current culture of consumption.”

Are *Colour by Numbers* and *Energy Aware Clock*, which is now a commercial product, two clear summaries of your research – artefacts that involve people in meaningful and sustainable action?

“Both yes and no. It was much thanks to them that I came to think about meaningful everyday narratives. *Colour by Numbers* is a project that led to huge involvement and contributed to many fantastic, commonly created narratives, even though the installation itself has no direct sustainability focus. I did not create *Energy Aware Clock* to be a commercial product but it is gratifying to know that it is now in people’s homes as an active actor in creating everyday narratives about electricity – something that was previously much more invisible.”

Who do you think will benefit most from *Storyforming*?

“I hope *Storyforming* will both inspire and encourage people to think differently about the designer’s role, and I believe my thesis can be a source of inspiration in a variety of design education programmes. That was also something I had in the back of my mind when we discussed typeface and chose an image-rich layout together with the graphic designers. I’ve tried to make it as accessible as possible,” Loove Broms concludes.

Susanne Helgeson

What should a designer be taught?

The design field and design profession have changed and expanded over the past 20 years. Within academe there is competition, and almost every institution of higher education offers courses in various aspects of design (interaction design, service design, product design, etc.). We asked how Sweden's traditional design schools are reacting to this development.



PHOTO: BERTIL NORDAHL

Cilla Robach

Principal,
Beckman's College of Design

How are you adapting your design programmes to the changes that are occurring in the design field out in society?

"We are living in a paradigm shift where the changes within the design field cannot be separated from society as a whole. According to the Swedish Foundation for Strategic Research (2014), 53 percent of today's work roles will not exist in 20 years' time. Industrial society is being replaced by something else. Personally, I believe we are entering 'the creative society'.

This means that we must take a totally new approach to the actual concept of education, whereby the goal must be to train students to do pragmatic problem solving rather than to prepare them for jobs in various categories like product, interaction, or service design.

"Thanks to Beckmans' long tradition of creating courses with various partners – both from industry and organisations but also between various disciplines within the design field and via a range of professionally active guest instructors – our students develop a good understanding of the design field's continual development. As a result, the teaching role also becomes more that of an instructor or mentor than a 'teacher', and the students actively contribute to their own knowledge development. This is a pedagogical method that has permeated Beckmans' programmes since the school was founded in 1939."

How are you preparing your students for new future tasks?

"Our goal is to graduate independent creators in design, fashion and visual communication who have a strong artistic identity and the ability to influence social developments in

the fields that interest them. Our method is to challenge our students in various courses, assignments and joint projects with regard to the physical manifestation of their ideas, conceptually, and in terms of craftsmanship. Our students should be able to operate at the interface of the present and the future, both in Sweden and abroad."

What relationship do you see between design programmes that are associated with specific materials, and ones with an immaterial focus? Do you perceive any particular tendencies right now in the relationship between theory and practice within the design programmes?

"Personally I dislike the traditional division between theory and practice – this is an anachronistic thought construction that was developed during the Renaissance. In a Western context, theory has historically been valued higher than practical work, because theory was associated with the brain and vision, whereas practice was linked to the body and had a lower status. Simply put, we could explain the concepts by saying that theory is an awareness of why the world is the way it is, which actors are operating within →

→ a field, or why I make certain choices at certain times. Within this thought construction, practice is the actual act of doing something. However, in my view, assuming that these aspects of human creativity can be separated does not benefit our development. On the contrary, this assumption has created lower self-esteem among those individuals who are defined as ‘practitioners’ in society’s constructed hierarchy of values. I therefore prefer to focus on the concept of ‘and’ – that is, both theory and practice.”

What is your attitude towards specialisation, specialists versus generalists, within design education?

“Design is a huge field, especially if we include within that concept such phenomena as product design, service design, interactive design, spatial representation, fashion, and visual communication. No one can be a specialist in everything. The best Beckmans can do is to train designers who are specialists at collaborating with others. It is also first then that design can really make a difference!”

How are you stimulating interest in design research?

“Research is fundamentally a matter of curiosity, of asking questions and seeking answers. At Beckmans we talk a lot about various design processes, which is a research method. Based on a set problem, the students explore one or more phenomena with a focus on various aspects and entry points. The process can often be more important than the end result, because it is in the process that we become aware of our own and others’ knowledge development.”

Is there any collaboration/dialogue between you and other design schools

about the future and what your educational programmes should lead to?

“Given that we are in the process of leaving the industrial society and developing the creative society, it is hard for me to discuss how the design education we offer will lead to anything specific. If we really believe that design plays a central role in developing society and we want to raise design issues to a significant level, then we must discuss design education far more widely than just within the design schools. It is a matter of finding unexpected encounters, projects, and collaborative ventures with other disciplines. What would happen if Beckmans’ fashion students took a course together with the biochemists at Uppsala University? That’s the sort of thing I’d eventually like to find out....”



Johnny Friberg
Head of Department Design at the School of Design and Crafts (HDK), University of Gothenburg

How are you adapting your design programmes to the changes that are occurring within the design field out in society?

“We are constantly working with

issues to do with relevance, vision and content, both internally and externally. A major role is played by the discussion about design as a subject and its relationship with the outside world. And about how the role of designer is developing. We also survey, via our joint projects with schools, organisations and companies, how the changes are working and how they can be translated into the training we offer. However, it’s important to point out that we cannot construct an educational programme to respond to a ‘snapshot’ of society. Such training would quickly become irrelevant. Our long-term goal is to be a leading actor in the development process.”

How are you preparing your students for new future tasks?

“Partly thanks to the fact that all our programmes contain many joint projects that let students train their skills vis-à-vis companies and organisations. But primarily by raising their core design knowledge via both theoretical and practical studies. Self-confidence is built up by working with meaningful and complex design projects – something we place great emphasis on constructing. By giving our students the opportunity to continually train themselves to identify new design issues and new design applications, we enable them to take on various types of commission.”

What relationship do you see between design programmes that are associated with specific materials, and ones with an immaterial focus? Do you perceive any particular tendencies right now in the relationship between theory and practice within the design programmes?

“Our basic view is that the various design programmes have a

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→ complementary function in relation to each other.

“The design field is complex, and having a variety of orientations is a prerequisite for meeting both the students’ interests and the outside world’s expectations.”

“An extensive ‘academification’ of artistic education is underway. This is strongly impacting how design programmes are constructed and implemented. One such consequence is an increased amount of theoretical content, which, among other things, trains the students to contextualise – to relate their own work to both social changes and other artistic practices. The subject of design establishes a dialogue between practice-based, theoretical, and social issues concerned with design and design practice. Design competency is characterised by the ability to merge a plurality of different perspectives to create a meaningful totality.”

What is your attitude towards specialisation, specialists versus generalists, within design education?

“Here, too, our basic view is that the various design programmes have a complementary function in relation to each other. The design field is complex, and having a variety of orientations is a prerequisite for meeting both the students’ interests and the outside world’s expectations. That being said, here at the School of Design and Crafts we have taken a position in favour of a post-disciplinary approach – something that is not in opposition to a ‘specialisation’, which is hinted at by your question.”

“However, we have consciously constructed all our programmes around other themes than the traditional ones (compare e.g. graphic design, industrial design etc.).”

How are you stimulating interest in design research?

“For the students, the first thing is to develop a view of what design research is. After that, their interest is aroused and they can see possibilities. This does not happen by means of only one targeted measure; instead, it happens via a bigger initiative that encompasses everything from various elements in the courses that train an exploratory and contextualising approach, to lectures and seminars by researchers and doctoral students. It is essential to build up a complete environment in which researchers, doctoral students and professors also participate in teaching. And that students are given places on the research projects. Education and research are brought closer together via mutual influence.”

Is there any collaboration/dialogue between you and other design schools about the future and what your educational programmes should lead to?

“Both yes and no. Yes, we have exchange agreements with a large number of schools around the world and we have a dialogue with a number of them about organisation, teaching methods, exchanges, orientations etc. We belong to a number of major international networks of design schools and we attend conferences where these issues are discussed. We also have a number of international joint research projects that also include education. We used the word ‘no’ in the first sentence to indicate that we do not believe this is sufficient. We have therefore begun a project to deepen our collaboration/dialogue with a number of selected schools, a move that is already having an inspirational effect on our work to effect change.”



PHOTO: HIRONORI TSUKUE

Maria Lantz
Principal, Konstfack (University College of Arts, Crafts and Design)

How are you adapting your design programmes to the changes that are occurring within the design field out in society?

“At Konstfack we are in continual contact with both professionally active designers and design researchers. This is done partly via formal channels, such as our subject advisory boards, which consist of active designers, students, instructors and professors, but also via contacts, conferences, guest lecturers and many publications, including Design Research Journal. Basically all our instructors are also part-time active designers outside academe, so the contact occurs both dynamically and according to our students’ needs.”

How are you preparing your students for new future tasks?

“Because our students are themselves put in contact with both active designers and researchers, they gain some understanding of what will be required of them. In their courses they gain experience of and knowledge about various relevant work methods that can stimulate them to think in a →

→ radically new way, which we believe is important for the future. But it is equally important to invite working professionals, companies and the world at large to come to us so they can see what we are doing. In this respect we are currently working to become more active, better, and clearer in our communication.”

What relationship do you see between design programmes that are associated with specific materials, and ones with an immaterial focus? Do you perceive any particular tendencies right now in the relationship between theory and practice within the design programmes?

“Within design we are working to create the conditions to enable people to have meaningful experiences and so that the world at large will function in a way that is sustainable in the long term. This involves working with both material and immaterial aspects. The concepts of theory and practice are partly two sides of the same coin. We must understand what can be relevant work methods, experiences etc., but it is not possible to understand any of this without creating something. Kurt Lewin, the creator of action research, who was also involved in integrating theory and practice, said: ‘There is nothing so practical as a good theory.’ “Currently many people are talking about problem-solving design. It can result in an app, a service concept, a service or a form of packaging. At the same time, craftsmanship – that which is unique and material – is a distinguishing characteristic of Konstfack. I feel that we are currently at the interface between these apparently totally different principles – system-related design and the unique artefact. Both are necessary.”

What is your attitude towards

specialisation, specialists versus generalists, within design education?

“Currently we support diversity here. Some students want to develop more as generalists whereas others want to specialise. But they can also do both. Learning to think in a problem-solving way and also having a specific, slightly nerdy specialisation is not at all a bad idea.”

How are you stimulating interest in design research?

“We show our students examples of work methods that have been developed by research. Researching lecturers participate actively in our instruction. The students add to this by reading relevant research articles, which can be both about understanding the world via design and about understanding design via totally different research fields. In June next year the Nordic design conference Nordes will be held at Konstfack.”

Is there any collaboration/dialogue between you and other design schools about the future and what your educational programmes should lead to?

“Yes, we collaborate in several different ways. Most recently we had a seminar organised by the Swedish Faculty for Design Research and Research Education. One of the topics was how we can develop vis-à-vis each other by means of our experiences of the latest evaluation by the Swedish Higher Education Authority. We decided to continue this work; all the design programmes in Sweden benefit from collaborating by means of comparisons and profiling. Konstfack has also done a two-year pedagogical development project together with the Oslo School of Architecture and Design and Design School Kolding in Denmark. In the

project we learned from each other’s work methods. Not because we want to be the same but rather because together we understand what we need to develop so we can prepare our students and the education we offer for the future. The project was called Designerly Designed Design Education.

“Instructors from various design schools help to teach at Konstfack, and our instructors participate in other design schools’ activities, in part as supervisors for doctoral students.

“For us at Konstfack it’s important that our contact with working professionals and business people is just as much about inviting them to come to us as it is about adapting our programmes to what is needed right now in industry. We are the ones here in academe who often create tomorrow’s new projects, industries and methods.”



Maria Göransdotter
Head of Department, Umeå
Institute of Design, Umeå
University

How are you adapting your design programmes to the changes that are occurring within the design field out in society?

“At Umeå Institute of Design we cooperate closely with actors both

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→ within the design field and in society and industry. The foundation of design education's future relevance lies in how we work with combining different areas of knowledge in our courses and programmes in order to achieve a dynamic balance between practice-based, artistically based and research-based foundations for developing design as a subject. As a natural part of this, we adapt both our shorter courses and our longer-term projects to include questions, design tools and methods relevant for today and tomorrow. In all of our educational programmes, a basic pedagogical pillar is to have the students work with real problems ”

How are you preparing your students for new future tasks?

“Ever since Umeå Institute of Design was founded 25 years ago, the aim of the education we provide has been to produce graduates who have the knowledge and professional skills needed in order to immediately start working as industrial designers in today's profession, but who also have the potential and ambitions to enter the professional role in order to actively change both the design field and the role of the designer. The most important thing for us is to give our students the tools so they can use the existing methods and skills in the design field, and to have the ability to themselves actively build on and apply the new knowledge and tools that are required as the design field and society change. The key to how our students can meet a changing world and a changing profession is that we, from a variety of foundations, can drive the development of industrial design as a discipline and can actively engage students in understanding and participating in this work.”

What relationship do you see between design programmes that are associated with specific materials, and ones with an immaterial focus? Do you perceive any particular tendencies right now in the relationship between theory and practice within the design programmes?

“The strongest tendency we see is that the difference between material and immaterial, or theory and practice, in the design field is becoming ever less relevant to maintain. In today's design practice, the ‘traditional’ and the ‘digital’ – or material and immaterial – are flowing together, and the boundary between them feels less and less interesting in comparison with the perspectives and practices that aim to bring these areas together and to handle the effects and design possibilities that this meeting opens up. Another tendency, and maybe one of the greatest challenges for the field, is that we can see how the theoretical aspects of practice-based design are becoming increasingly stronger because strongly practice-based theory is developing from within the design field itself. This, of course, results in the approach that it is no longer relevant to separate what traditionally have been defined as ‘theory’ and ‘practice’.”

What is your attitude towards specialisation, specialists versus generalists, within design education?

“The basic education builds on a generalist view, as our bachelor's programme provides broad knowledge and competence in industrial design. However, at the same time, the subject of industrial design is in itself a specialisation within the general field of design. As our educational programmes are currently structured, they are highly characterised by specialisation – especially at the master's level, where we offer specialisations on an industrial

design foundation in the fields of interaction design, product design and transportation design. But even within these specialisations, our education is based on offering students a broad competence base that will allow them to work within many different fields after graduation – which we can see they do – since industrial design as a field is not explicitly linked to any special material or strongly delimited practice.”

How are you stimulating interest in design research?

“Besides actively engaging our research active staff and PhD students in basic-level education, we are working actively to build a research culture that will open up for new perspectives and possibilities for the whole school. By having research seminars, research days, a PhD festival and other discussion groups focusing on design research that are open to all – students, PhD students and all staff categories – we want to expand the discussion about how practice-based design research contributes to developing our discipline.”

Is there any collaboration/dialogue between you and other design schools about the future and what your educational programmes should lead to?

“Yes, we have extensive collaboration and discussions on the future of design education and disciplinary development both internationally and nationally. This occurs both within the established design education networks Cumulus and Cirrus and also directly with other schools and educational programmes with which we have project collaborations and other types of contacts. This is an on-going conversation that takes place within the framework of both our research activities and our educational programmes.”

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→ Charlotte Sjödel
Lecturer, Assistant Programme
Director, School of Industrial
Design, Lund University

How are you adapting your design programmes to the changes that are occurring within the design field out in society?

“The designer’s role has not only changed over time; the expectations of what a designer should be able to master have also increased over the years. It is harder and harder to construct a design education that satisfies these demands. By having relatively open briefs in a number of the design project courses, the context is disseminated widely and the students can learn from each other. In this way they can also help to define designers’ new fields of work. The school has a large network and guests are invited to take part in the courses. In this way we offer many different viewpoints and within the framework of the project courses we can focus on new areas.”

How are you preparing your students for new future tasks?

“We train our students so they can deal with the tasks of today and we give them tools and a deeper understanding

so they can respond to changes and future tasks. Through course offerings that combine both theoretical and practical courses, the students are challenged to think critically and question accepted norms. One example is the courses given by cognition researchers at the Department of Philosophy. Our collaboration with NASA at the master’s level is also a good example of how the students get to tackle both practical and ethical issues in a complex environment. Because the students get to work with a context that is comprehensively different from their own everyday life, they are better equipped to find work methods to handle what is unknown to us today.”

What relationship do you see between design programmes that are associated with specific materials, and ones with an immaterial focus? Do you perceive any particular tendencies right now in the relationship between theory and practice within the design programmes?

“There is a great need for both types of design programme – material and immaterial. An increased awareness of what a designer can offer will gradually mean that demand for immaterial design commissions will probably increase. We encourage our students to seek the solution that best meets the need – both material and immaterial. Today greater demands are being placed on the theoretical side of things, because the design role is becoming more complex and more analytical ability is required.”

What is your attitude towards specialisation, specialists versus generalists, within design education?

“Both the bachelor’s and master’s programmes in Lund have an industrial design specialisation. However, we have

a broad view of the concept and our students are allowed to develop their own profile within the framework of their programme. The school has three themes, which aim to give students deeper insight, knowledge, and the ability to think about contemporary and future technological developments in industrial design, the latest findings about contemporary and future human needs and life patterns, and sustainable development and environmental issues.”

How are you stimulating interest in design research?

“By offering courses led by instructors who do research/development work, we give the students insight into current design research. In the master’s programme we have a course in research methodology with an industrial design specialisation. Because most of the design researchers are located in the same building, it is also easy for the students to talk informally with the researchers about their individual projects.”

Is there any collaboration/dialogue between you and other design schools about the future and what your educational programmes should lead to?

“The School of Industrial Design in Lund is a member of international networks for design education such as Cumulus and Cirrus. A number of members of our teaching team participate annually in conferences where the designer’s future role is discussed. We also have an exchange with design schools both in Sweden and abroad, for example via shared workshops, exchange students and so on, which give us valuable viewpoints.”

Interviewer: Lotta Jonson

Materiality lives on

The theme of this issue is the change of design as a profession, a field – and what it means. I recently read an article in *Design Issue* (No. 3, 2013) by *Craig Bremner* and *Paul Rodgers* about how design – once again – is in a crisis from a professional, cultural, technological and economic perspective. They argue that design is no longer a discipline but many different ones – and is merging with others. However, as they point out, this is nothing new. More than 20 years ago, *Adam Richardson* (1993) wrote an article entitled “The Death of the Designer”¹⁾, which argued that design has been in a critical situation since the Italian radical design movement in the 1960s, which was the beginning of postmodernism and a new vision of design aesthetics and functionality. That was in the wake of World War II at a time of rapid growth, technological change and demands for change.

What situation are we in today that makes Bremner and Rodgers believe design is in crisis? One obvious reason is the development of technology and the emergence of the internet, with the subsequent digitalisation of everything – so that today we are all designers, as Donald Norman argued in a book in 2004²⁾. Another important reason is the development of services – in the Western world concurrently with a decline in manufacturing – which has led to the development of an interdisciplinary approach based on interaction and industrial design. This has been successful in many ways; a number of design consultants who originally worked in industrial design have enjoyed good growth and found new areas to operate in. It has also generated considerable interest among design researchers. But is there a downside? When the design process has finally been given sufficient credit, is there a danger that people forget the other side? That the physical result – the object, the materiality – is lost or downgraded? Many people are beginning to express these concerns but I believe it is too early to say that the process has benefited entirely at the expense of materiality. Materiality is still more or less there and is changing over time.

This is also evident in the research articles included in this edition of *Design Research Journal*. *Marja Soila-Wadman* and *Oriana Haselwanter* write about a research project in which artists use their process to challenge traditional organisations – in this case a union – to think of a new way to attract new members. Focus on the artistic process – yes, in this particular case.

The fact that subjects and disciplines change is a natural and logical part of development, especially in fields such as industrial design which are inherently multidisciplinary and/or cross-disciplinary. This is also apparent from *Ulises Navorro Aguiar*’s review of design management and strategic leadership, subjects that have both changed over time. *Antti Ainamo*’s article on textile-based fashion design also shows how sustainability issues will lead to a new materialism and how this can be a leverage for increasing responsibility in the textile industry.

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PHOTO: MAGNUS LANJE

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FOTO: DANIEL KARLSSON

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DESIGN THINKING AND ARTISTIC INTERVENTIONS

– tools for understanding and
developing organizational creativity?

BY MARJA SOILA-WADMAN & ORIANA HASELWANTER

KEYWORDS:

Creativity, Artistic interventions, Design thinking,
Design management, Aesthetics, Organizational
development

ABSTRACT

Organizations in both the private and public sectors need to find new, creative ways of handling challenges in the complex environments of global competition. Engaging creative professionals like designers and artists - with the aim of developing organizational creativity as a strategic tool - has attracted a lot of interest in different kinds of organizations. In our study, we followed a weekly intervention process led by an artist, within a trade union. The union wanted to bring change to its working processes, with the ultimate goal of increasing membership numbers. The study is based on qualitative methods inspired by ethnography. Creativity, design thinking and artistic intervention literature form the main theoretical framework. Between the members of the workgroup and the artist, we have noticed a lot of discontent and differences in ways of understanding business versus creative goals. We propose that knowledge of design processes, conceptualised in design thinking writings, can help to communicate what is going on during an artistic intervention process, thus narrowing the gap between different understandings. However, a certain amount of friction and conflict will be both necessary and desirable during a creative process.

INTRODUCTION

Artistic and designer interventions, as tools for organizational development in the hope of adding something new in order to improve work practices and raise the value of the company, have been receiving increased attention (Biehl-Missal and Berthoin Antal, 2011; Johansson Sköldbörg and Woodilla, 2013; Jahnke, 2013; Styhre and Fröberg, 2013). A number of firms ask for creative and innovative solutions by exploiting the skills and exotic mindsets of the creative professionals in order to stimulate idea generation amongst employees, thus generating economic profit and more efficient organizations, or at least attracting public attention.

Design management has been one of the fields associated with the strategic management of the creative resources and design activities of a company (Borja de Mozota 2008; Cooper, Junginger and Lockwood, 2011; Liedtka 2010, 2011). The term design thinking, then, has been used to describe how designers conceptualize their work practices (Brown, 2008, 2009). How inspiration from the art and cultural worlds – followed by discussions on arts management and aesthetics within organizations – can facilitate efforts to increase creativity within different kinds of organizations and companies has also been of growing interest during recent last decades (Austin and Devin, 2003;

Berthoin Antal and Strauss, 2014; Gagliardi, 2006; Guillet de Monthoux, 2004; Ladkin and Taylor, 2010; Linstead and Höpfl, 2000; Meisiek and Barry, 2014; Strati, 1999; 2007;; artist in residence, www.resartis.org, 20110620). Surely, art and design belong to two different traditions, as do design management and arts management, as stated by Johansson Sköldbörg and Woodilla (2012, 2013). There has been little cross-disciplinary research and these researchers argue that relation needs to be further discussed (Johansson Sköldbörg and Woodilla, 2013).

However, although there is an increasing level of interest in developing creativity within organizations, it is still tricky to analyze the consequences (Biehl-Missal and Berthoin Antal, 2011). Surely, there is an asymmetry in the thinking systems of the creative and business worlds. Business thinking expects rationality and clean economic logic using quantifiable measurements, and executives value stability and control. In contrast, design thinking assumes more or less messy, complex, real life. (Liedtka, 2010; Rylander, 2009). Concerning artistic processes, ambiguities and uncertainties are characteristics of these, and artists are said to be capable of experiencing and staying in doubts and mysteries, without irritably reaching for fact and reason. For art to “work”, its results cannot be pinned down in advance, claim Barry and Meisiek (2010).

This text is based on an empirical study of artistic interventions at a trade union UNIONEN with an interest in developing its efficiency as inspired by such discussions in the private sector. The intervention project, called AIRIS, was carried out between companies UNIONEN and TILLT, whose business idea is match-making between artists and companies regarding artistic interventions. In our study, we ask how design thinking and artistic interventions can facilitate organizing, managing, and understanding an organizational development project that has increased creativity as part of its goal. Further, how do we support a smooth start for an intervention project? In doing so, our aim is to increase theoretical and empirical understanding of creative interventions as strategic tools in organizational development for creativity and innovations. One of the researchers has a background in business administration and the ‘art and management’ field, and has also been the leader of the research project, while the other researcher is a designer; thus, the AIRIS project has also been part of collaboration between TILLT and the Business and Design Lab at the University of Gothenburg.

In what follows, we firstly present our theoretical framework; some notes on creativity and its relationship

with innovation are viewed and we state our position in that discussion. A review of design management and design thinking comes next, followed by a section on the arts and management and artistic interventions. The next section is about the methodological questions of this project. After that, interpretations and an analysis of the empirical results are presented. In “Final Words”, we conclude our insights and make a proposal regarding how management of the intervention process can be facilitated.

THEORETICAL INSPIRATION

Creativity and innovations

Creativity is difficult to define due to its multifaceted nature, claim Styhre and Sundgren (2005). They present four different streams of research on creativity, e.g. creative processes, creative people, creative products and creative environments. Creativity can be viewed as new ways in thinking – it generates associations and one dares to think that everything is possible; it also favours the constant flow of ideas, of which imagination is an important part (Englund, 2010). In the organizational literature, creativity is often conceptualized in terms of finding out something new, like ideas, products, processes, procedures and services (Amabile et al. 2004). Koivunen and Rehn (2009) point out that creativity was previously greatly connected with the fields of art and culture; but nowadays, the premise of theoretical reasoning must be that creativity exists in all areas and that every single person is a source of creativity, as also remarked on by de Fillippi et al. (2007) Gagliardi, (2006), and Strati (2007, 1999). Styhre and Sundgren (2005) state that, previously, the focus was on the individual perspective, noticing the romantic roots of views of creativity when it is understood as the great achievements of single individuals. However, later on, interest has instead focused on the contexts where creativity occurs. Accordingly, the dependence on the meaning of the creativity concept is a historical, cultural and social issue (Shalley and Gilson, 2004).

Often, creativity, as the *generation of new ideas*, is followed by discussions about **innovation**, understood as the *implementation* of creative ideas (Koivunen and Rehn, 2009). According to Wennes (2009), economic results are key to the innovation perspective. Innovation can be understood as a technological process aimed at bringing inventions to the marketplace (Johansson and Woodilla, 2009; Styhre and Sundgren, 2005). Innovations can also be social (Mulgan, 2007). However, in order to prevent the innovation discourse from collapsing into purely economic and technological

issues, Styhre (2013) reminds us of playfulness and squandering.

Ideas about how creativity can be manifested can be found in process thinking (Hernes and Maitlis, 2012). Chia and King (1998) argue that new situations and outcomes incorporate the events into their past, providing opportunities for something new to emerge, but that this also brings restrictions. According to process thinking, creativity and becoming are immanent in all living systems; instead of viewing social entities like organizations as things, they should be seen as processes of world-making (ibid.). Mary Parker Follet views creativity as a collective action needed in a dynamic society (Follet 1919, 1924). She uses a relational, interactive perspective; if something new is to emerge, this will happen when different kinds of encounters and conflicts occur within a community. Inspired by De Fillippi et al. (2007), we do not neglect the role of the individual in creative actions, but we do want to draw attention to creativity as both a relational and a context-influenced and context-influencing process. That view is, consequently, what guides the following discussion.

Design management, design thinking, design process

Design management can be seen as the management of design at companies, emphasizing its role in strategic and innovation work (Cooper et al. 2011). Adding value by means of corporate planning processes, using design, can be an individual activity or a management function, with the disciplinary boundaries for design ranging from engineering to fine art (Cooper and Press, 1995). Several opinions exist with differing epistemological positions as regards what design can be. It can be viewed as sensemaking (Krippendorff, 1989; Verganti, 2006). Simon (1996) talks about a framework of problem formulation followed by the finding of a solution, while Schön (1983) writes about reflection in action – both during and after the design process. When design management moves into more theoretical spheres of design, and expands its scope to include not only product development, production, distribution, sales or delivery, then *design thinking* becomes relevant as a concept.

Design thinking, buzzword or not (Johansson Sköldberg, Woodilla and Cetinkaya, 2013), can be seen as the abstracted form of practice-based design. It refers to applying a designer’s sensibility and methods to problem-solving (Dorst, 2011; Lockwood 2010; Rylander, 2009). At companies using design as a business strategy, both design and designers have moved beyond their roles as stylists

to catalyse innovation as a core competency (Sato, 2009). However, Kimbell (2009) argues that design thinking reduces design to an immaterial, intellectual problem-solving technique - design without the material practice. Tonkinwise (2011) is critical of design thinking, holding the opinion that it is “*design minus aesthetics*”, which can be illustrated by Brown’s (2008) statement that design thinking helps during the transformation of design away from the world of form and style towards that of function and structure.

One of the basics of design thinking is the application of a **design process** to a more strategic design management process; iterative, non-linear practices – some of the fundamentals of a design process – are utilized for business, product, or service development. Therefore, design thinking, with its process focus, is more closely related to the verb, the process of designing (Liedtka and Mintzberg, 2006). Ingredients of the design process include *the re-definition of the initial problem or brief* – being a part of the professional skill of a designer (Norman 2010). The next step is *‘the user of the intended product or service [being] in the centre’* approach (Norman and Verganti, 2014; Rylander 2009). During the *ideation phase*, design thinkers brainstorm using their gathered insights. Next, design thinkers use their developed ideas, making and testing without a clear goal but by *prototyping* new solutions arising from the four strengths of empathy, intuition, imagination and idealism. Neumaier (2009) says that, instead of “solving” problems, designers “work through” them. *Failure* is also a significant feature of design thinking (Brown 2009).

Summing up. According to the Design Management Institute (DMI, 2013), design thinking describes the use of design in management. Design thinking has several roots. Assuming both the more or less messy, complex, paradoxical situations and being purpose-oriented and using analytical logic it is argued to be more suitable to the vast and complex economic, social, and ecological problems of today than are traditional “scientific” approaches (Liedtka, 2010, 2013; Johansson Sköldberg and Woodilla, 2013; Rylander, 2009). Aesthetics, art, and cultural aspects, too, should be included in design thinking (Svengren & Johansson, 2008; Tonkinwise, 2011; Verganti 2006; Venkatesh et al. 2012). Consequently, design management can be understood as the organizational strategy of design whereas design thinking is used as theoretical reflection, and design tools might be the concrete methods used in a design process.

Arts management and artistic interventions

The last twenty years have seen an interest in art and management. On the one hand, this is how ideas in business administration can influence practical organizing procedures in art and culture, creating organizations that achieve better management (Evrard and Colbert 2000; Fitzgibbon and Kelly 1999; Stenström 2000; Taylor 2012). On the other hand, there has also been a growing interest in how the art and cultural worlds, as well as issues concerning aesthetics, can create an understanding of organizing and management/ leadership (Austin and Devin, 2003; Darsö, 2004; Gagliardi 2006; Guillet de Monthoux, 2004; Koivunen and Rehn, 2009; Linstead and Höpfl 2000; Ladkin and Taylor, 2010; artist in residence, www.resartis.org, 20110620; Soila-Wadman and Köping, 2009; Strati, 1999). Biehl-Missal and Berthoin Antal (2011) claim that companies often long for collaborations with the art world thanks to their “otherness”. Grzelec and Prata (2013) write that the general idea behind artistic interventions is that when the two contrasting logics (the logic of the artist and the logic of the organisation) clash, energy is released in the form of new ideas and a deeper understanding of what the organization is doing on an existential or meta level.

These interventions can range from the use of theatrical presentation workshops to developing employees’ confidence, sculpture sessions to stimulate curiosity and imagination, storytelling activities to encourage knowledge sharing and communication within and between work groups, photography sessions to encourage teambuilding, filmmaking to visualize a group’s development, choreographic training to improve specific parts of the workflow, and more (Biehl-Missal and Berthoin Antal, 2011).

Artistic methods can act as the “flavour of the month” or the “creative afternoon”, adding “something” new to managerial development activities, with little idea of what that “something” is (Biehl-Missal and Berthoin Antal, 2011). Even low-expectancy projects can have a high impact in the long-run if they manage to keep everyone engaged. Yet, the benefits are hard to predict and sometimes difficult to appreciate, from a management perspective. In order of such projects to be successful, the participants need to be open and to develop a high level of trust in the performing artist. First and foremost, artistic interventions – by the very nature of art – require freedom and trust (Biehl-Missal and Berthoin Antal, 2011). Berthoin Antal (2012) declares that art and artists stimulate us into seeing, hearing, and experiencing more of what is going on within us and around us. – That is where tacit knowledge (Polanyi 2009/1966) and

the soft skills (Levasseur, 2013) come to the surface. They are hard to evaluate in a world dominated by quantitative measurable results, dealing with emotions, feelings and intuition. For artists, these attributes are essential to their way of working, determining their decision-making processes (Darsö, 2004).

Exactly how the artistic intervention techniques can work has been discussed by Taylor and Ladkin (2009). These can exist on their own or in combinations: (1) Skills transfer: Arts-based methods can facilitate the development of artistic skills in a group. (2) The projective technique: Artistic endeavours allow participants to reveal inner thoughts and feelings that may not be accessible via more conventional modes. (3) The illustration of essence: Arts-based methods can enable participants to apprehend the “essence” of a concept in a specific situation. (4) The making: The very making of an art work can foster a deeper experience of personal presence and connection.

Darsö (2004: 135-146) presents a model inspired by Scharmer's Theory U¹⁾ on how arts may influence the participants into reflecting on their everyday view of the world, thus developing a deeper understanding of themselves and how they relate to the circumstances surrounding them. Hopefully, this deeper understanding will lead to action. The different phases are named thus; first, *downloading*, whereby the participants see the world in their own traditional way. Second, they move to the observational phase, to seeing, as if from outside; followed by the third phase, *sensing*, from inside, that is, opening up in your mind to the observed world; fourth, *presensing*, in the sense of allowing inner knowledge to emerge and developing a reflective mode; and then fifth, *crystallizing*, whereby a deeper understanding emerges of who they are and how they relate to the world around them. The sixth and seventh phases, *prototyping and embodying*, then conceptualize or materialize the obtained knowledge when guiding the further actions of individuals.

Summing up earlier research experiences from interventions. Berthoin Antal and Strauß (2013) examined 205 publications about the business and social impacts from arts interventions in organizations of different sizes and in diverse sectors of society. The majority of the cases report impacts in *activation* (positive experience, emotion, stimulation, energy), *seeing more and differently* (reflection, widened

perspectives, awareness of present conditions), *personal development* (discovery of self, personal growth, skills) and *collaborative ways of working* (working together quality, communication quality, communication quantity). Only a few publications noticed strategic and operational impacts (profitability, marketing, strategy, product development, product / service quality, efficiency, productivity, HR development).

METHODOLOGICAL QUESTIONS

Inspired by the ethnographic method, we have been able to follow the artistic intervention workshops held at the offices of Group Lindholmen. Techniques have included the participant observation of meetings and encounters at workshops, as well as semi-structured interviews of group members, the intervening artist, the process leader at TILLT, and officials at UNIONEN. Focus group conversation with the group was also conducted. The interviews were recorded and transcribed. The interventions were partly documented by means of videos and photos, which have been studied, along with other written documents, e.g. internal policy documents and information material for (potential) members. The research question focuses on the start phase of the AIRIS project and this empirical study concentrates on the first three months. The project continued to the end of 2013, with only one of the current researchers being present at the workshops, and focused mainly on the learning process.

In our analytical and interpretative work, we have been influenced by the writings of Alvesson and Sköldbberg (2009) concerning the reflexivity of that work. The text draws on relational constructionism (Gergen 1994; Hosking, 2011), emphasizing the interactive nature of our sensemaking as an ongoing process whereby we humans structure and stabilize the moving social reality (Hernes and Maitlis, 2012; Chia and King, 1998). Our own role as researchers may be influenced by the fact that we have a positive view of artistic interventions; however, we have tried to address that through being inspired by reflective ethnography (Kostera 2007; Law 2004), where openness to the studied field expects several dimensions to be acknowledged. We also want to emphasize the role of aesthetics in knowledge creation, meaning that it is not only a chronological, linear, and rational process, but also one that is based on our senses, emotions, and imaginations (Linstead and Höpfl, 2000; Strati, 2007, 1999; Taylor and Hansen, 2005; Welsch, 1997). Aesthetic reflexivity could be described as knowledge creation “through [the] appropriation and transformation

¹⁾ C. Otto Scharmer (2004, 2009) *Theory U: Leading and Learning from the Future As It Emerges*. San Francisco: Berret-Koehler Publishers.

of the sensory and emotional characteristics of our experiences” (Sutherland 2012:1-19).

EMPIRICAL FINDINGS AND ANALYSIS

The organization in our ethnographic study is the Swedish trade union UNIONEN. According to the Institute for Advanced Labour Studies, at the University of Amsterdam (Visser, 2010), trade union membership numbers fell from a peak of 86% in 1995 to 71 % in 2010. In order to address the uncertain development of membership numbers, the board of UNIONEN decided on a strategy aimed at developing new and creative working methods to counteract the situation. As a pilot project, a company TILLT was asked to organize creative workshops for a newly-established core group consisting of eight employees, “Group Lindholmen”. Some of these had previously worked for the organization, holding different positions, and some were new. TILLT’s business concept rests on match-making between artists and companies, followed by artistic interventions. The intervention project is called “AIRIS”. According to the AIRIS plan, a professional artist – on a freelance basis – will lead creative workshops at Group Lindholmen once a week for at least one year, accompanied by a process leader employed by TILLT.

The main purpose of the AIRIS project can be read in the contract entered into between UNIONEN and TILLT. It was drawn up by the board of UNIONEN. The aim was to attract 8,000 new members within two years. Group Lindholmen was to be supported by the main organization, and it was hoped that the lessons learnt could be conveyed to the national level of UNIONEN. Consequently, in addition to increasing membership numbers, one of the goals was Group Lindholmen wanting to learn about creativity and innovation. By means of increased creativity, they eventually wanted to find new and innovative working methods, as well as ways of improving the image of UNIONEN, thus making it more attractive to its target group - employees of private sector companies.

The artistic workshops lasted for three hours every Monday afternoon during 2013, with a break during the summer months. Three workshops held during the first part of the project are selected in the following text, on the one hand to illustrate the creative approaches and techniques and, on the other, to present our reflections on the start of the project, the kick-on workshop, the designer workshop, and the action plan formulation with a following focus group interview.

Observations from the intervention process

Kick-on – art and emotions, fun, trust: In February 2013, TILLT’s artist - who was steering the AIRIS process - started her first “getting-to-know-you” workshop with Group Lindholmen. After a short introduction of AIRIS, this artist presented her previous photographic work and art projects, e.g. photos featuring memories of a problematic relationship between a mother and her child. Afterwards the members were asked to cut out six images from magazines to represent their *personalities* and to glue them on to a plastic cube. During the reflection phase, the participants were supposed to talk about their cubes. The team mostly chose images representing hobbies and interests, rather than personalities.

In the afternoon, everybody went to a nearby photo studio. They were divided into two teams and each team was asked to come up with ideas regarding how to physically *visualise* “strength” and “togetherness”, via the medium of photography, for the other team. The photo-shoot – very physical in nature – led to a lot of involvement, laughter, and collaboration between the participants. The groups seemed to have fun and learned that ideas can also emerge along the way, not needing to be determined solely at the beginning of a process.

When we, the researchers, were discussing our interpretations after the workshop, we wondered whether the task of talking about the cubes would have had a different outcome if the team had known each other better and been more confident as regards sharing personal things. Proof of the important emotional aspect of artistic interventions can be found in the following statement by a participant: *“I liked the fact that the artist presented her work. This touched me somehow and is certainly something I’ll remember”.*

The designer workshop – for clarification of the creative process:

The designer workshop was organized by the designer - researcher and a design student because the team had become stuck in the fuzziness of the creative process in the workshops which followed the kick-on. During the earlier workshops, the group members were constantly asking for clarification, e.g. what was going on, why they were supposed to do some of the tasks, what the goal of the workshop was, and what the benefits and results of the workshops were.

The assignments during the designer workshop were; first, an icebreaking game using sound and a ball. Second, everyone told the story of their lives. The third task was a brainstorming session to generate pictures of different tools and tasks on a post-it note; in practice, this was drawing a

tool, like a hammer, and then finding and illustrating a task, e.g. swimming. Then they combined both the pictures and told a story based on these. The participants were also given homework, i.e. testing some of the other tools and tasks and delivering reflections on these the following week.

The assignments were meant to be clear but open enough to trigger the free flow of ideas. This proved difficult. However, as soon as it was explained that ideas could be quite random and playful, the participants started to reflect on the premise that the outcome was actually not as important as the creative process itself, and have fun. Presentation of the homework results the following week brought first good revelations.

The action plan workshop and the following focus group discussion – a lot of frictions and discontent: Although the team had started to loosen up a bit the first action plan workshop immediately raised an emotional discussion on what an action plan was, what it should lead to. It proved to be tricky to make a clear distinction between “the AIRIS action plan” and “the UNIONEN action plan”, which the group had received from the head office, setting out the business-related focal points.. Later, a control question from the Group Lindholmen project leader about the meaning of the brainstorming session was raised; whether the generated ideas should be linked to concrete and practically applicable proposals regarding how to recruit potential members (one of the core goals of the project), or to focus on things “that seem fun to do”? This demonstrated the ongoing confusion concerning the AIRIS project vis-à-vis UNIONEN’s business strategy. A statement underlines this notion: “*I don’t understand the structure of the AIRIS project. I need structure and an overall project plan.*”

Consequently, at the action plan workshop, very concrete actions and events were presented which were not necessarily really connected with the AIRIS project. In the following focus group interview, the group members quite strongly vented their frustrations concerning the project and the process.

Analysis

In order for creativity to emerge, the dependence on the context, wherein the AIRIS project works, must be acknowledged (Berthoin Antal and Strauss, 2014; Chia and King, 1998; Shalley and Gilson, 2004). The importance of increased creativity at the main organization was well noticed, and also accepted in the organizational rhetoric on several hierarchical levels. However, in formal positions at

UNIONEN, there were people who had a sceptical attitude towards the AIRIS project; Group Lindholmen felt that they had to continuously justify both themselves and the creative project. During the weekly workshops, some resistance was also noticed among the group members.

A few key observations became apparent:

A new team - problems with trust: Since Group Lindholmen was a new team, people were rarely acquainted with each other; they were preoccupied with their practical work issues and felt the need to prove themselves. This made it hard for the artist to create trust in her work, which is an important issue according to Biehl Missal and Berthoin Antal (2011). Trust is needed when ‘projective techniques’ (Taylor and Ladkin, 2009) are used with the aim of having the courage to reveal one’s inner thoughts and feelings at workshops.

From structures to openness: Engaging in an open and creative process seemed challenging to the participants. They were new to this way of working. Several researchers write about the need for an open attitude during a creative process. Darsö (2004) talks about ‘*downloading*’, meaning moving away from one’s ordinary view of the world towards ‘*seeing*’ in the sense of being observational as regards both one’s surroundings and oneself. This learning process eventually started to happen in the group, but also met with resistance. The participants had been used to well-organized and structured working routines. From the very beginning, they (including the project leader) had requested rules, set goals, to-do lists, tasks, and frameworks from the artist. This was hard to provide due to the nature of artistic intervention, which rests upon *co-creational approaches*, as Mary Parker Follet (1919, 1924) also notes as a prerequisite for creativity to emerge.

Differing expectations: Group Lindholmen had differing expectations and viewpoints regarding what an artistic intervention and working process is, compared to the artist involved. Taylor and Ladkin (2009) call one aspect of an intervention process ‘*skills transfer*’, entailing the possibility for the participants to learn what it is like working with artistic skills. However, as contrasting interpretations of goals and deliverables appeared, it was difficult for team members to concentrate on the creative work being done in the workshops. As one group member stated: “*I need to mentally prioritise my customer visits – then comes creativity.*” The artist also points out this struggle: “*We’d achieve things much faster if they trusted me (the artist) and*

didn't think about numbers and goals all the time."

Was the set goal, of achieving 8,000 new members, really a goal that could be achieved through AIRIS? These and other discrepancies often dealt with mismatching notions about understanding the creative process, time issues, questions about documentation, work efficiency, credibility, measuring and visualizing creativity, the pressure of performing, and justifying the financial investment in this project. As Biehl-Missal and Berthoin Antal (2011) argue, artists accept the uncertainty of the process and can hardly make promises regarding what the result of their work is going to be. Therefore, having clear, corporate, and measurable goals might be counterproductive to the project.

Acknowledgements: 'Crystallization' is Darsö's (2004) term for participant development during the intervention phase after 'seeing'. The term is used to describe a deeper understanding of the process leading to changed actions, called 'prototyping' and 'embodying' (prototyping – parallel to that used in design theory, referring to something which becomes materialized, or embodied as a changed behaviour). Our interpretation is that, when achieving changed behaviour, positive affirmations appear to be important. The participants in the group seemed to need to feel that they were achieving something that concerned their everyday work; that they were *efficient* in one way or another at the end of the day. This helped them to feel good about their work and stay motivated. It was important for the participants to see the results of each effort.

It might be learnt from our observations that an artist and a designer can use rather similar tools and techniques when it comes to practice-based methods. Compared with the study of Berthoin Antal & Strauss (2013), regarding artistic interventions, our case seems to focus on the same kinds of aspects, e.g. positive experiences, emotion, stimulation, energy, widening perspectives, and personal and collaborative ways of working. However, *there is a difference in this case in the sense that strategic development, product/service quality, efficiency and HR development impacts have all been raised as important issues by Group Lindholmen*. The question is, nevertheless, whether or not concrete organizational task development is something the artist should be engaged in, or whether it is a matter for the group to work with these organizational issues themselves, albeit with a widened and renewed perspective stimulated by the artist both during and after the intervention process.

The process calmed down eventually. Several extra meetings were organized after the action plan workshops

with the purpose of solving the situation, extra resources from TILLT were involved for clarifying discussions about goals and the artist introduced a reflexion circle to be held at the end of each workshop where everyone could tell about her/his experiences, thoughts and feelings. When looking at the AIRIS project as a whole, and not simply focusing on the complicated aspects, the following expectations, as expressed by a Group Lindholmen member, have also been acknowledged: *"We want AIRIS to be undemanding and to lead to openness, creativity and joy, in order to subsequently implement new ideas and approaches regarding day-to-day work. We want to jointly create positive energy and find the time to try new things and dare to fail."*

FINAL WORDS

The purpose of this study has been to put forward an increased empirical and theoretical understanding of creative interventions at companies and organizations.

As regards artistic and design *processes*, there are similarities; both thoroughly try to identify problems and, by relying on iterative and emergent processes, find alternative and new ways of dealing with them using imaginative approaches, and by means of utilizing different creative perspectives. In theory, both design thinking and artistic interventions are based on the notion of paving the way for seeing the world differently. However, regarding the artist's or the design thinker's mindset, differences may be noted. We can see differences between art and design when looking at their application during an intervention process. As one difference, the purpose-oriented and more analytical logic of design thinking should be noticed. Artistic interventions – being more intuitive and emotional – are practice-based methods that may have long-term personal, cultural, and organizational impacts and the outcomes will be seen eventually. In the context of our designer workshop, we can speak of design-as-practice. Design practice, in that sense, is different to design thinking, which focuses on theoretical elaborations, as mentioned by several researchers. Consequently, design thinking describes how a designer's mindset can be used *strategically*.

The constant talk within Group Lindholmen about the business and organizational goals of UNIONEN, and the resistance we experienced within the group concerning the AIRIS process, made a strong impression on us. It made us reflect on the difference between business thinking and creative approaches. Surely, during artistic interventions the situation at the workplace was *paradoxical*. On the one hand, the artistic process was messy and emotional

and demanded courage in order to experience and remain within the feeling of uncertainty, while, on the other hand, the participants were expected to do one's job following the logical and rational requirements according to business thinking. Consequently, we propose that, in order to facilitate Group Lindholmen's acceptance of the artistic process, and thereby supporting the learning of creativity, the notion of design thinking could have been used to *explain* the aim of the AIRIS project, as well as how it was designed, structured and planned to be managed. Knowledge of design processes, conceptualised in design thinking writings, can help us to communicate what is going on during an artistic intervention process, thus narrowing the gap between various understandings. However, we believe that a certain amount of friction and conflict will be both necessary and desirable during the creative process in order for something new to be able to emerge.

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DESIGN STRATEGY: TOWARDS A POST- RATIONAL, PRACTICE- BASED PERSPECTIVE

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ABSTRACT

This paper critically reflects on the concept of design strategy as deployed in design management literature. It starts by describing current discourses in the wider field of strategy research and then discusses how, by conforming to orthodox theories in strategic management, design management literature has tended to overlook alternative streams of strategy research. In many instances, studies in design strategy adopt taken-for-granted assumptions from *rational planning approaches*, and analyses of firm performance tend to take precedence over actors and their actions. Thus, it highlights the need for new lines of inquiry grounded in practice, letting go of the economic rationality and theoretical abstractions that have permeated mainstream strategy research. Hence, for future studies, it suggests a post-rational, practice-based perspective to advance our understanding of strategy as it relates to design management.

INTRODUCTION

Over the last decade, design has been capturing the attention of many scholars in the broad field of management and organization studies (Rylander, 2009; Stigliani and Ravasi, 2012). This thrust of interest in design is obviously coupled with the rise of the ‘design thinking’ discourse throughout the second half of the 2000’s, which emerged as “an approach meant to harness the creativity of the designer within the context of business” (Collins, 2013, p. 36). As pointed out by Rylander (2009), the rise of this discourse concurs with other trends in management oriented towards innovation. Without a doubt the hype created by ‘design thinking’ stretched the scope of the design management field, raising design awareness at large.

However, design management as a field of research is still in emergence seeking to establish itself in its own right. In the late 80’s, the launch of the *Design Management Review* and the *Design Management Journal*, the periodical publications from the Design Management Institute, prompted more systematic discussions and research to understand the business and organizational side of design. The former uses the *Harvard Business Review* as a role model while the latter follows a scholarly direction. These publications have served as a vehicle for discussion in the development of the field, but for the most part, have remained quite focused on case studies (Kim and Chung, 2007), and not so much on theory development.

As an emerging field, design management has tended to ‘borrow’ theory and concepts from management studies to

apply them in design contexts (Erichsen and Christensen, 2013). These adaptations result in the acceptance of taken-for-granted assumptions that remain unquestioned or even plainly ignored, such is the case of existing research connecting design and strategy. From the outset, design management research has been more acquainted with the design research community than with the management research community (Erichsen and Christensen, 2013), which has caused a certain degree of naïveté in its approach to management theory. In the quest for a wider audience and relevance in practitioner settings, much of the design management literature has embraced well-established and orthodox theories in strategic management, referring to only a few prominent authors in the field—e.g. Michael E. Porter, Jay B. Barney—but overlooking contrasting schools of thought, and lacking a critical perspective. While some studies have used design as a metaphor for strategy-making, borrowing concepts from design theory (Liedtka, 2000; Heracleous and Jacobs, 2008; Hatchuel, et al. 2010), the actual practices of strategy-making in a design management context have seldom been studied in their discursive and material dimensions that transcend the economic rationality and managerialism that have permeated mainstream strategy discourses. Hence, the purpose of this paper is to contribute to the development of critical discussions connecting strategy research and design management studies, in order to challenge the deployment of orthodox notions of strategy in design management.

WHY DESIGN STRATEGY NOW?

On the most basic level strategy is defined as a plan of action designed to achieve a long-term or overall aim (Oxford Dictionary). Etymologically, it derives from the Greek word *strategos* which means ‘generalship’ or ‘commandership’, which in turn is composed by *stratos* (army) and *agein* (to lead). As Carter *et al.* (2009) note, strategy is essentially “a post-Second World War, largely US invention, with undoubted roots in military thinking” (p. 2).

Today, strategy is undoubtedly one of the most influential fields in management. Carter (2013) even calls it “the master concept of contemporary times” (p. 1047). One does not have to be a business-savvy person to recognize its importance. Indeed, strategy provided new language and practices through which organizations understand and organize (Carter, 2013). It exerts a determining influence over the practice of organizing and the study of organizations that impacts all corporate functions, including design.

These days there is a widespread recognition that

design is relevant for business. The integration of design approaches for innovation purposes in organizations is now commonplace. To talk about the strategic importance of design has arguably become a truism. Kim and Chung (2007) highlight the shift in roles from design as a function in product development, towards design as a strategic asset for firms. As they note, there is a “tendency to emphasize the importance of strategy in design management as a way of improving design’s contributions” (Kim and Chung, 2007, p. 45). In the last decade, product-centered discourses have come to be replaced by strategy-centered discourses mainly focused on innovation.

This elevation of design in the eyes of the wider public has prompted questions about the strategic value of design, which is why discussions connecting design and strategy have become so prominent. Despite this overhaul in reputation, there is not a consistent understanding of ‘design strategy’ in the literature (Äijälä and Karjalainen, 2012). In some cases ‘design strategy’ refers to the long-term planning of brand and product development of a company, in other cases it refers to the set of decisions leading to the physical or functional attributes of a new product or new line of products, in other cases it refers to creative methods for strategy formulation, and still in other cases it refers to an overall design vision or a design style. In practice, the marriage between strategy and design is unfolding in different manners and under different labels such as ‘design strategy’, ‘strategic design’, or even ‘design thinking’. As mentioned before, this advancement in the strategic standing of design and the expansion of its scope of work has been tied to the debated rise of ‘design thinking’, in conjunction with the growing influence of international design consultancies —e.g. IDEO, frog, Continuum—, which have stepped into the realm of strategy consulting, adopting more creative roles in the formulation of strategy for corporate clients, including ‘strategy visualizers’, ‘core competency prospectors’ (Seidel, 2000), and incorporating user knowledge and design research methods to enhance strategic decision-making (Chhatpar, 2007). The aim of this paper is not to present a comprehensive review of approaches to the definition of design strategy in the literature, but to problematize how the term is often deployed, so as to propose new lines of inquiry rooted upon alternative conceptualizations of strategy. In order to achieve this, a rough overview of four streams of strategy research is now presented.

FOUR STREAMS OF STRATEGY RESEARCH

As pointed out before, research in the discipline of strategy is in a rather mature stage. It is also witnessing the emergence of new approaches that both, confront and build upon, previous studies. Thus, an overview of the basic concepts underpinning each one of these streams is now presented (see Figure 1).

Rational Planning Approach

Historically, two leading proponents of business strategy research —today considered the founding fathers of strategic management— emerged in Cold War North America of the 1960’s: Alfred D. Chandler and Igor H. Ansoff. Economics provided ready-made frameworks to this new emerging field of strategy which found legitimacy this way in a context of prevailing “modernist scientism” (Whittington, 2004, p. 64). Strategic management grew alongside management consultancies fostering the development of superior tools and methods for formulating better strategies for corporate clients (Mathiesen, 2013). Ansoff’s analytics were further developed by Porter in the 1980’s with the introduction of new concepts and models such as “competitive advantage”, “value chain”, “five forces analysis” (Porter, 1980; Porter, 1985). In this discourse, strategy is conceptualized as a rational and logical planning endeavor performed by top management and commonly known as ‘strategic planning’. I will refer to this as the *rational planning approach* —also referred to as *the design school*, *the positioning school* or *the industrial organization view of strategy*—, which represents the still dominant and more traditional school of strategic management. According to this view, a company has competitive advantage when it is implementing a value-creating strategy to acquire and develop competencies and resources that cannot be easily emulated by other competitors in order to outperform them, emphasizing firm performance (Porter, 1980). In this understanding, strategy is about consolidating actions to create or maintain a defensible position in an industry. The unit of analysis is referred to as “the firm” and the typical level of analysis is “the industry”.

Despite its widespread influence, this approach has been severely criticized. In the 1990’s, a certain unconformity with traditional models started to emerge, basically claiming that there was a lack of practical relevance (Campbell and Alexander, 1997). This model of strategy formulation assumes that managers, through careful planning, are able to identify sources of competitive advantage and direct their business accordingly (Alvesson and Willmott, 1995).

A managerialist stance that assumes that top managers at the corporate headquarters have all the information they need to make the best decisions. According to Ezzamel and Willmott (2004), rational planning is “governed by a normative compulsion to prescribe” (p. 45), in a relentless attempt to dictate how strategy *should* be. Strategy takes place in striking isolation, since scholars in this stream pay little attention to the influence of the institutional context in all strategic decision-making. Despite this criticism, Michael Porter is still considered the leading authority in business strategy and the rational planning approach is still at the core of MBA courses on strategy (Mathiesen, 2013).

Resource-based Approach

The resource-based view (RBV) of the firm has become a strong discourse in strategic management. This stream of strategy research developed as a complement to the rational planning approach, also based upon economic frameworks. However, the focus is diverted from the industry level of analysis upheld by rational planning approaches, in which the bases for firm performance are outside the firm, towards firm-level resources and capabilities that generate competitive advantage, explicitly looking at internal sources and assessing why firms in the same industry might differ in performance (Jarzabkowski, 2008; Kraaijenbrink et al., 2010). Thus, its key proposition is that if a firm is to attain a sustainable competitive advantage, it must acquire and control valuable, rare, inimitable, and non-substitutable resources and capabilities, in addition to fostering a state in which the organization can absorb and apply them (Barney, 1991). Resources are all assets, capabilities, organizational processes, information, knowledge controlled by a firm, as Barney (1991) argues.

The key proposition of RBV is shared by several related analyses (see Kraaijenbrink et al., 2010): core competences, dynamic capabilities, and the knowledge-based view. For instance, dynamic capability theory emerges as an improved development within RBV accounting for a more dynamic view of resources and capabilities within the firm.

The RBV theory has made an important contribution by expanding the conceptual lens of traditional strategic management. However, it has also been heavily criticized. It has been argued that valuable, rare, inimitable, and non-substitutable resources—a key element in the theory proposed by Barney (1991)—are neither necessary nor sufficient for sustainable competitive advantage, plus the concepts of ‘value’ and ‘resource’ have been reckoned as too indeterminate to constitute useful theory (Kraaijenbrink et

al., 2010). On another front, this view has been criticized for its conceptual and methodological limitations still bounded to economic rationality, since it fails to deliver a coherent account of strategy-making, namely how capabilities are developed and modified over time (Jarzabkowski, 2008). It could be argued that the rational planning and the resource-based approach still suffer from ‘physics envy’ (Carter, 2013).

Process Approach

Henry Mintzberg is perhaps considered the most emblematic figure in the *process approach*, also known as *the emergent school* or *the action school*. Basically, he argues that strategic planning is an unrealistic enterprise, and critiques the idea that strategy can be created in a formal process (Mintzberg, 1992). In his view, strategy is emergent rather than intended, and it arises as a series of incremental decisions that form recognizable patterns after some time (Mintzberg, 2007). As a result, strategy can only be studied retrospectively. For Mintzberg (1992; 1994), it makes no sense creating a division between formulation and implementation, as he conceives strategy-making as a process whereby ideas “bubble up” from the bottom to the top of the organization. Middle-managers play a crucial role as they are the ones who often come up and act upon these ideas to make them work in the organization. Thus, from this view, strategy is “a negotiated outcome of competing values and conflicts of interest” (Ezzamel and Willmott, 2004, p. 44).

The process approach in its different branches set forth by Mintzberg, Bower-Burgelman, Pettigrew, and others, breaks with the assumption that strategy is a top-down endeavor. It also introduces a dynamic view of strategy as a process in which the role of the strategist is problematized, and provides a humanizing perspective to strategy research (Jarzabkowski, 2008), one that takes into account the messy, political and sometimes irrational nature of organizations. This approach clearly resonates with the neo-institutionalist perspectives in organization studies, and provides more tools to investigate the human dimensions of the organization that were somehow lost in the economic theories of the rational planning approach. The approach here is post-rational as the focus is on how strategy actually unfolds in organizations (Pettigrew, 2007) as opposed to the rational planning approach whose focus lies on prescription and the definition of an ideal state of the firm.

Although this stream of research unveils interesting counterpoints to the rational planning approach, it has also been subjected to criticism. For instance, Mintzberg’s work has been criticized for focusing only on grass roots strategies

that emerge within the organization, negating agency in strategy-making, and centering the attention on the messy emergence of strategy that overlooks the relationship between formal intent and emergence (Jarzabkowski, 2008).

Strategy-as-practice Approach

As a an emerging movement in strategy research, strategy-as-practice (SAP) re-conceptualizes strategy as something that people *do* in organizations rather than something organizations *have* (Johnson *et al.*, 2007), with a “focus upon the way that actors interact with the social and physical features of context in the everyday activities that constitute practice” (Jarzabkowski, 2004, p. 529). In this sense, strategy is considered not only as an attribute of firms but also as an activity undertaken by people (Johnson *et al.*, 2003). The focus is not on firm performance—contrasting with other approaches—but on ‘strategizing’, in an attempt to uncover what it is exactly that practitioners do when they do strategy (Whittington, 2004). In mainstream strategy research, strategies are theorized as somehow disembodied, but SAP places human and socio-material interaction at the core,

for “if sustainable advantage can be achieved and sustained it is likely this is because such advantage is lodged in the interactive behaviours of people in organizations” (Johnson *et al.*, 2007, p. 8). Proponents of this current describe it as a “concern with what people do in relation to strategy and how this is influenced by and influences their organizational and institutional context” (Johnson *et al.*, 2007, p. 7).

Some of the criticism against this approach points to the fact that SAP draws from a number of varied theoretical inspirations leading to vagueness, which impedes the emergence of a proper school of thought (Mathiesen, 2013). It has also been criticized for the adoption of unclear and contradictory definitions of the concept of practice (Carter *et al.*, 2008). Also, it is still a matter of debate whether SAP is only a re-branding of the process approach, as both are post-rational analyses and rely upon sociological perspectives to understand strategy-making. Furthermore, it has been suggested that SAP is managerialist and conservative in its understanding of strategy, failing to engage critically with it (Carter, 2013).

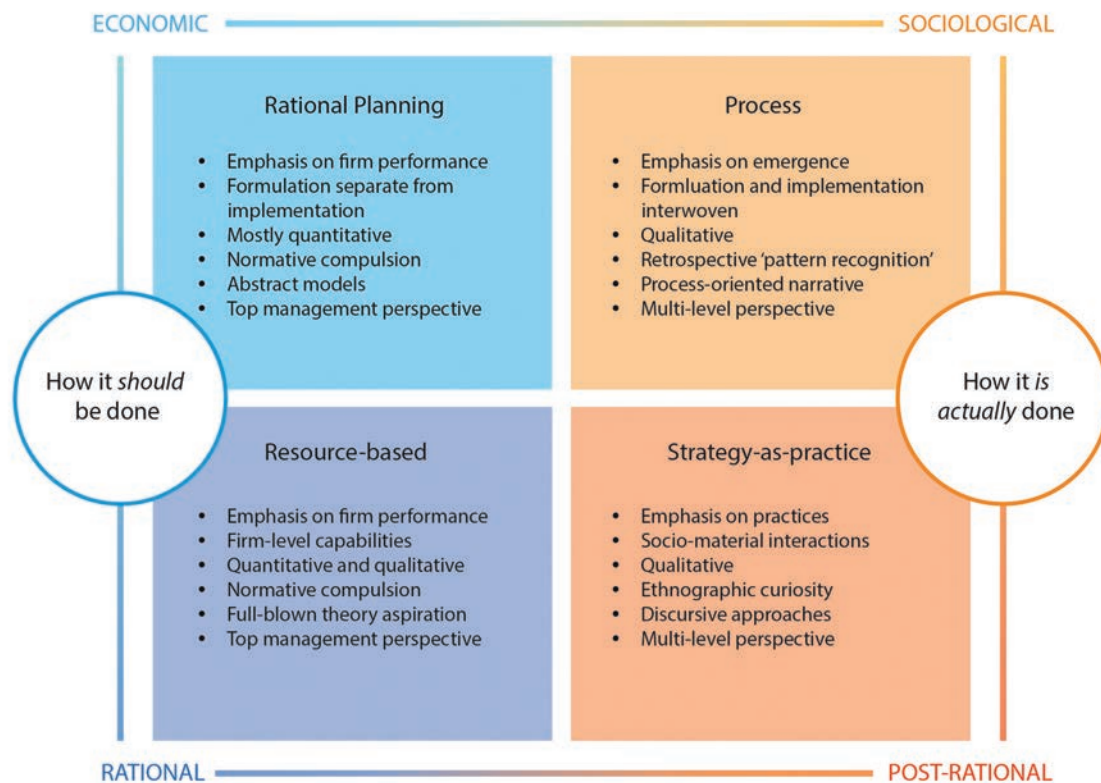


Fig. 1. Four streams of strategy research

ASSESSING DESIGN STRATEGY DISCOURSES

As Erichsen and Christensen (2013) point out, there are two visible trends in design management research, which are attributed to different generations of researchers: (1) infusing management approaches in design contexts, and (2) infusing design approaches (i.e. design thinking) in management contexts. This partition has led to different deployments of the connection between design and strategy. The notion of design itself can be treated in different ways in its relation to strategy. Sometimes design is narrowly treated as a practice of shaping material objects, some other times it is about a set of creative methods that can be applied to solve business problems, and some other times it is broadly conceptualized as a way of thinking or an attitude (for a review on ‘design thinking’, see Johansson Sköldberg *et al.*, 2013). Stevens and Moultrie (2011) make a distinction between ‘design strategy’ and ‘strategic design’. While the former refers to a long-term plan for implementing design at a product level, the latter refers to the successful exploitation of design throughout the firm. This semantic distinction is useful in the development of their argument but the two concepts are interchangeable at times in design management literature.

Infusing management approaches in design contexts

The first generation of design management researchers tend to present a picture of design as a key organizational resource that brings about many benefits for the firm, namely differentiation, brand recognition, development of successful and profitable products, development of a creative culture, creation of new markets —just to name a few—, and ultimately, superior performance and sustainable competitive advantage. For instance, Cooper *et al.* (1998) rely on a rational planning approach to strategy, characterizing design as yet another —somewhat overlooked— resource for the firm to attain sustainable competitive advantage and affirm its position within the competitive landscape. This view assumes that clever design strategies lead to good design, translated into graphics, products, and environments in an organization, which, in turn, boosts firm performance. The sequential logic of this proposition denotes quite an orthodox view of strategy that fails to acknowledge the influence of institutional forces in shaping decisions. Approaching design from such a narrow perspective is not helpful, because it reduces design to rational economic frames, and submits it to performance standards that are not well-suited to the nature of the design project, which is based upon another epistemology. However, it is important to point out that, back in the 1990’s, design was seldom

addressed as a strategic issue for companies, so it does not come as a surprise that design management scholars were using business speech and popular management concepts to appeal to a wider audience of management practitioners and academics, building the case for design in business. Thirteen years after the aforementioned publication, looking in retrospective at the development of the field of design management, Cooper and Junginger (2011) affirm that:

“One of the ways in which it has tried to remain relevant is by picking up emergent themes of the day. This has allowed design management to capture the imagination of business leaders for a moment but it has also meant that it neglected its own research into design and almost abandoned its roots. A lot of energy was spent on fitting design into the management paradigms and with aligning design processes with those that were established and accepted in management.” (p. 18)

For instance, drawing from the rational planning approach, Mallick (2000) uses contingency theory and the notion of strategic fit in product design. Borja de Mozota (2002) uses the value chain concept in connection with design management, to look at competitive advantages through design. Grzechnowska and Mostowicz (2004) discuss how design can improve competitiveness and profitability. Jun (2008) discusses how design strategy can be defined as strategic planning for markets. Also, Borja de Mozota (2006) uses the balance scorecard model in her analysis of the four powers of design. Indeed, the case for *good design leads to better performance* is a common trait in most of these studies. However, this single-minded conceptualization overlooks many social aspects and institutional elements that influence the practice of design in the organizational context.

Also, many studies incorporate notions belonging to the RBV approach to strategy. For instance, Jevnaker (2000) and Rosensweig (2011) take up the concept of dynamic capabilities to explain how design resources can be leveraged more effectively. Borja de Mozota and Kim (2009) argue that, in order to attain competitive advantage through design, firms need to consider design as a core competency as opposed to strategic fit. Undoubtedly, the focus on internal aspects is a step forward in the study of design strategy, but the discourse is still centered on firm performance, whereas actors and situated practices that build these so-called “design capabilities” are out of sight. The RBV framework is not fully equipped to unpack the notion of capabilities in a

theoretical explanation as it remains trapped in disembodied notions of strategy.

Most studies that draw from the rational planning approach, conceptualize design as a function in product development, and focus on controlling and managing design for competitive advantage in an output-focused discourse. In contrast, most studies that draw from the RBV approach, conceptualize design as a resource or core competency, and focus on the management and development of internal design capabilities for competitive advantage. Whereas for the former, the link between design and strategy could be described as *using design (as a function) as part of a firm's strategy*, for the latter it could be described as *building design (as an internal capability) as part of a firm's strategy*. While understandable, the use of popular strategic management concepts is counterproductive because it locks design into positivistic descriptions (Johansson-Sköldberg *et al.*, 2013). The conceptualization of design as a resource for the firm, in the rational planning approach and the RBV vein, detaches design from practice and transforms it into another organizational process to hone and exploit, disregarding lived experience, actors and their actions. Indeed, analyses of firm performance tend to take precedence over actors and their actions.

Infusing design approaches in management contexts

The emergence of design thinking as a discourse in design management has highlighted the designer's skill and way of thinking as potential enablers to address managerial and strategic problems in a more creative way. Within this discourse, there is a clear aspiration of revitalizing the management field through the use of design approaches (Rylander, 2009). It is undeniable that this has prompted important—and still on-going—conversations about the role of design in organizations, making it a hot topic in the business agenda. However, there are some aspects that are problematic in the 'next-big-thing' thrill that followed the rise of 'design thinking'. The buzz in practitioner-oriented literature demystified, at the risk of oversimplification, the practice of design to management audiences, making it more graspable. Indeed, a large part of this literature embraces process and/or method oriented discourses that can only go so far, since they overlook tacit dimensions of knowledge in the practice of designing.

Many studies in this vein revolve around the idea of integrating design methods and/or designers in strategy development. For instance, Sanchez (2006) suggests that designers have skills and methods that can complement

more traditional market and industry analyses, namely, deep user knowledge and visualization skills. In the same line of thought, Chhatpar (2007) argues that the iterative, user-centric methodologies of design can supplement the rigor of traditional analytical approaches to allow for more-accurate and flexible evaluation of strategic options. In this perspective, design is conceptualized as a set of creative human-centered methods that should support strategy-making activities. Studies adopting this angle advocate for design to have an active role in strategic management. Thus, design methods are viewed as complementary tools in the development of strategy, becoming some sort of 'add-on' to existing strategic management processes. Hence, in this method-focused conceptualization, the link between design and strategy could be described as *using design (as a creative methodology) to facilitate a firm's strategy-making process*. Although this perspective embodies an alternative to traditional strategic thinking, and represents a new way of connecting design and strategy, the risk of conceptualizing design as a set of creative problem-solving methods, is that the actual *experience of designing* is abstracted away, potentially overshadowing other valuable perspectives of the design practice (Jahnke, 2012). Other studies in this vein focus on the way designers think in terms of general principles, using design as a metaphor for strategy-making and arguing that strategists should think like designers. This type of work resonates with the *Managing as Designing* movement (Boland & Collopy, 2004) and also Martin (2009) who suggest that managers should use design thinking as a way to approach indeterminate organizational problems. Hence, in this conceptualization, the link between design and strategy could be described as *using design (as a way of thinking that managers should learn) to facilitate a firm's strategy-making process*.

If our understanding of the connection between design and strategy is to improve, the discussion needs to go beyond the instrumental deployment of design as an approach for strategists to think more creatively. Future studies need to engage with the politics of organizational life and *experienced* design practice. Indeed, abstract explanations that obscure the messiness of context—e.g. power and politics, institutional arrangements, identity, materiality—still prevail. Studies seeking to infuse design approaches in management contexts are seldom critical of orthodox strategic management, and are rather advocating for design integration.

Perhaps in the more systematic attempt to align design and strategy perspectives to date, Stevens and Moultrie

(2011) set out to build a framework to identify design's strategic contributions. They go about it by importing four foci from research in strategic management: (1) competitive forces, (2) strategic fit and value creation, (3) resources and capabilities, (4) strategic vision. These broad categories serve as placements of contributions in a dialogue between strategic management and design management literature. However, their attempt at characterizing design's strategic contributions is mostly limited to rational planning and RBV approaches. Mintzberg (1994) is also referenced in the 'strategic vision' category, a concept that he proposes in an effort to challenge the idea of 'strategic planning' prevalent in traditional approaches. Interestingly, SAP perspectives remain largely ignored in Stevens' and Moultrie's (2011) analysis. This constitutes a potentially fertile avenue for future research. Introducing design's contribution by adopting orthodox perspectives might be important to reach audiences, but as Johansson and Woodilla (2011) assert:

“we believe it is just as important – and even required from a Scandinavian perspective- for a research area to encompass different paradigms so that the range of underlying assumptions becomes broader and deeper. In particular, a research area that does not include critical and reflexive research is in danger of being too shallow.” (p. 472)

CONCLUSION

As previously mentioned, mainstream assumptions in strategic management are still tied up to the notion of rational planning and the resource-based view of the firm, evidencing how modernism and Cartesian logic underpin the very foundations of strategy (Carter *et al.* 2009; Whittington, 2004). The rational planning approach, with its outside-in focus, has been heavily criticized as it distorts effective strategy processes (Mintzberg, 1987), and detaches the attention from practice (Whittington, 2004). Also, the resource-based view, a complementary orthodox discourse, with its inside-out focus, has been criticized for its conservative doctrine and economic assumptions, trying—but failing—to include explanations of socially complex forms of competitive advantage (Carter *et al.*, 2009; Jarzabkowski, 2008). Interestingly, research linking design and strategy tends to adhere to these orthodox views, overlooking other streams of research, such as the process approach and strategy-as-practice. Indeed, Erichsen and Christensen (2013) draw attention to the fact that research in design management seldom reflects or includes in-

depth research on different schools of thought in strategy scholarship and tends to “only scratch the surface of the research themes in management” (p. 115). It could be argued that design strategy discourses have tended to be normative and prescriptive in an attempt to outline how design strategy should be, conforming to a restraining economic rationality. In current research, there is a clear lack of concern with experienced practice and contextual factors decisive in shaping activity.

Rarely has design been explicitly connected to strategy using an approach founded on experienced practice, and little has been said about the way designers actually 'strategize' in their organizations. This is most probably due to the widespread belief that strategy results from one-off decisions which are made in secret corporate rooms, and then implemented down through a hierarchy (Johnson *et al.*, 2007). Thus, future studies should embrace post-rational analyses of strategy and adopt more critical viewpoints when looking at the interrelation and interdependence between strategizing and designing, and the politics associated with this relationship in the organizational context. SAP constitutes a novel approach to strategy research that might generate richer discussions of how things work, weaving together individual activities and the emergent strategy outcome. A practice-based perspective that takes into account socio-materiality might provide key elements to discover alternative contributions of design to the research and practice of strategy, going beyond the functionalism that has prevailed in design management research (Johansson & Woodilla, 2011).

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RETHINKING TEXTILE FASHION: New Materiality, Smart Products, and Upcycling

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KEYWORDS:

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ABSTRACT

Manufacturing operations in much of textile fashion have migrated from the developed economies to developing countries in search of cost economies. Consideration for the natural environment has been lost in the process due to lack of clarity what corporation or some other participant in what kind of an economy is most responsible. This paper is intended as a thought piece on how new materialisms offers an approach to bring back responsible concern for the natural environment in textile fashion and, perhaps, beyond.

INTRODUCTION ¹⁾

Resources, skills or wills for environmental protection have not always readily been found in textile fashion. While the manufacturing of textile fashion may have created many new jobs in developing economies in the last ten years as a result of outsourcing manufacturing of cotton textile and clothes from developed economies (Gereffi & Frederick 2010), the net effect of the outsourcing has been detrimental in terms of the loss of ecological balance when it comes to the natural environment. Manufacturing in the developing economies often pollutes more than in developed economies. Transportation costs are high since consumption of fast fashion is more characteristic of consumption in developed economies than it is of consumption in the developing ones (Allwood et al. 2006, 2008). The migration of manufacturing has furthermore gone hand in hand with an externalization of who is responsible for environmental protection. With this kind of an emergence of an increasingly ecologically unsound and irresponsible system, calls for radical system-wide change in how textile fashion is manufactured and distributed internationally have grown (e.g. Niinimäki & Hassi 2011; Chomsky 2011, p. 16; Fry 2009, p. 74). Justified questions include: What alternative approaches exist for bringing about the radical and system-wide change in textile

fashion? How to know which of such approaches is best? With this kind of a background, this paper is intended as a thought piece on how to make textile fashion a more sustainable human pursuit than it is now.

ALTERNATIVE APPROACHES TO RADICAL SYSTEM-WIDE CHANGE

More than one kind of an approach for radical and system-wide change and international reorganization of textile fashion has been proposed in research literature. These include: (1) “new materialisms” or understandings of what is textile material and what it ought to be (Coole & Scott 2010; Hemmings, 2012; Moor & Mann-Weber & Haberle 2012), (2) “traditional materialism” or return back to slow fashion or even to a steady state (O’Connor 2010), (3) “smart” textiles, clothes and parametrically oriented solutions to enable and speed up the ways that the radical and system-wide change will cascade (Fletcher 2013:25; Hanna 2012; Jonson 2012; Quinn 2010; Tang & Stylos 2006; Allwood et al. 2006), and (4) “upcycling” or activity to increase the symbolic value of long-lived clothes (Ericsson & Brooks 2014; Boscia 2014). The above four approaches are shown in a schematic form in Table 1.

This paper focuses on the first and second of the above kinds of groupings of propositions; that is, on new materialisms and traditional materialism. Intellectually, an interesting exercise is to map out the two kinds of approaches, as well as their starting points, logics and forms of argumentation for their adoption in textile fashion. On a more pragmatic note than that, such a mapping exercise

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Table 1. Categorizing approaches for radical system-wide change.

<i>Products as permanent solutions</i>	“Upcycling second-hand clothes “	Traditional materialism
Temporary products	New materialisms	“Smart textiles” and “smart fashion”
	<i>Deconstruction</i>	<i>No deconstruction</i>

contributes to capabilities to put each of these approaches meaningfully in comparison, and in possible contrast, to the other approaches in Table 1 and to possible still other approaches.

This paper will not only specify to some of the ways that the new materialisms and traditional materialism relate to one another in both in theory and in practice. It will also propose how to rethink research and practice within and beyond textile fashion. Such rethinking includes showing how smart products and up-cycling are sub-approaches that extend from roots in the traditional materialistic approach and the new materialistic approach, respectively. Let us thus rethink what new materialisms and traditional materialism are, as well as what they have to offer for a sustainable future of textile fashion. Finally, let us then add new layers of significance such as deconstruction, temporary forms of product, smart products, and up-cycling.

THE NEW-MATERIALIST APPROACH

In contrast to traditional materialism that focuses on what is settled, fixed and permanent, the new-materialist approach assumes always “an aggregate whose elements vary according to its connections, its relations of movement and rest, the different individuated assemblages it enters” (Deleuze 1992, p. 282; Ahmed 2010, p. 256). The new materialist kind of aggregation allows also for considering immaterial artefacts within one Hjelmslevian “flat multiplicities” (Deleuze 1992, p. 9). Eschewing the negativity of traditional materialism that assumes a necessary choice between to manufacture and pollute, on the one hand, or not to manufacture and not to pollute, on the other hand, new materialism is an openly positive approach. In fact, the only thing negated is the idea of negativity itself (Deleuze 1994, p. 55; Cheah 2008, p. 151):

“It is not the negative which is the motor... Those who bear the negative know not what they do: they take the shadow for the reality, they encourage phantoms, they uncouple consequences from premises and they give epiphenomena the value of phenomena and essences... [T]he negative is an illusion, no more than the shadow of problems.”

There are at least two mutually complementary sub-approaches to how positivity is the road to healthy natural environment. These are “deconstruction” and “temporary products”.

Deconstruction

Deconstruction is one of the most extreme streams of new materialisms. It refuses altogether that manufacturing and distribution would involve any stabilized product form in the first place (Derrida 1978; cf. Cheah 2008, p. 144). Deconstruction takes it that to analyze a material “object” it is most illuminating to analyze in relation to a given “outside” that may or may not be material. To take the best known example of deconstruction, a text is not only a material form or object such as a letter or a book. It also reflects the times and contexts surrounding when it was written and when it is being read (Derrida 1978). This kind of a framing represents the text as a twin process of writing and reading, which intertwine into a “text-tile or woven” (Cheah 2008, p. 144-6; cf. Derrida 1978).

To understand how the material base is not all that matters in textile fashion, rethink of how a digital video game of the fashion world plays out. At its core, it is just code written by software coder rather than anything concrete, tangible or real in any traditional sense. At the same time (Farren and Hutchinson 2004):

“clothing and fashion for people who inhabit ‘virtual’ environments, interacting with other people in real time... involve extensive, long-term social interaction between participants. Unfortunately, the choice of ‘costume’ for the visual representation of each player, currently very limited, has become a frustration for [many of these participant-]individuals, and threatens to limit the social agency and growth of these environments.”

The above snippet of life and of the limits of textile fashion in virtual worlds is in line with how and why an increasing amount of philosophers and textile fashion researchers underline how any form is but “a diversion of life” (Deleuze & Guattari 1987, p. 499). Even economists now understand how a textile fashion does not at its heart always need to replicate finished forms that are settled. Rather taking inspiration from one of these economists, any form but momentarily suspends a continuous process of change (Ingold 2010):

“whether as images in the mind or as objects in the world... [a textile] seeks to join with those very forces that bring form into being. Thus the [fashion] line grows from a point that has been set in motion, as the plant grows from its seed.”

The essential relation in a world of life is thus not between materials and form. Rather, the essential relation is between material elements and forces of life (Deleuze and Guattari, 2004, p. 377). These forces exceed the life and death of any individual material form (Cheah 2008, p. 155).

Seen from these kinds of angles, despite being such an extreme version of new materialisms, deconstruction provides us elements with which to improve upon the health of the natural environment in concrete ways, to make our textile fashion more sustainable. Other ways to work towards freeing the natural environment from the current states of pollution textile fashion include to manufacture and to distribute increasingly temporary forms of product.

Temporary products

Temporary products offer a different kind of a starting point of analysis for rethinking than deconstruction. In viewing textile fashion as a series of temporary products, this sub-approach takes an equally radical and system-wide view of manufactured products that are traditionally considered stabilized and material as does deconstruction. In temporary products, the emphasis in textile fashion is on the relations and spaces in-between material textiles, wovens, and fibers, rather than on their material form and content. Within this context, the 'relations and spaces' refers not only what is in-between one textile, woven or fiber and another, but also those in-between one assembly of textile, woven and fiber and another across time. Consider, for example, how the market for cellular telephony has been reframed as a fashion market by a fashion consultant (Djelic & Ainamo 2005, p. 61):

“in the fashion industry, brands are not imposed on the consumer; they are found’. This fashion consultant went on, suggesting that “if you want to build a brand that stands on solid ground, you will need to use a more grassroots type of approach. You need people with influence in the fashion industry to believe in your brand and to spread your name by word of mouth. Their lifestyle will then be copied by other people’ (Kaufmann, 2003).”

Within the above kind of deconstruction and rethinking of temporary form as a viral process of social diffusion, no particular textile, item of fashion, just like no organism or organization, genuinely ever embodies life. Any of these will be the shell that merely traps and imprisons life, for a while, within a temporary organized form.

SMART TEXTILE FASHION AND UPCYCLING

In sum, in the above deconstructionist and temporary ways, new materialism is a framework to nurture ideas on how to deconstruct and represent on an on-going basis what is textile fashion, and what ought it to be. At its core, in the framework of this paper, “pure” new-materialist textile fashion does not exist in material form but as a series of in-between relations or spaces, which every reader or participant in a role such as that of a designer, manufacturer, marketer or consumer will understand differently. At the intersection of the relations or spaces, each temporary material product may appear meaningful for participants in a way that is worth preserving in a second life of the textile, woven, or fiber.

Even now, at a time when there ought to no longer to be pollution, and textile fashion orient toward radical and system-level change for a healthy natural environment, this kind traditional materialism in textile fashion remains like a living fossil. Rather than be activists to transform the system in radical and system-wide ways, many traditional-materialists are all too satisfied in calling for “negation” and protest (Marcuse 1991, p. 63) whereby textile fashion:

“contains the ‘rationality of negation. In its advanced positions, it is the Great Refusal – the protest against that which is.”

The treatment of cotton textile has included using chemicals to treat the emerging cotton textile material. Just as meanings and structures of words and sentences and other expressions can be tweaked as to what it is that we mean by what is object and what is outside, what is fixed entity and what is forever dynamic, so can one tweak what remains physical material in whole in part, of one kind of material or that of another. Within this context, in the case of a case approaching the borderline between new materialism and traditional materialist thinking, consider the following example (Kotler 2000, p. 223):

“when DuPont developed a new synthetic fiber for carpets, it demonstrated to carpet manufacturers that they could afford to pay DuPont as much as \$1.40 per pound for the new fiber and still make their target profit. DuPont calls the \$1.40 the value-in-use price. But pricing the new material at \$1.40 per pound would leave the carpet manufacturers indifferent. So DuPont set the price lower than \$1.40 to induce carpet manufacturers to adopt the new fiber. In this situation, DuPont used

its manufacturing cost only to judge whether there was enough profit to go ahead with the new product.”

In other words, the challenge has been that even participants who are ecologically aware, still cannot liberate themselves from thinking in traditional materialist ways. Emerging trends in research and practice in new materialisms and in challenging traditional materialism include the foregoing smart textile fashion and up-cycling, terms already mentioned in conjunction with Table 1.

Smart textile fashion

A material or product is considered “smart” when (Porter & Heppelmann 2014, p. 5):

“software replaces some hardware components”, or

“it enables a single physical device to perform at a variety of levels.”

Translated into textile and fashion, materialist fast urban fashion and negative conservativeness differs from immaterial and positive new-materialist consideration of ecological concerns (Edwards 2010). It is worth to have parameters in place for optimization (Hanna 2012).

Many examples of this kind of negation remind us of many varieties of social or linguistic constructionism and theories of performativity (Cheah 2008, p. 144). They represent the kind of activity that has as its in-built feature what Beauvoir (2012) has called “circularity”. Circularity in an economy operating with whatever currency becomes all the more intense the more materialization happens in recurring “series”, time after time, in social ensembles, in which each human individual is but one passive participant with others in a “collective”.

It is within this kind recurring cycles that materialization also in textile fashion becomes “practico-inert”; that is, circularity impinges upon human freedom and alters how individuals or groups of any size can act (Sartre 1968, p. 169, and Beauvoir 2012 in Kruks 2010, p. 261). Besides negativity, circularity and practico-inertia, a further feature of traditional materialism feature is the ordering of things resulting in a near-deterministic process of “futuring” (Fry 2009); that is, restructuring an immediately present but undesired reality with promises of change supposedly soon or later.

If we were to follow the above kinds of negative protest indefinitely, the end result would be to degenerate into a

state whereby each part-member would have a deterministic designated function with little vision of an integrated or systemic totality (Cheah 2010, p. 87). Practico-inert reification and materialization of artefacts would drive each other in a shifting chase, holding as its “two key features... first, the understanding of nature and history as law-governed processes that can be rationally understood instead of immutable metaphysical substances, and, second, the determination of these processes as processes with material existence that can be explained through empirical science” (Cheah 2008, p. 143). Organic, social and existential elements would merge and reinforce each other (Beauvoir 2012, p. 9) so that:

“... each reacts upon the others and is at the same time affected by them”.

Up-cycling

In response to the kind of degeneration that tends to go with smart textile fashion taken too far, variants of effective action under such conditions include down-cycling of appreciation for the supposedly new and improved, on the one hand, and “up-cycling” of second-class clothes, on the other hand (Ericsson & Brooks 2014). Rather than irresponsibly source new materials from the natural environment, up-cycling is a burgeoning sub-culture and fashion movement in London, Stockholm, New York, and elsewhere. Driven by an environmental concern with fast fashion and long life cycles of natural fiber, fiber is sourced from old clothes and ecologies of the artificial, rather than from the natural environment. With little burden on the health of the natural environment, natural and artificial are thus sourced from near the end of their life cycle in thrift stores and charity shops, and re-cut and re-sewn for second life (Ericsson and Brooks 2014, pp. 91-92).

In countries such as the United Kingdom and the United States, around 15 percent of old clothing is donated for recycling. The second-hand clothing system of provision includes doorstep collections, textile banks, crafting and handiwork practices, and local networks of sale. The revenue often is directed to fund community projects (Ericsson & Brooks 2014), to raise awareness (Albinsson & Perera 2012), or both, to contribute to reuse of clothes in a sustainable way.

Despite such steps towards sustainability, demand for used goods has gone down with the growing availability of value retailers’ low-cost fashion (a price category that is almost without exception manufactured in the developing

countries). The market for re-wearing and recycling second-hand clothes in affluent developed countries is limited, especially in comparison with the near endless growth of new-clothing consumption (Ericsson & Brooks 2014, p. 92):

“The vast majority of donated clothing is exported clothing is exported overseas and retailed in the developing world, via a trade pattern that is largely unknown among the general public. Across the globe, rich and poor people are intimately linked, as used clothes pass through networks of charitable and commercial exchange that trade second-hand clothes between continents (Rivoli 2012).”

“Second hand clothing is massively important in sub-Saharan Africa and difficult to appreciate for readers unfamiliar with the context. Countries such as Kenya, Mozambique, Uganda, Senegal and Zambia have major second-hand clothing markets”.

Given that natural fiber is both sourced and distributed at the end of its life cycle in developing countries, it is good design to close to loop. Indeed, there are instances of this already happening. For example (Ericsson and Brooks 2014, p. 94):

“In the Mozambiquen markets, some tailors do use a mixture of second-hand clothing together with the traditional capulanas (printed sarang) to add value and to produce something different for local consumers. [As a prime example of this still but new and emerging is to] use second-hand clothing imports as the basis to make desirable new commodities, taking old textiles and creating high-value, up-cycled, second-hand dresses... both questioning to the way fashion is made on a global scale, as well as contributing to the local design scene.”

In up-cycling, old clothes are used up toward the end of their life cycle in the very same countries from where especially natural fiber for textile fashion is originally sourced (Boscia 2014):

“Upcycling allows these old clothes to have a second life, rather than amassing in secondhand markets in developing countries or going into landfills.”

PROPOSITIONS FOR FURTHER RESEARCH, GUIDELINES FOR PRACTICE

This paper has inquired into sustainability issues in the global textile fashion industry. Resources, skills or wills for environmental protection have not always readily been found in this industry. In response to calls for radical system-wide change in how textile and fashion manufacturing and distribution are organized internationally, this paper has asked: What alternative approaches exist for bringing about the radical and system-wide change in textile and fashion? How to know which of such approaches is best?

Across research and practice, over time, we ought to develop techniques to treat natural and artificial fibers in second-hand clothes so that they will represent material equal to new material, at par with *de novo* natural and artificial fibers, or at least nearly so. We perhaps cannot yet even imagine how to do that, but a vision that such is our intent matters. When we will be able to repair second-hand fibers or regenerate totally new ones, this is when we will be able to smoothly migrate or move fibers from second-hand clothes into new textile fashion in the vision of new materialisms. We will have in place relations and spaces for a truly sustainable complex of textile fashion and natural environment.

Now, with the intention to be a thought piece on how to make textile fashion a more sustainable human pursuit than it is now, this paper is ready to extend propositions for further research and their corollaries for transfer into textile fashion practice:

Proposition 1. Textile fashion grows from what is already in motion, like a plant grows from its seed, but the seed need not be a material one.

Proposition 2. A temporary product may be just as meaningful and of worth for participants as fiber sourced from the natural environment.

Proposition 3. Smart textile fashion can negate textile fashion’s negative impact on the health of the natural environment, so that the outcome is positive.

Proposition 4. Natural and artificial fibers sourced from second-hand clothes can be treated into a source of fiber materially at par with *de novo* natural and artificial fibers.

Translated into practice, there are four guidelines that can be drawn from the above four propositions, already at this stage. Firstly, textile fashion ought not to consider natural or artificial fiber as the starting point of creativity, manufacturing and distribution, but to focus on the social processes of the participants that have key roles to bring textile fashion into being. One of the keys in taking up second-hand clothes as a source of raw material for textile fashion is to unlearn traditional social norms about what is good material for textile fashion.

Secondly, channeling meaningful and valuable software and other artificial assemblages into new diversions of life sustains meaningfulness and what is of worth for participants, while contributing to the health of natural environment. One Finnish company illustrates how upcycling is a process whereby “textile waste” goes through a “recycling process” that turns the waste into “pure waste” or raw material for the “textile industry” (Pure Waste Textiles 2014). In turn, the textile industry will churn out not only products but also textile waste, so that there is a closed loop.

Thirdly, any physical components that can be replaced with software will alleviate textile fashion’s burden on the natural environment. Finally, second-hand clothes are a plentiful and resource-efficient source of natural (and artificial) fibers for textile fashion producers, designers, and consumers. It would be great, if we could improve quality with treatment and reproduce quality rather than only to consume until all is total waste.

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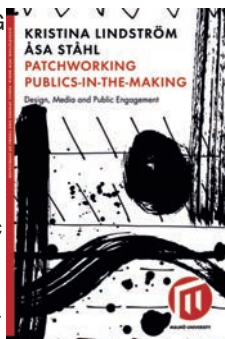
New graduates

Li Jönsson's thesis *Design Events: On explorations of a non-anthropocentric framework in design* works with various types of events to refocus away from the traditional human-centred way of approaching design objects. The extensive research work she presents includes both studies of birds and co-creative design processes.

Kristina Lindström and Åsa Ståhl jointly submitted their thesis *Patchworking publics-in-the-making* in the fields of interaction design and media and communications science. The two

PATCHWORKING PUBLICS-IN-THE-MAKING

Author: Kristina Lindström & Åsa Ståhl
 Publisher: Design, Media and Public Engagement School of Arts and Communication, K3, Malmö



researchers began from a joint work of art, a mobile sewing circle to which they invited people to embroider text messages. All to study interaction and cooperation in industrial society.

Noor Adila Mohd Rajili's licentiate thesis *Practices and Knowledge Creation in Jewellery Design* is about identifying "what" skills are possessed by knowledge practitioners, "how" they acquired this knowledge and "how" the knowledge is transferred to creative and innovative jewellery designs.

PRACTICES AND KNOWLEDGE CREATION IN JEWELLERY DESIGN

Author: Noor Adila Mohd Rajili
 Publisher: Design Institution, Lund University



DESIGN EVENTS – On explorations of a non-anthropocentric framework in design

Author: Li Jönsson
 Publisher: The Royal Danish Academy of Fine Arts Schools of Architecture, Design and Conservation, 2014



What's happening in artistic research?

For anyone wishing to follow what is happening in artistic research in Sweden, *Method–Process–Reporting* is an excellent help. The almost



METHOD-PROCESS-REDOVISNING
 Artistic research Yearbook 2014
 Editor: Torbjörn Lind
 Publisher: Swedish Research Council

250-page-long work is called a yearbook (so this one is for 2014) and contains articles and reports on the continued development of artistic research in Sweden. Both in terms of its contents and layout, the book is pedagogically organised and readable. A beautiful graphic work.

The book discusses both methods and research results. The texts are in both Swedish and English, so people who are not so used to reading research texts in English can also follow along. One of the four projects presented in more detail (all funded by the Swedish Research Council) is "Forms of Sustainability". Johan Redström, professor at Umeå Institute of Design, describes a slightly different exploration of how the problems surrounding sustainable development impact our perspective on design: "...

instead of asking what design can do to establish a more sustainable society, we asked what impact the problems surrounding sustainable development might have on design. Underpinning this is a desire for a critical practice in design research, a way to work with the disciplinary development of the field through experimental design." Interesting.

Another article, by Roland Ljungberg and Emma Göransson, both assistant professors at Konstfack, has the theme of water and describes the work to develop a park concept focused on sustainability.

Let's have a similar venture in the design research field that popularises, explains and also summarises the situation and makes it transparent to both researchers and laymen!

Lotta Jonson

Ikea and the image of Sweden

Ikea and the image of Sweden
Ikea's importance to Sweden and Sweden's importance to Ikea are a major theme in *Sara Kristoffersson's* analysis of the company, that Swedish flagship in the global arena. The book she has written is called *Design by Ikea* and is published by Bloomsbury. Kristoffersson is a visiting professor at Konstfack. The book on Ikea is the result of the research project she did there in 2010 to 2013: "Swedish design? On Ikea's aesthetics in the 1980s and '90s, the export of 'Swedish' design and national myths".

Over the years Ikea has been the subject of many studies, mainly from a management and business perspective. In contrast, surprisingly few people have examined how Ikea has influenced the global furniture culture. Nor has anyone concentrated on the identity-creating role the company has played and still plays today. A lot of the book focuses on how Ikea, which not only sells its products with the help of blue and

DESIGN BY
IKEA – A
Cultural Story
Author:
Sara
Kristoffersson
Publisher:
Bloomsbury,
2014



yellow Swedish flags, also very much reuses, reflects and reproduces Swedish stereotypes and narratives, not least about "democratic Sweden". Almost all Swedes – yes, I dare to say so – have a relationship with Ikea, even though they may not drive there every weekend. The problem with all this "disinformation" is greater than we suspect – it moulds us in more subtle ways. We don't see it ourselves; we swallow the myths without thinking. It would be really welcome if someone would publish this in Swedish – everyone should read it.

Lotta Jonson

An another perspective

History can help us to expand our perspective and look at the present through new eyes. Right now there is an exhibition at Livets Museum in Lund called "Hjälp att andas" (*Help to breathe*). It shows how the respirator's appearance and underlying technology have developed over time. In today's world, where technological development is sometimes met by scepticism, it is actually liberating to have visible proof of how much good it has brought us – despite all the environmental destruction.



PHOTO:EMMA KRANTZKULTUREN

Right, top: The first respirator created by infection specialist Dr Carl-Gunnar Engström in 1950. Compare that to a version from today, the Philips V60 (at right), made by the Irish company Dolmen.



Interaction at DRS

"Design's Big Debates" was the theme of this year's big Design Research Society conference 2014 in Umeå in mid-June. About 400(!) delegates gathered for four days to discuss the biggest design challenges for the future.

Perhaps the unusual format attracted so many people to Umeå. Instead of the usual papers, entire theses were presented, and the usual main speakers were replaced by three big debates in which two speakers took opposing standpoints – all to add an edge to the discussion. The topics of the big debates were: Life Hacking, with questions like "What new questions arise if the starting material moves from atoms to cells?"; No Future,



where the discussion was about the fact that design is said to be about the future but often contributes to maintaining the status quo; and Open Worlds, where the debate included how open source codes and global networks can stimulate the innovation climate and increase democracy.

Before and after the debates, the audience members could raise their hands to indicate whether they had been convinced or remained

Left: Anna Valtonen, then rector of the Umeå Institute of Design, in Umeå on 16 to 19 June during the final debate. She was one of the hosts of DRS 2014, the Design Research Society's seventh biennial conference.

undecided or confused.

Stella Boess of the Netherlands, who reviews DRS2014 online, said the participants' view was "Friendly, innovative and efficient – typically Swedish". *Lin-Lin Chen*, a design researcher from Taiwan, added that the organisers "had done a good job by developing a prototype for future design research conferences." A number of the agenda items can still be seen and heard on the Design Research Society's website, which will please all the design fans who could not be present. Go to www.drs2014.org.

Lotta Jonson

Quality of life

The persistent autumn rain was not exactly welcoming to the more than 500 delegates who had come from around the world to take part in the seventh international Service Design conference, which was held at the Brewery conference centre in Stockholm on 7 to 8 October.

Despite the weather, though, the mood was positive and it was impossible to miss the air of expectation in the centre when the first day began with open lectures by a number of prominent international guests. We could listen to *Mark Levy* from Airbnb, plus *Stan Phelps*, author and expert on future customer behaviour, *Kigge Mai Hvid*, a specialist in design and innovation, and *Fred Leichter*, who has researched service design at such places as Stanford University.

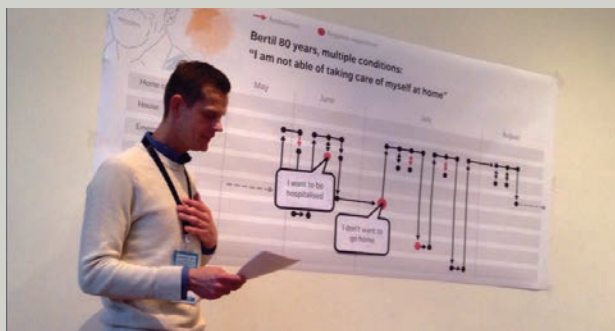
The conference made it possible to share ideas and contribute to

the growing field of service design at a global level. The Nordic networks, led by the Swedish one, had worked for the past year to produce the conference, whose theme was “Quality of life”. It was also the biggest gathering yet. Mixed with the in-depth parallel workshops, there were also several plenary lectures, including ones on the service design work done by the Swedish state alcohol retail monopoly, Systembolaget, the UK’s Policy Design lab, and the Norwegian model of service design, all interwoven with inspirational talks by a Tibetan monk and employees of Kaiser Permanente, an organisation which works on multiple levels to improve people’s health, including via research.

SVID participated as a partner in the conference by organising a Design Challenge. The aim of the workshop was to give insight into how the design process can be used

in Swedish Government Official Reports work, in this case in the official commission of inquiry into the act governing the Swedish municipalities’ responsibility to pay for certain health-care measures (betalningsansvarslagen). Those who accepted the challenge took part in a design process led by the Swedish research and design agency Antrop. The discussions shed light on the importance of working with a safe patient discharge and home situation and how we can best improve the patient’s care at home.

Eva-Karin Anderman



Left: Erik Hammarström of Antrop presents 80-year-old Bertil's patient journey to the workshop participants. Right: From the workshop run by the design agency Antrop and SVID at the SDGC 2014 Design Challenge.



Funding for Smart Textiles and the Swedish School of Textiles

At the beginning of September, Sweden’s innovation agency Vinnova gave Smart Textiles 1.6m euro for continued development work.

“Not surprising given the positive result of an international evaluation that was done, but very gratifying,” commented *Björn Brorström*, Vice-Chancellor of the University of Borås.

Just a few days later the School of Textiles announced that an application

it made together with Smart Textiles to the international network Arcln Tex was granted. The University of Borås is the initiator of Arcln Tex, which focuses on linking architecture, textile design, fashion design and interaction design. The result is another 3.8 million euro and 15 new doctoral positions for four years.

“This is an important milestone for the Smart Textiles environment,”

commented *Erik Bresky*, process leader for Smart Textiles.



PHOTO: ANNA SIGGE

Wait and see

“Research should help to achieve political goals. It should increase employment and equality, contribute to social development, and lead to knowledge about ourselves and our society. Research must be used to make things better for people. Research is tied to curiosity. And curiosity is one of mankind’s most fundamental driving forces.”

So said *Helene Hellmark*

Knutsson, Sweden’s new Social Democratic Minister for Higher Education and Research, in a recent interview on Swedish public radio. She stressed the importance of research linked to the health-care system, and that research can not only affect the conditions of people’s lives but also benefit the entire life science industry.

Hellmark Knutsson was previously a county council politician and has worked at the Swedish Trade Union Confederation. However, she has no noteworthy personal experience of either academic studies or academic research – something her critics eagerly pointed out when she became the minister. She takes the critique with a large grain of salt. Her task as a politician is to stimulate others and create the conditions for a better research climate, not to do research herself.

One topic touched on in the interview was cooperation between industry and academe.

“This particular cooperation, between industry and the universities, works well in Sweden” she said. “I want to continue to support this collaboration. It is also important that industry and the public sector work together so we can get a better public sector.

What people learn in the research world must benefit people.”

She also promised better



PHOTO: SÖREN ANDERSSON/REGERINGSKANSLIET

Left: Helene Hellmark Knutsson, Sweden’s new Social Democratic Minister for Higher Education and Research.

Hellmark Knutsson commented.

Here at Design Research Journal we of course wonder how the minister regards our field. Can design and design research count on greater interest and support from the new government?

“Design and design research are important areas that help our societies to develop and the individuals in them to grow,” replied Hellmark Knutsson.

“Design and design research are also fields associated closely with innovation and research’s interaction with the surrounding society. At the moment we are just starting to work on the next major government bill to do with research. The bill will foster long-term rules of the game for research. How various research fields will be prioritised within that, we have not yet begun to discuss.”

So what about the innovation council? Does the minister regard design knowledge/methodology/research as a possible, and maybe even given, part of the innovation council’s area of operations?

“The set-up of the innovation council is not finalised and right now we are discussing its actual organisational format. It is therefore not possible to say yet which fields will be affected in particular by the work of the council. But of course the council will work broadly to strengthen the innovation climate in Sweden. That comes under the wing of the Ministry of Enterprise, but as Minister for Higher Education and Research I will also be involved,” explained the minister. In other words, we will have to wait and see.

Lotta Jonson

conditions for young researchers, that is, more permanent jobs rather than long periods of temporary funding.

The policy statement made by the Swedish government when it took over the reins of power contains several points that impact the research community. One is that the proportion of female researchers must increase and the funding be divided equally between the genders. But the minister said this does not mean there will be a quota system. The basic funding for research given to the universities will be increased and more money will go to research into the work environment.

An innovation council chaired by Sweden’s prime minister will also be set up.

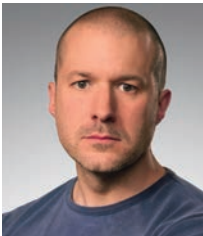
“Research is an important part of innovation policy. It is there that new thoughts, new ideas and new knowledge can emerge – that is, things that can then be used for new innovations and the development of the public and private sectors. I assume that research will be a natural part of the innovation council,”

Tragic?

London-born *Jonathan Ive*, head of design at Apple, is troubled. He says the education offered by design schools is dreadful.

“And it’s just getting worse,” he said during a discussion at the Design Museum in London recently.

He studied industrial design at Newcastle Polytechnic in the 1980s, moved to California and began working at Apple in 1992.



A troubled Jonathan Ive beside one of Apple's latest products, the Apple Watch.

He often searches among the new design graduates to find young talent for Apple's stable. But no, he says, today's design education is too poor. The students rely far too much on their digital tools. They have lost the sculptural feeling and ability to create three-dimensional objects. He says the design schools would rather use cheap computers than expensive workshops.

“Spending four years of one's life studying the design of three-dimensional objects and then not being able to create a single one...it's tragic!”

Is this true in Sweden too?

Lotta Jonson

Design of services

At the same time as this issue is released, Service Convention Sweden 2014 is being held in Karlstad. World-leading research and practical applications and leadership are gathering there for the first time to discuss “Value creation through services”. The goal is increased knowledge within the traditional service sector but also in other industries that focus on services. Design Research Journal is there. Read more at: serviceconventionsweden.se.

7–9 JANUARY

ICoRD'15

BANGALORE, INDIA

The 5th International Conference on Research into Design (ICoRD'15) is part of a series intended to be held every second year in India. The international design community from various fields of practice, education and research gathers here to present cutting-edge design research and to create a platform for collaboration, cooperation and development in society in order to realise a vision for a better future.

cpdm.iisc.ernet.in/icord15

12–14 JANUARY

ICDC2014

BANGALORE, INDIA

The 3rd International Conference on Design Creativity. “Design creativity” is, say the organisers, the solution to dealing with social problems but it will also support our appreciation of beauty and well being. The following issues will be studied: the cognitive processes behind design creativity and the calculation models and practical processes for integrating the human and social dimensions.

<http://www.cpdm.iisc.ernet.in/icdc2014/#/overview.php>

26–27 JANUARY

8th Design Theory SIG

PARIS, FRANCE

Design theory is an established research field in which many results indicate the need for a renewal of both methods and issues. Among other things, the conference will discuss the ability of design theory to benefit from fundamental advances in mathematics, logic, semantics, cognitive science etc. <https://www.designsociety.org/theory-sig>

2–4 MARCH

CIRP2015

HAIFA, ISRAEL

The 25th CIRP conference on design and innovative product creation is organised by the International Academy for Production Engineering (CIRP) and discusses design theories, methods, IT tools and their practical applications in recent decades. The conference is a technical forum for researchers, industry practitioners and decision makers to exchange ideas, share research results and discuss various design issues.

<http://www.cirp.net>

25–27 MARCH

RTD2015

CAMBRIDGE, UK

The second biennial Research Through Design conference aims to place the materiality within design research in focus and place artefacts and processes in the centre. The RTD theme encompasses a wide range of disciplines: product, interaction and service design, textile design, crafts, jewellery design, fashion, architecture, interior design, and also human-computer interaction, synthetic biology. <http://researchthroughdesign.org>

6–9 APRIL

ARCC

CHICAGO, USA

The ARCC research conference focuses on future research in architecture, design and the built environment. Technological changes (new materials, building techniques etc.) have accelerated the need for renewal. <http://www.arcc2015.com>

22–24 APRIL

EAD 11

PARIS, FRANCE

The 11th International European Academy of Design Conference with the theme: “The Value of Design Research”.

<http://thevalueofdesignresearch.com>

18–20 MAY

PIN-C 2015

THE HAGUE, THE NETHERLANDS

The 4th Participatory Innovation Conference (PIN-C 2015) has the theme: “Reframing design” and will explore the importance of user participation in innovation and design issues in society at large. The conference aims to go beyond the typical concept of design and single out new areas, challenges and strategies.

<http://sites.thehagueuniversity.com/pinc2015/home>

21–22 MAY

DESRIST 2015

DUBLIN, IRELAND

The 10th International Conference on Design Science Research in Information Systems and Technology (DESRIST) gathers researchers and practitioners who are involved in all aspects of scientific design research, with special weight placed on nurturing a symbiotic relationship between researchers and practitioners within a range of areas: health care, business, sustainability etc.

<http://desrist2015.computing.dcu.ie>

3–7 JUNE

Cumulus Milan 2015

MILAN, ITALY

The conference has the title “The Virtuous Circle of Design” and the theme “Design culture and experiment”. It is held concurrently with EXPO Milan 2015 (Feeding the Planet, Energy for Life). The following questions will be discussed: What type of culture emerges along with new design methods? How can this new culture be linked to the design traditions of the past century? Can this create a sustainable design culture in the present century?

<http://cumulusmilan2015.org>

7–10 JUNE

Nordes 2015

STOCKHOLM, SWEDEN

The 6th Nordic design research conference, Nordes. Theme: Design Ecologies. Discussions about threatened biodiversity, climate changes and the fact that natural and artificial systems must not be perceived as isolated realities.

nordes.org/nordes2015

8–12 JUNE

MSEC 2015

CHARLOTTE, USA

The 43rd SME North American Manufacturing Research Conference (NAMRC) and ASME Manufacturing Science and Engineering Conference (MSEC 2015) create an international forum for applied research and industrial applications in manufacturing and design. The agenda includes theoretical and technical presentations, expert panels, student presentations, an exhibition, career forum etc.

<http://namrc-msec-2015.uncc.edu>

17–19 JUNE

PLATE 2015

NOTTINGHAM, UK

The first international conference to explore Product Lifetimes and the Environment (PLATE) within the framework of sustainable development. Current research will be presented on how and why products’ increased lifetime has become an important part of resource efficiency, waste reduction and other strategies to reduce carbon dioxide emissions – all to create a more sustainable society.

All this is presented from an interdisciplinary perspective that includes design, geography, anthropology, business management, economics, marketing and consumer behaviour, sociology and politics.

http://www.ntu.ac.uk/plate_conference/index.html

28–30 JUNE

LearnxDesign2015

CHICAGO, USA

The 3rd international conference for research into design education has a range of topics from theoretical constructs to practical application.

<http://www.learnxdesign2015.com>

27–31 JULY

ICED15

MILAN, ITALY

The 20th international conference on design and construction.

Theme: Design for life.

iced2015.org

4–7 AUGUST

IEMCA 2015

KOLDING, DENMARK

Theme: Living the material world
The conference aims to bring together the international community of researchers in ethnomethodology. The broad theme includes discussions about scene and setting; location, spatiality and mobility; objects and artefacts; designing and crafting; creating and learning; data and methods for representation and analysis.

<http://iemca2015.com>

Daring to challenge ourselves!

Mobile World Congress in Barcelona. Ericsson's CEO is giving the year's biggest public presentation to customers, analysts and the press. It is a normal event featuring invited guests on stage, trends predictions and selected product presentations. Not even the last item on the agenda stands out: Ericsson Research presents an example of what tomorrow's mobile infrastructure might involve. But the two people who get up onto the podium are a designer and a games developer – the undersigned and a colleague. Together with an architect, an industrial designer and a human researcher, we have developed a concept that describes the next generation's mobile network, 5G. Even though we have not done it all by ourselves – the hours of discussions with various experts within the company are innumerable – this is a design-driven project. Design as a way of defining the direction of heavy technological infrastructure. How did this come about? Two clear changes within the past decades have undoubtedly played a role.

Firstly, more and more people are giving more attention and appreciation to the design field nowadays. The concept of design is more widely known, and well-designed artefacts have become accessible to a broader public. This trend can even be explained in economic terms. As *The Economist* magazine writes: "... skilled design work accounts for a larger share of the value of trade, leading to what economists call 'premature de-industrialisation' in developing countries." A not-totally crazy conclusion is that if design has become better known for contributing to

an added value (i.e. not just in economic terms) this will automatically lead to more people wanting to include design in their activities in various ways.

The second change has to do with the development of information and communications technology (ICT). Since the mid-1980s, digital technology has developed at lightning speed. Today computers are almost unnecessary; we are using smartphones and tablets more and more. The emergence of the internet has been revolutionary, to say the least. Just look at how we gather information, use services, shop, watch films and TV, socialise and so on with the aid of ICT to a great extent. Soon ICT can also be seamlessly "woven into" objects that do not need to look like smartphones or computers at all. This means that the technology has also begun to influence areas that we previously did not regard as being particularly digital – a development that also involves new challenges.

When we discover that we can develop more and more areas with the aid of the design process, and the boundaries between analogue and digital materials are erased, even the objects we are expected to develop can change. This is a natural effect of the fact that the materials for creating and giving form to the artefacts are becoming more and more diverse in terms of their nature. Today we are already seeing technology that makes possible shapable energy-saving screens and other new physical materials but also many new ways of interacting with this technology: gestures, sounds, to give just two examples. At the same time, this sometimes means that those people

who have already mastered the new materials get priority treatment, which risks retaining many prevailing "truths" about how those materials should be formed. One example is how the field of human computer interaction (HCI) has long influenced our view of how ICT "should" be designed. HCI has a strong user focus and places great weight on methods and processes in order to measure interaction and usability, and has left extremely little room for discussions about design and aesthetics. Now that ICT is being included in more and more contexts, HCI is becoming an increasingly lopsided way of regarding ICT. This is thus a challenge to people who apply design methodology to their work. Quite simply, new approaches are needed in order to create meaningful artefacts that have an ICT component. In the last few years a more design-oriented view of how we should form these has emerged, a development that previously met with almost no acceptance from within the ICT field.

Design has a unique ability to create meaning and value. Using design methods will become more and more relevant as a work method in future. In order for this to occur, we must continue to dare to challenge not only our new commissions, the artefacts, and the materials, but, above all, ourselves.

Cristian Norlin

Cristian Norlin has an MA from the Royal College of Art, London and works as a Master Researcher at Ericsson Research User Experience Lab.





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