New goals for design, new roles for designers?

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Abstract

Designers are creating new roles for themselves, in response to new questions society and industry are facing. The development of innovative services is at the core of these questions, and design thinking is often the method used to co-create answers. This explorative paper reflects on experiences of design researchers with such work and discusses implications for both design education and creative industries, in particular regarding facilitation and empathy as key skills in the design of innovative services.

KEYWORDS: service design, Product Service Systems, designer roles, role-play

Introduction - New goals for design

In recent years people in strategic positions in business and society have come to design looking for help to solve serious problems. Business strategists and policy makers have been struggling with issues such as the depletion of natural resources against a growing need of energy, and the growing older population that needs care in times of shrinking healthcare budgets and workforces. As a result publications with a clear design perspective, aimed at policy makers and the business community, have emerged, to explain what this new contribution of design entails (e.g. Brown, 2009; Merholz et al., 2008; Osterwalder & Pigneur, 2010; Viladas, 2011).

The development of innovative services is often seen as part of the answer to such questions, and design methodology is commonly used to co-create answers. Technology is no longer seen as the ultimate solution, the attention shifted from products (tangible elements) to services and people (intangible elements) (Young, 2008). As Thackara (2005) puts it, too much 'stuff' is designed, causing environmental issues. Thackara suggests to design ourselves out of these crises by focusing more on people and services. In recent years, service design has been

identified as a key method in delivering such a focus (Parker & Heapy, 2010; Stickdorn & Schneider, 2010). In business, design thinking has also caught attention, not only as a way to become more sustainable but also to get more competitive (Martin, 2009). In public policy making the Design Council UK has played a key role in exploring and communicating the new roles design can acquire to solve complicated problems such as violence and aggression in hospital Accident & Emergency wards (Design Council UK, 2011) and the large contribution of private homes (25% in the UK) to carbon emissions (Design Council UK, 2010).

New roles for designers

In response to the new questions in society and business, designers are creating new roles for themselves. IDEO is an early example of a design consultancy that has started to shape new roles for designers, such as the Experimenter, Cross-pollinator, and the Hurdler (Kelley & Littman, 2005). Policy makers have acknowledged and setup programmes to support creative industries in adopting these new roles, for instance, the Cox Review of Creativity in Business (Cox, 2005) and Design London (Design London, 2012) in the United Kingdom, and the government and industry funded CRISP programme (Creative Industry Scientific Programme) in the Netherlands (CRISP, 2011).

One of the roles designers can play, for example, is the role of collaborator, that explores different ways of working together in consortia that do not work in regular client - contractor relationships, but instead are a collection of stakeholders from industry and academia, each with their own agenda. Other possible roles are: the role of facilitator of workshops, and more broadly, of conversations between different project stakeholders; the designer as instigator that initiates connections and conversations, for instance through speculative designs; and the designer as researcher investigates complex questions through design.

There are several arenas in which these roles are explored, each with their own stakeholders. The complexity of this network has considerable influence on the roles design researchers can and should play. These arenas can be understood as concentric circles (Figure 1). From inside to outside, they are: the institute or company; the project partners; the overarching research programme; external project partners; and external audiences. We have found that designers can play a key role in organising these
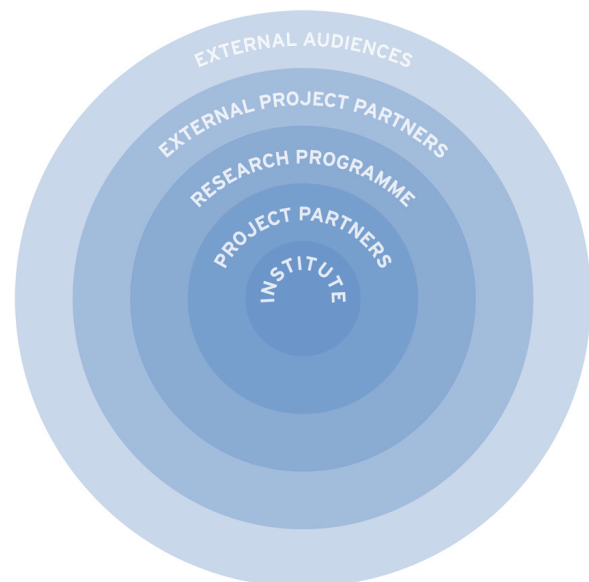
Figure 1. The stakeholder arenas.

networks by being flexible with the roles they play. In each of the five arenas, limitations and opportunities occur, and compromises must be made.

CRISP designing Product Service Systems (PSS)

CRISP is a Dutch research programme in which Design Academy Eindhoven co-operates with the Technical Universities of Delft, Eindhoven and Twente, both Universities of Amsterdam and 60 service providers and creative industries companies. CRISP concentrates on designing Product Service Systems (PSS). PSS can be seen as an integrated combination of tangible products and intangible services (Tukker &Tischner, 2006). The emphasis has however shifted to fulfilling customer needs by providing value in use from the customer perspective (Edvardsson et al., 2005; Baines et al., 2007). As such, within PSS there is a strong focus on how to fulfill those customer needs and how to create customer value (Lindahl & Ölundh, 2001). Vargo and Lusch (2004; 2008) took this one step further by introducing Service Dominant Logic, and its focus on how interactions between service provider and receiver make a service transaction meaningful. The field of service design has embraced this holistic approach by seeing services as "systems consisting of people, artefacts and their interactions" (Segelström, 2010, p.16) The fundamental difference with PSS as 'an integrated combination of products and services' is that people are put central stage. This has clear implications for service providers and the roles of designers in creating services. If services and their value are being co-produced by the service provider and the customer, at the moment of service delivery (Vargo & Lusch, 2006), designers lose some control over design outcomes. They can, however, gain influence on a strategic level by creating "ideas that better meet customers' needs and desires" (Brown, 2008, p.1). Using design effectively and strategically requires the necessary tools, methods and knowledge. The CRISP programme aims to offer this to designers through projects focusing on topics as diverse as in-flight emotions, mobility of the elderly, and smart textiles in health care.

GRIP: co-creating a PSS for job-related stress

GRIP is one such project within the CRISP programme, forming a collaboration between Philips Design, Delft & Eindhoven Universities of Technology, and the Design Academy Eindhoven. GRIP, as a focus, deals with flexibility versus control in the design of PSS for job-related stress (Badke-Schaub & Snelders, 2011). In the case of PSS the control of designers over processes and outcomes is reduced. Compared to more traditional product design, the design of PSS can be characterised by less formalised planning, a high-level of co-creation by multiple stakeholders, and a high level of co-production by service providers and customers. The implication is that the design process for PSS needs to become more flexible, allowing for co-creation by stakeholders, and be more sensitive to the needs and skills of co-producing providers and customers. GRIP specifically addresses these issues with regard to job-related stress. How does a designer of services that manage job-related stress balance flexibility and control over his or her designs? Total control is clearly impossible as too many stakeholders are involved. As can be expected, such a consortium is not only a challenge in negotiations amongst internal partners, which differ in expertise, design philosophies and aims, but equally so externally, when

approaching external research partners such as the GGZE (Geestelijke GezondheidsZorg/Mental Health Service Eindhoven), to develop comparative design studies. This paper reflects the experiences of the authors, who are members of the GRIP project, with multi-stakeholder collaborations.

Picturing the service and its implications

A key development in the GRIP project was the creation of the Service Model (Figures 2 and 3), currently on its 6th iteration. The Service Model has something of a dual role in facilitating project activities. Earlier discussions with stress experts, demonstrated that their expectations of "what designers do" were somewhat different to the aims of the GRIP team. The experts assumed the team would merely develop new tools that they as experts would implement. Rather than placing ourselves in direct competition, we felt our design expertise would be best felt by positioning ourselves in tandem with existing stress services, and the Service Model was one method to illustrate this to external parties, demonstrating where the expertise from the GRIP design team would align. Aside from this, the Service Model helped the consortium form a clearer picture of what a data-led service may entail, allowing individual partners to foresee where their personal (commercial) focus and opportunities could be. The model also helped individual partners define their own roles within the consortium and project at large.

Continually reviewing roles and objectives

Although co-creation allows stakeholders the opportunity to participate in the creative process, this does not put every-one in the role of the designer. Just as the Stress Expert brings certain knowledge and expertise, so does the designer. The role of the designer must be defined and explored regularly throughout the project, just as other roles. This is an on-going process, after all, design roles are not set in stone, rather they evolve in relation to the ever changing project and group dynamics. Roles within the consortium should be simply pencilled in as they need to be regularly reviewed and reflected upon from the outset, both individually and collectively. For example, as the expertise of members within the GRIP consortium is quite varied, ranging from industrial design to consumer sciences, electrical engineering to critical design, each skill-set and approach comes to-the-fore at differing stages of the project, hence the necessity for flexibility.

Reviewing roles is especially important as the consortium invites and subsequently adds external partners into the fray. It is vital to highlight the consortium strengths, aims and deliverables, including what the partner can expect to receive for their input. In negotiating the collaboration with the GGZE, the GRIP team were invited to 'pitch' their project, including the Service Model, to several departments within the organisation to obtain the correct departmental 'match'. Another tactic has been to schedule periodical workshops throughout the research and design process with the wider consortium network, to review outcomes and align future objectives and accompanying roles.

v.1

v.2

v.3

v.4

v.5

v.6
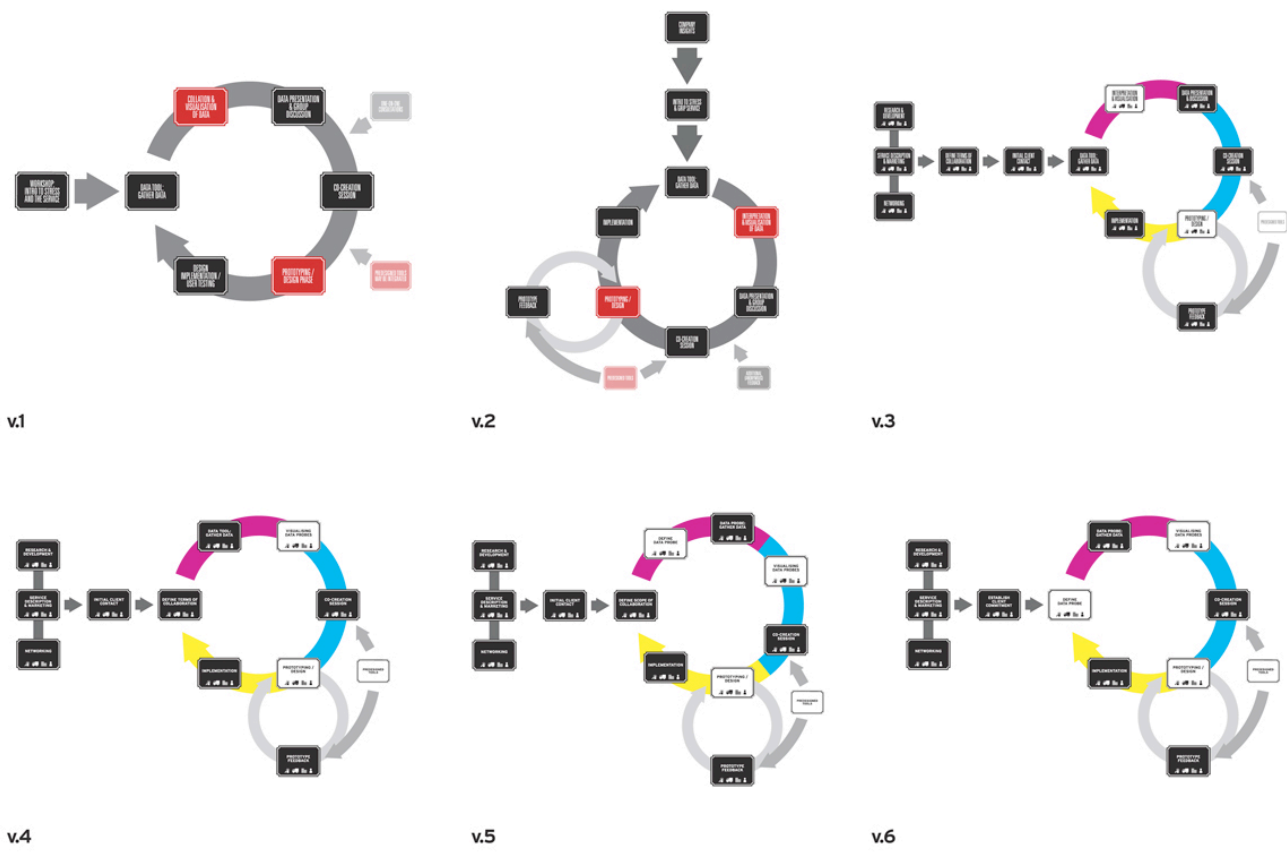
DESIGN FOR ANALYSIS (REFRAMING)
DESIGN FOR RESEARCH (PROBING)
DESIGN FOR SUPPORT (PROTOTYPING)

GRIP. v6

GRIP: JOB-RELATED STRESS
CRISP 2011

Figure 2 Evolution of the Grip Service Model

unknown role unique to the project, and which role he or she takes will depend on the knowledge and expertise of the other stakeholders as well as the given stage of the assignment. Early on in the GRIP project, industry professionals such as Stress Coaches, Psychologists, and Occupational Health Services were invited to participate in an Expert Day workshop to explore the topic of Job-Related Stress. This workshop was an opportunity to expand our network as well as to gain and share knowledge with industry professionals. It also offered us the chance to present our initial ideas including concepts for mapping stress in space and time, automated agenda's and using the placebo effect to alter the mindset of individuals. One crucial lesson learned from this experience, is the importance of communication when presenting early-stage ideas to non-designers. The aim here should be to entice further discussion, facilitating co-creation, as opposed to experts thinking they are merely user-testing or validating prototypes. This highlights the importance of preliminary, unfinished thoughts and visuals as tools for co-creation. A scrappy sketch can offer far greater room for thinking and deliberation than a slick functioning prototype. You might say that on this occasion we over-used our design expertise. On the other hand, an eagerness to design can perhaps be understood, as there is often an apprehension as to how non-designers perceive the role of the designer within multi-disciplinary teams, and there is clearly a thin line between enticing non-designers into the creative process while clearly defining the designer's role. To under-design, is often perceived as underselling the designers' attributes, when in actual fact, and especially when designing services, this can be the first step towards developing a greater understanding between stakeholders and solidifying of the designers role. This implies that multi-stakeholder collaborations require relinquishing (some) control of the creative process. Yet, the net gains outweigh the losses, as rather than designing merely the formal aspects of the service (the so-called touch points), the designer takes up a more strategic, central position in the design of the service as a whole.

Role-play as tool for co-creation and empathy

Role-playing is a tool that can be used in system design. It is generally applied as a method to understand the perspective of the user and the context of use in an early stage (Seland, 2006). In service design this is also known as service staging, "the physical acting out of scenarios and prototypes by design teams, staff, even customers in a situation that resembles a theatre rehearsal" (Stickdorn & Schneider, 2010, p.194). However, within the GRIP project we have discovered that role-play can be used as a co-creation tool to explore different perspectives and possible roles for multiple stakeholders. Through role-play one can vary the perspective in time, and thus explore different versions of a service under development, depending on who is in control of the service, who is commissioning it, or who is placed at the centre of the service. As such, this approach moves beyond User Centred Design where only the end user is considered to be central. Role-playing as a tool has proven useful within GRIP, especially in early conceptualisation of the service and its placement within the existing stress industry. Furthermore, we see great potential for the use of role-play in other stages, including concept development and co-creation at the GGZE, and when working with additional commercial stakeholders in future stages of the project.

The task of inviting additional stakeholders into the consortium can be role-played in advance, as illustrated during our workshop at the Global Service Design

Network Conference 2011 (Figure 4). The conference was a key opportunity to road-test our service concept with the input of industry professionals, and role-play was chosen as a tool, as it allowed us to guide workshop participants through our service model, and highlight the potential opportunities of each stake-holder position within the existing stress industry

Figure 4 Role-playing at the Global Service Design Network Conference 2011.

landscape. The workshop was split into three group exercises, each with a specific focus. In the first, participants were provided with a stakeholder role, for example, Stress Expert (coach-es, psychologists), Technology Provider (developing monitoring devices such as Heart Rate Variability or Galvanic Skin Sensors), Company (management) and End User (employees) and asked to place themselves in their shoes. By doing so the collaborators needed to consider the persona of their stakeholder role, underlining possible strengths, weaknesses, aims and expectations, revealing potential opportunities and pitfalls. In the second exercise, participants were then asked to move into mixed stakeholder groups, and, staying within their original role, co-create a service for job-related stress with one preselected stakeholder as client. Interestingly, this second role-playing exercise appeared to be an eye opener for some of the groups. Some of the participants by their own admission tended to gravitate towards an end-user focus, and this exercise helped in developing an understanding of the potential of each stakeholder role within the service. In the GRIP project we hypothesise that data has the potential to raise awareness on stress levels and the long-term effects within the workplace, and thus the capacity to empower individuals to change their habits and improve their wellbeing. Our workshop aims became clear, as we asked the groups to refine their service by considering the potential of data in the third, and final exercise. Contemplating data focuses such as group versus individual data collection, active versus passive, and public versus private, the groups were able to conclude that a data led service could create new, targeted insights into the stress levels of both individuals and groups within the working environment. And of course, this insight was naturally beneficial to the GRIP team as it allowed us to validate our service concept with service design professionals.

Implications for design education and creative industries

The competences related to the new roles for designers mentioned above, suggest designers of PSS are currently redefining their approach to creativity. Through the GRIP project, we have come to realize that some approaches work better than others. The implications of our findings are discussed next, particularly with regard to how we educate new designers to perform more strategic roles in the design of services.

Practice makes perfect

First and foremost we must spend a great deal more time practicing working in multidisciplinary teams, and this implies learning to work both amongst design disciplines (e.g. architecture, media etc.), and also non-design disciplines (e.g. Stress Experts). It is via these collaborations that one explores one's own passions as a designer, developing the skills and ambitions unique to oneself as an individual. This requires an investigation and understanding of design roles. As a designer, one is often challenged to develop multiple roles to fit any specific project or fit within the ever-changing landscape of a single project. As such it is crucial to be aware of one's own personal strengths and weaknesses and how these in turn benefit the collaboration. This implies an honesty, a kind of soul-searching, of who one is and how one communicates as a designer. It also highlights the importance of working with other designers and professionals during education, as a learning-by-doing approach, and first-hand experience of differing stakeholder roles is essential to becoming confident of one's own position as a designer.

Generalists blur the boundaries between traditional sub-disciplines of design

Designers are often seen as generalists, rather than specialists, for the way they shift roles and tackle problems. However, within design as a discipline there are many sub-roles or genres that reflect the more specialised knowledge and skills held by a particular designer. Traditionally these sub-genres or disciplines, such as industrial designer, graphic designer, interior designer, reflected a more skill based knowledge. In the current industry landscape, and especially in the design of services, these skills have become somewhat blurred or redistributed, and one might say these disciplines alone are no longer enough to reflect the current design needs of the economy and society. Rather than educating designers within these rigid disciplines, perhaps we should take a step back towards the generalists position, and from there, educate design students on how to analyse and define their own roles based on their own experiences, thus embedding design within the demands of economy and society. This approach ideally creates T-shaped people (Kelley & Littman, 2005) that combine a deep expertise (in design) with a broad understanding of other disciplines, that are often needed in the multidisciplinary teams that create product service systems. As each discipline brings its own knowledge to the collaboration, the roles of each discipline must be defined and explored regularly throughout the project.

The art of conversation

Of course, in order to successfully foster an understanding of the industry landscape and their own position within it, we must educate students on how to develop an empathic approach to other stakeholders and their audience. Students must learn to establish an open dialogue with all the parties involved in creating, delivering and using the PSS their design efforts contribute to. Consequently, a fundamental skill that a designer must learn is to communicate, using traditional design skills to translate ideas and views into the media best suited to converse with other stakeholders and the eventual users of the service. Finding a personal approach to this requires an understanding of the art of conversation, which entails a balance between speaking and listening. In fact, making oneself heard can require a great deal more listening than speaking and thus demands patience and empathy, which are key skills in fostering a conversation between stakeholders. This type of conversation, in the context of design, has been called empathic (Raijmakers et al., 2009) because when working in multi-stakeholder collaborations, the chosen language should be inclusive, allowing people to cross the barriers between disciplines, while being accessible to the very people who will ultimately use the PSS. This is, of course, where the visual skills of the designer are of great value, to create mindmaps or diagrams of service models for instance. Other techniques such as role-playing are also methods to help foster such dialogue and empathy.

Learning to compromise (flexibility, not control)

True conversations are never one-way communication, and no successful collaboration can take place without the designer revealing their own position. Conversation and collaboration require an open dialogue, and in our efforts to empathise we must show who we are as designers, sharing our ideas as well as our perspectives. This implies an open attitude from all parties involved, both to the views and needs of others, but perhaps most importantly to compromise. Every collaboration is ultimately a negotiation, and design students must learn a flexible attitude towards collaboration, conceding that while being prepared to defend their own interests and position, they are unlikely to gain 100% of what they desire. This is where role-playing exercises can, again, be of great benefit, on both a practical and theoretical level. By stepping into someone else's shoes we learn about and foresee the opportunities for collaboration from different perspectives through our own eyes, and hypothesise various directions and outcomes. Reflections upon this process and the processes of others, as well as developing several iterations of this process e.g. swapping roles, can be extremely valuable in refining the service concept and developing future steps. These practices are perhaps more common to anthropology, philosophy and documentary filmmaking (Raijmakers, 2007), to name but a few, however, design students can be inspired by these professions and processes, to adapt and develop their own ad-hoc tools for co-creation.

Discussion

We all know it is difficult to collaborate across different cultures in one team, or even more so in a larger consortium, but this is part of the challenge of working on issues that are so large and holistic by nature that they can only be addressed with a

multi-disciplinary effort. We must address the challenges that come with cultural differences between organisations, by engaging in collaborations such as CRISP. To further the knowledge of the roles of designers in such collaborations, we must reflect on the experiences and results of these collaborations.

Questions we have are how to best create knowledge in this area and how to communicate knowledge we have created to creative industries and their (potential) clients. What are the most effective ways for designers to create knowledge and to communicate it to designers or to others involved in the multidisciplinary teams and consortia? Reflecting through writing is a proven way of doing this, but other methods seem equally valuable, in particular when communicating outside academic circles, to the creative industries who also need to benefit from this knowledge.

Role-playing is one such reflection tool that we suggest deserves further uptake. We explored how role-play can be used beyond its common function to explore existing PSS and new concepts, to a new function of exploring roles of team members in the creation of a PSS. Moving forward we will engage new participants such as students at Design Academy Eindhoven and the audience at the Salone del Mobile in Milan, where the focus is more commonly on product and object design and full control for the designer is often taken for granted, and the flexibility requested from designers in the design of PSS is less known.

These are very different platforms and audiences, demanding further exploration of what works where with whom. Just as designers need to diversify and blur the boundaries between sub-design-disciplines to develop successful multidisciplinary teams, designers must diversify communication tools and output in academic knowledge production and dissemination to reach beyond academic audiences, to business, creative industries, society and education.

Conclusion

As designers we are well positioned to take on new roles to help solve some of the bigger problems society and the economy face because we have already begun to break free from traditional design disciplines. However, we must work harder still to further develop, craft and advocate these new roles we have started to perform. We have made a positive start, but not yet established a clear new role that is widely recognised within the realm of design and beyond.

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Throughout the GRIP project we have appreciated the value of external debate and have therefore sought to validate our ideas by connecting to a wider audience, both within the Stress industry, Service Design, and Design as a whole. As such we have presented CRISP and the GRIP project at various stages of its development including an Expert Day with mental health experts in Eindhoven, a workshop with design thinker Don Norman, a workshop with employees at the GGZE, and at conferences such as SDNC 2011. This open approach has proven incredibly valuable, allowing us to refine both the conceptual framework and communication of our service, for

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