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Participative, co-operative, emancipatory: From participatory design to service design

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Abstract

In the discourse of service design, terms such as platforms, transformation and co-creation have become part of what seems to be an emergent lingua franca. In the participatory design discourse, and the surrounding design traditions, related terms and ideas were developed. The development of the discourse of participatory design, during the last three decades of the 20th century, influence the way we understand the provisions for and possibilities of service design. The analysis is performed along three themes collected from the development of participatory design, and examples of how the legacy of participatory design has been appropriated are given. We conclude that the two disciplines share a basic structure consisting of involvement techniques, cooperative approaches, and emancipatory objectives. Moreover, some areas of future research for service design are identified.

Introduction

In current service design practice, as well as in the service design discourse, terms such as platforms (Sangiorgi 2009), transformation (Burns, Cottam, Vanstone & Winhall, 2006), co-creation (Prahalad & Ramaswamy, 2004) etc. are widely used. Examples of service design projects that carry characteristics of this discourse are the Gulliver project in Cologne, where homeless people were involved in a design process and created a help to self-help centre; the ActiveMobs concept developed by the RED-group in England as a care structure for lifestyle related health conditions, and Engines project in setting up a Social Innovation lab in Kent County. In these, and similar projects, there have been developed user involvement techniques based on collaborative ideals. These are strong, in e.g. their emancipatory objectives, as well as rich in their co-operative approaches (see e.g. Cottam & Leadbeater, 2004; Parker & Heapy, 2006). A common starting point, to build an understanding of these projects, is by viewing the development processes as *participatory*. The participatory design tradition is sometimes referred to in the aforementioned projects (Burns, Cottam, Vanstone

& Winhall, 2006). The outcome of a service design or development process is in itself a process, where value is co-created between customers and service organisations. This is an important and distinguishing character of the design object of service design (Holmlid, 2007). This difference is not highlighted within Participatory Design or digital interaction design. Even though the term “service” is common in digital interaction design discourse, there has been little attention paid to the customer experience beyond the user experience, or the use experience outside the digitally mediated service touchpoints. In order not to mix design processes and design process outcomes we will focus on the character of the design *processes*.

Participatory design, or cooperative design which it is sometimes called, has had a long tradition in Scandinavia (Schuler & Namioka, 1993; Greenbaum & Kyng, 1991; Bjercknes, Ehn & Kyng, 1987). In the participatory design traditions the involvement of users and building on their activity and participation is a well developed technique. Interestingly, the outreach of these design traditions seems to have had little impact on service development, even in Scandinavia. But, it seems as if service design has been able to revitalize participatory design.

In this paper we investigate the connection between participatory design and service design, and show how the legacy of participatory and co-operative design can inform service design, and vice versa. We relate current service design objectives to that of the participatory approaches of digital interaction design established during the 70’s and 80’s.

To do this we utilize three themes; user involvement, co-operation and emancipation. These reflect three of the issues that have dominated the PD discourse throughout the years; that users should be involved, who should cooperate towards goals, and the higher visions and goals as driving forces.

LEVERAGE FROM LEGACY

The design tradition which is often broadly referred to as Participatory Design,¹ started out during the 70’s in Scandinavia. While it’s roots in design theory might be traced back to William Morris (1891), over Paulsson (1919), and Paulsson and Paulsson (1957), to participatory practices in urban planning of the 60’s it earned itself a uniquely important position within systems development and human-computer interaction, and later within interaction design. The discourse within PD has been dynamic, radical and critical for well over 30 years. It has contributed to a wide array of insights, and have created important impact, of which we today experience the results. Only recently the first full-scale field trials have been performed, reported in a project with the Swedish Police (Räsänen, 2007; Räsänen, Thuresson & Wiberg, 2005). This is an indication of the long term thinking that is needed in these areas of research.

User involvement

Kensing and Blomberg (1998) point to three issues dominating the discourse of PD. Two of these issues are the nature of participation and methods. They state that PD mainly has had a

¹ There are several terms used for this tradition. In the Swedish discourse the term co-operative is favored over participatory. In this paper though, cooperative will be used for other purposes than describing the “deltagande design” tradition.

focus on creating provisions for executing individual projects with user involvement. These provisions include involvement techniques, ways of directing projects, etc.

Carroll & Rosson (2007) identify a moral premise of the participatory design movement, that users have the right to participate in projects developing technology for their future work place. The moral premise does not, however, prescribe how their right should be operationalized, who would be responsible for making this right possible, etc.

In the Scandinavian approaches (see e.g. Bjerknes, Ehn & Kyng, 1987; Greenbaum & Kyng, 1991; Schuler & Namioka, 1993; Kyng & Matthiassen, 1997), during the 1970s and 1980s the rationale for user participation was partly based on the fact that system developers rarely, if ever, met the real users, or the end users as they were called. The developer mostly met the managers or the technical personnel, who were not the primary users. One of the main arguments for using PD was the idea that end-users best would know how to change practice, not management. In the tradition that developed from PD, end-users were given the possibility to participate in and contribute to the design together with the developers. As PD evolved, workers as well as managers were involved in the projects, and local resources as well as technical/organizational alternatives and developing organizations for action were important goals (Bødker, 1996).

The practicalities of involving users in PD projects have taken on many different forms, many of which were taking advantage of a design perspective. Methods and techniques used were e.g. that users participated in building prototypes and mock-ups of systems as well as work processes, they were performing role-plays, and designers and system developers were apprenticing with users to understand and empathize with their work, (Grønbaek, 1991; Ehn & Kyng, 1991; Pape & Thoresen, 1992). These methods allow designers and users to easily and engaged experiment with variations of future possibilities (Kensing, 1987; Kensing & Blomberg, 1998).

In the development of PD the figures of thought for involvement expanded to include the wider realm of design as well as the political realm. A long range of techniques have followed since the 70's with an even stronger design orientation; design probes (Mattelmäki, 2006 ; Gaver, Dunne & Pacenti, 1999), design games (Brandt & Messeter, 2004), make-tools (Sanders, 2000), Situated and Participative Enactment of Scenarios (Iacucci, Kuutti & Ranta, 2000), etc. These were developed with a heritage based in the PD projects, the groundbreaking work of David Kelley Design and ID Two, and the movement of bringing design to software (Winograd, 1996; Winograd & Flores, 1987). The mentioned methods adapts older methods or develops new, to deal with issues such as motivating users to participate, or building on users' capacities and willingness to share. Some of these were not conceived as part of the participatory design arena, but identified and adopted similar ideals.

Luck (2007) identifies the importance of skilled facilitation by designers when involving users in participatory processes. Skilled facilitation leads to better engagement of users, and potentially to better knowledge exchange between users and designers. PD also invites views where users act as designers and questions approaches where the designers act as users (Reich, Konda, Monarch, Levy & Subrahmanian, 1996)

Cooperation

In PD there has been some discussion on who should be involved in the cooperative projects. Gärtner (1998) highlights the importance of the relationships between the actors involved in a development project, such as the consultant, customer and client. Moreover, Gärtner views the relationship between the service organisation and the client as a separate

project. Although authors acknowledge the importance of including organizational issues and involving management, they do not elaborate further on it, and sometimes even exclude it from the analysis (Holmlid, 2004; Buur & Bødker, 2000; Gärtner, 1998; Gärtner & Wagner, 1996; Kensing, Simonsen & Bødker, 1998). In one paragraph Kensing and Blomberg define the audiences of PD research work as “(1) the workers and other organizational members who will benefit from the design project and (2) design professionals who may adopt participatory design agendas and approaches. In addition, policy makers and decision makers at the organizational and national level also are important recipient groups for PD research.” (Kensing & Blomberg, 1998, p178). Further on they only discuss the cooperative components of the first two groups as part of a joint interest in a system development. Bødker (1996), on the other hand, states that there was a development of the PD projects where initially local resources and unions were in focus, where later projects included managers as well as employees. Other approaches have suggested that the designers should team up with procurers, managers and process developers, instead of focusing on development of tools and systems (Artman et al, 2009; Holmlid & Artman, 2003).

One of the original approaches in participatory design was the Collective Resource Approach (CRA). It was developed partly as a critique of socio-technical systems design approaches. CRA in a design context assumed that technology and development is not value and power neutral. If certain objectives were sought through design, such as social objectives, the Collective Resources Approach wanted to create a process and environment that increased the mutual and collective understanding of the given design situation, through involvement of the different specialized and situated expertise and competence that could contribute to this understanding (Bjerknes & Bratteteig, 1995). Vimarlund, Eriksson & Timpka (2001) shows how knowledge asymmetry within such situated design work exists and can be minimized.

When reviewing PD, more general approaches, such as ethnography (Suchman, 1989; Segelström, Holmlid & Alm, 2009), the engagement with users (Mattelmäki, 2006; Wentzel & Holmlid, 2009) and critical perspectives (Gaver, Dunne & Pacenti, 1999) occur.

Emancipation

The discourse of the cooperative movement was concerned with emancipating users by having them participate with systems developers in system development processes. Or to contribute to the understanding of how users themselves drove the development of IT-support as part of their professional development. That is, the politics of participation, which is the third issue raised by Kensing & Blomberg (1998). Some of the early work within cooperative design was aimed at improving workplace democracy (Bjerknes et al, 1987). Some authors (Luck, 2003) even argue that the ideology of inclusive design is similar to the ideology of participatory design.

In Bødker (1996) the development of PD is described, and in the projects during the 90's conflicts in organizations are seen as starting points for constructive design work. Moreover, the scope of emancipation had grown from developing local resources for action, over exploring alternatives futures of an organisation or its technology, to developing capacity and ability to empower the organisation to achieve local action.

The emancipatory objectives were not easily accomplished in early PD projects. When PD refers to change it is the kind of change that comes from the bottom up that is referred to. In an interesting academic debate Kyng (1994) shows that even though the early PD projects had been successful in the sense of involvement and cooperation, and with some of the

emancipator objectives, still a lot of work seems to have remained to reach the utopias envisioned by PD researchers. For example: “It seemed that one could only influence the introduction of the technology, the training, and the organization of work to a certain degree. From a union perspective, important aspects like opportunity to further develop skill and increase influence on work organization were limited.” (Bjerknes et al, 1987, p32)

The collective resource approach also allows for working with organisational issues and management. Holmlid (2009a; 2006) identifies challenges for management of interaction design, and argues that design should be viewed as part of an organisation’s operating core rather than a support process.

The legacy of PD in User-Centered Design

In User-Centered Design for systems development the legacy of PD has encountered some frictions in transfer. Some of the problems with the transfer are held forward by Holmlid (2009b; 2005). One of these is that the system developers have become the powerful player deciding what it means that a system is well designed, and have at the same time monopolized user involvement. A consequence of this is that the cooperative and participative nature have been reduced and institutionalized under a logic of technology development (Spinuzzi, 2002; Holmlid, 2002). Carroll & Rosson (2007) make a difference between a pragmatic premise of participatory design and a moral premise. The pragmatic premise state that direct inclusion of users’ input will increase the probability of a design outcome that is successful. The moral premise is that users have a right, and possibly an obligation, to be directly involved in the processes of development. UCD has been focusing on the pragmatic premise, which means that UCD have a focus on gathering input from users and using lightweight design exercises.

INVOLVEMENT AND SERVICE

In service innovation and design a set of different projects are examples of how participation, cooperation and emancipation have been at centre stage in the design processes. It is important to note that in service design, unlike digital interaction design with which participatory design mostly have been associated, the resulting design objects might have participatory, cooperative and emancipator characters. This is in line with the general differences and similarities between service design and interaction design (Holmlid, 2007; Holmlid & Evenson, 2008; Holmlid, 2009c). Here we will mainly look at the character of the design *processes*, and less on the outcomes of these processes.

User involvement

In the report “Journey to the interface” (Parker & Heapy, 2006) there is an argument about traditional market segmentation techniques, stating that they emphasize a model where the supplier knows best; it creates a sense of involvement that isn’t actually there. This is similar to the critique towards user-centred design put forward by Carroll & Rosson (2007). As a contrast to this Parker & Heapy (2006) argue for starting out where the customer is, seeing the service as the customer sees it. In practice this means starting out looking at the service as a service journey and how this is made up of touchpoints through which values is co-created. In the value-creating sense users are already involved in performing the service. The knowledge of these users, and of the frontline personnel, only from their experiences from

service performance, is a valuable asset. Involving them to share these experiences in a design process, can be done with fairly simple techniques (Parker & Heapy, 2006; Moritz, 2005).

Many of these techniques engage customers and personnel in ways that build on their capacities. In the Baltic Art centre project (Miller & Hamilton, 2008) frontline personnel were creating small prototypical tests of things that they wanted to change. A lot of these methods rely on a co-creation approach (Pralhad & Ramaswamy, 2004). In the project Greta & Torsten (Arvola, Holmlid, Nygard, Segelström & Wentzel, 2008) a technique for situating interviews was devised as part of a weekly walking quiz (Segelström, Rajmakers & Holmlid, 2009). In the Ludinno-project several different techniques were used, among them generative design innovation techniques together with Ericsson (on Personal Area Mediators) and Sveriges Television. Other methods in common use are design probes (Mattelmäki 2006), design games (Vaajakallio, 2009) and experience prototypes (Buchenau & Fulton Suri, 2000).

Co-operation

In the report HEALTH: Co-creating Services (Cottam & Leadbeter, 2004), the authors write about communities of co-creation, in order to *“build up the knowledge and confidence of the users to take action themselves in new partnerships with professionals”*. The cooperative processes in service design projects are so infused that practically all projects set up different cooperative team structures. In projects such as Engaging Fathers, Toppelzone, Gulliver, and OpenHealth customers as well as frontline personnel, management, policy makers, and surrounding organisations are cooperating towards common goals.

One important issue that was identified in the Baltic Art project by Live|Work was that to start innovation work and sustain it, the involved users has to feel that they have a permission to change things (Miller & Hamilton, 2008). In practice this means that there are pre-requisites for cooperation, which is set by management even though they might not cooperate in the specific design work. So, legitimacy of participation may be a prerequisite for the success of participation program.

Finally, a quote that describes one co-operative approach, based on the idea of providing platforms for co-creative design

Services are jointly designed by users, frontline workers and professionals through a process of dialogue that goes beyond the initial perspectives of any one party. Co-creation is not a one off event, like a referendum in which the community decides what should be done. Developing services that promote health will take more time. Nor is co-creation just a question of formal consultation in which professionals give users a chance to voice their views on a limited number of alternatives. It is a more creative and interactive process which challenges the views of all parties and seeks to combine professional and local expertise in new ways. (Cottam & Leadbeater, 2004, p22).

Emancipation

In Bolton the Design Council based do-tank RED helped redesign health services for managing Diabetes II, and in Kent to deal with chronic diseases of an ageing population (Murray, Burns, Vanstone & Winhall, 2006; Cottam & Leadbeater, 2004). The basic emancipatory objective was that people in peer-based collaboration would take charge over their own health, instead of relying on medical identification of symptoms and clinical treatment strategies.

Other projects with obvious emancipator objectives are The Gulliver project in Cologne, where homeless people were involved in a design process and created a help to self-help center, and the projects Engaging Fathers, Social Innovation Lab in Kent, Toppelzone, Make it Work, and the list grows each month.

In service design the figures of thought on knowledge asymmetry is taken one step further, including asymmetry in emancipation, and a larger amount of actors involved. All actors and organisations have their own goals for emancipation in these projects. A demand that is put on the outcomes is that solutions allow for open exchange of knowledge in the process of service assembly, and that this is performed in a collaborative way. Identified challenges include, open-systems approaches, distribution of resources, building on capacity, and collaboration (see e.g. Burns, Cottam, Vanstone & Winhall, 2006). That is, the complexity of emancipation in service design surpasses the emancipation of participatory design.

One central emancipatory objective of service design is transformation (Burns, Cottam, Vanstone & Winhall, 2006). This seems to be an objective more easily argued for with a service design approach, than some of the PD objectives. But as with PD in the 80's it is too early to judge the sustainability of the outcomes.

Supporting the case for PD in service

Interestingly, within the service management and service quality fields research supporting the ideas and implementation of PD have been performed. In a series of studies and analyses it is shown that 1) there is a risk that users involved in development projects become technology advocates rather than user representatives, 2) that users willingly share ideas and solution, and 3) that users can be more innovative than business innovators (see e.g. Matthing, Sandén & Edvardsson, 2005; Magnusson, Matthing & Kristensson, 2003).

The experiences from PD projects show similar concerns, but that involvement does not have to lead to the situations as identified above. Or, that other archetypical situations occur, such as that the users involved become hostage within a development project, that the users involved become professional user representatives, that the users involved are not regarded as experts on utility of technology. In PD it is precisely avoidance of these situations that contribute to foundational figures of thought and assumptions,

An important aspect to understand here is that the involvement tradition within service management and quality is new. One consequence is that the way these areas treat user involvement is similar to the way that user-centered design have; institutionalized in the sense described in Holmlid (2002; 2009b), limited in the idea of equality that Parker & Heapy (2006) shows in "The journey to the interface", and focused on the pragmatic premise of Carrol & Rosson (2007). Moreover, there is an assumption that it is a negative effect that users, when they get involved, learn how the service organization works or what technology can achieve. In these studies, as well as in some of the applications of von Hippel's ideas on open innovation (von Hippel, 2005), there is a fear of a Midas Touch effect; whatever user we involve will be more technology oriented. Maintaining a distance and an asymmetry, is a foundational figure of thought in these areas.

Participatory design and service design carries counter arguments to this. Participatory design, and the collective resource approach, shows that there is an asymmetry in knowledge in both directions, and decreasing this asymmetry can be used as a strength for innovativeness. Service design shows that by setting up user involvement in particular ways, where, e.g., users and frontline personnel are provided with generative tools and techniques, they can produce innovative services. On the other hand, in the work of von Hippel (2005)

users and user communities are pin-pointed as sources for innovation, with at least the same power of innovation as professional product or service developers.

In practice based research, as e.g. the ICE project at Linköpings universitet, as a first step towards better co-operative approaches and more open-systems thinking, we state that not only is it necessary to involve users in service development projects, it is also a necessary key practice that service developers get involved in the realities that their services are supposed to contribute to.

INFORMED BY DISCOURSE

There seems to be a fair amount of overlap in the discourses between service design and participatory design. Both disciplines share a strong focus on engaging people in design and transformation processes, and the objective to create sustainable transformative structures. Engagement is created through the reliance on hands-on techniques, letting cooperative teams work with the envisioning of alternative futures. These techniques also promote the competence, influence and ideas of each individual participating, and on sharing knowledge within teams. From the analysis we identified three central areas of overlap; emancipatory objectives, cooperative approaches and involvement techniques.

Failures in participation

There is a common sense opinion and a figure of thought saying that with user participation there comes a limitation in innovativeness. From the experiences of participatory design, the wider design participation projects at the end of the 20th century, and the development in service design, this seems to be falsified. This falsification is also supported by von Hippel (2005) and the experiments in service development (Matthing, Sandén & Edvardsson, 2005; Magnusson, Matthing & Kristensson, 2003). The limitations in innovativeness when involving users should be understood as failures in setting up appropriate participatory design processes, not as a failure of participatory design *per se*.

From PD to service design

The service design projects have a strong sense of putting the individual's competence and ability as a primary power for development of services. This resembles the values of the Collective Resource Approach from Participatory Design. It would be useful for the service design field to make a short journey in history, and collect the experiences and the critique of CRA to be able to embrace this in the way that projects are performed. Too often today, in research and development, the recency of a source has a large influence on what sources of knowledge that are used. Not because we look for the most recent source, but because the tools we use happens to promote recent work better than origins, or trails of knowledge development. Service designer would be helped in reading some of the overview articles or books on participatory design referenced.

The socio-cultural traditions is a strong theoretical tradition within participatory, through e.g. Activity Theory. Sangiorgi & Clark (2004) is an attempt to use and identify challenges in using Activity Theory in the service design domain. This is a trajectory that could be further pursued, in parallel with exploring other theoretical frameworks. One such attempt was the papers presented at the IASDR conference in the special session on service design, where methods of ethnography, subversive cultures and management theories were discussed

(Singleton, 2009; Cautela, Rizzo & Zurlo, 2009, Penin & Tonkinwise, 2009, Junginer & Sangiorgi, 2009, Segelström, Raijmakers & Holmlid, 2009).

From service design to PD

One of the shortcomings of PD is the seemingly strict focus on computer mediation. This restricts the design work to those things that can be expressed or changed by the means of computers. In early PD projects the idea was to work with the users as if the computer was viewed as their professional tool, and the designers as tool-makers. There is a “tool” perspective in the PD discourse that is very strong. What service design brings, as a complement, is the pluralism of how to achieve a specific value in cooperation with others, through several parallel and sequential channels, through opportunistic switching between service offers and channels, etc (Holmlid 2010a; 2010b, 2008). It is not an unfamiliar figure of thought for PD, but it is seldom used as a point of departure in the research.

Another strength of service design, that would bring leverage to the ideas behind PD, is the neutrality towards different actors and their goals. It does not have to be inherent in projects that users and trade union goals should be promoted at the cost of demoting management and business goal. Rich cooperative approaches should be able to embrace all these. Service design projects seem to embrace the figure of thought that cooperation between actors sharing capacities and resource will leverage every actor, in the process, and toward their own and their shared goals.

Moreover, service design is a design discipline utilizing visualizations in analysis and modeling (Segelström & Holmlid, 2009; Segelström, 2009; Kimbell, 2009). Some PD projects have a strong visual component, but learning from service designers about choosing visualization techniques and how to use them could reinvigorate parts of the PD processes.

Finally, in comparison to the early participatory design projects, service design has been able to go beyond the idea of developing tools for workers. The focus on the end product as co-creation of value should be brought into the participatory design arena, where e.g. storytelling could be one way forward (Blomkvist & Holmlid, 2009).

Call for continued work

Given its short history service design hosts a wide set of publicly available examples of projects that manifest user involvement strategies, cooperative approaches, and emancipatory objectives. As a research effort, in a descriptive design research tradition, it would be an important contribution to study these as design exemplars and make a thorough analysis on the design processes, the design concepts and the design outcomes. By providing these analyses the field would be able to develop both a language to talk about design, and a critical discourse.

There are also traditions that connect to the development of PD and service design that would be important to explore further as a means of bridging between PD and service design. One underexplored area of attention is the traditions from cognitive science.

Situated cognition (Suchman, 1987; Kirshner & Whitson, 1997) has as its basic premise that knowing is inseparable from doing. As a consequence, in a service situation, the knowledge with which a certain action is performed, is construed *in situ* and co-determined by the agents and the context. Based on the figure of thought behind a service-dominant logic this can be a relevant way of understanding why services are performed in the way they are under the circumstances. When understanding processes and actions in this way, what we choose to

study and how we study these things, will be different than if we study the same actions under the assumptions of theory of reasoned action.

Communities of practice (Lave & Wenger, 1991) are groups of people with a shared interest. In the process of sharing experiences and information the members learn with and from each other. In this process individuals participate in a continuous creation of opportunities for development, with which they engage. Understanding the actor networks necessary for a service performance as a community of practice, allows researchers to study phenomena such as peripheral participation, identity in micro and macro-processes, etc. As the design object for a service designer is a process, and the possibilities and action spaces for participating actors in that process, and the actual service experience, as well as the result of a service, is co-created by these actors, the theories of communities of practice could be helpful to understand some of these issues.

The basic premise of embodied cognition (Lakoff & Johnson, 1999) is that all aspects of human cognition, such as thinking and decision making, are construed as a consequence of the human body. For research on design of services this would influence the way we understand how, e.g., metaphors of services are used and construed. Moreover, it would be influential on the variation between how human intensive services and technology mediated services are experienced. This, in turn, has consequences on services that are hybrids of these.

The distributed cognition framework (Hutchins, 1995) tells us, e.g., that cognitive processes can be distributed across individuals, that coordination between external actions and internal cognitive processes is a distribution of cognitive processes, and that processes are distributed over time. Especially in some service performances, where the distribution is made across individuals that are temporarily involved, understanding how the process of becoming involved is structured, would be of importance for service experiences. Some of these issues are exemplified in Holmlid (2010a; 2010b)

CONCLUDING REMARKS

The small piece of work presented in this paper indicates that participatory design and service design share some common, and central, areas. Both base their argumentation on emancipatory objectives; be they democratic, power-driven or sustainability-laden. Both set up and organise co-operative approaches. And finally, both use engaged involvement and pluralistic participative techniques to operationalize these. Working across, and consciously on all, these multiple levels, as strategic, tactical and operational levels, is a unique and distinguishing practice of these design disciplines.

At the moment only few actual research studies have been made in the intersection between design as phenomena and service as phenomena. There exists ongoing work, and we hopefully will see even more, that will be presented in arenas where insight and impact is at centre stage. It urges me to call for more research studies of design of services. These studies need to span the whole spectrum of research approaches, descriptive, critical, experimental, theoretic and reflective studies.

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