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DESIGNERS OR MANAGERS? NEW EMERGING FIGURES WITHIN ORGANISATIONS

D. Loi

Keywords: shared work environments, design roles, management, emerging roles, disciplinary boundaries, product-service systems, social construction of technology, ecologies, strategic design

1. Introduction

This paper expands work undertaken by the author on the role of designers within organisations, with a specific emphasis on the development of shared work environments and collaborative practices.

A 1999-2000 six months experience as supervisor of an urban telecentre contributed to observations around shared work environments [Morelli and Loi 2002] and to the proposition that such spaces should be considered, designed, and managed as if they were ecologies as they behave as ecologies [Loi 2003].

In the next sections some theoretical underpinnings to this paper will be highlighted, with reference to established theories such as Product-Service System (PSS) and Social Construction of Technologies (SCOT).

The paper discusses that within the discussed context users have a central role in the design process and proposes a possible methodological approach that can take account of such roles.

This approach opens up a series of questions around the responsibility of design within organisations, offering the proposition that new figures amalgamating design's and management's capabilities should emerge.

2. Theoretical framework

This section offers a theoretical framework for the methodology proposed in Section 3.

This framework looks at shared work environments from three different but interwoven perspectives (Sections 2.1. to 2.3):

- shared work environments as Product-Service Systems (PSS);
- shared work environments as socially constructed spaces, and
- shared work environments as ecologies.

PSS theory is essential in this context as it provides a new way of interpreting shared work environments, offers alternative modes of working within them, and stresses the role of users in the design process.

Social Construction of Technology theory provides concrete parameters to describe and compare the social and cultural models converging in shared work environments.

The notion of shared work environments as ecologies offers a new way of conceptualising work and shared workspaces and opens up the issue of the methodological approaches to undertake in order to address the complexity of such systems (in particular the role of users)

Section 2.4 provides some key notions deriving from these three interwoven perspectives.

2.1 Shared work environments as Product-Service Systems (PSS)

Shared work environments are Product-Service Systems [Loi 2001].

Product-Service System theory originates from sustainable design and aims at interpreting systems as mixes of products and services [Manzini 1995]. This theory advocates to replace the traditional material intensive ways of product utilisation with the opportunity to fulfil consumers' needs via more dematerialised system solutions [Mont 2000].

To function effectively and be sustained PSS require appropriate structures - different social infrastructures, new human structures and organisational layouts [Mont 2000].

Designers have an important role and responsibility within this scenario, as they can:

- develop new frameworks,
- create new ways of thinking, and
- foster the emergence of new social structures

Besides, various stakeholders have a new role, opportunities and responsibilities.

Consequently, design can be seen as something much broader than the traditional product-oriented and disciplinary-oriented activity. Within this paradigm designers become those who design, not necessarily those who have a degree in that specific discipline.

At the same time design is just a portion of a much bigger picture where "new organisational, financial, legal and social arrangements, as well as innovative design and technology, may be required to make such new product-service systems practical or economic" [Roy 2000].

The scenario of sustainable product design and PSS can be described as a design management activity, where the need to form stakeholders and partnerships is increasingly necessary [van den Hoed 1997]. As Manzini [1995] puts it, the design of PS systems requires the management of "products and relationships in a spatial and temporal context, thinking about the possible ways of interaction among the actors and the hypothetical place where such relationships will be developed".

PSS theory enables a view where end users have a key role in the design process.

Within this climate, it is proposed that all those involved in the process should design it - the designer becomes therefore a multi-disciplinary team which includes end users.

2.2 Shared work environments as socially constructed spaces

Bijker [1997] has introduced the concept of technological frames to analyse the process of social construction of technological artefacts.

One relevant suggestion coming from studies on the social construction of technological systems is to extend the analysis of the evolution of technological system to the interaction between social frames and material elements (technological artefacts).

Technological artefacts are therefore seen as the crystallisation of:

- the social and cultural values proposed by the designers, and
- the cultural context in which such artefacts were produced.

A link is established between people & their social behaviours and the artefacts & the space they use/mhabit. Artefacts and space are somehow engendered by users and their ways of using.

A shared work environment can be therefore interpreted as a space created by relationships, by people - a *socially constructed space*.

This highlights the importance of including users in design processes aiming at the development of technological systems.

2.3 Shared work environments as ecologies

Shared work environments can be read as ecological systems [Nardi and O'Day 1999, Steele 1986] that are part of larger systems represented by organisations.

Steele [1986, p. ix] defines organizational ecology as "the pattern of reciprocal relationships and influences among organizational members and their workplaces". In this paper the notion of ecology

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is borrowed from a variety of domains and defined as an *entity composed of interdependent elements and their environment*.

Like ecologies, shared work environments dynamically grow via evolutionary mechanisms; they are fluid entities constantly morphing, growing, and changing. Besides, users represent a necessary condition for a system to be sustained [Loi 2003].

Due to these characteristics, the design of these spaces represents a challenge. Workspaces' conventions often prove to be inappropriate as each team, person, system, and organization has in reality its own dynamics, character, values, and ways of doing.

Like ecologies, shared work environments cannot be managed or designed in the traditional sense.

If this is the case, who should design such spaces? How should they be designed? Is it even possible to design them?

2.4 Some propositions

As previously discussed, shared work environments are Product-Service Systems. Moreover, they are PSS that include technological artifacts. Finally they can also be read as ecological systems.

Following the above:

- when designing a shared work environment one should employ methodologies that take into consideration the social frames they represent;
- shared work spaces should mirror such social frames;
- each shared work environment is different from another due to the fact they are generated by different social frames;
- shared work environments are in constant evolution therefore requiring constant upgrades;
- due to the above a spatial model cannot be designed; and
- what can be designed is a strategy.

A strategic design process is "a process of identification of partial objectives and of the ways to their achievement, taking into account the possibility to modify both should the context conditions change" [Manzini 1997].

Strategic design becomes a "new approach for companies to engage in an increasingly 'turbulent' market" as it "focuses the design process on an integrated body of products, services and communications, as a model for companies to address changes in technology and social and consumer attitude" [Manzini 1996].

These views point out the necessity for the design process to be flexible and adjustable according to circumstances – circumstances that change as interaction between stakeholders occurs.

3. Proposed methodology

As shared work environments are socially constructed, if something has to be designed and managed, it will have to accommodate this characteristic.

It is proposed that people should not adapt themselves to pre-designed shared work environments, but rather develop and manage their own.

Steele [1986, p. xii] stresses the importance of a process that takes into account people within a workplace when he states that:

"Management processes should enhance the sense of self-worth of members, not degrade it. People should be able to influence or control some elements of their immediate work surroundings, so they do not feel powerless and so they can get information back about the effectiveness of their choices over time".

To further emphasize this point and to highlight the role of managers enabling people within organizations, Morgan claims [1997, p. 267] that "the fundamental role of managers is to shape and create 'contexts' in which appropriate forms of self-organisation can occur".

It is suggested that design has, alongside management, a key role in shaping such 'contexts' and in shaping spaces capable of fostering and sustaining them. This act of shaping can occur only through processes that acknowledge users - new contexts cannot be imposed.

Shared work environments need to be responsive, transformable, personalizable, soft, open to receiving imprints, enabling different ways of being inhabited and used.

It is therefore proposed that to design a shared work environment one should:

- Acknowledge its complexity and the fact that space should follow practices, understandings and observation;
- Observe the space - its dynamics and characteristics;
- Understand users' practices and acknowledge their impact on the ecology in which they are embedded;
- Encourage and enable users' practices, trying to develop an understanding of how shared work environments' characteristics could manifest themselves within a specific context;
- Involve users in the design process - both on an organizational and spatial level;
- Iterate all previous points as a Shared Work Environment evolves in time.

Within this context Participatory Design [Sanoff 1990, Schuler and Namioka 1993] represents an viable option to address users' practices and requirements.

This methodology allows users to contribute to the design process, by recognising the importance of people's practices, and by enabling and empowering them.

4. Discussion

The proposition of using Participatory Design when shaping shared work environments opens up some issues: that of understanding users, being able to ask the right questions, and listening to their answers and interpreting responses. Questionnaires and similar tools are often unsuitable to illuminate everyday practices - users' sentiments about space, their needs, and their ways of inhabiting that space. If the role of designers in this context is to utilise participatory practices, then questions on how to create an appropriate dialogue with users, how to decode and use such dialogue, and how to iterate it should be asked and deeply considered.

Shared work activities between workers are increasingly required within organizations - these activities concentrate in and around shared work environments that therefore need to be carefully enabled, designed and managed.

The author believes that neither design nor management can deal alone with these spaces' complexity and the requirements they generate.

It is proposed that opportunities for a substantial shift in the notion of design and management should be considered and discussed.

Such opportunities see design and management blurring to create new figures that can act as enablers for users' practices to emerge and for shared work environments to be sustained and co-developed within organizations.

Further reflections on the disciplinary territories within organisations could provide useful insights to understand how to enable users' practices and design appropriate spaces to house such practices.

These issues unchain several questions about the role of design and management in the context:

- Should a designer be a present/constant figure within organisations to ignite and maintain a Shared Work Environment?
- Where does the role of a designer end and that of a manager start?
- Are the role of design and that of management so different within the discussed context?
- Where does the role of a designer end and that of a users start?

The author proposes that one viable possibility to address the issue of how to develop shared work environments is to increase managers' repertoire with tools that come from the practice of design and that can enable shared work environments provided that participatory methodologies are used.

These tools could then be instrumental in fostering collaborative practices provided a conducive environment is in place.

In particular, these tools could be used for:

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- gaining inspiration on how to 'read' a workplace and its inhabitants – to provide nuances and understandings that otherwise would be lost within a conventional process (that uses tools such as cultural surveys or workplace questionnaires);
- getting information about both space and people within an organization – information that could complement and deepen that gathered via traditional means; and
- creating links between the inhabitants of an organization – relationships that could enable collaborative practices.

Managers could then adopt participatory design skills to facilitate co-design activities aimed at the development of shared work environments. These environments will mirror the social frames they previously enabled by using the mentioned tools.

As we said, shared work environments are ecologies, fluid entities. Consequently the process is required to become a loop to accommodate constant changes.

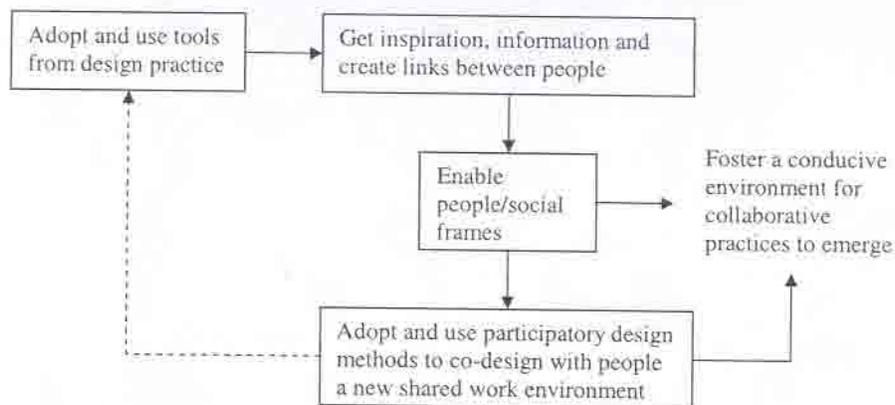


Figure 1. Designing shared work environments – proposed process

The adoption of these tools and of participatory practice capabilities by managers implies the creation of a new figure that blurs the boundaries between design and management.

5. Conclusion

This paper discussed the nature of shared work environments and ways of developing them, opening a debate around the boundaries between design and management.

As neither disciplines appear to be able alone to deal with the complexity of such spaces, it has been proposed that opportunities for managers to think and operate like designers should be developed. Managers could take on the role of enabling the co-design of shared work environments provided they adopt some essential design capabilities.

Their repertoire could therefore be increased by using tools and methods that come from the practice of design.

Can a manager or consultant think as a designer?

The author believes this is possible if designers will embark on a journey where their capabilities can be shared, adapted, and possibly expanded by interacting with people belonging to what could be read as their sister discipline: management.

Alternatively, one could argue that designers, provided they acquire the appropriate managerial skills, could engage in management-like roles and operate within organizations on a constant basis.

Either ways we will not be facing a manager or a designer, but a new figure emerging in the space between the two.

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