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Design thinking in managing (and designing) for organizational change

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Increasing interest in ‘design thinking’ in the fields of management and organization has resulted in a concern with using design-oriented approaches as means to support organizational change and innovation. To this end, conceptual ideas such as Boland and Collopy’s ‘managing as designing’ have aimed at exploring how ‘design thinking’ can inform managers and the work done in organizational contexts. However, these concepts tend to be discussed theoretically with little grounding in empirical studies of practice that might inform managing according to a ‘design thinking’ approach. In this paper we look at one attempt at facilitating organizational change through ‘design thinking’. The context is the design of a new building for the UTS Business School, Sydney by architect Frank Gehry. User participation was applied to engage stakeholders in ways that would produce valuable input for managers as well as architects. We consider how architectural design and organizational change are constructed and accomplished and to what extent the manager’s approach can be considered ‘design thinking’. Our findings suggest that while ‘design thinking’ may be one approach to managing complex change processes, a deeper engagement between designers, managers and users is needed.

Keywords: Design thinking, user participation, organizational change, management, architectural design

Introduction

Burgeoning interest in design and ‘design thinking’ in the fields of management and organization has led to a focus on managerial applications of design thinking to bring about organizational change. This might seem sensible – after all, ‘design is concerned with change’ (Cooper & Junginger 2011, p. 38). Concepts like ‘managing as designing’ (Boland & Collopy, 2004) involve ideas that aim to unfold (or at least suggest) what ‘design thinking’ may mean for managers and how it can inspire and inform work being done in organizational contexts. Even though more recent management interest in ‘design thinking’ was initiated in the context of understanding and drawing upon how expert designers work (Boland & Collopy, 2004; Johansson-Sköldberg et al, 2013), there has been a propensity within certain management and organizational literatures to view ‘design thinking’ and its practice as emblematic for new ways of thinking in organizations. Like others, we see managerial applications of design thinking and design thinking embedded in design practice, as two distinct theoretical and analytical discourses (Cross, 2011; Johansson-Sköldberg et al 2013) that have different implications for practice. To date, however, the management and organization literatures have typically explored concepts such as ‘design thinking’ and ‘managing as designing’ as a theoretical approach or attitude. If such concepts are to be grounded in practice more empirical studies are needed to provide deeper insights into what it means to manage according to a ‘design thinking’ approach.

In this paper we offer preliminary results from an empirical study that provides insights into what it means to manage according to a ‘design thinking’ approach, why it is difficult and how it may be a fruitful path, nonetheless. The context for our research is the design of a new building for the UTS Business School, Sydney by architect Frank O. Gehry; a project in which the client anticipates that a new building of radical design will facilitate organizational change. User participation was applied as a way to engage stakeholders and key users in this process to produce valuable input for the managers as well as for the architect. Rather than seeing this as one context within which organizational and architectural design thinking take place, we see it as two separate design processes with distinct methodological differences, tensions and contradictions between the ways managers and designers work. We consider this as the management of a ‘double design process’ (Stang Våland & Georg, 2014) of organizational change and architectural design. The management of double design processes requires two contingent enactments, in which the architecture is

viewed as symbolic for the 'new' organization. Acceptance of a building design that is unconventional and radical is seen as analogous to the changes sought for the organization itself. In this way, agendas for both architectural design and organizational change are considered as entangled and interdependent (de Vaujany & Vaast, 2013). We illustrate a few of the features that characterised the user participation activities in the case, and discuss how the UTS Business School management worked with 'design thinking' in the initiation and accomplishment of this organizational change process.

Theoretical underpinnings: design in management and organization, user participation in design

For more than half a century, design has played a role in organizational studies (Galbraith, 1973; Thompson, 1967). In much of this work, however, the understanding of design has largely reflected the organization's 'formal design' (Burton et al., 2006). Involving aspects that are often considered as the structural and strategic configuration of the organization, organization design is seen to make the organization capable of achieving its goals. While this approach has been widely recognised in structural contingency theory (Donaldson, 2001) another strand of research that further supplements the idea of design in organizational contexts was forming. If design was seen as a state of being in structural contingency theory, as a literal and static design, immovable, structural and determinate, the newer focus emphasised a verb rather than a noun: designing as a process rather than design as a thing in itself (Weick, 2001, 2003; Garud et al. 2008). While the first approach focuses on design as a structure, the latter attends to designing as emergent; a process that can be understood and facilitated but not controlled. Contributions within this research 'family' involve studies of, for example, organizational practice (Romme, 2003), management (Boland and Collopy, 2004; Boland et al., 2008; Yoo et al., 2006), organizational development and change (Bate et al., 2007), and change management (Bevan et al., 2007). One interest among some of these has been to learn about designing through studying the work and practices of expert designers (Mohrman, 2007; Michlewski, 2008). Another has been to make reference to 'design thinking', reflecting the view that a design oriented way of working can constitute a productive approach to the handling of uncertain organizational issues or the augmenting of organizational innovation (Kimbell, 2011).

It is not clear, however, what ‘design thinking’ means in managerial contexts. Johansson-Sköldberg et al (2011) provide a helpful overview to explain central differences between ‘designerly thinking’, referring to the theoretical conceptualizations by design scholars of the work done by expert designers and ‘design thinking’, referring to the ways in which for example, managers (or others without design training) can make use of a design approach in their work. Although the latter – first established as ‘design management’ in the 1970s was followed by design “as a strategic tool” conceptualized in the 1980s (Johansson-Sköldberg et al., 2011: 127) – it wasn’t until this century that ‘design thinking’ came into the management debate as a way of working with change and innovation inspired by expert designers.

One way of taking an approach based on ‘design thinking’ is to engage different actors in the design process, and to facilitate the ways in which inputs to the design solution can be produced (see for example contributions by Wagner, Suchman, or Jönsson in Boland & Collopy, 2004, who base their ideas on actor-network theory, see also Latour, 2009). These actors can be either users who in some way have a stake in the building or various objects employed in the design process (Suchman, 2004). For the purpose of this paper we suggest this approach be labelled ‘organized user participation’ (Stang Våland 2010), focusing particularly on users and stakeholders. By ‘organized’ we mean activities that are purposefully planned and facilitated to engage stakeholders as part of the design process, and that stretch further than users are generally involved in through their everyday work encounters.

User participation has long been considered a way of structuring stakeholder interests in internal processes of organizational change and innovation (von Hippel, 2007), as well as in public service administration (Bryson et al., 2013). As a method, researchers of user participation draw on several methodological frameworks and practical techniques. Such frameworks include ethnography (Blomberg, 1993; Forsythe, 1999; Ivey and Sanders, 2006), participatory design (Greenbaum & Kyng, 1993; Schuler & Namioka, 1993), human computer interaction and Computer Supported Collaborative Work (Anderson, 1994; Dourish, 2006; Schmidt & Bannon, 2013), as well as user-driven innovation (von Hippel, 2007) and user-centred design (Dunne, 2011). In many design related areas knowledge about user behaviour has been considered central to the development and design of new products (Norman, 2002; Heskett, 2005). In the fields of architecture and building construction, however, research of user participation has

developed more slowly. Although there are exceptions, for example within healthcare (Luck, 2005; Eriksson et al., 2013), it is rare to find longitudinal empirical studies that have addressed architectural projects as sites in which to study user participation. However, as the general tendency to give users (clients, customers, citizens, stakeholders) a more central position and status in various types of developments increases, user participation is also finding its way into contemporary building projects (Stang Våland, 2010; Storvang, 2012). Our aim in this paper is to look into how user participation can be applied in managerial practices based on ‘design thinking’ and how the context of an architectural design process may support this goal.

In our study, the managerial aspiration was not only to accomplish the establishment of a new business school building, it was to also facilitate a process of organizational change in relation to what the future university might consist of (and look like). To support this ambition, issues such as work practices, cross-disciplinary collaborations, and the physical settings of workspaces that would support these practices played a prominent role in the user participation activities. User participation was seen to present opportunities for the designers (managers as designers and expert designers alike) to engage with staff in developing the double design agenda. To understand more about how participation can be employed in a management/design perspective, we suggest looking for inspiration in recent research studies that discuss resistance to change in organizational contexts (Ford et al., 2008; Courpasson et al. 2011; Downs, 2012). These contributions propose that resistance can be considered constructively – as a means to engender commitment to support change. Below we preliminarily introduce a few of these ideas, looking at how user participation was organized and facilitated in this case and considering how such contexts (of architectural design and organizational change) can provide a resource in similar projects in the future.

Methodology

The research we report upon is part of a large longitudinal case study of the design and construction of a new building for the UTS Business School, Sydney. The context for the study is the social and material construction of a new building for postgraduate students and staff of the UTS Business School designed by architect, Frank O. Gehry. Undertaken by the first author, the study commenced in October 2011 and is due to be completed in the fall of 2014 when research into the post-occupancy stage of the new building will

commence. The organizational re-design of the Business School began with the appointment of a new dean in 2008 and the architectural design process with the initial appointment of the architect in late 2009.

In the course of the study, the first author has collected participant and non-participant observational, interview and documentary data including more than 40 semi-structured interviews (with representatives from the client organization, consultants, and architects) as well as observations of over two hundred hours of meetings between the university, the architects, consultants and staff. The data for this paper comprised eight semi-structured interviews, conducted jointly by the two authors (of which the first has a background in design while the second has a background in organization studies), as well as document analysis. Though small in number, the interviewees represent a cross sample of client representatives involved in the user participation phases, albeit with different roles in that process. They were chosen because they had been directly involved with the project: as executive managers, project managers, and staff representatives. Further criteria that influenced our selection of these key people included 1) that they had protracted and influential involvement in the early stages of the design commission of the project, and/or 2) that they were either responsible for implementing the changes proposed in the project or that they held status as long-term academics within the Business School. The interviews lasted between one to one-and-a-half hours and were recorded and professionally transcribed.

Our main interest in initiating and conducting these particular interviews was to explore how stakeholders and faculty were engaged in the architectural and organizational design processes. We wanted to find out how design and organizational ideas were generated in the project by the executive management, the architects and/or the involved users, as well as how these ideas were adopted or resisted by the organization as part of the participation activities. The project involved not only the development of a new building to accommodate the activities of the UTS Business School; it was also precipitated by a discussion about the identity and profile of the school's organization. Set off by discussions about 'what kind of building a business school needs in the twenty-first century and whether the refurbishment of [the current] building would meet those objectives' (interview with executive manager #1, 2014), the project involved both substantial organizational change initiatives as well as a complex building construction. The appointment of Frank O. Gehry, already the subject not only of design books but also, increasingly, of organizational and managerial

texts, was viewed by the Business School's management as an opportunity and a catalyst for changing the organization. Given the impetus of the project, the interviews covered the topics we have canvassed in the literature review: first, the project's overall rhetorical aim of combining the creation of a new building with changing the organization; second, how the concept of 'design thinking' was translated into the respondent's understanding and impressions of the workshops that were held and the collaboration between architects and client organization; third, the respondent's sense of processual involvement in the project and their understandings of what resulted from that involvement.

Methodologically, our approach is based on thematic analysis (Braun and Clarke, 2006). In this approach, themes are selected (and the 'keyness' of themes decided, Braun and Clarke, 2006: 82) in relation to the overall research interest – in this case the potential reciprocity between an architectural design process and the re-design of the client organization, and the application of 'design thinking' as a managerial handle for these processes. As this was a concern we shared prior to the process of collecting the data, the analysis for this paper was driven both by a mutual theoretical interest as well as by the substance of the data. The interview transcriptions as well as the available documents regarding the user participation activities and the appointment of Gehry Partners, LLP as the design architects were first read by each researcher independently and organized into broad categories. Such as, the selection of participants, types of user activities, resistance to change, the understanding of 'design thinking', the architect's role, and the processes of translation and feedback between designers and users. These categories were then jointly re-evaluated by the authors and the data clustered into three key thematic areas of interest for analysis. We have titled these i) rhetorical moves (aimed at aligning views), ii) translation effects (through participatory engagement) and iii) processual iterative loops (emergent or missed opportunities). We now turn to analyse a few of the central events illustrative of each theme.

Rhetorical moves

Three somewhat independent engagement processes were orchestrated by three different external consultancies on behalf of the Business School in the project, each involving a number of staff in cross-disciplinary workshops. These exchanges (between staff, management and consultants) were all articulated as 'interactive'. Although some workshops seem to have been

more interactive than others, according to our data, we considered them all as examples of organized user participation and in that way as opportunities for management to structure dialogues with organizational members.

The first of these processes was facilitated in late 2008 and focused predominantly on an audit of the Business School's current workplace design and office environments. Concerning the school's future spatial organization, the consultants' final report concluded that:

'[T]he kind of teaching rooms and the kind of office structures [in the current building] were not conducive to the kind of interactive environment that most organizations are looking for. [...] You can't have a proper integrated business school in a building which is completely fragmented and labyrinthine – which is this one' (interview with executive manager #1, 2014).

Words such as 'labyrinthine' and 'fragmented' became key rhetorical terms in the argument to support the university's investment in a new building.

The second process took place in 2009 and focused primarily on the school's strategic development; how academic work might change in the future and what the implications these shifts would have on the organizational structure and on academics' work practices. This phase commenced with the entrance of a new dean. To this end, a series of workshops titled 'Strategic Conversations' were initiated with key staff across the school's different disciplines and became an organizing principle for the new dean – a way of initiating change. Rhetorically, terms such as 'cross-disciplinary collaboration', 'knowledge integration' and 'design thinking' were brought centre stage in these exchanges, aspiring to break with the 'traditional silos' that existed between disciplines and to discuss how the new building should accommodate this. Although there arose a number of disputes about the strategic aspirations of what to do and how to get there, these workshops 'ended up with "integrated" and "design thinking" [as key words]' and 'resulted in some commitments around the reorganization of the Business School' (interview with executive manager #1, 2014).

The third process involved the design of the new building by Frank O. Gehry and his firm Gehry Partners, LLP. Gehry's engagement in the project was a result of the Business School's strategy process, described just above. One of the partners of the consulting firm facilitating the 'Strategic

Conversations', who was a long-time friend of Gehry's, introduced the architect to his potential client. Known for his architectural approach – 'designing from the inside out' (Rice, 2009) – and based on a kind of 'design thinking' discourse (Boland and Collopy, 2004: 5), the headlines from the strategic conversations were transformed into the architectural brief for Gehry Partners in designing the new building. In addition, the Business School management's idea of engaging staff in both defining as well as accomplishing the new vision for the school fitted well with Frank Gehry's approach: involving the client as 'partner' in the design process (Gehry, 2004: 19).

Thus 'design thinking' became a rhetorical device and a central cue for management; it was to be a 'partner' in actively engaging both the architects and the organization in a change process. One manager linked the notion of 'design thinking' to thinking about and planning the academic curriculum in a more cross-disciplinary manner, thereby introducing a distinctive shift in the way work in academic disciplines have traditionally been organized:

In order to get breadth where we have introduced other ways of thinking into curriculum, this is going to be at the cost of depth in the individual subject. So a number of staff were quite concerned about the potential whittling down of what they would see as just how well trained individual students were being in a particular discipline area as a cost to getting them thinking across (interview with executive manager #2, 2014).

The statement reflects a few of the potential implications that such an understanding of 'design thinking' might have on academic institutions in terms of organizing educational programs to form competent candidates and holding on to the classical way of working with research, thereby securing intellectual depth. The idea of introducing a more integrative approach into working with education and research reflects current societal tendencies but doesn't say much about what might constitute 'getting them thinking across'. Another executive manager related 'design thinking' more closely to his approach as a manager:

[It is] a way of re-imagining the future: of thinking of management and strategy, not as a choice between a variety of previously determined options but the imagining of options that would not otherwise [have] occurred to us. Starting with a blank page as

opposed to one full of these predetermined ideas [...]. Some of it gets a bit ethereal, some of the design thinking ideas, and it's very hard to pin down and people have their own interpretations – but that's the way I see it (interview with executive manager #1, 2014).

One might get the impression from this statement that this manager has made a close reading of Boland and Collopy's book on 'Managing as Designing' of which 'design thinking' is one of the central tenets. Taking his statement seriously we might return to our own definition of the concept from the introduction of this paper; that '[f]rom this viewpoint, management is as much about designing alternative courses of action as it is about deciding among known options and preset ideas'. Below we return to the idea of letting new alternatives emerge as the result of a user participation process. But first we provide a few more details to describe the interactions that took place in the process of designing the new UTS Business School building.

Translation effects

Gehry Partners was engaged in many stakeholder workshops in which staff representatives from across the Business School were invited to discuss various aspects of the workplace design. These workshops were held every six weeks over a 12-month period during what is called the 'schematic design phase' of the Gehry Partner's design development process (Rice, 2009). In some workshops participants were organized around small tables where they discussed specific ideas in relation to the workspace layout – a dispute about open office versus private space is one central example. Other workshops were more like presentations in which 'Gehry Partners would come back and show something for comment' (interview with project manager #1, 2014). In any case, the exchanges between designers and users revolved around different types of spaces and engaged different types of staff, according to the content of the workshop. Executive directors, administrative staff, senior and junior faculty members, as well as the occasional student were involved, representing the building's most central stakeholders. According to the university's project manager these representatives were picked, in part by rank, in part by random selection, and in part in order to be constructive. She recalls:

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[The executive managers] probably chose people that would be quite constructive. [...] There are some people who have conflicting views on certain spaces but I think the workshops were chosen to be productive. There's no point having one person there who you know is going to hate something about it because it doesn't really help the process and also you can't design by committee (interview with project manager #1, 2014).

In this statement the project manager describes what she calls 'filters' in the selection process; in this case inviting certain people in order for the process to be 'productive'. These filters not only referred to the process of selecting participants but also to the ways in which stakeholder feedback was given to the Gehry Partners architects. Such 'processing', engaged in by the university project manager, also included obtaining clearance from the university executive management. The project manager recalls: 'I never sent anything to anybody apart from [the executive managers]. It was up to them to distribute that as they saw fit.' She emphasizes the project's political nature, being both more costly than usual and in the limelight of a famous architect, and on this basis being 'watched from all sides at all times'. In this way the project manager held a central role in the chain of communication between architect and client: handling and processing input from users and stakeholders, clearing these with management, and controlling and holding responsibility for communication to the architects.

To the users, involved in the user participation workshops, the concept of 'design thinking' and its role in the project was characterised as 'rhetoric' or simply as 'a linguistic device'. Although the staff we talked with clearly recognised the school's current building as one that maintained and reinforced traditional disciplinary silos, they also emphasised that the outcome of their engagement in the new architectural and organizational design seemed to run a preset course:

I think the building was conceived as the test tube in which the incubus of change would ferment and happen. So there was.. I don't think all the design thinking stuff was manufactured after the [user participation activities]. I suspect that was [the deans] story which got him the job, and that [that] narrative was already unfolding. [...] He began materialising it though the strategic conversations (interview with staff member #1, 2014).

By indicating that the result of the interactions between designers and staff formed a precondition, rather than an outcome, this statement punctures one of the core ideas that concepts like ‘design thinking’ or ‘managing as designing’ are based upon. In the discussion below, we look more closely into the managerial aspiration of involving users in the process of organizational change and how this relationship between input and feedback can be handled.

Processual iterative loops

In the project, ‘design thinking’ was seen as the managers’ approach to facilitate the development of a building design that would enhance cross disciplinary work and integrated thinking. User participation was applied as means to support the emergence of a particular kind of design outcome: it was to be productive of alternative input and an opportunity to discuss and interpret management’s vision of becoming a business school ‘of the future’. As one executive manager points out:

I didn’t want to do it in the traditional way of having someone coming in and writing a report. We wanted to do something much more reflective, and much more engaged, and one that would bring light to the vision of everyone within the business school in a coherent way. (Interview with executive manager #1, 2014)

While such statements reflect the idea of producing a shared vision (Senge, 1991), our data reports of a case highly political and expensive, and that attracted a lot of internal and external attention. In consequence, the level of control exercised over the project agenda, organizationally and architecturally, conflicted with the tenets of ‘design thinking’. Although based on collaborative intentions, user workshops were not so much concerned with discussing future prospects for organizing academic work; rather, these workshops seemed concerned with translating a new rhetoric to the school and introducing staff to its new vocabulary. We might think of what happened as a number of translations: translating the organizational goals to the stakeholders in the user participation process, translating feedback from those stakeholders to the architects via executive ‘filters’, translating organizational goals into architectural outcomes. Through such translations the executive managers hoped that the anticipated organizational changes would take place. One executive manager recalls:

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The journey was – we're moving towards a new building. We are going to change. These are the themes that we want. If these are the themes we want what might that look like in the context of space? (Interview with executive manager #2, 2014)

Considering this statement, however, along the lines of actor-network theory (see for example Latour, 2005), the approach we see in the project does not reflect translation. If we recall this concept as a 'displacement, drift, invention, mediation, the creation of a link that did not exist before and that to some degree modifies the original two' (Latour, 1999: 179), the exchanges at hand seem too preoccupied with ideas already established. While many aspects of a design (organizationally as well as architecturally) go through a number of iterations in the course of their establishment, the overall design idea in this project seemed to have been formed by management prior to the interactions with users and to have been kept in shape throughout.

What does this tell us about how the 'double design process' between organizational change and architectural design was enacted in the project? As it occurred, these two processes did not take place synergistically: organizationally ideas were seen to fold faster than they did architecturally. While ideas for randomly assigning offices across discipline groups; having more open plan areas; breaking down traditional hierarchical office layouts; co-locating the dean with staff; creating centralized administrative hubs, and creating stronger more integrated research centres failed to materialize organizationally (in the user participation process), some of these ideas kept proceeding architecturally – through the predetermined ideas held by the managers. Only to collapse at the construction stage – when they had already been costed and the floor plans approved by the University executive management. One of the executive managers describes how the responses from participants brought about this situation:

If I had to characterize it, I would say that one of the things which was most difficult in this was getting engagement. [...] To getting the conversations going and connecting to the ideas. (Interview with executive manager #2, 2014)

Although those invited to the workshops largely accepted the invitation to participate in order to be involved in the thinking and planning for the new building, their ideas did not necessarily align with the ideas presented

by management. These are ‘the ideas’ referred to in the above statement. What the executive manager seems to indicate is that the participants expressed resistance. Below, we provide a preliminary discussion of how such resistance might be considered fruitful in working with complex design processes – perhaps particularly in projects that claim to be based on ‘design thinking’.

Discussion

Looking back at the case and the managerial aspiration of facilitating organizational change through a ‘design thinking’ approach, our analysis indicates that closer relationships between managers, users and designers are needed for such approaches to be useful. When the double design process of organizational change through architectural innovation is based on ideas that are defined prior to these encounters, as it seems to be in this case, the potential of user participation is likely to get lost in miscommunication and unproductive resistance.

While resistance is often portrayed in negative terms (Downs, 2012), recent studies have proposed alternative interpretations that suggest resistance can be a resource in complex processes of organizational change (Ford et al, 2008; Courpasson et al, 2011; Downs, 2012). Ford et al (2008) suggest that resistance is not only about those affected by the change: it is rather about the relationship between change agents (those who initiate and facilitate the change, in this case managers and architects) and change recipients (staff and other users of the Business School). While change agents often focus on the recipients (negative) reactions to the central ideas of proposed changes – for example, the failure to get staff ‘connecting to the ideas’ (cf. interview with executive manager #2), we need to better understand the role of the change agent. Rather than ignoring the impact change agents have on these processes we suggest focusing more attention on the exchanges between stakeholders, users, managers and architects – as opportunities not as staging posts. As a more designerly oriented approach, this might also counterbalance the traditional power dynamics, which in itself can be considered a way to support organizational change (Courpasson et al 2011).

Based on a ‘design thinking’ approach, a way forward might be to loosen up the established conceptions that surround such projects. If we consider resistance as a resource then the quality of the process more than the energy of the resistance itself needs to be considered (Ford et al 2008). This is not to suggest ‘designing by committee’ but that more attention be given

to exploring the productive affordances of engaging with users if the two discourses of 'design thinking' are to be meaningfully synthesized in ways productive to both managers as designers and expert designers. As others have found, 'an idealized interdisciplinarity [is] more complicated than its proponents suggest' (Kimbell, 2011: 163).

Using architecture as a means to bring to life (pre-determined) managerial aims conflicts with the notion of using user participation to discuss (and produce new ideas for) organizational change through engaging with architectural design processes. Our findings suggest it was the managers who defined the key themes for change that, in turn, became the central tools for user involvement in the architectural design process. More focus is needed on providing the opportunity for collective engagement in the initial stages of formulating the design and the organizational briefs than on establishing the legitimacy of what has already been decided.

It is the *organizing* of this double design process that makes up the change opportunity: it is to be found in the encounter between the strategic aspirations of managers (and the ideas they represent often formed by expectations beyond their control), the process frameworks of consultants (for example, architects and strategic advisors) and the ideas produced (through exchange by the affected users and stakeholders). The problem is not that the themes and headlines that often organize user participation may be (and are often) pre-determined, or that the input produced in these processes is not reflected in the subsequent building or organizational design. The problem is rather that the exchange situation is not handled as the opportunity it represents. We suggest that for 'design thinking' to be useful in management, managers need to make use of the opportunity for dialogue that user participation offers. It is in these opportunities for dialogue that alterations to and dislocation of pre-determined managerial (design) aspirations may occur.

Conclusion

We consider architectural design processes as relevant sites to explore organizational change and resistance as a potential resource in all kinds of design processes. Instead of seeing resistance as counterproductive we see it holding a strong act of commitment that can help in establishing new stories for, and about, organisations in their ongoing adjustments. Considering change as a process and not an event we suggest that organizational re-design requires more than the twin processes of managing as designing and architectural innovation to occur: it requires their

synergistic intersection in the playing out of problems, issues and productive resistance. This does not make the idea of a 'double design process' less valuable. Rather, it suggests that new repertoires are needed if the opportunities of 'design thinking' as a managerial approach to organizational change are to be fully grasped – by managers, organizations and architects.

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