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The mindset of activity-based working

Mari Anna Chatarina Skogland

*Department of Architectural Design and Management, Norwegian University
of Science and Technology (NTNU), Trondheim, Norway*

Abstract

Purpose – The study aims to provide insight on the relationship between a newly implemented workplace concept, its intentions, the actual use and ultimately its ability to function as a strategic tool. By addressing the intended and unintended consequences of planned spatial arrangements, the interest lies in studying underlying factors affecting the concepts' ability to function as a strategic tool.

Design/methodology/approach – The case study builds on semi-structured interviews and observational studies from a larger Norwegian organisation that recently implemented an activity-based workplace concept. Concept descriptions and architectural drawings have also been important sources to study how the concept was interpreted and used by different groups.

Findings – Taking a socio-material perspective, the findings illustrate that spatial aspects and different concept structures, together with issues such as employee mobility and time spent in the office, different work processes, management style and departmental cultures influenced the way the activity-based workplace concept was perceived and taken into use.

Originality/value – The findings indicate that social and cultural aspects may play a more significant role in the adaptation process than previously emphasised. The article further provides knowledge on how organisations, in planning and implementation of such concepts, may address the right issues to overcome challenges and achieve the higher strategic ends.

Keywords Office layout, Socio-materiality, Concept management, Integrated workplace concepts, Activity-based working, Non-territorial workplace

Paper type Research paper

1. Introduction

Activity-based workplace concepts, first introduced by Stone and Luchetti (1985) in their article "Your office is where you are", have during the past decades influenced the development of a range of integrated workplace strategies, i.e.:

> […] a unified system which creatively combines the nature of the physical settings and teams of people who understand business objectives, work processes, human resource management, information technology and information use, communications, change management and space planning. (Chilton and Baldry, 1997, p. 188)

The aim is to create an integrated workplace concept (IWC)—i.e. a system where work processes, technology and the spatial environment as well as organisational and cultural aspects are integrated to support the higher strategic ends (De Paoli *et al.*, 2013; Robertson, 1999; Mitchell-Ketzes, 2003; Stensaker *et al.*, 2008; Robertson, 2000; Chilton and Baldry, 1997).

As the ability to change has become important for organisational success and survival, activity-based IWCs are often created as a means to facilitate flexibility, as well as influence "new ways of working" (Raymond and Cunliffe, 1997; Van der Voordt, 2004). The higher aim is to create an organisation where work is seen as an activity not bound to a certain place – rather as a "state of mind" (Bakke, 2007; Bean and Hamilton, 2006). This does not only demand spatial and technological changes but also a change in culture and organisational

identification, where employees are expected to "carry" the corporate identity with them as they move around in and outside the office (Dale and Burrell, 2008). Aligning structural and cultural aspects is furthermore important, as creating a uniform organisational identity may be of strategic value in a mobile and dynamic work life (Alvesson and Willmott, 2002).

Management of workplace change processes, especially with regards to the process of relocating to activity-based IWCs, is however a "grey" area within the current literature (Inalhan, 2009; De Paoli *et al.*, 2013). Building on the notion that spatial environments are socially and culturally constructed, focus has recently been placed on the dynamic interactions between an IWC and its social context (De Paoli *et al.*, 2013; Rylander, 2009). Building on this line of thinking, this article is concerned with exploring the socio-material links between the IWC and the organisational context. Various managerial practices and organisational cultures are thus discussed as a part of the socio-material experience of the IWC. To this end, the article addresses the intended and unintended consequences of planned spatial arrangements, and discuss why the same physical footprint may result in different practices.

1.1 Activity-based IWCs

Activity-based IWCs – including clean-desk and free-seating principles – are argued to be beneficial, as these may create a better cost/efficiency balance, increase organisational flexibility, facilitate a more pleasurable and sustainable work environment, increase employee satisfaction through individual and physical flexibility, support new ways of working as well as influence an image of being a low hierarchical, modern and professional organisation (Van der Voordt, 2004; Vos and van der Voordt, 2001; Bradley, 2002). Activity-based IWCs have further been argued to increase productivity through increased collaboration, flow of information and learning – issues also beneficial for strengthening perception of community (Blakstad and Andersen, 2013; Vos and van der Voordt, 2001; De Paoli *et al.*, 2013; Allen and Gerstberger, 1973).

Ability to choose a workstation according to personal preferences and needs is further considered as a positive aspect (Vos and van der Voordt, 2001), especially as such locational flexibility may enable employees better to regulate unwanted social interaction (Inamizu, 2013; Appel-Meulenbroek *et al.*, 2011; Ekstrand and Damman, 2016). In comparison to more traditional forms of open and "fixed" environments, activity-based workplaces have been shown to receive higher scores in terms of job satisfaction, health and well-being (Danielsson and Bodin, 2008), as well as lower reported levels of distraction (Seddigh *et al.*, 2014).

Research on activity-based IWCs are however characterised by mixed and conflicting findings (Gorgievski *et al.*, 2010; Vos and van der Voordt, 2001; Ruostela *et al.*, 2014). For example, Orbach *et al.* (2014) found that employees working in activity-based seating arrangements had a stronger internal network and a higher proportion of face-to-face contact compared to employees working in fixed arrangements. Millward *et al.* (2007), however, found that desk-assigned employees had a higher level of face-to-face communication and stronger identification with their own team, than their colleagues in activity-based workplaces, who identified more with the organisation as a whole and also relied more on technological communication.

In comparing two organisations with activity-based IWCs, Van der Voordt (2004) found a decrease in perceived productivity and satisfaction in one, while an increase in the other. Several studies conclude that activity-based IWCs, due to lack of possibilities for personalisation and display of physical artefacts – reflecting status and group boundaries – may lead to employee identity threat, reduction in psychological privacy, perception of crowding and general dissatisfaction (Elsbach, 2003; Brunia and Hartjes-Gosselink, 2009; Brown, 2009; Hirst, 2011; Gorgievski *et al.*, 2010; De Croon *et al.*, 2005). Other studies,

however, contradict such findings, showing added organisational value and high satisfaction levels (Allen and Gerstberger, 1973; De Paoli *et al.*, 2013; Blakstad and Andersen, 2013; Ruostela *et al.*, 2014).

1.2 Aligning work characteristics and "Identities" with the activity-based IWC
As aforementioned, the main function of an IWC is to create an integrated "system" where work processes, spatial solutions and technology function act as an integrated whole. In creating such alignment, Duffy and Powell (1997) argue that any workplace concept ought to be based on two work-process-related factors being degree of interaction and degree of autonomy. Accordingly, activity-based workplace concepts are argued to be suitable for high autonomy and high interaction work processes characterised by varied work patterns, high levels of freedom and flexibility, high levels of interaction, complex timetabling and mobile technology.

Building on this, Inalhan (2009) found that employees with self-contained work processes adapted most successfully to the activity-based IWC, and were also more likely to form new attachment to particular areas rather than specific desks. Workers with high levels of routine-based stationary work processes, often valuing individual concentration, have on the other hand been found to face more challenges in adapting to activity-based IWCs (Bjerrum and Bødker, 2003; Gorgievski *et al.*, 2010).

Greene and Myerson (2011) however argue that due to the strong focus on work characteristics, this argumentation does not account for the "identities" of the different groups. Employees that identify with the values connected to mobile working may therefore be better equipped to handle the transition. Thus, attachment to activity-based IWCs is highly dependent on organisational members' relation to work-related issues such as flexibility, freedom and self-reliance in work processes (Bean and Hamilton, 2006; Greene and Myerson, 2011; Inalhan, 2009). To succeed, a new identity, as a "place-independent worker" needs to be created (Inalhan, 2009; Becker and Sims, 2000; Greene and Myerson, 2011). As also emphasised by Becker and Sims (2000), when moving into activity-based IWCs, there is a need for organisational members to change their "mindset" and re-evaluate the "office concept". The transition may therefore require organisational members to "unlearn" old values and norms and "relearn" new ones (Grenness, 2015) – a process, however, found to be particularly challenging (Inalhan, 2009).

Acceptance of the new workplace is therefore dependent on a successful de-attachment with the old workplace and further re-attachment with the new (Inalhan and Finch, 2004; Inalhan, 2009). As attachment in activity-based IWCs cannot be formed to a particular work desk, employees need to attach to new workplace-related aspects. If a successful de-attachment and re-attachment process is achieved, this may simultaneously influence re-creation of outmoded thinking or beliefs – thus, influence cultural change. However, when this is not achieved, unintended outcomes may emerge (Inalhan, 2009).

In attempting to re-create attachment, employees assigned to desk sharing solutions are however often found to reclaim space through leaving visible markers behind (Brown, 2009; Vos and van der Voordt, 2001; Appel-Meulenbroek *et al.*, 2011) or through continuously choosing the same place – making the place "taken". In the transition, social boundaries are therefore often re-created, making "invisible" group territories and neighbourhoods (Millward *et al.*, 2007; Qu *et al.*, 2010). With regards to this, employees in activity-based IWCs have been found to create a detailed understanding and a territorial map of the socio-spatial office landscape (Hirst, 2011).

Such territorial behaviour is furthermore connected to issues such as "status" and position (Greene and Myerson, 2011; Van der Voordt, 2004). Territorial boundaries and socio-spatial maps

are therefore often created based on employee understandings of cultural, social and hierarchical structures (Hirst, 2011). Related to this, Brunia and Hartjes-Gosselink (2009) found that the use and extent of "illegal" personalisation differed between groups, departments and floors. Consequently, social constructions and organisational values may mediate the adaptation and the ways employees understand and make use of spatial environments.

Adherence to organisational culture may therefore be one of the most important factors in succeeding with the implementation of activity-based IWCs (Pitt and Bennett, 2008; Schriefer, 2005; Inalhan, 2009). Following this line of thought, Ouye et al. (2010) argue that the barriers for these kinds of solutions are mainly organisational including organisational culture, employee and management concerns, resistance/fear of change and executive buy-in/endorsement. De Paoli et al. (2013) furthermore found that middle- and top-level management actions were influential in employee use of the activity-based IWCs, and ultimately in succeeding with concept implementation. As also argued by Miles (1997) and Balogun (2006), the successful transition from one state to another must be guided by managers who take any opportunity, no matter how trivial, to demonstrate and act the change and its implications.

To increase goal achievement, a multi-layered and reciprocal process with broad involvement is therefore required (Bradley, 2002; Horgen et al., 1999; Harrison et al., 2004). Furthermore, as resistance and territorial behaviour may occur, managers must continuously balance and steer the change. This makes the adaptation into an important, however, challenging change management process (Elsbach and Pratt, 2007). If manager behaviour counteracts the new strategy, this may become a hindrance, influencing unintended outcomes (Balogun, 2006; Balogun and Johnson, 2004). Mobilising management attention is therefore important, nevertheless, challenging (Blakstad and Andersen, 2013) especially as the transition itself may lower managers' status, forcing them to start to earn status in other ways (Grenness, 2015).

2. Case and methods

The empirical material draws on semi-structured individual and group interviews with 65 members from a Norwegian professional service network provider. The organisation provides services within the fields of auditing, consulting, financial advisory, risk management as well as tax and legal. The organisational structure consists of three larger (130-250 employees) and three smaller (10-50 employees) departments. Four support units (5-25 employees) are also included in the organisational structure. At the time of the study, the office consisted of approximately 700 employees.

The organisation moved into new headquarters approximately 1.5 years prior to the study.

The study followed an interpretative approach (Maxwell, 2009; Yanow, 2006), meaning that methods were continually refined during the research. Data from each phase was also briefly analysed before moving on to the next phase. The study spanned over six months and was conducted in three main phases. The first phase included interviews with key members from the corporate management board – all actively involved in concept design and implementation. To gain an understanding of the activity-based IWC and associated strategies, secondary materials in the form of concept presentations were also studied during the first phase.

The main bulk of data was collected during the second phase. The methods used followed a semi-structured approach, enabling the emergence of new and interesting aspects based on respondents' own perceptions and interests (Yin, 2010). In all, 65 participants, purposely selected from different departments and levels within the organisation, were interviewed

regarding their experiences of working in the new office. To avoid conflicting interests, corporate and departmental managers were always interviewed individually, whilst employees were interviewed in either groups or individually.

Interviews were structured by thematic categories addressing issues such as the process and transition, use of the IWC and perceptions on the effects of the new IWC on managerial and socio-cultural aspects. In between interviews, use of different spaces was studied through semi-structured observations, gathering "snapshots", i.e. field notes on activities within the different activity-based areas (Bjerrum and Bøgh Fangel, 2010). Brief informal discussions with approximately 40 employees were also conducted during the 10 days spent in the office. Following a walk-through methodology (Hansen *et al.*, 2010), a random selection of interviewees from each department was also asked to guide the researcher around the office, and explain in more detail how they utilised and experienced the different activity-based areas.

To verify findings, gaining the organisations' reactions to the researchers' conclusions are of the essence (Maxwell, 2009). A 44-page report was therefore presented to the organisational management in the third phase, followed by a presentation of the main findings and discussion session with the corporate management board.

The analytic approach was based on cross-unit analysis, and explicitly on departmental differences. All data were coded into key thematic categories within each unit. To allow for cross unit analysis, the same thematic categories were used for each unit (Ritchie and Spencer, 2002). Since organisational members', depending on their history, former experience and position in the organisation may have different perspectives and interests (Rylander, 2009), each unit was categorised into sub-units of managers/leaders and employees. Focus was placed on identifying whether the different perceptions, attitudes and behaviours were due to spatial or social constructions, or possibly a combination of both. Architectural drawings were used to identify cases of possible misalignments and where unintended or different use had been developed. The reported observations, views and experiences are based on triangulation of the collected data, as suggested by Yin (2010). Presentation of the findings follows the identified key characteristics and categories. Hence, unless otherwise stated, the reported findings cut across all units.

2.1 The activity-based workplace concept for the new headquarters

By implementing an activity-based IWC, the organisation wished to build on a newly implemented strategy, aimed at creating a uniform organisation – working "As One". The activity-based IWC was furthermore developed with the aim to achieve greater organisational and individual flexibility, lower operational costs, support "work flow" and influence a collaborative workplace culture. Focus was placed on space sharing, activity-based areas, supporting technology, paper-free work processes, freedom of choice and mobility.

Prior to the change, organisational members were found to have difficulties in imagining what an activity-based IWC was and how this would come to impact them. To explain the concept, several visualisations were made, amongst these was "the Fan". The Fan functioned as a concept illustration, which arranges 12 different activity-based areas in a 180-degree wide fan, spanning from silent and semi-silent areas to collaborative, project and informal areas. The different areas were marked with a colour and a symbol, representing the activity facilitated by each area. In the new office, signs hanging from the ceiling marked each area. To further guide employees, the concept visualisation and a floor plan was placed by the elevators at each floor.

During the process, representatives from each department also worked together to develop archetypes for their department. Thus, a work profiling as suggested by Greene and

Myerson (2011) and Duffy and Powell (1997) was carried out. The free-seating principle met resistance prior to transition, with arguments that activity-based working was not in consonance with paper-based work processes, employee perception of confidentiality requirements and tasks which required a high degree of concentration. After some debate, individually owned workstations were allowed at one of the major departments. The clean-desk principle still applied to all.

Accounting for the varying needs and different work profiles, each department received a "tailor-made" floor plan, within the concept principles. For example, departments with a high degree of mobility and collaborative work patterns, received more collaborative work areas such as project places and open informal work areas, whilst departments with more stationary work patterns and focus on individual work processes received a workplace concept with focus on places for individual working, withdrawal and concentration. Employees were free to choose from the different workstations available within the assigned floor or area.

The concept was implemented in 2013, and the strategic relocation project was finished soon after. Despite an annual user satisfaction survey, addressing amongst other things satisfaction with the physical workplace, neither evaluation activities nor strategic actions had been conducted to change the concept prior to the study.

3. Work profiles and adaptation to the new concept

The concept was perceived to work well for employees in consultancy and advisory roles. Having high autonomy and interaction levels – also spending much of their working time outside the office. The majority stated that they did not have the need to "own" a workstation. Employees from these departments had workstations and areas assigned over a whole floor and therefore a wide span of resources to choose from. The general statement was that the freedom to choose according to individual preferences and needs eased control of social interactions and made it possible to find time and space suitable for different activities. Members at these departments especially valued the open collaboration and project areas.

Employees at departments assigned to smaller free-seating areas, over half a floor, had a somewhat higher tendency of developing territorial behaviour by regularly choosing the same or similar places. Working mostly from the office they had more stationary work patterns than consultants and advisors.

Assigned to smaller areas, they had fewer activity-based areas to choose from, also limiting their possibilities for activity-based working. A somewhat higher tendency of developing informal rules concerning "appropriate" and "non-appropriate" behaviour was also found at these departments.

As earlier mentioned, one department working mostly with tax and legal matters was allowed to have individually assigned workstations. Having own workstations, they personalised the most – thus disobeying the clean-desk rule. Describing their work processes as mostly individual with high confidentiality requirements, they did not seem to value collaborative work and information sharing to the same extent as the other departments. Some rather argued that the optimal solution would have been to work from individually assigned offices – as they also had done in the former office.

The interviews and internal qualitative evaluations indicated that employees from these departments were the least satisfied with the activity-based IWC, often facing challenges with regards to individual concentration. Due to a significant growth since the transition, the workspace was also perceived as crowded. Adding to this, the additional space requirements from having individually assigned desks did not allow for the same range of activity-based areas as implemented at the other departments. Nevertheless, the available rooms and areas

intended for withdrawal were seldom used and many argued that moving to another location was time-consuming and disruptive. Moving between different locations mainly happened when attending meetings.

3.1 A mediating organisational and managerial culture

Social and cultural aspects were found to be especially influential in the adaptation to the new IWC. The following section will focus on a selection of illustrative examples and stories from the case. The aim is to illustrate the influential role that organisational culture and key organisational members have on the way values and behaviour are created as a socio-material experience in the adaptation to IWCs.

During the days after the transition, a corporate manager noticed that several employees were breaking the clean-desk rule, by leaving things behind – thus marking territories. To make a statement, the manager took a picture of this and sent it to the whole department with a short statement that this was not acceptable behaviour according to the clean-desk rule. Arguably, the rule was enforced and no further challenges with employees breaking the clean-desk rule were since seen. However, at several other departments no similar actions were taken. As a result, these departments struggled more with "illegal" personalisation and territorial behaviour.

Management and partner use and behaviour further influenced employee perceptions of the concept. To illustrate the situation from two very similar departments is particularly interesting. Members from both departments stated that they mostly worked in the office, that work was based on both individual and collaborative work processes and that many worked simultaneously on different projects and needed to collaborate with a range of different people. The departments were furthermore similar in size, thus assigned nearly identical spatial layouts. Both areas were divided into two main work areas, one for concentrated work and another for collaborative work. A couple of smaller collaboration rooms separated the two areas. Due to legal requirements, one department was separated from the rest of the floor with a code-locked door. In line with the free-seating structure, employees were free to choose places within the assigned area, according to tasks and needs.

After the transition, several managers and partners at the department with the code-locked door repeatedly chose a desk in the area adjacent to the main entrance door. With time a structure based on hierarchical levels was created within the departmental area. Consequently, employees did not perceive to have the possibility to choose places according to tasks, and spoke of managers and partners not being interested in trying to get the concept to work as intended. Statements that managers did not prioritise working close to their teams were also given. This structure furthermore made it impossible to create the intended structure where project teams, when needed, easily could gather and work together. Although the free-seating and clean-desk principles still existed – at least in theory – both managers and employees were seen to engage in territorial behaviour and negotiated places between themselves.

A different pattern was found at the other department. Although spending most of their workday in the office – in this perspective being stationary – most departmental members had a highly mobile work pattern, often moving between the different work and project areas. Thus, partners, managers and employees from this department seemed to contradict the hypothesis that employees with "stationary" work processes are likely to choose the same places and engage in territorial behaviour. Contrarily, employees appreciated the possibility to situate themselves by different people and also choose different places. Here told by one senior manager:

As long as there are enough rooms and places you do not need to sit at the same place every day. Sometimes I want to sit next to a person and other times I would prefer sitting with someone else. When I have projects, I find a place where I may work together with my team. Before – in the old office – I occasionally had to work from home, this in order to be able to concentrate. Now I just go to the silent-zone whenever I need to.

During the interviews, several comments were made on how managers and partners, especially in the initial adaptation phase, had "tried the concept out" by regularly choosing different places. This department also shared additional workspaces and project areas with the more "mobile" departments. As no physical or visual barriers separated the departments, employees were found to move between departmental areas and floors, thus the socio-material practices were found to transmit from one area to another. This was also apparent in instances when departments were connected by internal staircases – allowing for better flow between floors. At these sites, social and hierarchical boundaries had more or less disappeared, influencing more similar use and behaviour than in instances where departments were separated by physical and visual boundaries.

3.2 The concept "Footprint" and unintended outcomes

The building structure – being high and narrow, with many floors – also affected use of the concept. Each floor had two wings, one shorter and one longer. A social and informal area with a micro kitchen connected the wings at each floor. At departments assigned to a whole floor, an open project area for collaborative team and project activities was placed adjacent to the social area and located towards the short wing. At the end of this wing, a quiet area was designed to support individual concentration. Collaboration and withdrawal rooms were located as a "sound barrier" between these two areas. The longer wing consisted of two main areas with collaborative workstations. At these, talking and socialising was allowed and also valued. Spread out in the different work areas, a range of meeting and collaboration rooms, alcove sofas and lounge chairs were placed, to facilitate collaboration and "relaxed" working.

As the different departments moved into the new workplace, the meaning and use of some areas gradually changed. Although meeting rooms were placed as a sound barrier between the social project areas and the quiet areas, sound was found to transmit into the quiet area. Thus, many explained that the naturally quiet area was found in the end of the longer wing – an area located further from the social and collaborative areas. In practice, the two areas had switched places, but were still defined according to the original architectural drawings. This created some confusion amongst employees with regards to what kind of activities that were allowed in the different areas – some even stating that there was no "quiet" area on some floors.

However, on one floor, the quiet area was defined as "library quiet", having additional rules restricting all conversations and also use of mobile phones. Here, higher acoustic dividers and more acoustic absorbing materials were also provided, giving cues and emphasising the feeling of being in a library. The additional visual cues and behavioural rules together with the symbols hanging from the ceiling were found to work together to create the perception of a "quiet" area. Consequently, many stated that when needing to concentrate they rather went to this area than the concentration area on their own floor.

Another function not used as originally intended were the "relaxed" working stations in the form of alcove sofas and lounge chairs. On the architectural drawings, these were marked with a green colour indicating social work processes, however physically placed in work areas marked with another colour. In the landscape, no physical barriers separated these places from the rest of the area. As a result, these functions were mostly unused, and employees did not seem to understand why one would want to "hang out" in a lounge chair in the collaborative or quiet work areas. Here told by one: "All social norms indicate that one

don't sit there and watch others work". Further explained by another: "What kind of idiot places a sofa or a lounge chair like that. I like the sofas but they are located at the wrong places". Several employees expressed that they would like to have the possibility to work from a sofa while reading a report or a longer document, however, did not feel comfortable doing so at a place where: "you were seen by others". During the observational studies, no one was found to use the "relaxed" workstations.

A mismatch between the architectural drawings and employee use was also found at one of the smaller departments. Here, two departments had been assigned to half a floor. The area was divided into a smaller area designed for concentrated work and a larger area for collaborative work. In practice the two areas had switched places. In the smaller concentration area, employees expressed that it due to its smaller size was easier to keep track of other's activity level in the room, thus making it easier to collaborate and have some noise without having the feeling of disturbing others. Located closer to the social area, the main pathway also passed through the quiet area, creating additional distractions.

In the larger area people were more hesitant to making noise. As the areas were shared with another department, one could potentially end up disturbing more people and also share sensitive information. There were also indications towards a separation based on departments. The smaller department often ended up in the smaller area while the larger department mostly worked from the larger area, thus social boundaries had been created in and between the different areas.

Paradoxically, the smaller department – often working in the quiet area – communicated and collaborated more, whilst the larger department, mostly working in the collaboration area worked more individually. Most employees seemed to be satisfied with the way the two areas were used. Nevertheless, in attempts to get the different areas to work according to the intentions, managers occasionally sent out reminders about respecting the concentration area. However, not much seemed to change, ultimately creating a situation where employees and managers did not feel that they managed to work and use the workplace as intended.

4. Discussion

The presented study illustrates that a range of different cultural, managerial and spatial factors are influential in how an activity-based IWC function in practice. Not only spatial aspects such as degree of openness and visibility, amount of activity-based spaces available and placement of different areas and functions relative to each other, but also concepts structures such as free-seating principles were found to be influential. Furthermore, non-space-related aspects including cultural and behavioural norms, management style and actions as well as work characteristics such as work processes, need for confidentiality and degree of mobility also played a part in the adaptation and meaning-making process. Employees' use of the concept was accordingly determined by the combination of physical, visual and social boundaries.

Thus, the findings supports the initial assumption that for the IWC to function as a strategic tool, spatial, technological, structural as well as cultural and managerial aspects need to function as an integrated whole, supporting each other (De Paoli *et al.*, 2013; Robertson, 1999; Mitchell-Ketzes, 2003; Stensaker *et al.*, 2008; Robertson, 2000; Chilton and Baldry, 1997). At instances where misalignment between some of the integrated parts was found, unintended outcomes occurred.

Acceptance of the new workplace, and especially the free-seating and clean-desk principles, was, as suggested by Inalhan and Finch (2004), dependent on a successful re-attachment process. As suggested by Bjerrum and Bødker (2003) and Gorgievski *et al.* (2010), employees with individually based and stationary work processes – also identifying with this way of working –

were found to have a harder time transitioning to open and activity-based workplace concepts than their more mobile colleagues. In line with the expectations, work processes, nature of work and degree of mobility, as also suggested by Duffy and Powell (1997), Laing *et al.* (1998) and Greene and Myerson (2011), was found to strongly influence employee adaptation to the activity-based concept. Arguably, the most dissatisfied employees did not accept nor fit the "identity" of being a mobile and place-independent worker, rather valued aspects such as stability and individual concentration. This resistance towards the new identity negatively affected the re-attachment process and left some with a perception that the IWC was not correctly aligned to them.

Exceptions however occurred. As we have seen, these exceptions happened in instances when the combination of spatial, cultural and managerial aspects, supported the employee adaptation process creating a positive identification with the new concept – findings also in line with the reasoning by Greene and Myerson (2011).

In line with the argumentation by Inalhan (2009) the successful re-attachment furthermore influenced creation of new thinking and beliefs and ultimately, as also Becker and Sims (2000) as well as Danielsson (2010) suggests a new identity of being a "place-independent and mobile worker". Thus, the findings support the reasoning of Bean and Hamilton (2006) and Greene and Myerson (2011) that attachment to activity-based workplaces is dependant on a positive relation to work-related issues such as flexibility, freedom and self-reliance in work processes. As this happened, the need to mark status and create group boundaries also disappeared, supporting Brunia and Hartjes-Gosselink's (2009) findings that such activities are culturally and socially constructed.

Employees working in line with the concept intentions – actively choosing places depending on activities, needs and preferences – were also, in line with the argumentation presented by Inamizu (2013), Ekstrand and Damman (2016) and Appel-Meulenbroek *et al.* (2011), able to realise and use the benefits of increased control over own work processes. Thus, a successful transition to the non-territorial workplace was supported by a cultural change.

Through the adaptation process to the new workplace, the different groups and departmental members created different values and meanings to same or similar spatial environments, thus different socio-material qualities were associated with the IWC. In this process, organisational cultures and traits became visible through the way organisational members made use of the new concept, also forming behaviour and re-creating boundaries. As employees were found to be especially influenced by management actions in the workplace, the way Miles (1997) and Balogun (2006) also suggest, managers and partners action, or lack of actions, influenced development of concept understanding – what rules applied and what did not. This further allowed for development of sub-cultures and informal rules, social practices, as well as it influenced employee need for attachment.

However, where management actions were supportive and in line with the concept, this positively influenced employee adaptation. Ultimately, management behaviour as well as existing social and cultural structures, as also suggested by Pitt and Bennett (2008) and De Paoli *et al.* (2013), was found to have an especially influential role in how the different departments accepted and made use of the physical structure as well of the principles linked to the workplace concept. The fact that some managers were able to successfully "break free" from old ways thinking and relating to space – and in this process were able to lead the change by own actions and example – whilst others ended up creating barriers to the change, stress the importance of addressing and paying special attention to managers, partners and other key organisational members and their concerns throughout the detachment and re-attachment process.

With the goal of using the IWC as a strategic tool to create a uniform organisation – working and operating in similar ways – aiming for a certain level of concept standardisation is of high value (Plijter *et al.*, 2014). As also argued by Alvesson and Willmott (2002), creating a uniform organisational identity may have strategic value. As indicated by this study, certain groups and categories of employees may, due to work characteristics and cultural traits face more challenges in adapting to activity-based working than others. Nevertheless, this study simultaneously shows that departments with more stationary work processes were also able to create a positive transition to activity-based working – when supported by change management and cultural change. Although work process-related factors are indicators, the main barriers seem to be related to cultural aspects – findings also in line with Pitt and Bennett (2008), Schriefer (2005) and Ouye *et al.* (2010).

Identifying groups that may face challenges in the transition and placing extended focus on change management at these locations may therefore be tantamount in succeeding with the higher strategic ends. In line with the findings from Millward *et al.* (2007), such a cultural change may influence employees to create stronger identification with the organisation as a whole, rather than exclusively with their unit or core team.

Arguably, as also emphasised by Chilton and Baldry (1997), for the IWC to function as a strategic tool, the concept needs to be supported by human resource and change management processes. Furthermore, as the social qualities and the consequences of the spatial environment become visible only after the concept has been taken into use, focus also needs to be placed on evaluations, and, where needed, on making minor adjustments to the concept. Doing so, incremental changes to the IWC may be made, bringing the concept more in line with the employee value system. By simultaneously placing focus on change management and "new ways of working", the transition to a new IWC may function as a valuable strategic tool. With time, employees and managers may learn and adopt to a new set of values – being more in line with the implemented IWC. This will however require the transition to be handled as a continuous process in time, lasting until the expected level of standardisation and/or specific goals are achieved. As the project in the studied organisation was seen as finished soon after transition, and as little emphasis prior to the study was placed on following the change and making adjustments, this possibility was partially lost. Based on the evaluation of the study, the organisation has however continued on developing and improving the concept after the end of the study.

5. Conclusion

The findings illustrate that cultural traits and social actions may be more influential in determining and shaping use of activity-based workplace concepts than earlier emphasised. Work processes and degree of mobility are found to be relevant for determining use and satisfaction, and may thus be an advantageous place to start the construction of an IWC. However, the mobility versus stability hypothesis may not in itself explain employee use, behaviour and satisfaction. The findings stress the importance of paying attention to the socio-material relationship, not having deterministic rational thinking and naive expectations. Spatial changes may very well facilitate the intended changes, however, as the socio-material structure is created in an on-going social process, effects are not easy to predict in advance and needs to be steered.

A better concept alignment may therefore be achieved through extended change management processes, including trial and error activities as well as redefinitions. If this is not done, the strategic change may backfire, resulting in dissatisfaction and non-beneficial socio-material constructions. Finally, as management actions during a physical relocation

have been shown to be especially influential, managerial issues and concerns need to be addressed continuously during the whole change process.

Additional empirical research, investigating implementation and management of activity-based IWCs in different organisational contexts, is needed to provide more knowledge on how different social, cultural and organisational aspects are influential in terms of goal achievement.

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About the author
Mari Anna Chatarina Skogland is a Ph.D. candidate at the Department of Architectural Design and Management at Norwegian University of Science and Technology, NTNU. The doctoral thesis, titled "Workplace Concepts and Organizational Change" is conducted within a larger Norwegian innovation and research project, named K2 – Workplace Futures. The main intention of the innovation and research project is to find new ways of creating innovation and organisational value through development and implementation of new workplace arrangements. Mari also work as a consultant and architect at Mellomrom Architectural psychology AS. Mari Anna Chatarina Skogland can be contacted at: me@mellomrom.no