The role of cohesion and connection within the ABW framework: A critical elaboration

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ABSTRACT

We question the manageability of the three dimensions (spatial, digital, social) of Activity-Based Working (ABW). This framework lacks a solution to deal with the necessity to facilitate social needs of knowledge workers. The urgency of this problem is structurally labelled in literature, but never successfully addressed. Research concerning working at home during COVID-19 has revealed the importance of cohesion and connection within organizations. Bonding with colleagues and the organization is often recognized as a point of attention, but is hardly incorporated in the framework. We explore how the framework deals with bonding, by applying the social needs theory. The framework lacks focus on informal social relations that bind people with their peers and organization. We expect that, in the future, knowledge work will partly move to spaces outside the office. This endangers conservation of social interaction, teambuilding, involvement, identification, and the creation and sharing of knowledge. This makes the need to assess the framework even more pressing. We analysed 30 documents on ABW offices of a large Dutch public organization, interviewed two policy makers and two independent experts. The results were compared with literature. We used the ABW framework of Van Meel (2020) to identify challenges regarding the adoption of ABW and the role of social needs within the work environment. While social interaction, teambuilding, involvement and identification with colleagues and organization are regarded as important within ABW, they are difficult to implement in practice. Our case-study shows that these factors are insufficiently covered, and thus realized, in practice. More research is needed. We theorize about better ABW environments, where knowledge sharing and interaction is secured. While continually addressed in literature, these aspects were never incorporated in the current framework. Working more remotely – or hybrid – in the future makes the subject more important than ever.

Keywords
Activity-Based Working, Bonding, Hybrid working, Belonging, Social needs.

1   INTRODUCTION

In our contemporary knowledge economy, the role of the knowledge worker is significant. They are characterized by expertise, high level of education and experience. They are mainly concerned with the creation, distribution and application of knowledge (Davenport, 2005). Work consists of various activities, like writing, reading and meeting (Hufman et al., 1968; Van den Berg et al., 2020). Furthermore, it is characterized by the high degree of autonomy

and the great importance of social interactions with colleagues (Davenport, 2005). Until COVID-19 and the associated mandatory working from home, the office was historically the central workplace of the knowledge worker (La Brijn et al., 2022). It provided spaces for concentrated work, and created an environment in which connection and interaction with organization and colleagues was expressed and facilitated (Hofkamp & Van Meel, 2013; Kojo & Nenonen, 2016). The office concept and philosophy of Activity-Based Working (ABW) tries to fit work-related activities with different places in the office (Duffy & Powel, 1997; Hoendervanger et al., 2018). ABW is defined as a '*workplace strategy that provides people with a choice of settings for a variety of workplace activities*'. (Marzban et al., 2022, Introduction, 1).

During COVID-19 both individual and collaborative activities could still be executed, due to digital software (Barrero et al., 2020; Van Breukelen, 2021). From what is now known – in the wake of the pandemic – it is to be expected that employees will make a more deliberate choice between working at home and at the office in the future (La Brijn et al., 2022; Van Breukelen, 2021). A larger proportion of knowledge workers will be frequently working from home. While this seems a break with the past, this 'hybrid' way of working fits well with the philosophy of ABW: *work is something that gets done, not a place people go to* (Marzban et al., 2022, Introduction, 2).

So, is 'hybrid working' a desirable development? Literature refers to negative impact on team performance and individual productivity when working from home (Van der Lippe & Lippényi, 2020). From an organizational perspective, working from home could weaken the control and visibility of employees (Van Breukelen, 2021). And at an individual level, social and professional isolation are often pointed out (La Brijn et al., 2022; Mann & Holdsworth, 2003; Van Breukelen, 2021; Van Veldhoven & Van Gelder, 2020). These are serious risks, given the added value of social interaction within knowledge work (Marzban et al., 2021). Is therefore the ABW office *the* place where the knowledge worker is able to operate to the fullest, exchanges knowledge with peers and develops new knowledge?

While it may be obvious to assign social value to the ABW office, especially after the pandemic, we should be hesitant. Even in an ABW environment, positive interaction and connection are not always achieved. Wohlers and Hertel (2018) argue that ABW has negative effects on communication, cohesion and interaction. By allocating places to activities, teams are shattered and finding your colleagues becomes a hassle. Marzban and colleagues (2022) also stress the negative effects of ABW on social connections with colleagues. Philosophising about the post-pandemic office, they argue that digital communication will play a larger part in an effort to connect colleagues. At the same time, the physical office environment will continue to ensure face-to-face contact within the organization.

If past research states that ABW puts pressure on social needs, do the framework and philosophy behind ABW meet the practical requirements of facilitating knowledge work?

In this paper, an effort is made to theorize about better ABW environments, where the exchange of knowledge and contact is secured. Putting the issue on the agenda helps thinking about work environments after COVID-19. The ABW framework is used to explore whether a change in perspective is needed. To achieve this, the following research question is formulated:

What is the position of social needs of knowledge workers within the conceptual framework of Activity-Based Working?

An answer is formulated using an explorative and qualitative study within a large Dutch public organization (paragraph 3). This study confirms what has been noted in the literature: social ties in ABW environments are under pressure (paragraph 4). Hopefully our attempt stimulates future research on the position of social needs in ABW environments.

2 THEORY

The ABW framework is made up of a spatial, digital and social dimension (Baane et al., 2010; Clapperton & Vanhoutte, 2014; Den Hartog & Belschak, 2012; De Kok et al, 2014; Van Diermen & Beltman, 2016; Veldhoen, 2005). The spatial dimension consists of the building and different workspaces. The digital dimension is about information and communication technologies (ICTs), which are essential to work in and outside offices. And the social dimension consists of work routines and managerial practices.

The implementation of ABW has been valuable for organizations (Appel-Meulenbroek, 2011; Davis et al., 2011; Gerards et al., 2018; Haapakangas et al., 2019; Rolfö et al., 2018; Van Koetsveld & Kamperman, 2011; Van Meel, 2020). Aforementioned studies show that flexible work arrangements increase employees' commitment and engagement, create better social relations and promote knowledge-sharing and collaboration. Furthermore, ABW causes better space utilization, reduces costs and attracts skilled talent. All are considered important factors for organizational productivity in knowledge work (Sveiby & Simons, 2002). On the other hand, higher-density workplaces, often present in ABW offices, are associated with increased distractions and perceptions of crowding (Arundell et al., 2018). These negative effects could result in lower levels of satisfaction with communication, social relations and emotional demands (Haapakangas et al., 2019). They could also cause professional and social isolation (Cooper & Kurland, 2002; Morganson et al., 2010).

The impact of fostering the social needs of employees is being researched in a variety of different areas. For individuals, interactions and relationships with people around them are crucial to their health and well-being (Diener & Seligman, 2004; Ryff & Keyes, 1995). The need to belong is a universal and influential human drive that shapes emotion, cognition, and behaviour. Frequent contact with and a continuous relationship between people is essential (Baumeister, 2012). The need for social interactions and belongingness does not disappear when entering an office building (Colenberg, et al., 2021; Kahn, 2007; Rath & Harter, 2010). Here, every aspect of the work environment should contribute towards the building and preservation of social relationships. How do the ABW dimensions add towards this though?

2.1 Spatial manifestation of belongingness

Designated areas that enable team collaboration and communication can foster the development of team cohesiveness and thus enhance the feeling of belongingness (Peterson & Beard, 2004; Hammitt et al., 2006). As social bonds between individuals strengthen, a stronger sense of emotional attachment develops between individuals and the place (Kyle et al., 2006). This also applies to ABW environments. These are designed to promote social interaction through openness, transparency and informal meeting spaces (Hofkamp & Van Meel, 2013). As a consequence, ABW should provide ample opportunity to build and maintain strong relationships with colleagues (Engelen et al., 2019; Wohler & Hertel, 2017). Marzban and colleagues (2021) saw that ABW users reported higher levels of incidental communication and inter-team collaboration. However, more communication and collaboration between employees does not necessarily help to build or maintain significant relationships. Interaction is more frequent, but also superficial and less personal (Marzban et al., 2021). The non-territorial foundation of ABW further threatens the development of group identity (Rosengren et al., 2019).

Thus, more social interactions are not always beneficial for the (social) well-being of employees (Colenberg et al., 2021) and the perceived bonding between colleagues (Marzban et al., 2021). Not being able to frequently have meaningful personal or private conversations with colleagues is a potential risk. This endangers the sense of belongingness and, as a result, could have negative effects on social support and emotional demands (De Been & Beijer, 2014; Haapakangas et al., 2019).

2.2   Digital manifestation of belongingness

The digital workplace is essential within ABW. Here lies a potential danger. A larger share of teleworking leads to a greater reliance on online communications to stay in contact with colleagues (Collins et al., 2016). Research on teleworking shows that working remotely decreases the opportunities to develop social relationships with colleagues (Illegems & Verbeke, 2004; Pearce, 2009). Notable drawbacks of digital communication are the lack of nonverbal cues and the absence of the 'warmth' of face-to-face interaction (Allen et al., 2015, Standaert et al., 2022; Vayre & Pignault, 2014). Simultaneously, there are indications that the digital workspace can combat these problems. Fay and Kline (2011) assert that digitally discussing informal topics with colleagues, may reduce teleworkers' feelings of isolation. A recent study (Karl et al., 2021) reported that online meetings could enhance the social relationships with co-workers, by seeing and learning more about their home environment. Still, it is uncertain if this is enough to create lasting relationships. When not properly addressed, the digital workspace could lead to technostress or even an experienced gap between office-based employees and teleworkers (Collins et al., 2016; Van Vuuren et al., 2020).

2.3   Social manifestation of belongingness

In order to achieve a sense of belongingness, it is important that employees share common experiences, interests and identity with the place (Cuba & Hummon, 1993; Filstad et al., 2019; Kyle & Chick, 2002; Raymond et al., 2010). Therefore, the creation and conservation of an 'imagined community' is essential (La Brijn et al., 2022). This is difficult to achieve in practice. ABW offices are fluid in meaning and employees have considerable freedom in space selection. While the concept assumes that users make rational and equal choices in where they work (according to their activities), practice shows that there are competing rationales and behaviours (Bäcklander et al., 2021; Colenberg et al., 2021; Haynes et al., 2019; Van Koetsveld & Kamperman, 2011). The discrepancy between intended, collective and individual behaviour in the work environment could endanger the organizational community. As a result, this difference could hinder – instead of strengthen – the imagined community and therefore meaningful relationship building within the work environment.

3   METHOD

This study is conducted in a Dutch public organization. The organization has more than 10.000 employees, with a multitude of offices. Since 2013 this organization applies the latest standards for Dutch governmental offices and implements and evaluates its environment via the ABW framework. The organization shared all their available evaluation documents for the purpose of this research.

3.1   Research design

A mixed method research design is used, consisting of a document analysis and semi-structured interviews with policymakers (PM1 & PM2) and ABW experts (E1 & E2). The policymakers work for the Dutch government and embed insights, gathered within this public organization, to develop new policy. The experts work for different independent not-for-profit organizations and were periodically asked by the public organization to evaluate their ABW environments. Interviews were used to address the content of the documents in perspective of the spatial, digital and social dimension. These results were compared with literature on ABW. Reason for this triangulation is twofold. Firstly, it limits the risk of research bias (Fischer, 2006). Secondly, it links practical issues of our casus to the discussion in literature. This deepens the understanding of ABW, for both practice and science.

3.2   Document analysis

We analysed the content of 30 documents from the period 2012-2021; internal documentation and external *independent* research on the environments of the organization. The framework of

Van Meel (2020, see Figure 1) is used to structure the content of the obtained documents. This makes it possible to investigate in which manner social needs are being discussed in practice and whether there is a discrepancy between theory and practice.

Figure 1. The ABW framework with dimensions and sub dimensions, composed by Van Meel (2020)

SPATIAL DIMENSION (BRICKS)	DIGITAL DIMENSION (BYTES)	SOCIAL DIMENSION (BEHAVIOUR)
The building and the spaces it provides	*The technologies needed for mobile working.*	*The way staff and management work, manage and interact.*
Diversity – Different settings for different activities, balancing open and enclosed spaces.	**Mobile devices** – Light, powerful tools with long battery lives that can be quickly fired up from any location.	**Autonomy** – Greater freedom (and responsibility) for employees to decide when and where to work.
Free seating – All spaces can be used by everyone.	**Collaboration apps** – Applications that allow employees to stay in touch in an easy and intuitive way.	**Results-oriented management** – Judging employees on their performance rather than their presence in the office.
Availability – Workspace numbers should provide staff with real choice.	**Workplace apps** – Apps that enable employees to find empty workspaces and to locate their colleagues.	**Mutual trust** – As employees are not necessarily in the direct sight of their managers, mutual trust is essential.
Ergonomics – All settings should be usable by everybody.	**Cloud solutions** – Internet-based applications and filing systems that allow employees to work from anywhere.	**Courtesy and respect** – Sharing workspaces requires that people are more considerate of one another's workplace needs.
Zoning – Different areas for quiet and lively activities. **Limited storage** – As few filing cabinets as possible, although there should be room for personal items and some team storage.	**Top-notch infrastructure** – All the practicalities: docking stations, power sockets, a robust Wi-Fi network and high-quality screens.	**Being mobile** – Moving to different spaces or locations when the task requires it.

3.3   Research procedure
The researchers coded the content of the documents dichotomously. When a document addressed an aspect of the dimensions (as shown in Figure 1), it was coded as present. Otherwise, the coding was 'absent'. To map the frequency in which social needs are addressed, different criteria were used.

3.4   Additional search criteria
Social needs of ABW users are not included in the framework. Therefore, the researchers derived different elements of social needs in the context of ABW from literature. Terms that were used are: "social cohesion", "coherence", "social needs", "community", "bonding", "social behaviour", "social support", "social affordances" and "sense of belongingness".

4   RESULTS
4.1   Primary document analysis
In the first analysis, we structured the content following the ABW framework. Table 1 shows per dimension how many documents address the different aspects of ABW. The results indicate that the social dimension is most commonly mentioned.

Table 1. Distribution of the (sub)dimensions in absolute numbers

	Total documents (max. 30)
Spatial dimension	
Diversity	*13*
Free seating	*11*
Availability	*10*
Ergonomics	*5*
Zoning	*8*
Limited storing	0
Digital dimension	
Mobile devices	*5*
Collaboration apps	*6*
Workplace apps	*3*
Cloud solutions	*8*
Top-notch infrastructure	*10*
Social dimension	
Autonomy	*17*
Results-oriented management	*15*
Mutual trust	*12*
Courtesy and respect	*17*
Being mobile	*10*

4.2 Secondary document analysis

In the subsequent analysis, we looked exclusively at social needs. A third of the documents referred to social needs of knowledge workers. The first signs that social needs of knowledge workers are under pressure date from 2015. A reduced social cohesion was noticed due to an increased physical distance between employees. Contact with colleagues now required extra effort. From a more recent external evaluation the conclusion regarding social interactions was: "Many people feel that the quality of contacts with direct colleagues is decreasing. Yet the number of contacts with various indirect colleagues increased." (External document 17, 2017). Another evaluation stated: "Applying multiple areas/zones in the office could help employees finding the right space, but on the other hand could affect the social cohesion within the team. 90% of the employees did not move throughout the day. When the degree of flexible working increases, team identity or a sense of belongingness is an important challenge." (External document 11, 2019).

4.3 Interviews

About the design of their work environment, PM2 says: *At* [organization]*, [ABW] was driven by housing. That aspect is slower than IT and the development of the organization.* (…) *Work environments were already there, but* [end-users] *could not adapt to them.* (…) *We felt that it was an organizational and cultural change.*

PM1 adds: *In all those years of* [ABW]*, the behavioural side has always been less tangible. The focus has gone more to the 'bricks'.*

The difficulty experienced in aligning the behavioural aspects within ABW philosophy is underlined by the experts. E1 sees a discrepancy between the places offered and the way these places are used. The expert identifies several serious risks: temporary occupancy, claiming behaviour and territorial behaviour. According to E1, it is important that the autonomy that is expected of an employee in an ABW environment is also promoted by the culture of an organization. This was lacking in the examined organization.

E2 also sees that employees have all the equipment at their disposal, but do not adapt their behaviour to ABW: *Not much attention is given to behaviour and how people experience an environment. Good ICT is important and buildings must be nicely furnished. But if the behaviour does not change, you will be in trouble. I think that people are aware of the importance of the behavioural side, but they do not really want to do anything about it.*

Both experts agree that behaviour in the ABW environment is a bottleneck in its success. With statements about occupying specific places, they confirm what the policy makers identify: the working environment is set up for ABW, but the cultural change is not there. Does this mean that the social dimension is not properly taken into account in the work environment?

Both policy makers agree that the social dimension is too broad. PM2 thinks that it does not cover the full meaning of what it should be about. PM1 indicates that the working environment should not exclusively focus on behaviour: "*How do you remain an attractive employer for the coming generations?*"

PM2 adds: [Behaviour] *also has to do with identity. Who we want to be to the outside world. That is too little connected with* [ABW], *identity and culture.*

In addition, PM2 argues that the limited involvement of Human Resources (HR) has led to a lack of clarity in terms of social norms and cultural aspects surrounding working in an ABW environment.

According to E1, the responsibility that PM2 places on the HR-department is a logical consequence of the framework. E1 argues that, in practice, the three dimensions are often carried out by the department to which they naturally belong. The spatial dimension belongs to Facility Management (FM) and the digital dimension to IT. Here E1 detects a flaw: *Behaviour is often not linked to Human Resources by HR itself. (…) Maybe the definition of the social dimension is too broad, because it is more than only HR.*

E2 seems to share this view: *Behaviour is an all-purpose word. We need to refine this further. It is about attitude and behaviour.*

E2 recognizes the urgency, also for the organization, to further refine the understanding of the social dimension. For the upcoming years the organization will have to deal with challenges surrounding the emerging of 'hybrid working', among which are the attracting and retaining of new talent, the sharing of information and creating involvement within the organization.

I do think that, in the future, we have to think about how to feed the organization as a whole and make sure that people know what is happening in the organization. The organization must actively contribute to this (E2).

5   CONCLUSION

Facilitating social needs in ABW environments is difficult. In both the document analysis and the interviews, the struggle to deal with the social dimension is evident. While an ABW environment can be equipped relatively easily with the right equipment and digital infrastructure, it is more difficult to get users 'behave' as intended. In most of the analysed documents, the social dimension was labelled as difficult to address. Furthermore, we found in more than one third of the documents statements related to social needs and the sense of belongingness. We were unable to place these in the framework.

Implementing social needs and a sense of belongingness in the spatial dimension could cause a paradox. In most offices the amount of social interactions have increased, while the quality of these interactions have decreased. Remarkably, ABW could create an increased experienced social distance (Colenberg et al., 2021). In the digital dimension there is an overestimation of technological solutions. While digital communication will play an even larger part in an effort to connect colleagues after COVID-19, earlier research illustrates that ICT's lacks the 'warmth'

of face-to-face interactions. These are vital for developing closer social relationships (Vayre & Pignault, 2014), further stressed by research conducted during COVID-19.

The position of social needs in ABW is limited. The existing framework does too little to address and facilitate a crucial element of knowledge work. We fear that, following literature and our own findings, the current framework of ABW environments cannot sufficiently address social needs after COVID-19. How the framework should be altered is unclear. Add an extra dimension - like bonding or belongingness – or critically evaluate the existing sub dimensions? This is a consideration to be explored in future research.

5.1 Limitations

While this study is explorative by nature, the absence of empirical data limits the generalizability of its statements. However, all of the results are placed in a broader perspective to address a known issue. While this study is not enough, it brings different insights on ABW together and adds the evaluation of a large Dutch public organisation. The analysed documents are original and were written in a time period of nine years. They are in line with research previously done on ABW. However, to deepen the understanding of this subject, research should be extended by including (empirical) data from more (public and private) organisations.

5.2 Future directions

To explore the role of social needs in ABW, empircal data is required. What knowledge workers expect from their ABW environment should be charted. Employee experiences and reasoning to work in ABW offices after COVID-19 could be helpful to deepen the understanding of the added value of face-to-face social interactions. Furthermore, earlier research already indicated that belongingness, social interactions and cohesion are often being researched from an individual point of view (Colenberg et al., 2021). Gifford (2014) also stated that scholars should be aware of the complex mutual nature of social interactions. This detracts from the complex, dynamic and evolving relationship between employees and their managers in knowledge work. We invite researchers to consider mereology, which is the philosophical study of individual parts (like people) and the collective entity they form (like an organization) (Hawley, 2017). Because in the end, an organization is more than the sum of its individual employees. The interaction between the employees adds something, essential in knowledge work. ABW should actively contribute to this phenomenon, in all three dimensions.

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