

The Effects of Workplace Spatial Configuration on Emergent Strategy Making

ABSTRACT

An organisations realised strategy forms in two distinct ways: through ‘deliberate’ strategy making where senior managers set objectives and develop plans using formal planning processes and ‘emergent’ strategy making where a pattern of action becomes evident over time - in an absence of intention about it. Emergent strategy is associated with innovative and adaptive capabilities and is observed to a greater extent in organisations competing in more volatile external environments. Strategy-as-Practice (SAP) understands strategy as a socially accomplished activity and its research has a focus on the day-to-day interactions of strategy makers, however, SAP research has been critiqued for bias towards social interactions that are deliberately strategic at the expense of work on emergent strategy making which is fundamentally defined as unconscious, undeclared, tacit and unspoken. By contrast, research in architecture has shown that spatial configuration has a powerful affect on unplanned social interaction.

This paper draws on these two disparate literatures to explore the possibility of a relationship between emergent strategy making and the spatial configuration of the workplace. Quantitative methods were used to explore the extent of this relationship: observation analysis was used in one case firm to gain a fine-grained understanding of social interactions in different spaces and in order to enable a rigorous assessment of organisational spatial configurations the technique of ‘Space Syntax’ was used. This enabled the analysis of the relationship between an organisational profile of spatial configuration and non-deliberately strategic interaction in a single, in-depth, case study and for establishing the spatial configurations of three other companies. These three cases enabled the understanding of how opportunities for emergent strategy making might vary across the four organisations based on their spatial configurations.

The results suggest a strong relationship exists between workplace spatial configuration and the opportunities for emergent strategy making in an organisation, which when compared across four organisations imply very different opportunities in each. The paper concludes by suggesting that emergent strategy needs to be thought of as a material, spatial phenomenon and not just a conceptual one and with the personal reflections of the author as a seasoned executive of thirty years on the potential relevance of this research to practice.

Keywords:

Emergent Strategy, Spatial Configuration

The Effects of Spatial Configuration on Opportunities for Emergent Strategy Making

Emergent strategy making is central to an organisation's adaptive capabilities (Mintzberg and Waters, 1985), innovation (McDermott and O'Connor, 2002) performance (O'Reilly Iii and Tushman, 2013) and longevity (Burgelman and Grove, 2007). The conditions for emergent strategy making could be affected by spatial configuration because of the way it affects social interaction. This would mean that spatial layout matters to strategy making, however this relationship has not been examined to date. This gap motivated the key research question explored in this paper: *What are the effects of spatial configuration on emergent strategy making?* In order to investigate this question the paper draws on two disparate literatures, from architecture and strategy process research, to make the case that such a relationship should be taken seriously. Strategy-as-Practice ('SAP') literature is then introduced as it focuses on the importance of social interaction and has made some forays into the role of space (Jarzabkowski et al., 2015). It forms a natural intersection between the strategy process and architecture literatures (see figure 1).

 Insert Figure 1 About Here

The paper is structured as follows: literature on interactions that constitute emergent strategy is reviewed followed by a review of the architecture literature on the effect of spatial integration on unplanned interaction. The method section details the selection criteria for the four organisations used in this research and the techniques used to quantify both spatial configuration and the profile of non-deliberate strategic (NDS) interaction. The findings confirm that spatial configuration of an organisation's offices generate opportunities for emergent strategy making and that these opportunities vary a great deal across organisations. The findings are interpreted to suggest that emergent strategy making needs to be thought of as a material, spatial phenomenon and not just as a conceptual one, with important implications for practice. The paper concludes with some personal reflections on the relevance of the research by the author, as a seasoned strategy practitioner and further research directions are discussed.

LITERATURE

Emergent Strategy and Non-Deliberate Strategic Interactions

Emergent strategy making is defined by an absence of intention (Mintzberg and Waters, 1985, p. 258), it is fundamentally unconscious, undeclared, tacit and unspoken (Chia and MacKay, 2007, p. 237), it is constituted by the everyday interactions of practitioners who are peripheral from the corporate centre (Regnér, 2003). These interactions are intuitive responses to problems as they happen and can occur in the periphery because it is there that the organisation encounters as-yet-uncharted situations, a kind of practical coping (Tsoukas, 2011, p. 72). These interactions are not-deliberately strategic to the extent that even the organisational member involved will not understand them as strategic (Chia and MacKay, 2007, p. 235). Each interaction contributes to what is known-in-practice, each one shifts the way things are done, however imperceptibly, but accumulate to adjust strategic positions: *"Strategy subsists in each and every mundane and seemingly isolated act we perform."* (Chia and MacKay, 2007, p. 235)

The natures of interactions that constitute emergent strategy making are also important. Practice theory has long argued that inherent in the repetition of practices is the possibility of change and adaptation (Brown and Duguid, 1991) and that as a result the repetition of interactions in an organisational context are important to the strategic ability of adaptation (Jarzabkowski, 2004). Work on social networks has shown that good ideas and creativity are

associated with interactions with a broad range of people that extend outside ones normal social circles (Burt, 2004), results confirmed in an organisational context by work that shows that diversity in communication is a hallmark of high performing project teams (Allen, 1977, p. 115). Combining the attributes of repetition and diversity has led to work that links innovation to the frequency of unplanned interaction (Penn et al., 1999).

The duration of interaction is also important to emergent strategy making. The interactions that constitute emergent strategy making are inherently time constrained, they are the instinctive responses to problems as they occur and by nature tend to be short in duration (Chia and MacKay, 2007, p. 236). However, time for reflection is also required in order to make sense of problems (Seidl and Guerard, 2015, p. 572), time to ‘spread-out’ and talk about experiences and reflect on the shorter, more instinctive responses is important in effectively tackling newly occurring problems (Kornberger and Clegg, 2004, p. 1105). High performing teams, in terms of idea generation and project outcome, are known to interact more in absolute terms than low performing teams and the duration of those interactions is broader (include short, medium and longer duration) but distributed more evenly (Allen, 1977, p. 108). In this way achieving the right balance of strategic work and its effectiveness might be related to interactions whose duration are broad but evenly spread (Seidl and Guerard, 2015).

Directionally, the interactions that constitute emergent strategy are more frequent, involve a more diverse range of people, their duration is more evenly distributed and they accumulate to higher overall levels of interaction. However, these trends are not limitless, there is a point at which more interaction with more diverse groups of people is not beneficial as it potentially leads to chaos (Kornberger and Clegg, 2004, p. 1105).

The extent to which an organisation is observed to engage in emergent strategy making is infinitely variable along a spectrum according the dynamism of the environment in which it competes (Mintzberg and Waters, 1985), for example, emergent strategy is far more evident in organisations in highly volatile environments and less obvious in organisations in more benign environments. More recent research on the strategic ambidexterity of organisations has shown that a balanced position with regard to emergent and deliberate strategy may influence strategic outcomes (O’Reilly Iii and Tushman, 2013), that there are costs with too much or too little emergence (March, 1991) and these positions need to flex over time to ensure longevity (Burgelman and Grove, 2007). However, striking the right balance is difficult and continues to elude organisations in practice (McGrath, 2010). To reflect the differences amongst organisations by patterns of interaction Mintzberg (2007) created a typology (see Table 1).

 Insert Table 1 About Here

Emergent strategy making can be encouraged or constrained by its contexts (Mintzberg, 2007), but the conditions for emergent strategy making may also be affected by physical space within the organisation as well, and yet this has been little examined in the strategy literature. The following section describes research in architecture that investigates the impact of spatial conditions on social interaction.

Spatial Configuration and Unplanned Interaction

The origins of research that establishes a relationship between spatial configuration and unplanned social interaction comes from architecture (Hillier and Hanson, 1984). A method for quantifying the configuration of space was developed, called Space Syntax, that is used to compare with direct observations of social behaviour, most notably for this research, of interaction (Sayed et al., 2014). In this work, space is talked about as configuration because “*it is as configuration that it has its most powerful and independent effects*” on social behaviour (Hillier, 1996), and not as individual space.

Spatial configuration has been shown to have a strong influence on the frequency of unplanned interactions in spatial systems of all sizes including buildings. In spatial configuration, proximity is important because the frequency of interaction increases as distance between people decreases (Kiesler and Cummings, 2002). Visibility also plays an important role: for example two people in cellular offices will interact less than two people the same distance apart in an open plan office (Estabrook and Sommer, 1972, Szilagy and Holland, 1980). Space syntax uses a measure that combines the impact of proximity and visibility in a spatial system called ‘step depth’ (Sayed et al., 2014). The measure of ‘step depth’ is used to calculate the degree to which any space in a building is integrated with, or segregated from, other spaces in the system. More integrated buildings produce a higher frequency of unplanned interaction than more segregated buildings and are known as ‘generative’ (Hillier and Penn, 1991). More integrated spaces within a spatial system also produce a higher frequency of unplanned interaction than more segregated spaces. For example, the most integrated spaces in open plan offices are usually desk clusters that consistently show the highest frequency of interaction. Also, movement through a process called ‘recruitment’, generates interaction as a person moving can see when someone they pass is ‘available’ for an interaction, it is possible to ‘recruit’ more people in more integrated spaces (Hillier and Penn, 1991, p. 37).

The Space Syntax concept of the ‘generative’ building describes the effect of spatial configuration on knowledge creation: a building that acts generatively allows new relationships, new ideas, new products and new knowledge to emerge by maximising random encounters between people (Sailer et al., 2012). The idea of the ‘generative building’ has been adopted by organisation studies, at least in theoretical terms, arguing that buildings are not just passive containers in which interactions happen but that they contribute positively to an organisation’s capacities, “*generative buildings are the stage on which people can interact freely and enact their ideas creatively*” (Kornberger and Clegg, 2004, p. 1108). Several empirical studies have developed and refined the relationship between spatial configuration, unplanned interaction and innovation (Sailer et al., 2012, Penn et al., 1999, Wineman et al., 2014, Grajewski, 1993). The current vogue in office design to build ‘cathedrals of innovation’ that maximise chance encounters (Waber et al., 2014, p. 70) can be seen as the direct result of this work.

Despite a large body of research on the effects of spatial configuration on social interaction in the space syntax community, these have not previously been associated with the emergent strategy making capabilities of an organisation and it is proposed that ‘SAP’ is the ideal place to explore this possible relationship.

Strategy-as-Practice: non-deliberate strategic interactions, space, and emergent strategy making

The intersection between the two literatures that identify the importance of unplanned and unconsciously strategic social interactions (strategy process literature) and the effects of spatial configuration on human behaviour (architecture literature) is the influence of spatial configuration on emergent strategy making (see figure 1). At this intersection attention to the work of strategy and how people interact in contexts are an important concern. Interaction is placed at the centre of the ‘SAP’ approach that understands strategy as a socially accomplished activity (Vaara and Whittington, 2012). A focus on the micro interactions of strategy makers goes beyond attention being placed solely on the effects of strategy on firm performance (Golsorkhi et al., 2015, p. 1) to add a more detailed, in-depth analysis of who does the strategy work, where and how it is actually done (Whittington, 2003, p. 119). This has led to insights from what was once considered a ‘black box’ of strategy work (Mintzberg

and Waters, 1985) and as a result we understand better what strategy makers really do in multiple contexts (Jarzabkowski and Wolf, 2015, p. 165).

However, SAP has been critiqued for a bias towards social interactions that are deliberately strategic (Chia and MacKay, 2007, Tsoukas, 2011). An interaction is considered as strategic to the extent that it is consequential for the strategic outcomes, directions, survival and competitive advantage of the firm (Jarzabkowski et al., 2007, p. 8), and this definition implies intentionality which has led to special attention being given to formal strategic practices (Golsorkhi et al., 2015, p. 6) such as strategy workshops (MacIntosh et al., 2008, Seidl and Guerard, 2015, Hodgkinson et al., 2006), strategy meetings (Jarzabkowski and Seidl, 2008) and formal planning processes (Spee and Jarzabkowski, 2011). These deliberately strategic interactions, may or may not turn out to be consequential to the firm: they are considered strategic only because participants define them as such and thereby conflates strategy making with intentionality (Tsoukas, 2011, p. 59). This critique suggests that the non-deliberately strategic (NDS) interactions that constitute emergent strategy making are under researched in ‘SAP’.

Explicit research on the affects of space on strategy have been limited and have tended to study individual spaces rather than the configuration of spatial systems, for example see (Jarzabkowski et al., 2015). However, important effects of spatial configuration are implied in many of the studies of micro interactions conducted under the banner of strategy-as-practice, (for examples see (Balogun and Jenkins, 2003, Regnér, 2003, Ambrosini et al., 2007)), which acknowledge that problem solving often requires “*a ‘spread-out place’ where two or more people can talk about their experiences and newly occurring problems*” (Kornberger and Clegg, 2004, p. 1105).

METHOD

In order to address the issue of whether spatial configuration affects emergent strategy making, an immersion in the micro, unplanned social interactions that constitute emergent strategy making, and a removal from the action to appreciate patterns in space and interaction at an organisational level, is required. This spanning of micro and macro levels is one of the features that defines and differentiates ‘SAP’ (Chia and MacKay, 2007) and this zooming in and zooming out is a method advocated in both practice theory generally (Nicolini, 2012, p. 213) and strategy-as-practice more specifically (Rasche and Chia, 2009, p. 725). Quantitative methods have been recommended as being particularly good at spanning levels of analysis (Laamanen et al., 2015, p. 520) and for establishing patterns of practice (Browne et al., 2014), and therefore “*hold major potential in the field of SAP research*” (Laamanen et al., 2015, p. 521). In this research observation analysis was used in one case firm to quantify and gain fine-grained understanding of social interactions in different spaces.

In order to enable a rigorous assessment of organisational spatial configurations the quantitative technique of Space Syntax was used. This enabled the establishment of an organisational profile of spatial configuration for the firm used as the in-depth observation case study and for establishing the spatial configurations of three other companies. These three cases enabled identification of their spatial configuration profiles in order to understand how opportunities for emergent strategy making might vary across the four organisations studied. The method used to quantify spatial configuration, taken from architecture, is described first, followed by the method for measuring the profile of interaction.

The research design follows a sequence of three steps: each step builds on the findings of the previous one. A single organisation is the focus of the first two steps and four organisations are used for the comparative analysis in step 3.

Step 1: Establishes a profile of non-deliberately strategic interactions

Step 2: Evaluates the extent to which spatial configuration explains this profile

Step 3: Compares the spatial configurations of four organisations

Selection procedure for the cases

The purpose of the spatial analysis was to understand the extent to which emergent strategy making might vary across organisations due to their spatial structures. Therefore, four organisations were selected on the basis that they are likely to have very different configurations, following Mintzberg's typology (see table 1), as each should have a fundamentally different position with regard to emergent strategy making.

For selection the companies had to have available full-scale plans, with labels for every separate space in the building being studied, so that spatial analysis could be conducted. The companies also had to be primarily contained within a single building where there was a full and representative range of functions for the organisation.¹ The spatial system needed to be large enough for an analysis of spatial configuration to be meaningful, (for example, an organisation with few employees and located in a single room would provide insufficient data for a meaningful analysis). All four organisations should be within a reasonable range of sizes to allow comparative analysis, a size range from 100 to 1,000 employees was selected, and each organisation was considered successful within its sector. The four organisations selected are summarised in table 2.

 Insert Table 2 About Here

The organisation selected for detailed analysis of interactions was 'Law' is described in table 2. 'Law' was selected on the basis two key criteria: size and quality of access. The organisation had to be small enough that a single researcher could observe a representative sample of spaces and interactions to make reliable conclusions about the firm as a whole, yet sufficient number of inhabitant employees for there to be a representative number of non-deliberately strategic interactions within the five months observation period allocated to their study. The quality of access had to be good for the researcher to observe everyday interaction freely, have access to strategy meetings and have sufficient knowledge of the employees to know who was interacting.

Data collection – spatial configuration

Analysis using Space Syntax can be large and complex necessitating the use of a software package, called 'depthmapX' that performs calculations automatically. The analysis starts with a detailed scale plan of the office layout used by the organisation with each of the rooms used labelled according to the descriptions used by in practice, as in Figure 2.

The researcher creates the scale plan in a computer aided design package (such as AutoCAD) in preparation for import into 'depthmapX'. The CAD drawing is completed in layers that allow flexible analysis of the spatial system. In this research the following layers were created, layer 1: All exterior walls, doors and windows, opaque interior walls, layer 2: All interior doors and glass walls, layer 3: Furniture. Once the layered CAD drawing has been imported into 'depthmapX', the spatial system is divided into a grid, as in figure 3. The grid creates a number of point locations known as nodes at the centre of each square on the grid. The grid size used in this research is set at 60cm, roughly the width of a persons shoulders, placing the analysis on an intuitively understandable human scale and the same scale is used on each building analysed to make the analysis comparable. Separate floors are connected via stairs and lifts to create a single spatial system. The 'depthmapX' software connects every

¹ Analysis of spatial configuration across multiple sites is possible using space syntax but was considered beyond the scope of this work.

node to every other node with which it has a direct line of sight in the spatial system and uses graph theory to analyse the spatial relationship of every node to every other node. The spatial systems analysed in this research varied in size from 6,300 to 36,000 nodes.

 Insert Figure 2 and 3 About Here

At its core, space syntax uses the idea of depth, usually referred to as ‘step depth’, in its analysis of spatial configuration. A node is a ‘step depth’ of 1 from every other node to which it is connected directly, that is, all the nodes a person can see directly is a step depth of 1 away, regardless of metric distance. A node in the spatial system that cannot be seen directly from the first node, but can be seen from a node that is a step depth of 1, is a step depth of 2 from the first. In other words, if a person needs to turn once, from one direct visible path, to a second visible path, in order to reach a second point, the starting point is a step depth of 2 from the finishing point. Figure 4 provides two graphic illustrations of ‘step depth’ using an ‘isovist’ path. An isovist is what is visible to an individual (with a 90 degree field of view in the example shown) that travels along a straight path from one point to another.

‘Step depth’, therefore, describes the relationship between any two points in a spatial system. In this way, the depth of any point to all other points in the system can be calculated and shown graphically. Figure 5 shows ‘step depth’ to all points in a spatial system from the main entrance of the building marked as A.

 Insert Figure 4 and 5 and 6 About Here

The measure of ‘step depth’ forms the basis of the space syntax measure for integration. The integration of a single point in a spatial system is the average step depth to all other points, this measure is known as the ‘mean depth’ of that point. A point that has a low mean depth is well integrated within the spatial system, whereas a point with a high mean depth is considered segregated. Figure 6 shows the integration level, measured as mean depth of every point in the system. The average of the mean depths for all points in the system, that is the average step depth of all points to all other points, provides a value of integration for the whole spatial system, known as ‘average mean depth’. In the system shown in figure 6, the average mean depth is 4.6. The average mean depth gives a sense of the degree of integration of the entire system and can be compared with other systems. It is this measure that gives rise to the notion of the ‘generative’ building. Buildings with more integrated spatial systems overall (lower than average mean depths) are considered ‘generative’ because they generate more unplanned interaction than more segregated spatial systems. Providing opportunities for greater levels of unplanned interaction overall is one of the conditions for emergent strategy making. The scale plans drawn in CAD were also used to calculate the area allocated to each type of space in each spatial system. Spaces were divided into four categories in each spatial system studied, workspaces: typically areas where desks for use of resident employees are placed, transit: any space whose primary use is to move people from one area of the office to another, and facilities: any space that was not allocated to either desks or transit, such as meeting rooms or breakout areas. Facilities are divided into two categories, flexible facilities: any facility that does not require booking for its use and bookable facilities: any facility that does require booking for its use. Flexible and bookable facilities away from workstations provide opportunities to engage in interactions of longer duration than those possible at the desks, another of the conditions for emergent strategy making. A comparison of the spaces in each of the four organisations studied is given in table 3, according to these categories.

 Insert Table 3 About Here

Data collection – Non-deliberate strategic interaction

Patterns of interaction are quantified through direct observation of the 9 spatial descriptions of 'Law' in table 3. Observations were made on a representative sample of each space and extrapolated to get firm wide interaction data. Each interaction is classified as taking place within a team (intra-team), across two or more teams (inter-team) or including at least one visitor to the organisation (visitor). For each type of interaction the frequency and duration of each was recorded. 'Law' is divided into four departments, and each department into a number of units, for example, Litigation, one of the four departments, is divided into four units: Dispute Resolution, Debt Recovery, Employment and Personal Injury. There are 18 units in total and each unit is assumed to be a separate team. In total 54 observation sessions of 4-5 hours each were conducted, totaling 230 hours of observation over a 5 month period which resulted in a total of 453 unique interactions and a total set of 1,359 data points.

Data analysis – the relationship between spatial configuration and social interaction

Bivariate analysis is used to compare the variables relating to spatial configuration with those relating to social interaction (Sayed et al., 2014, p. 58). The relationship between each variable relating to spatial configuration (step depth, integration and allocation of space) is compared with each variable relating to social interaction (frequency, average duration and total duration) is investigated using simple graphical techniques such as scattergrams or x/y plots. Where relationships are suggested by the graphics, the nature and significance of the relationship is tested using regression analysis. The most common statistics used in testing the validity of the relationship between social variables and spatial variables are R squared and p-values. A regression produces a line of best fit between two variables, the equation for this line describes the nature of the relationship between the variables. R squared is a statistical measure for how close the data fits the regression line. R squared always falls between 0% and 100% where an R squared of 100% means the model (the equation for the line of best fit) is a perfect explanation for the data analysed and generally the higher the R squared the better the model fits the data. The p-value is a statistical measure that shows the significance of the relationship between the two variables being tested. A p-value of 5% (0.05) suggests that there is a 5% chance that the relationship described by the line of best fit has occurred randomly in the data. The lower the p-value, the more likely it is that the data set being analysed is explained by the model.

This analysis will determine the extent to which spatial configuration affects the frequency, repetition, duration and total time spent in interactions, the profile of which describes the opportunities for emergent strategy making in each organisation.

FINDINGS

Opportunities for Emergent Strategy Making

There needs to be opportunities in an organisational setting for interactions, in which emergent strategy subsists, to take place. In the firm 'Law', NDS interactions take place 2,338 times each day as the lawyer's, support staff and visitors go about their day-to-day business. This means that, on average, each legal department in the firm interacts 584 times per day, each specialist unit 130 times and the members of each desk cluster 86 times.

On average, 3.09 people are involved in each interaction, which means that each individual interacts 46 times a day. Each interaction lasts an average of 4.07 minutes, so each individual spends 3 hours each day in some sort of interaction with others.

Interactions vary in duration from 15 seconds² up to over 2 hours but they are heavily skewed towards interactions lasting less than 10 minutes. The distribution of NDS interactions on a typical day in 'Law' is shown in figure 7.

 Insert Figure 7 About Here

In line with all previous studies of interaction in the workplace, the highest frequency of interaction was observed to occur at the desk clusters. In total 69% of all interactions occurred at the desk in this firm, however, they were brief lasting an average of 2 minutes 55 seconds each. The longest single interaction observed at a desk clusters lasted just 11 minutes. Expectations for these relatively short duration interactions was written into the "*Open Plan Etiquette*" for the firm, which states "*We would ask that due consideration is given to other people in the open plan area. Inevitably, discussions will take place and we would ask that you consider whether you are disturbing anyone in close proximity. If you think you will do consider moving to a different location, for example the break out area.*"

These short interactions are fine for much of the work we have associated with emergent strategy making, they are unconscious reactions to situations and problems as they arise, they are the coping actions of practitioners absorbed in their day-to-day work and they are purposive without necessarily having an overall purpose in mind. However, on their own they are not sufficient to tackle all the problems that may arise, they do not provide the time for reflection important to problem solving. For longer duration interactions, a '*spread out*' place is utilised, providing the opportunity for the interactions with a range of durations that are associated with strategy work. Figure 8 shows how each of the possible 'spread-out' places in 'Law' is used. The daily frequency of interaction in each space³ is shown on the vertical axis and the average duration of these interactions on the horizontal axis. The etiquette of the firm explicitly suggests that the first port of call should be the breakout space provided, an open area to the side of one of the open plan offices with a small kitchen and four tables, each with four chairs. It is possible to use the breakout space without booking, so teams at a desk cluster that feel they need to extend their conversation can use it at any time. The breakout area is used 36 times each day for interactions that average just over 13 minutes each. This represents quite a significant drop off from the interaction that is happening at the desks: on average, teams that interact 86 times at their desks visit the breakout space just 1.3 times each day. The breakout space is the most popular of facilities provided but others are also utilised. The only other space that can be used without booking is the 'Atrium'. This is used 22 times each day for an average of 29 minutes each time. The Atrium is used as a canteen over the lunch period but is also used by people wanting to interact away from their desks without having to book a room.

There are 14 bookable rooms in total, 11 client meeting rooms, 1 Boardroom, 1 training room (which is exclusively used for training) and a room located on the edge of one of the open plan offices with glass walls, known as the 'glass room'. None of these rooms are used more than 6 times a day but the interactions last for between 41 and 57 minutes, on average. Bookable rooms appear to extend the duration of interactions possible, beyond that which is acceptable in the more flexible breakout space and atrium.

² Interactions below 15 seconds, such as brief acknowledgements in a corridor or a polite greeting whilst passing a desk, were excluded from the study. The cut off of 15 seconds was selected because above this an interaction of some substance is possible.

³ This graph shows the average frequency and duration each discrete space in the spatial system. For example, there are 27 desk clusters, 2 kitchens and 31 discrete areas of transit. This graph shows the average for a single desk cluster, single kitchen and single area of transit.

By combining the frequency of NDS interactions with their duration we get the total amount of time spent interacting in each type of space, shown in figure 9. NDS interaction is still dominated by the short, staccato interactions at the desk and in areas of transit but these interactions do spread-out to the other spaces provided by the firm.

 Insert Figure 8, 9 and 10 About Here

We are also interested in who it is that interacts, figure 10 shows the interactions described above split into three groups. The first, intra-team, are interactions within the same specialist legal unit of which there are 18 in the firm, totals 72% of all interactions consisting of 1,837 interactions lasting an average of 3 minutes 45 seconds each. The second, inter-team, are interactions that involve at least two of the specialist legal units, these represent 21% of all interactions and consists of 479 interactions lasting 4 minutes and 4 seconds each. Third, are interactions with visitors to the firm, which represent just 6% of all face-to-face interactions that occur on the premises; consisting of 22 interactions each day lasting 27 minutes each. In total, the people at each desk cluster ‘spread-out’ to engage in longer duration interactions in the facilities provided 2.9 times each day.

In aggregate, the analysis above provides a profile of the NDS interactions in ‘Law’. It describes a profile that is dominated by very frequent, short duration interactions within teams of specialist lawyers. These interactions sometimes shift to facilities away from the desk to extend their duration but this is relatively rare, only 1 in 50 interaction last more than 10 minutes. Interactions involving more than one specialist unit follow a very similar profile but they represent one third of the interaction that occurs within teams. Face-to-face interactions with visitors follow a very different rhythm, occurring less than once each day for each specialist team but lasting nearly half an hour each. These NDS interactions constitute the opportunities for emergent strategy making in ‘Law’. These interactions are frequent and repetition is very much in evidence, particularly at and around the desk clusters, providing the opportunity for change and adaptation characteristic of emergent strategy making, at least within teams. However, the drop in interaction inter-team and with visitors suggests that these interactions are not particularly diverse which may constrain opportunities for innovation. In the profile of interaction durations there appears to be an imbalance in favour of very short duration, instinctive, coping interactions and away from longer durations that provide the opportunity for reflection important to emergent strategy work.

We are interested in the extent to which this profile is produced by the spatial configuration of the building they occupy, and therefore the extent to which spatial configuration is implicated in encouraging or constraining emergent strategy making.

Influence of Spatial Configuration on the NDS Interaction Profile

This section seeks to understand the extent to which the spatial configuration of the building that ‘Law’ occupies influences the NDS interaction profile established above. Research in Space Syntax shows that social interaction increases in areas that are most integrated in the overall spatial system. Figure 6 is a graphical representation of the levels of integration across ‘Law’: areas depicted in red are the most integrated and those in blue the most segregated. The boardroom (6.82)⁴ is located on the second floor of the building, its only access via a lift or stairs, is the most segregated room in the building and appears in blue in figure 6. By contrast, the open plan offices (4.01), which contain the desk clusters occupied

⁴ Numbers in brackets after the name of each space represent the figure for integration provided by the space syntax software ‘depthmapX’ for the analysed spatial system. The figure represents the average step depth from the space in question to all other points in the spatial systems. The most integrated spaces have a low figure and the higher figures the most segregated.

by the legal teams, are the most integrated. Client meeting rooms (5.31) are relatively segregated whilst the breakout space is relatively integrated (4.42).

The measure for integration of each space can be compared with the total interaction time observed in each space, this relationship is shown in figure 11. In line with previous studies of office buildings, there appears to be a relationship where social interaction increases in more integrated spaces. The most integrated spaces, workspaces and areas of transit, see the most interaction and the least integrated space, the boardroom, sees the least. However, there do appear to be some anomalies, in particular, three of the most integrated spaces, the breakout space, the training room and the glass room, have lower than expected levels of interaction. A possible explanation can be found in the relationship between the quantity of space allocated and the total duration of all interactions in each space. This relationship is shown in figure 12.

 Insert Figure 11 and 12 About Here

There is a strong, statistically significant, relationship between these two variables which suggests that the firm has adapted the space allocated to each facility over time according to demand. For example, if there was insufficient client meeting room space to meet demand, over time the firm is likely to build more into the floor plan. However, data points above the line represent spaces where there is more interaction relative to the space allocated than on average in the building and might suggest a demand for more. All three of the integrated spaces that show less interaction than would be expected in figure 11, appear above the line in figure 12 – suggesting that the amount of interaction afforded is being constrained by the allocation of space.

Another possible explanation is that not all people working in this spatial system have the same spatial relationship with each of these facilities. Figure 13 shows the spatial relationship between each of the 27 desk clusters with the breakout space in terms of ‘step depth’. A desk cluster that can directly see the breakout space will be a ‘step depth’ of one. Someone who can move in a straight line once and is then able to see the breakout space is a step depth of two. We can see that whereas 10 desk clusters can see the breakout space directly, 17 cannot, some people having to take quite complicated routes (‘step depth’ of 6) to reach the facility. We know from previous research that the likelihood of using a space decreases as step depth increases. This asymmetric relationship is particularly pronounced when there is only one example of the type of space in question in the entire spatial system, where there are more each person can choose to visit the closest. As there is only one training room and only one glass room, this asymmetric relationship also exists for them.

 Insert Figure 13 and 14 About Here

We also found that the interaction profile with inhabitants of the building (intra-team and inter-team) had a very different profile to those with visitors with whom virtually no quick fire, short duration interaction observed. This too has a spatial explanation by the process referred to as ‘recruitment’ where interaction is encouraged by movement. In ‘Law’ a visitor’s movement is controlled within a tight area that reduces the possibility of recruitment. Figure 14 shows a typical path followed by a visitor to ‘Law’ who is met in reception and then shown to a client meeting room. No desks are passed, eliminating the possibility of an unplanned encounter via recruitment and explaining the lack of short duration interaction.

We can conclude that measures of spatial configuration provide a strong explanation for the NDS interactions observed in ‘Law’. Interaction is driven by proximity and visibility that results in frequent repetitive interactions at desks and provide the opportunity for change and

adaptation. The constraints to innovation and balanced work of emergent strategy making described above, also appear to be explained by spatial configuration. The lack of diversity in interaction is the result of a lack of space being allocated to flexible facilities and the asymmetric relationship between those spaces and desks, reduces the extent to which interaction occurs inter-team. This is exaggerated by the degree of spatial control exerted on visitors to the organisation that virtually eliminates opportunities for unplanned interaction with those visitors. The imbalance away from interactions of medium to long duration also appears to be constrained by the allocation of space to flexible facilities. In these ways, spatial configuration potentially constrains opportunities for emergent strategy making in 'Law'. With this understanding of the influence of spatial configuration on NDS interaction in one particular firm, we are now equipped to consider the affects of spatial configuration on opportunities for emergent strategy making in three other organisations.

How Opportunities for Emergent Strategy Making Vary Across Organisations

Having established a profile of non-deliberately strategic interactions that provide the opportunity for emergent strategy making in one organisation, and understood the way in which spatial configuration contributes to an explanation of that profile, this section compares the spatial configuration of three other organisations in order to understand how significantly the NDS profile would vary and along which dimensions of interaction.

Each organisation can be compared in terms of the overall integration of its spatial system. The diagrams in figure 15 compare all four organisations using the same colour scale.

 Insert Figure 15 About Here

We know from the architecture literature that average system integration values for a building are consistently linked with overall levels of interaction: more integrated spatial systems (low mean average step depths) encourage more unplanned interaction. As a result, in figure 15 the areas in red are those that will encourage the most interaction and those in blue the least. The firms which appear warmest in colour overall will encourage more interaction than those which appear colder in colour.

In this sample the most integrated system is that of 'Tech' (3.9) and the least integrated 'Uni' (6.5). To put these numbers in perspective, the average for the entire system in 'Tech' (3.9) is more integrated than the most integrated spaces in 'Law', the desk cluster (4.01) and the average for the entire system in 'Uni' (6.5) is similar to the most segregated space in 'Law', the Boardroom (6.82). These differences in value should, therefore, be seen as significant and would result in the potential for emergent strategy making being greatest in 'Tech' and least in 'Uni' which potentially places each firm along the spectrum from entirely emergent strategy making to entirely deliberate strategy making proposed by Mintzberg (1985). However, we wish to understand more about how the profiles vary within the overall quantity of interaction as well.

The greatest amount of interaction in 'Law' occurred at the desk clusters, all located in open plan offices with screens between each of the desks to reduce disturbance. By contrast, in 'Uni' most desks are located in cellular offices. In 'Mftg' they operate a hybrid system with most desks in open plan offices and screens between the desks but managers have their own cellular offices. In 'Tech' all desk clusters are located in open plan offices with no screens between the desks. These differences in layout are reflected in the respective levels of integration for workspaces, which are shown in figure 16. The segregation of desks in 'Uni' will dramatically reduce the frequency of interaction at desks when compared with the other three spatial arrangements. The level of integration of the desks in 'Tech' will increase the frequency of interaction at desks.

 Insert Figure 16, 17, 18 and 19 About Here

In 'Law' we saw a rapid drop off in interaction away from the desk, due partly to the availability of flexible breakout space and in part due to the asymmetric relationship between desks and breakout spaces. Figure 17 shows the amount of space allocated to flexible breakout space in each system and figure 18 the relationship between desks and the closest breakout space. 'Tech' not only allocates 70% of their facilities space to the flexible breakout style but also every desk is within a 'step depth' of 1 from one of these spaces. The effect will be to encourage more 'spreading-out', moving people away from their desks and encouraging interactions of longer duration, thereby reducing the amount of interaction at desks, evening-out the range of durations and reducing the severity of the drop off in interaction seen in 'Law'. In 'Mftg' there is just one small flexible breakout space in the whole spatial system representing just 5% of space allocated and regardless of the relationship with desks this will create an even bigger drop of from the frequent, short duration interactions at the open plan desks, this conclusion is supported by the even greater asymmetry of relationship between desks and breakout space relative to 'Law'.

Figure 18 also shows the percentage of space allocated to bookable space, that we saw in 'Law' encouraged less frequent but longer duration interactions. 'Mftg' have such bookable facilities dotted throughout the spatial system and have dedicated 95% of the space away from desks in this way.

Finally, the extent to which each spatial system encourages interaction with visitors to the firm also varies considerably. Figure 19 shows the percentage of facilities space (away from desks) allocated for the use of visitors as well as inhabitants of the building. 'Uni' welcome visitors including students, visiting academics and local businesses to 95% of their facilities compared with just 23% in 'Mftg' and 29% in 'Tech'. 'Mftg' excerpt similar levels of control on the movement of visitors to 'Law' by constraining their movement to areas close to the main entrance only and spaces not in direct sight of desks. In 'Uni', not only are visitor's movements far less restricted but also the visitor spaces are the most integrated in the whole system.

The analysis in this section indicates very different opportunities for emergent strategy making in the four organisations studied. The following section interprets these findings to describe the profiles of NDS interaction that each spatial system suggests and discuss some of the implications for emergent strategy making.

Comparison of the emergent strategy making profiles of the four organisations studied

This paper has set out four ways in which NDS interactions impact on the emergent strategy capabilities of an organisation: greater frequency and repetition of interaction encourage an ability to change and adapt: diversity in term of who interacts encourages innovation: a broad and even distribution in the duration means the interactions are more likely to contribute to the effectiveness of emergent strategy making: and the accumulated quantity of unplanned interaction indicates the degree to which emergent strategy making is evident in the organisation as a whole.

An analysis of the spatial configurations of four organisations suggests very different positions with regard to the opportunities for emergent strategy making. Of the four firms studied the opportunities for emergent strategy making overall is most evident in 'Tech', a US based technology firm specialising in mobile payment solutions. Not only are the opportunities at their greatest but the effectiveness with which those opportunities are converted to actually contribute to the emergent strategy is also greater in "Tech' than the other four firms as the spatial configuration offers the best opportunity for the interactions to

have a broad and even spread of durations. By encouraging people away from their desks the frequency of the interaction drops relative to 'Law' suggesting a weaker propensity for change and adaptation, in addition, the degree of control on visitors reduces the diversity of interaction and thereby potentially reducing their capacity for innovation.

In 'Uni', an academic department of a UK university, the opportunities for interaction are the most diverse because of the open door policy with regard to visitors. This suggests the potential for innovation in 'Uni' is greatest of the four organisations studied. In addition, the duration of interactions are evenly spread suggesting effectiveness in the strategic work done. However, the evenness of duration is partly due to the constraint on the frequency of interaction that is likely to reduce the ability of 'Uni' to change and adapt. Overall the degree to which emergent strategy will be evident at an organisational level in 'Uni' is the least of the four organisations.

Next to 'Tech' the firm where the opportunities for emergent strategy are most evident at an organisational level is 'Law', a regional law firm in the UK. However, these interactions occur within specialist teams suggesting that the ability of those teams to adapt and change will be strong but the lack of diversity will reduce the amount of real innovation evident.

The spatial configuration in 'Mftg', the regional headquarters of a global manufacturing firm, suggest interactions are constrained on all four of the criteria used to compare the organisations studied. This suggests emergent strategy making will be little evident and the abilities to innovate, adapt and change, constrained in 'Mftg'.

These findings, based on the spatial configurations of four organisations and comparing their impact on the opportunities for social interaction, can be compared with the descriptions of emergent strategy making provided by the research of process strategy, these are summarised in table 4.

 Insert Table 4 About Here

The similarities are notable and we can conclude that spatial configuration plays a significant role in shaping emergent strategy making that varies a great deal between organisations. This next section of the paper discusses some of the potential implications of these findings.

INTERPRETATION OF THE FINDINGS

“Organisations should be thought of as material, spatial ensembles – not just as cognitive abstractions writ large” (Kornberger and Clegg, 2004, p. 1095)

By engaging in the SAP perspective of strategy as a socially accomplished activity we have provided evidence of a link between an organisation's spatial configuration and its patterns of emergent strategy making, which encourages us to think of emergent strategy as a material, spatial phenomenon. Changing patterns of interaction require a change to the spatial configurations of the offices employed by the organisation. In this way it is possible to see that the emergent strategy making of an organisation may change in predictable ways as the result of changes to office layouts.

An organisation facing disruptive threats to their business model need to engage in more experimentation and discovery (McGrath, 2010), they need to increase the emphasis the organisation places on emergent strategy making. In terms of interaction it needs to increase the overall quantity of unplanned interaction and ensure these interactions have a broad and balanced range of durations. In spatial terms this means increasing levels of integration across the whole office and providing spaces to spread-out from desks that are configured symmetrically relative to facilities. An organisation that is falling behind because its rate of innovation appears to lag that of its competitors need to increase the diversity of interaction.

In spatial terms this means reducing degrees of control on movement for both employees and visitors to the organisation providing good lines of sight and allocating enough space to facilities that encourage chance encounters. An organisation needing to change, also needs to think about this spatially, change is encouraged by increased frequency of interaction which in spatial terms means closer proximity, better lines of sight, the space to move and spaces to move to.

Rather than merely confirming the existence of the organisation typology proposed by Mintzberg (1985), this research shows that these categories are significantly affected by spatial configuration. In other words, it is possible that the consistently identifiable patterns of strategy emergence from professional, entrepreneurial firms, adhocracies and machine organisations' are as likely to be accidents of conventional, institutionalised spatial layouts as they are to be appropriate strategic responses to the dynamism of the external environment.

CONCLUSIONS

Emergent strategy making is important to an organisations innovative and adaptive capability which impact on performance and longevity, however it remains illusive in practice. This paper has investigated the possibility that spatial configuration affects opportunities for emergent strategy making by examining the impact on unplanned interaction. Spatial configuration is shown to affect the frequency, diversity, duration and distribution of unplanned social interaction that constitute the opportunities for emergent strategy making.

These findings build on the SAP literature relating to space, which to date has focused on individual spaces (Jarzabkowski et al., 2015), to suggest that spatial configurations of organisations affects their propensity for emergent strategy making behaviour. From this we can conjecture that based on the turbulence of specific industries, organisations should be spatially configured in specific ways, otherwise they risk being in a suboptimal strategic position and potentially at a competitive disadvantage. This research also makes a contribution by encouraging strategy practitioners to think about emergent strategy making spatially as well as conceptually. Further research is required to validate this conjecture, for example, by analysing the relative strategic performance of directly competing organisations to see if variance in performance can be explained by differences in spatial configuration. In addition, further work is required to understand the impact on interaction profiles across organisations with multiple offices.

A personal reflection as a seasoned practitioner

I have spent 30 years, first as a consultant and subsequently as a Managing Director, engaged in the question of strategy making. I graduated business school in 1988, a child of the Michael Porter School of strategic planning, but as my career developed I became increasingly aware that deliberate strategy making was an insufficient response to an increasingly dynamic environment. It was not that I was unaware of strategic threats, I honestly think the idea that organisations don't see threats coming is misplaced, nor was it that I was unaware of the need to shift towards a kind of emergent strategy making, I had studied Mintzberg. What I always struggled with was the practicalities of how to make strategy more emergent. How do you plan for something that is essentially unintentional?

Instinctively, I think I have always known that this is about the way people interact, and over time I have tried all sorts of things to encourage people to do just that. I have always been a big proponent of strategy workshops: if nothing else they do change the way people interact. However, workshops fail on at least two counts, first they provide only temporary changes to the way people interact and secondly, as deliberately strategic events workshops cannot be emergent in their own right, they can only attempt to prompt emergent strategic activity. I changed reporting structures, I introduced project teams, I implemented new

‘innovation’ processes, I even built ‘academies’ to try to educate the way to new behaviours but at no point did I consider this to be question of spatial configuration.

The acid test for whether this work makes a contribution is to ask myself if I would have done anything differently, over the course of my career, as the result of this research? I would: in a global project to introduce an innovative new product line to the market, I can see that we had plenty of opportunities for non-deliberate strategic interactions but they existed in pockets. We had plenty of ideas coming from sales teams, product engineers, manufacturing and technology developers, genuinely innovative directions emerged, but in ways that did not inform each other. In the terms of this analysis, inter-team interaction was insufficient on the higher frequency scales – planned workshops were not enough. It is now clear to me that I should have considered the spatial configuration of offices, I could have moved desks, introduced flexible walls, and provided more flexible space – I could have paid more attention to the way we interacted in our day-to-day work. It is clear to me now that our spatial configuration served to constrain our emergent strategy work.

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FIGURE 1
SAP at the Intersection of Architecture and Strategy Process Literatures

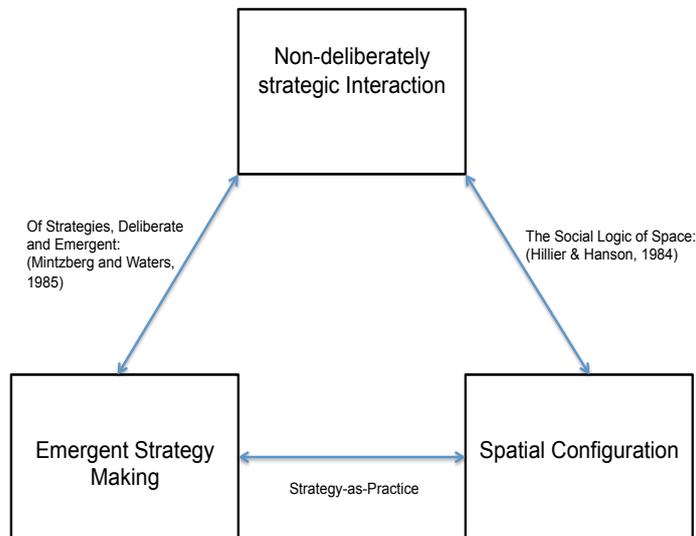


TABLE 1
Four Typologies of Strategic Organisation from Mintzberg (2007)

	Typical Examples	Evidence of Emergent Strategy	Apparent interaction priorities
Machine Organisation	Mass production or mass service organisations	Emergent strategy little in evidence in comparison with other organisation types.	Little emphasis placed on unplanned interaction because “ <i>strategic process in the machine organization tends to be one of programming the strategic vision into the structure. This tends to be called ‘Strategic Planning’, since it takes place on a regular basis in a formalized way</i> ”
Adhocracy	Legal practices, Architectural practices.	Emergent strategy strongly evident from within novel projects	Unplanned interaction a priority within teams because “ <i>a great deal of influence rests with teams of experts who work on novel projects in a dynamic setting</i> ” Specialist teams work independently of each other establishing divergent strategic positions Respond quickly and directly to their environment
Entrepreneurial Organisation	High Tech	Evidence that emergent strategy allowed to dominate by allowing all kinds of experimentation and letting strategic positions emerge.”	Unplanned interaction encouraged across the firm by setting general visions which “ <i>unlike specific plans, tend to provide considerable scope for strategic venturing and learning, and organisation members to “engage in all kinds of experiments”</i> ”
Professional Organisation	University	Emergent strategy evident in individuals as they pursue their own interests under the banner of a common organisation	Unplanned interaction between individual organisation members and outsiders are prioritised where “ <i>the boundaries of the professional organization are even more porous than those of the adhocracy, with professionals connected personally ...with clients, with community groups, with professional colleagues around the world and with professional associations</i> ”

TABLE 2
Summary of the four organisations studied

	‘TECH’	‘LAW’	‘UNI’	‘MFTG’
Description	Head office of a US based technology firm specialising in mobile payment solutions	Head office of a regional law firm based in the UK	Academic department of a UK university	Regional headquarters of a Swedish owned, global manufacturing business based in the UK
Strategic Type	Entrepreneurial	Adhocracy	Professional	Machine
Number of employees	750	151	250	205
Total office area (sq. m)	12,600	2,250	10,850	2,750
No. of floors	3	3	4	1

Figure 2

A typical scale plan from which space syntax calculations can be made



Figure 3

The spatial system divided into a grid of 60cm squares

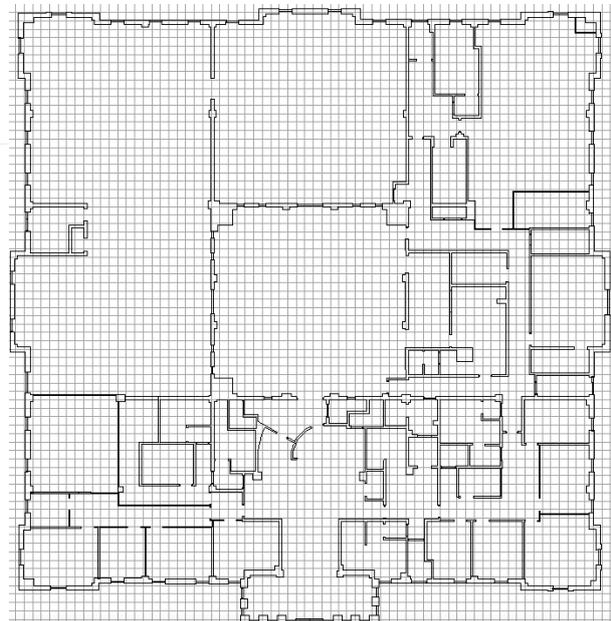
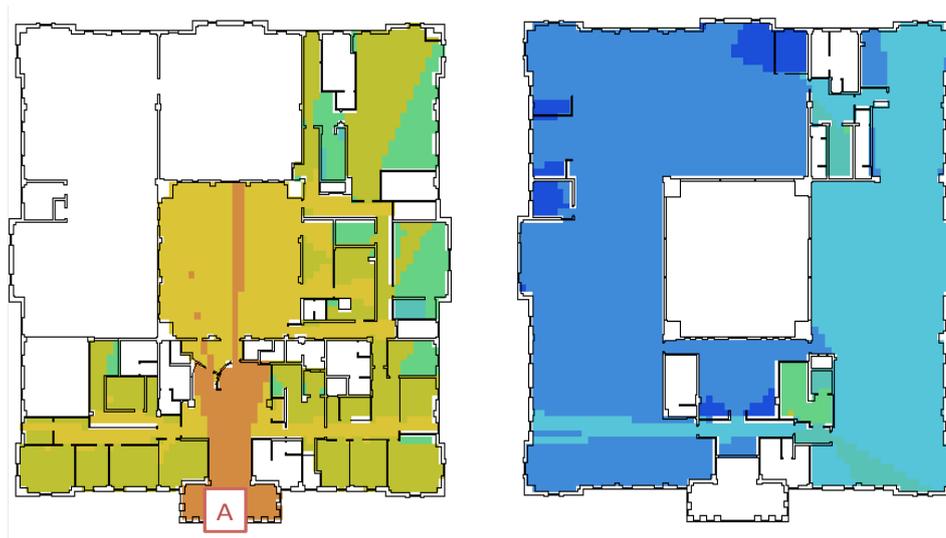


FIGURE 4:
Two examples of step depth using ‘isovist’ paths for illustration



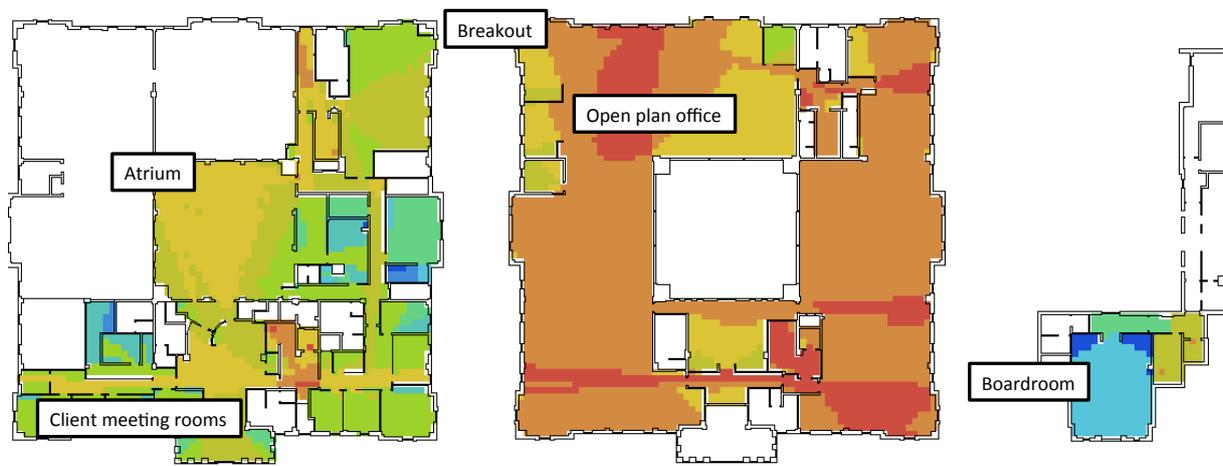
Note: Each colour represents a direct path visible from the starting point of an individual's movement around the spatial system. Each coloured path represents a step depth of 1.

FIGURE 5:
A ‘heatmap’ showing step depth from main entrance (A) to all other points



Note: The main entrance to the building is marked ‘A’. The map is colour coded to represent step depth from A. Orange represents all the points in the office that are a step depth of 1 from the entrance. Yellow, a step depth of 2 and dark blue a step depth of 8.

FIGURE 6:
A ‘heatmap’ showing the integration of every point



Note: The numerical value for mean depth of every point are shown, each colour represents a band of values. More integrated points, those with a lower step depth to every other point, are shown in the warmest colours. In this case, the red areas are the most integrated in the building with a step depth on average to all other points of approximately 3.8. The blue areas are the most segregated, they have a step depth of approximately 7.2.

TABLE 3:
A comparison of spaces by category in the four organisations studied.

	‘Law’	‘Mftg’	‘Tech’	‘Uni’
Workspaces	Desk Clusters (27)	Desk Clusters (31) Cellular Offices (18)	Desk Clusters (141)	Cellular Offices (223)
Transit				
Facilities-Flexible	Breakout (1) Kitchen (2) Atrium (1)	Breakout (1)	Breakout (104) Juice Bar (1) Dining Room (1) Pantry (1) Library (1) Gallery (1) Coffee Bar (1)	Breakout (3) Staff Rooms (7) Hub Café (1) Post Grad Rooms (9) Computer Labs (2)
Facilities-Bookable	Glass Room (1) Boardroom (1) Client Meeting Rooms (11) Training Room (1)	Boardroom (1) Academy (1) Conference room (1) Meeting Rooms (12)	Meeting Rooms (50) Conference Room (1) Boardroom (1) Team Rooms (4)	Lecture Theatres (12) Seminar Rooms (5) Meeting Rooms (12) Executive Dev (1) Leadership Centre (1)

Note: Numbers in brackets represent the number of each in the spatial system.

FIGURE 7:
Frequency distribution of non-deliberately strategic interactions in ‘Law’ each day

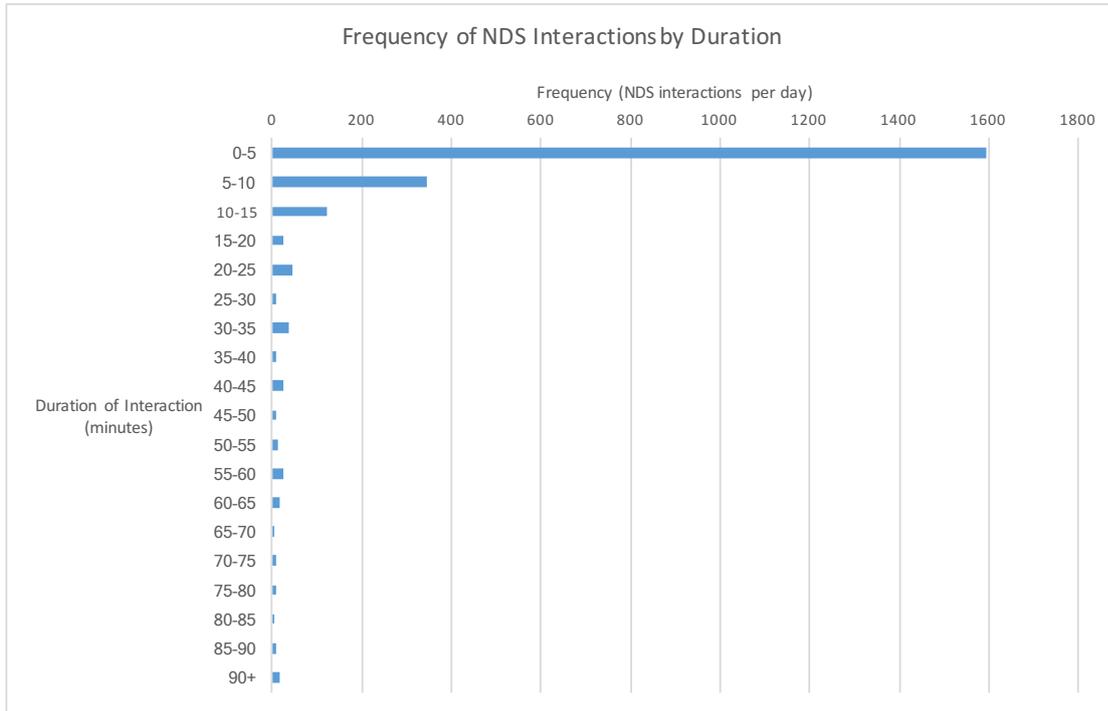


FIGURE 8:
Frequency and duration of non-deliberately strategic interactions in ‘Law’

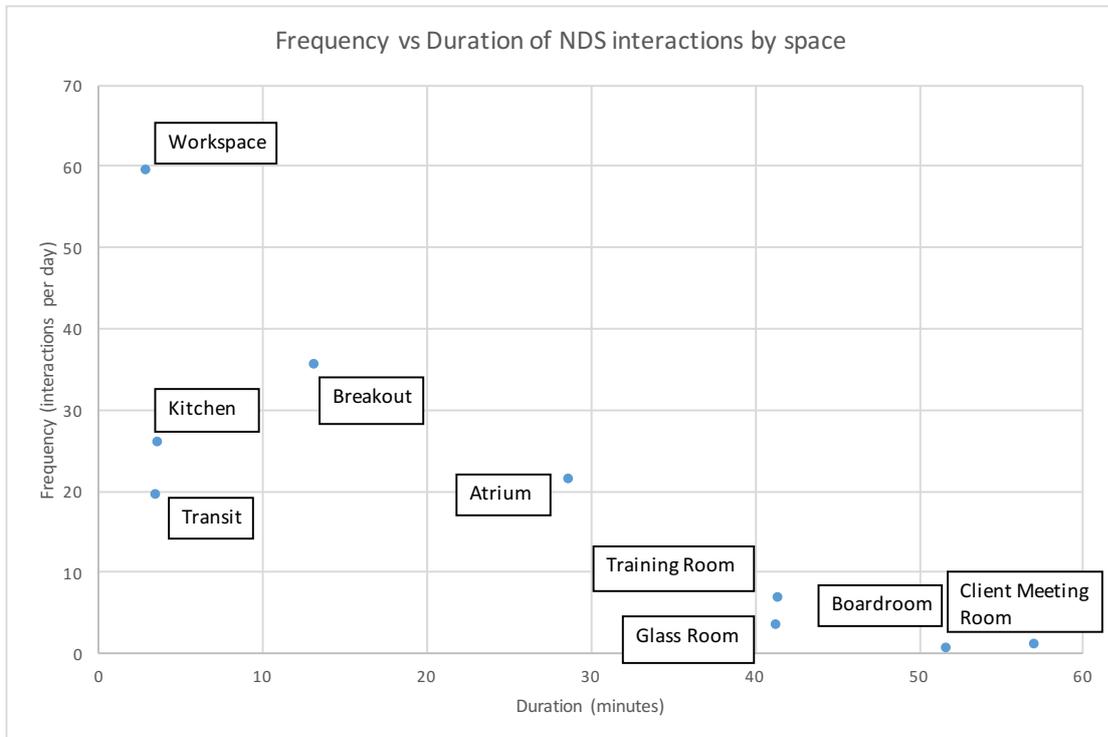


FIGURE 9
Total duration of non-deliberately strategic interactions by space

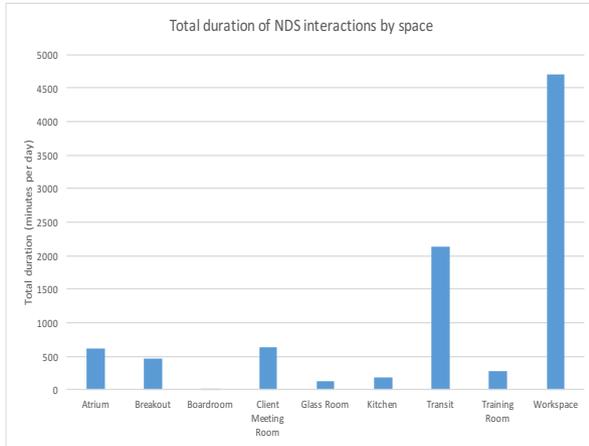


FIGURE 10
Who it is that interacts in 'Law'

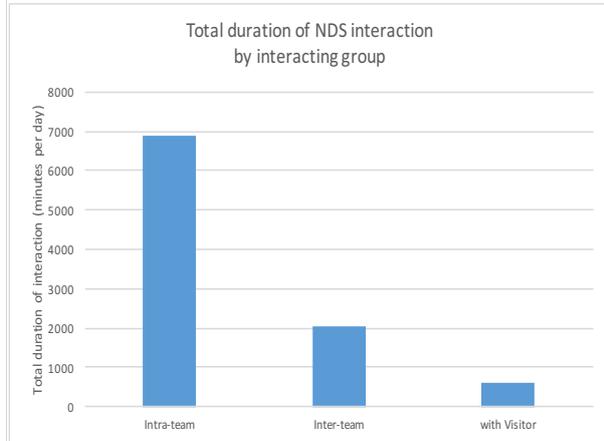
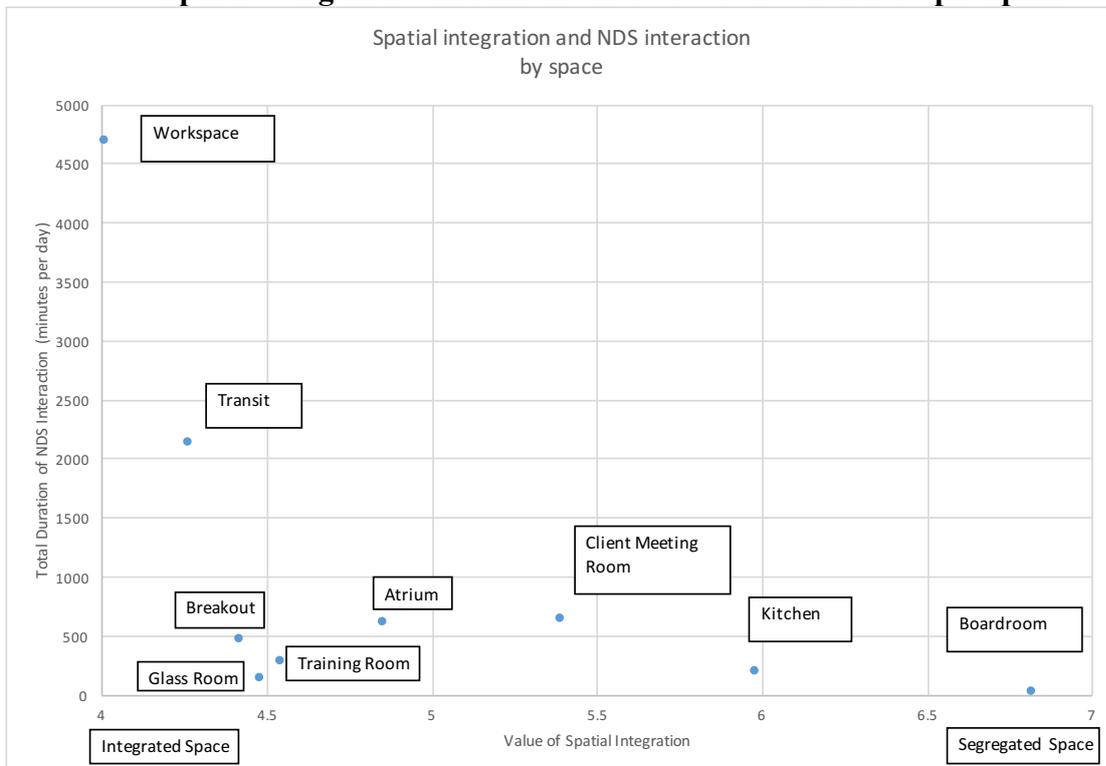
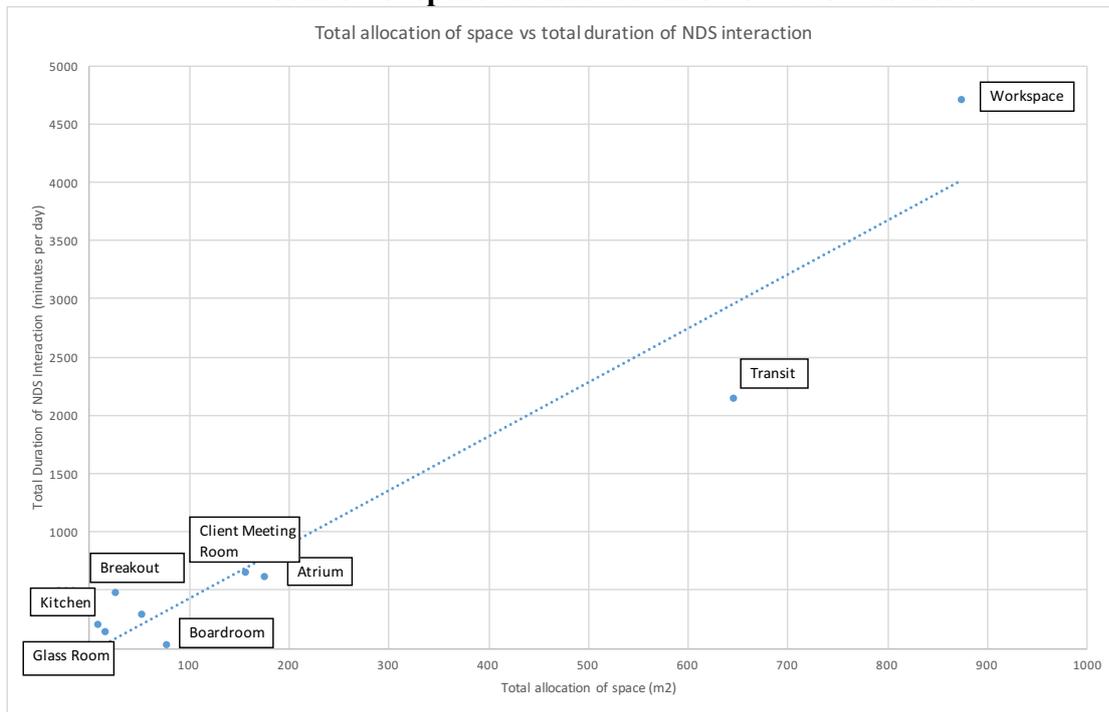


FIGURE 11:
Spatial integration vs. total duration of NDS interaction per space

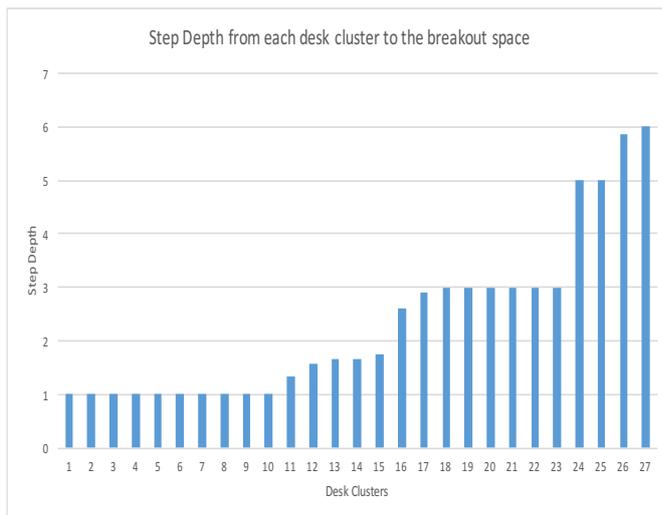


**FIGURE 12:
Allocation of space vs. total duration of NDS interaction**



($r=0.96$, $p<0.001$)

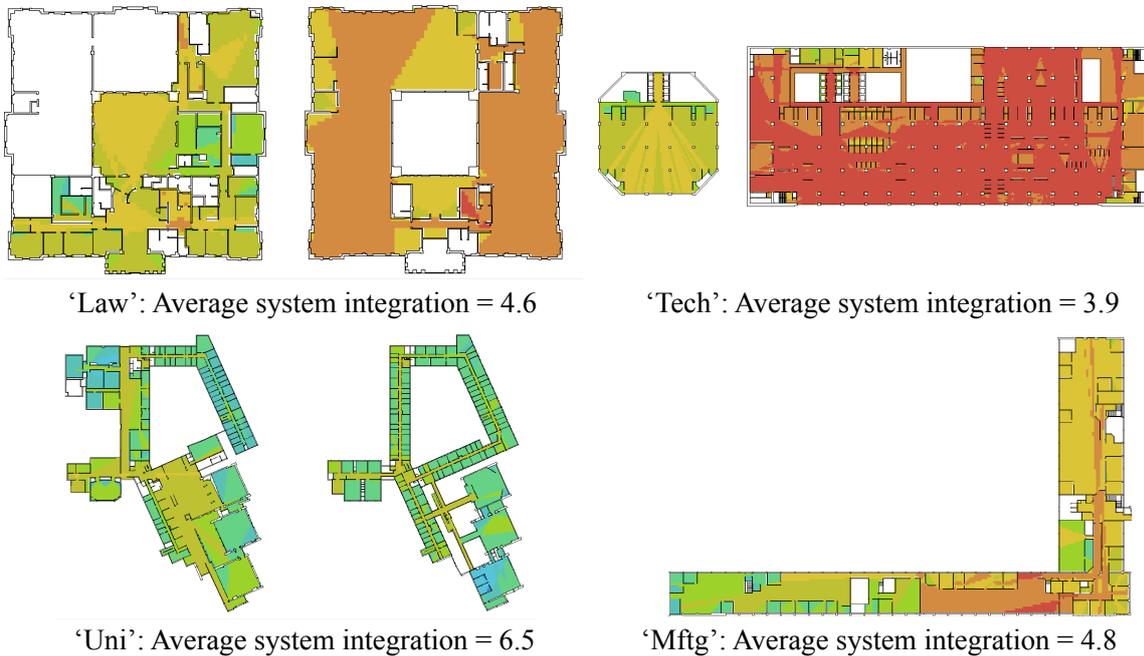
**FIGURE 13
The spatial relationship between desk clusters and the breakout space**



**FIGURE 14:
No desks visible to a client shown to a client meeting room**



**FIGURE 15:
Integration of all four spatial systems**



Note: The figures under each diagram represent the mean average step depth, a measure for integration of the entire system. The colours represent the average step depth to all other spaces for each point in the spatial system. They are colour coded where Red = lowest average step depth to all other spaces representing the most integrated spaces, Blue = highest average step depth to all other spaces representing the most segregated spaces. All four spatial configurations calibrated to the same colour scale.

**FIGURE 16:
Integration values for workspaces compared**

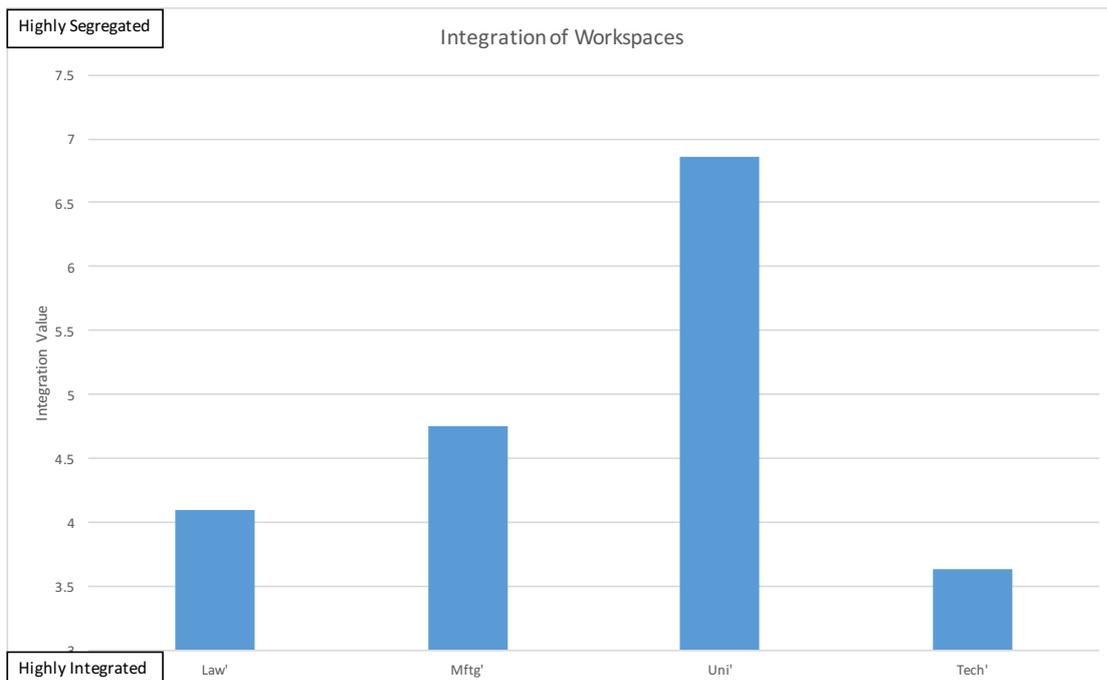


FIGURE 17
Comparison of percentage of Flexible space in each Spatial System

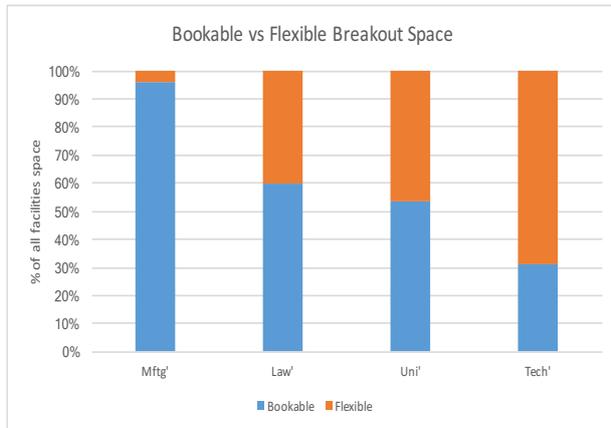


FIGURE 18
Comparison of the Relationship between workstations to the breakout spaces

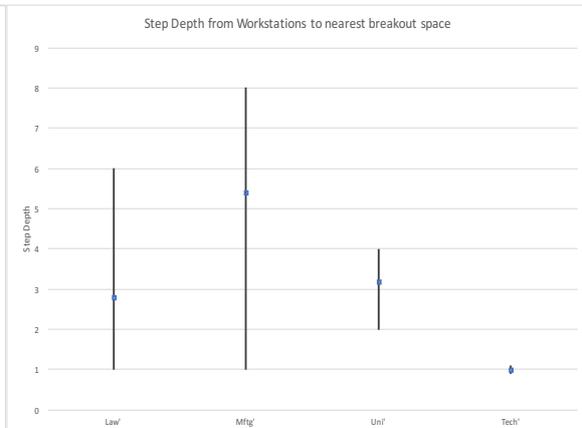


FIGURE 19
Allocation of space to visitors

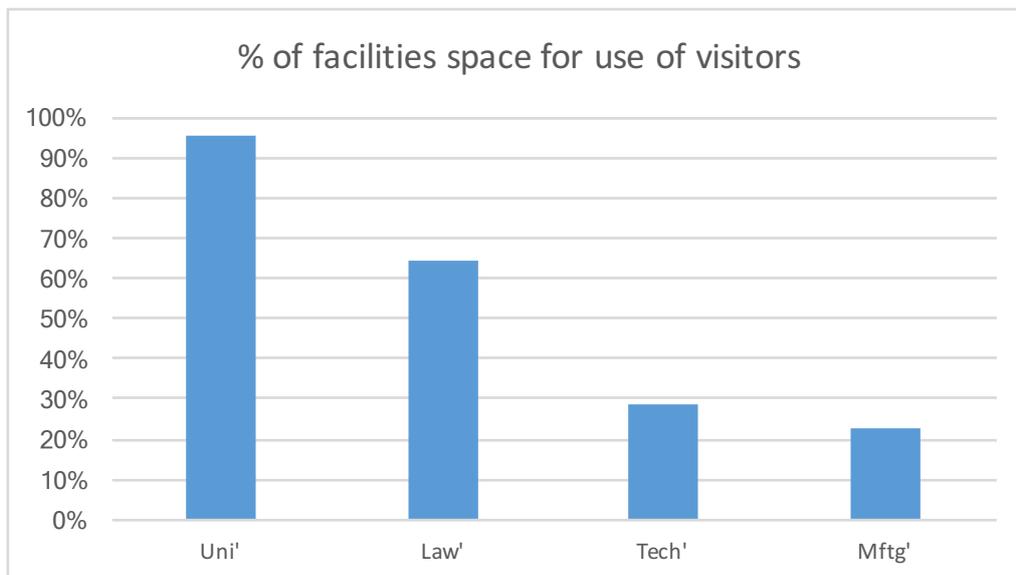


TABLE 4:
A comparison of emergent strategy patterns from process strategy research and the findings of this research based on spatial configuration

Organisation studied	Emergent strategy capabilities from spatial configurations (see findings)	Mintzberg Typology	Description of strategy emergence
‘Tech’	Emergent strategy most evident at organisation level Weak propensity for change Innovation slightly constrained but 2 nd in this comparison	Entrepreneurial	Deliberately emergent Rare for overall vision to change Considerable scope for strategic positions to emerge
‘Law’	Emergent strategy 2 nd most evident at organisation level Most evident in specialist teams that are able to adapt and change Innovation constrained	Adhocracy	A great deal of influence rests with teams of experts who work on novel projects in a dynamic setting Emergent strategy prevalent Respond quickly and directly to environment
‘Mftg’	Least innovative and ability to change and adapt is constrained	Machine	Need for stability and order Resist external change Focus on deliberate strategic planning (not emergence)
‘Uni’	Emergent strategy least evident at organisation level Strongest potential for innovation Reduced ability for change	Professional	Great deal of innovation at the individual level At an organisational level change is rare