

The Rise of the Fluid Organization? : Organizational Patterns of Mobile Professional Work

Masao Kakihara

*School of Business Administration
Kwansei Gakuin University*

1-1-155 Uegahara, Nishinomiya, Hyogo 662-8501, Japan

kakihara@kwansei.ac.jp

Abstract: *In order to cope with today's turbulent business environment, firms are flexibly mobilizing human resources outside formal organizational boundaries. The practice of outsourcing has become an important strategy for efficient and effective management, particularly in a fluctuating business environment. Furthermore, an increasing number of workers perform their jobs independently and bring their distinct skills and expertise to organizations on an ad-hoc basis. Since business activities are becoming more and more knowledge-intensive, effective utilization of external experts who can bring distinct expertise to the organization is increasingly important. Such fluid patterns of organizing have made formal organizational boundaries more and more blurred. This paper discusses such emerging organizational patterns in mobile professional work through an empirical field study on work practices of mobile professionals. Based on the results of the field study, the paper offers a new perspective of organization, "the fluid organization" and addresses its theoretical and empirical implications.*

Keywords: *Mobile professional, Work practice, Images of organization, Fluid*

1. Introduction

Over the last two decades, Information and Communication Technologies (ICTs) have been widely diffused at all levels of our social lives. In particular, business activities in organizations have been dramatically transformed by the introduction of ICT-enabled solutions such as groupware, ERP and video conferencing. And now, we in the 21st century are witnessing the rapid diffusion of the mobile and wireless technology influencing contemporary businesses and organizations. Although mobile technologies such as mobile phone and Personal Digital Assistants (PDAs) were first developed as consumer products rather than business solutions, a number of innovative firms are adopting those technologies for restructuring their business processes and organizational forms.

The aim of this paper is to explore emerging organizational patterns in the context of mobile professional work. In order to cope with today's turbulent business environment, firms are flexibly mobilizing human resources outside formal organizational boundaries. Furthermore, the practice of outsourcing has become an important strategy for efficient and effective management, particularly in a fluctuating business environment. An increasing number of workers perform their jobs independently and bring their distinct skills and expertise to organizations on an *ad-hoc* basis. Since business activities are becoming more and more knowledge-intensive, effective utilization of external experts who can bring distinct expertise to the organization is increasingly important. Such fluid patterns of organizing have made formal organizational boundaries more and more blurred. And various ICTs offering new ways of interaction and collaboration seem to further facilitate this trend. Based on a field study of more than sixty mobile professionals in Tokyo, Japan during 2002, this paper addresses structural changes of current business organizations particularly in professional work contexts.

2. Mobile Professional Work

As Schön (1983) argues, professionals have become “essential to the very functioning of our society” (p. 3). Among the oldest professionals would be the clergy and teachers, although they must not have been called or even recognised as professionals at the time. Architects also have a long history of contributing to society as professionals with their expertise of designing and constructing buildings. However, we in the contemporary society can see much more diversified kinds of professionals, including accountants, designers and artists, writers, doctors and nurses, engineers, lawyers, pharmacists, psychologists, counsellors, social workers, scientists, librarians, professors, urban planners, and so on.

However, the existing research has tended to study professionals only within a certain organization, be it private or public. As a result, professionals working independently have been largely neglected in contemporary research on professional work. Obviously, most of the 'modern' professionals have been deployed within an organization. As Whalley and Barley (1997) argue, the need for the professionals' expertise was "created" in response to changes of inner conditions of the firms. However, in the light of today's turbulent business environments, addressing only professionals inside the organizational structure clearly does not suffice. In fact, during the last two decades we have seen a rapid growth of workers who are independent of a formal organization and, in many cases, do their jobs on a freelance and contract basis and establish ongoing relationship with several different client firms (Segal and Sullivan, 1995; 1997). And most of them are knowledge-based rather than material-based professionals such as consultants, designers, writers, journalists and planners of various kinds (Meager, 1992). They live on their lives by selling their own distinct skills, knowledge and/or tangible and intangible products they make to firms.

The emergence and rapid growth of such 'post-modern' professionals freed from conventional employment relationships is becoming a critical factor in contemporary business environments, especially in knowledge-intensive sectors. Yet surprisingly little research has been done on such 'post-modern' professionals and their work practices which are not bounded by formal organizational structures, rules and constraints but playing critical strategic roles in organizational contexts.

Among the notable exceptions is Malone and Laubacher's (1998) work. Seeing Linux open source community's success, the emergence of virtual companies, the rise of outsourcing and telecommuting and the proliferation of freelance and temporary workers, they argue:

The fundamental unit of such an economy is not the corporation but the individual. Tasks aren't assigned and controlled through a stable chain of management but rather are carried out autonomously by independent contractors. These electronically connected freelancers – e-lancers – join together into fluid and temporary networks to produce and sell goods and services (p. 146).

This kind of independent professional workers, "e-lancers" in their words, can be seen at the forefront of the contemporary business environment. Although independent professionals outside organizations have already existed in various forms such as lawyer and accountants since the middle of the twentieth century, they have remained quite small volume compared with workers employed by a certain firm including both white- and blue-workers. This is mainly because, as traditional economic theories of organization suggest, firms have benefited from internalising a wide range of labour forces into the formal organizational structure and placing them in the same, fixed locations such as offices and

factories to effectively manage them in a centralised manner. In other words, the firms have seen it costly and risky to utilise people who are outside of the organizational boundaries and largely distributed in a wide area due to limited communication and coordination technologies in the industrial age such as trains, cars, telegraph, fixed telephone, and mainframe computers. In consequence, the firms have remained large.

However, with the introduction of powerful and reasonably affordable personal computers, laptops and software, the internet, web-based technologies such as email, mobile phone and PDAs, the firms have become capable of coordinating their business processes and utilising the outside workers, particularly those who have distinct skills and expertise. They no longer have to hold a large number of permanent workers inside the organizations for the sake of centralised coordination of business processes (Malone et al., 1987). Many of the highly skilled people in firms are actually spinning out and finding their workplaces outside of the firms, since being free and independent can provide them with much larger benefits such as gaining more reward for their work and managing their career and lives more flexibly than staying inside the firms. Some of those people are getting together and forming a loosely bounded, partnership based organization such as a consulting firm and a design studio, but each of them still keeps much more autonomy and freedom than professionals inside the firms. Therefore, considering these shifts occurring around the 'post-modern,' mobile professionals and their impacts upon contemporary business activities, we must give careful consideration into how such professionals work with organizations and how particular ICTs are utilised in their everyday work practices.

3. Research Approach

In order to acquire the close picture of actual work practices of mobile professionals, an empirical field study has been conducted from April to July 2002 in Tokyo, Japan. The field study adopted the inductive qualitative research approach employing open-ended interviews based on an interview guide and *ad hoc* participant observations. In addition to the recorded interviews based on an open-ended interview guide, highly contextualised data of work practices was collected immediately before, during, and after each interview session.

Tokyo was chosen as the site for this study for two primary reasons. *First*, the distinctive institutional background of Tokyo is particularly interesting with a work environment distinctly different from that of Western countries. The Japanese corporate system has typically been associated with three institutionalised traditions: lifetime employment; promotion by seniority; and the enterprise union system (Aoki and Dore, 1996). There is also still widely persistent steep vertical structuring as well as administrative and corporate

bureaucracy (Nakane, 1983). Within such a distinctive world, almost all Japanese professionals have been employed by the government or large corporations, which led to the highly elitist internal structure of organizations. Such institutional distinctiveness of the Japanese work environments could benefit us in understanding actual opportunities, problems, obstacles, and hopes that emerging professional workers are currently faced with much more clearly and contrastively than looking at those in Western contexts.

Second, Japan's unique and advanced technological environment is also critical for the choice of fieldwork location. It is widely recognised that Japan has enjoyed advanced technological innovations that resulted largely from Japanese industries' strength in R&D and manufacturing of technical devices, systems, and large infrastructures. Japan is in the middle of dramatic technological innovation and diffusion of mobile technology (Rheingold, 2002). Such a unique technological environment potentially influences Japanese mobile professionals' work practices. The specific socio-technical environment in Tokyo, therefore, makes it a highly suitable setting for studying the emerging realities of mobile technology use.

4. An Overview of the Results

This section outlines some characteristics of the mobile professionals interviewed.

The occupation of the mobile professionals interviewed ranged widely. The largest (eleven) group of occupation consisted of independent consultants. There could be several reasons for this group being the largest. Independent consultants represent distinct skills and knowledge, they are independent in their work practices and can flexibly organize their work.

The second largest group was entrepreneurs. Although entrepreneurs are not likely to be seen as professional workers, their working lives display significant characteristics common to other kinds of mobile professionals. They have clear visions of their business and highly distinct skills and knowledge combined with a high enthusiasm aimed at making their visions materialise. In terms of high competitiveness in skills and knowledge, independent consultants and entrepreneurs present commonalities; whereas independent consultants utilise their skills and knowledge for their clients, entrepreneurs do so for their own. Entrepreneurs, too, can manage their work activities flexibly. Whilst they usually own their office, their work activities span a wide range of areas for meetings and negotiation with various business partners. Considering these unique characteristics, entrepreneurs should also be regarded as an important group of mobile professionals. Designers (six) and journalists (four) are also distinct informant groups in this field study.

The professionals studied typically had multiple work sites and moved extensively between them. 52% of the respondents were constantly on the move from one site to another. Although they all had fixed office spaces, be it a company office, a private office, or home, they could not point out exactly where their workplaces were. Some typical answers were: *“anywhere I can get news”* (journalist), *“depends on the nature and stage of the project”* (think-tank researcher), *“where clients are”* (sales coordinator), and *“anywhere I can connect to the Net”* (independent consultant). The remaining 48% regarded their office as the main work site. Despite the fact that most of them moved out and travelled quite frequently, they saw their office spaces as important for their daily activities: *“the office is like a station where I can meet my colleagues and share a lot of information on business”* (consultant), *“I move out a lot to meet my clients and other members of the project, but the private office space is very important for me because on some occasions I need a space where I can concentrate on my work without disturbance”* (architect), *“I used to use my home for my work, but, honestly, didn’t want to let my clients in because it’s my private life as well! So I decided to borrow a small office room. Now it works very well”* (freelance designer), *“Some clients don’t like doing business with one who doesn’t have an office!”* (entrepreneur).

All the mobile professionals interviewed had a good command of new ICTs. All of them used Internet-connected personal computers (PCs) for their daily work activities. Interestingly, ten informants used laptop PCs rather than desktop PCs as their main computer, even when working in their office. Reasons for this included: *“The laptop can be my main machine in any situation, no matter where I go”* (media consultant), *“I have a huge amount of data for my daily work, so I don’t want to spread data into several PCs. Using one single PC all the time, this is my ideal. Using several different PCs ends up confusing me about which file is on which PC”* (independent consultant), *“Because I’m moving around all the time, a PC has to be portable”* (sales coordinator), *“Just for saving a space. My desk space is too small to install a desktop PC”* (independent consultant), *“There is no reason to choose a cumbersome desktop PC”* (independent consultant). It was evident that laptop PCs provided them with optimal usability for their highly mobile work styles.

All the mobile professionals interviewed used mobile phones. Especially for those who moved extensively during work time, mobile phones were regarded as an essential necessity. *“I can’t imagine my work life without a mobile phone”* (entrepreneur), *“Thanks to the mobile phone, I can go out from my office without caring too much about incoming calls”* (independent graphic designer), *“Most of my clients rings my mobile even when I’m in my office, because it doesn’t matter where I am”* (independent IT consultant), *“The mobile phone gave me freedom to be anywhere”* (corporate manager).

Compared with the situations in other countries, in Japan, the practice of receiving email through the mobile phone is extremely pervasive (Rheingold, 2002). The well-known NTT DoCoMo i-mode service and similar services by

other mobile phone operators enable users to receive and send email with their handsets. Some informants used such emailing service at their handsets actively. *"Emails coming into my account are all forwarded to my mobile immediately. Most of the emails are not so urgent, but in some cases, it does help me"* (consultant), *"Sudden changes in schedule sometimes happen in the project I'm involved in now. Such a notice of change is distributed to the project members' mobile phone email accounts so that we can know it immediately. It's really useful"* (independent producer). However, we found that even those respondents rarely sent email from their mobile phone. *"It's just due to its interface. It's too small to type quickly"* (consultant), *"It's better to ring than to type with a thumb"* (journalist). Nevertheless, it was obvious that emailing by a mobile phone handset gave them one alternative, largely complementary, communication method.

The use of PDA was not so prevalent amongst the informants with 24% using a PDA for their work activities. Their reasons for using PDA included: *"For using idle time effectively, like checking email"* (corporate researcher), *"It's the portable database of my clients' addresses and telephone numbers"* (independent consultant). In addition to these practical reasons, there were other kinds of reasons: *"It's almost just for fun. I like digital gadgets"* (systems consultant), *"I'm doing my work in the IT industry. So I have to keep me up to the latest products like recent advanced PDA"* (journalist). We received rather negative opinions about the business use of PDA even from PDA users: *"I have several PDAs but all the products are actually cumbersome for business use. It's perhaps due to the overly advanced technological functionalities"* (independent consultant). In fact, there were many informants who did not have a PDA but had interest in using it in their work. However, they complained about the limited usability of PDAs: *"A paper note is still much more useful than a PDA. You cannot scribble down with a PDA"* (consultant), *"For designers who want to draw a picture freely, a PDA can't help in many cases"* (independent designer), *"A PDA cannot store large graphic data, but a laptop PC can"* (corporate designer), *"For checking email outside, I use my mobile phone. For writing and presenting a document when travelling, I use my laptop PC. For note taking, I use my paper notebook. For organizing schedule, I have no problem in using my filofax"* (corporate manager,). The fieldwork clearly showed a host of problems associated with PDA use.

5. Focus Cases

In this section we have chosen three distinct cases of mobile professionals that proved to be particular exemplary. First is the case of an independent town planning consultant, which shows the high degree of mobility in terms of work sites. Second is the case of a freelance computer graphic (CG) designer, where various Internet-based tools and applications play critical roles in his highly independent but collaborative work style. Third is the case of an e-business

entrepreneur, which demonstrates various consequences of the use of mobile technology in mobile professional work. Obviously, in each case, only a small portion of the whole transcript is presented here. Some descriptions drawn from *ad hoc* observation in the cases are also used to complement the interview data.

Case A: Independent town planning consultant

Jun¹, 38, started his independent consulting business in 2000. His main consulting field is town planning for small and medium-sized municipalities. He works alone with no employees but collaborates with many people including other consultants and developers. The majority of his current clients are small- and medium-sized municipalities, mainly in rural areas hundreds miles away from big cities such as Tokyo and Osaka.

He finds the high degree of mobility in his work activities the most conspicuous advantage as a professional worker. Town planning projects typically require the project members to see the actual site in which a certain plan is implemented. He also argues that visiting the site and seeing it with his own eyes is crucial for the town planning business, since the observation of the site offers invaluable data and insights for the project. Particularly acquiring a subnote PC and a mobile phone changed his way of working dramatically. With his mobile phone, he became able to easily contact and be contacted by his clients and co-workers in virtually (not completely) anytime, anywhere. The subnote PC connected with the mobile phone provided him with almost the same PC environment during business trips and site observation.

His work practices clearly show two basic patterns of geographical movements. First is the long-distance travel. He follows a working style where he can spend a considerable amount of time in the actual sites where his clients' problem issues reside. Most of his clients are local governments in areas far away from Tokyo. Therefore, it is inevitable that he frequently travels hundreds of miles for a visit and explores the sites physically. Second is the intensive local travel. He moves around the Tokyo area intensively to meet his clients and other members of the projects, since meeting those people fact-to-face is extremely important for his business. In such local travel, he usually uses underground trains, taxis as well as walking. Just like moving around Tokyo, he also travels intensively in and across the local areas when visiting the clients' sites.

Case B: Freelance CG designer

Yoshi, 35, is working as a freelance CG designer in Tokyo. He uses a room in his home in central Tokyo as his workspace where he makes almost all his design work. After graduating from a university with a degree in graphic design, he got a job in one of the biggest design firms in Japan. Having worked as a graphic designer for eight years in the firm, he became freelance five years ago. He is an

¹ All names have been changed to protect privacy.

expert of 3-dimensional CG (3D-CG) design but most of the revenue of his work comes from projects relating to website design and coding. He gains most of his revenue from website design work offered by music production companies.

Due to the nature of CG design, he spends a considerable amount of time in front of the computers in this room. In this regard, he is mostly a static home-worker. However, he engages in intense interaction with people outside by actively using the Internet technologies. Particularly interesting is that his corporeal movement is largely static, sitting in a room for a long period of time, but the range of his interaction with other people through the Internet spans the globe and the patterns are significantly intense and diverse.

Even though the intense interaction with various people through the Internet greatly helps Yoshi get access to the latest information about hardware and software, he is still faced with a considerable lack of physical human interaction. In this regard, he has a special place. In 1997 Yoshi received the highly respected CG design award founded by a large entertainment company, one of the most reputable and widely known CG design awards in Japan. This company has established a special design studio in one of their office buildings in central Tokyo exclusively for the winners and finalists of the award. For Yoshi, the special design studio seems to function as a 'Ba' (Nonaka and Konno, 1998), a place where people can share a distinct context of working and exchange a variety of tangible and intangible goods. Such a place can provide people with broad opportunities for 'real' human interaction, which facilitate exchange of valid information concerning new clients and jobs. Furthermore, the studio is also a place for collaboration. Since each of the designers coming to the studio has a distinct background and expertise of design, they can easily find each other as complementary in their design work.

Case C: E-business entrepreneur

Hiro, 35, is CEO of a small software company. After being involved in the Internet service provider (ISP) business for a few years, he founded the company in 1998. The company primarily develops entertainment software and digital contents such as network-based games on the Internet, a music-composing tool for PCs, and more recently various tools and network contents for Internet-enabled mobile phone services such as the NTT DoCoMo i-mode platform.

In contrast to the two previous cases, Hiro is subject to much more intense and dynamic interaction with other people. Whereas Jun and Yoshi primarily work alone and only interact with a limited number of clients and members of projects at the same time, Hiro has twenty members of staff in his company. Moreover, he is involved in constantly changing business situations where he has to interact with a diverse range of current and prospective stakeholders. In order to cope with this, he utilises the combination of email and mobile phone technologies as the primary means of managing his interaction: He forwards all incoming emails to his Internet-enabled mobile phone. In fact, during the

interview, his mobile phone notified him about received emails several times, and he checked them immediately. This emphasised the fact that he was engaged in a constant flow of multiple interaction threads. For him, it proved impossible at one particular time to focus on a single interaction at hand and to exclude others. He needed to juggle multiple interaction threads by effectively using technology.

6. Fluid Patterns of Organizing

As clearly shown by the three focus cases above, mobile professional work is in constantly changing work settings (space, time, and context) and in a constant flux of interaction with various stakeholders. Throughout the fieldwork we found various kinds of mobile professionals' work practices that have been radically mobilized in terms of work location, daily operation, and interactional patterns. In the environment where people can interact with others by using those emerging technologies, relational disposition of human interaction is becoming ambiguous and transitory. In particular, dynamic and heterogeneous work practices of mobile professionals inherently involve the capacity of boundary formation at various levels of organization.

These findings offer us a new perspective of work practice as a *fluid* (Mol and Law, 1994; Urry, 2000). A fluid is "a world of mixtures" and "variation without boundaries and transformation without discontinuity" (Mol and Law, 1994: p. 600). A fluid world ensured by multiple mobilization of interaction can be characterised as "the remarkably uneven and fragmented flows of people, information, objects, money, images and risks across regions in strikingly faster and unpredictable shapes" (Urry, 2000: p. 38). This is clearly the world of the contemporary mobile professional work. As the fieldwork results show, mobile professionals get their jobs done not only in formal offices but at various sites such as home, clients' offices, hotels, moving vehicles and so on; anywhere can be their office. With powerful supports of ICTs, their work practices permeate across various "regions" of work (projects, teams, organizations, etc.) and "networks" (private and public, formal and informal, etc.). The fluid nature of work practice cannot be fully captured from static perspectives, since it always transforms the work context. Mobile professionals' work practices are always in transition, extensively moving around, participating into several different projects, and interacting with diverse stakeholders.

Contemporary businesses, especially in service, entertainment, and ICT-related areas, increasingly utilise non-traditional labour forces such as contract-based workers, people from staffing service companies, various kinds of freelancers, and contract-based technicians (Barker and Christensen, 1998; Cappelli, 1999). Furthermore, companies are actively adopting newly developed, flexible organizational practices such as taskforces, project-based teams, and virtual teams, which typically include various 'outside' professional members such as

consultants, designers, and planners (Snow et al., 1999; Townsend et al., 1998). Given these emerging practices of the companies, it seems that an organization as a distinct unit of operation and hence of analysis is far from self-evident or well-defined, since the unity of today's organization in turbulent business environments, particularly knowledge-intensive industries, is predicated less and less on stable organizational structure, constant and well-defined business processes, or long-lasting membership of the staff.

Mobile professionals are one of the most radical groups of workers whose work activities deconstruct the traditional sense of unity of organizations. Mobile professionals are keen to liberate themselves from organizational structures, processes, and conventions that are likely to hamper their knowledge-intensive, autonomous ways of working. In the case of the independent consultant (Jun), for example, he should be seen as 'outsiders' from an organizational point of view, as he does not have a formal employment relationship with any organization. However, from project members' point of view, he should be seen as 'insiders' in the sense that due to their distinct skills and knowledge, his work practices are tightly linked to the client's business processes and hence competitiveness. Being knowledge brokers, mobile professionals constantly straddle boundaries at various levels and form new boundaries of a group of practitioners, or a Community of Practice (Wenger, 1998), through their fluid work practices over time.

Given such fluid work practices, the traditional image of organization might require reconsideration. When considering the fact that mobile professionals' work practices typically cut through and reformulate boundaries at various levels over time, the distinction between organization and environment and between 'inside' and 'outside' becomes vague. Many have already proposed the network-based view of organization (e.g. Alstynne, 1997; Castells, 1996; Jarvenpaa and Ives, 1994; Powell, 1989; Rochart and Short, 1991; Snow et al., 1992). Largely supported by the development and diffusion of ICTs in general and the Internet in particular, today's organizations have become able to coordinate their business operations and processes by directly reaching to and connecting with a variety of players in the market such as foreign business partners, suppliers of raw materials and parts, famous designers in the world, and their own customers. Castells (1996) describes this transformation by stating that "networks constitute the new social morphology of our societies, and the diffusion of networking logic substantially modifies the operation and outcomes in processes of production, experience, power, and culture" (p. 469). Powell (1989) argues that the networked forms of organization can be an alternative to the transactions of markets and the hierarchical governance structures of firms in some industrial sectors. However, despite those theories' implications for our understanding of contemporary organizations, it appears that their theorization is still largely static, specifically because of the network metaphor. The network metaphor is typically described by the assemblage of interconnected nodes, hubs, and spokes. Whilst this metaphorical approach is

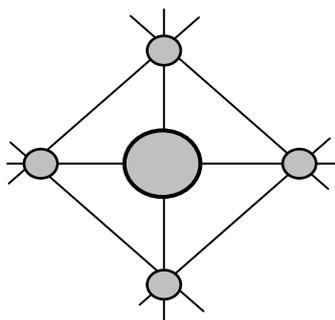
particularly useful for explaining complex relationships between the organization and its diverse stakeholders, it seems to be implicitly but firmly predicated on static, 'snapshot' depictions of the ongoing operations and processes that dynamically constitute and reconstitute emergent relationships amongst the stakeholders.

Imai and Kaneko (1988) point out the fundamental difference between the traditional image of networks and the one in actual organizational contexts (see Figure 1) Through their investigation on Japanese manufacturing and other industries, they insist that the network organization in actual organizational settings is:

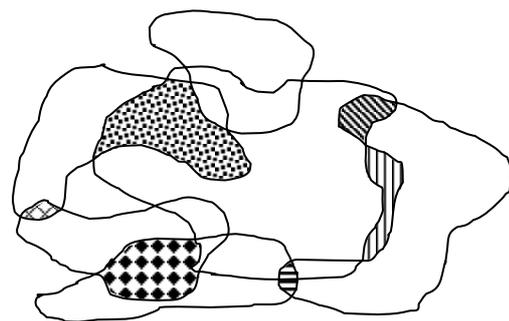
[...] constructed not through individuals' activities as discrete functional elements in the organization but through each individual's personal and spontaneous activities that create self-organizing relationships amongst the members, redefine boundaries between 'self' and 'others', and then produce dynamic and diverse contexts in which real innovations emerge. (p. 149) ²

This view greatly resonates with the fluid metaphor by Mol and Law (1994). As opposed to computer networks, the configuration of social networks is always in a dynamic transformation. Relationships and boundaries in social networks in work settings can never be fixed but are iteratively produced and reproduced through the stakeholders' work practices, which in turn create work contexts in which they interact with each other. This view does not deny the existence of relationships and boundaries in organizational settings; however, it requires us

Traditional image of networks



Networks in actual organizational contexts



*Figure 1: Comparison between the traditional and actual views on networks
(Adopted from Imai and Kaneko, 1988)*

² My translation.

to pay specific attention to the emergent aspects of ongoing formation of the relationships and boundaries in actual work contexts.

Some scholars have discussed such a fluid view of organization, and Morgan's (1997) comprehensive review of various images of organization provides a useful overview. Along with many other images of organization such as machines, organisms, brains, cultures, political systems, psychic prisons, and instruments of domination, he offers a distinct image of organization as flux and transformation. By applying Autopoiesis theory (Maturana and Varela, 1980; 1992), Morgan explains that organizations can be seen as constant flow and change that can hardly be captured from a static, "external observer's view". From this fluid perspective, the distinction between organization and environment is just a product of external observation. They insist that relations with any environment are internally determined and boundaries are continuously produced and reproduced through continuous enactment of self-referencing acts.

More specifically, my conceptualisation of the fluid organization is closely related to Ciborra's (1996) discussion of "the platform organization." He explains that the platform organization is:

[A] virtual organizing scheme, collectively shared and reproduced in action by a pool of human resources, where structure and potential for strategic action tend to coincidence in highly circumstantial ways, depending upon the transitory contingencies of the market, the technology and the competitors' moves. (p. 115)

More succinctly, the platform organization, he argues, can be characterised by "fragmentation, fuzziness and displacement" (p. 116). Through his detailed case study of Olivetti, a leading European computer company at the time of his study, the organization sometimes markedly exhibited organizational features far from the traditional images of specific organizational structure, authority lines, and communication flows. It is full of chaotic events, contingencies, and surprises, which in turn produce new organizational configuration. Whilst Mintzberg (1983) proposes a similar form of organization, adhocracy characterised as organic, flexible, non-hierarchical and highly informal, the platform organization places much more emphasis upon transformation and improvisation in and around the organization. Although Ciborra's focus is mainly on internal events of the company, his study clearly indicates that an organization can be perceived as a fluid.

7. Conclusion: The Rise of the Fluid Organization?

This paper discusses the emerging organizational patterns in mobile professional work through an empirical field study on work practices of mobile

professionals. The fieldwork results shows that the work practices of mobile professionals should be best appreciated through a 'fluid' perspective capturing the dynamic and heterogeneous nature of their work practices. The fluid patterns of mobile professionals' work practices are heavily based on and supported by their active use of ICTs for interaction and collaboration. Furthermore, the fieldwork results put into question the traditional understanding of organization predicated on the *a priori* assumption of organizational boundaries. In the context of mobile professional work, the sense of organization should be perceived as "the fluid organization".

It should be noted, however, that such a perspective of the fluid organization cannot be applied to all the realities of today's organizational phenomena. Mobile professionals currently account for a fraction of the whole workforces even in urban areas of the developed countries. Furthermore, the industries that actively utilise mobile professionals as a competitive and flexible workforce are still quite limited, mainly to knowledge-intensive and/or ICT-related industries. Therefore, the fluid nature of work practice might appear in few occasions and in organizations in a small number of industries.

Nevertheless, we submit here several reasons to why the perspective of the fluid organization is becoming so important. *Firstly*, today's organizations are increasingly knowledge-intensive. It is widely acknowledged that knowledge has become a critical resource for companies' competitiveness in a wide range of industries (Davenport and Prusak, 1998; Kogut and Zander, 1996; Nonaka and Takeuchi, 1995). As many argue, dealing with knowledge in organizational contexts is always an issue spreading across boundaries between teams and between organizations, and the configuration of such boundaries are constantly transformed over time through interaction amongst diverse stakeholders (Ciborra and Andreu, 2001; Knights et al., 1993). In such dynamic intra-, inter-, and trans-organizational contexts, it is important to address actual work practices of people in and around organizations not from a rigid and static perspective but from a fluid perspective that can shed a light upon the ever-changing nature of organizational knowledge.

Secondly, an increasing number of organizations are faced with intense pressure of downsizing. Business environment in the U.S., Europe, and Japan are all becoming further competitive and the contrast between winners and losers in those areas tend to be striking. For all the organizations, even in the mega-industries such as automobile, telecommunication and media, creating simple and lean organizational structures and reducing redundancy within them came to be one of the most urgent tasks to be accomplished. In order to cope with such marked economic situations, active utilisation of contingent labour is rapidly spreading in various industries (Barker and Christensen, 1998; Nollen and Axel, 1996) and came to influence significantly the adopting companies' competitiveness (Matusik and Hill, 1998). Furthermore, we are also witnessing

the increasing prevalence of various post-bureaucratic ways of organizing work and structuring business processes such as project teams, task forces, and virtual organizations, all of which typically involve a variety of contract-based, professional workers. The rise of such non-traditional workers who have not been treated as formal members of organizations requires that we reconsider the ways of organizing work and of structuring business processes from perspectives beyond a single organization.

Thirdly, more and more workers are seeking boundaryless careers (Arthur and Rousseau, 1996). Since the middle of the twentieth century, workers have normally worked in a certain company or institution for long periods of time in their lives. However, the employment tenure is becoming shorter and shorter: the median employment tenure for all U.S. workers is four and a half years, and even in Japan, the median for male workers is eight years (Arthur, 1994). The fusion of the traditional employment system resulted mainly from the growing inefficiency of rigid, bureaucratic approaches for managing organizational activities. In response, career paths of workers are no longer confined within a single organization but remarkably vary and cross the boundaries of different employers (Arthur, 1994). We are witnessing the emergence of new kinds of independent workers symbolically depicted as “e-lancers” (Malone and Laubacher, 1998), “self-programmable workers” (Castells, 2001), and “post-modern professionals” (Kakihara and Sørensen, 2002). This transformation of the contemporary career system clearly necessitates reconsideration of organization as a place for career building.

Having considered these emerging realities in contemporary organizational and work environments, we argue that the perspective of the fluid organization is of significant importance for the study of organization and work in the age of mobilization. Individuals, teams, organizations, institutions, all are being faced with the upheaval of existing settings, structures, and conditions, shifting from relatively stable and static states to dynamic and constant transformation. To address these ever-changing social realities, our perspective has to be also dynamic and flexible. The perspective of the fluid organization can be one of such distinct analytical lenses.

References

- Alstynne, M.V. (1997). The State of Network Organization: A Survey in Three Frameworks. *Journal of Organizational Computing*. Vol.7, No.3, pp.
- Aoki, M. and R. Dore (1996). *The Japanese Firm: The Sources of Competitive Strength*. Oxford University Press, Oxford.
- Arthur, M.B. (1994). The Boundaryless Career: A New Perspective for Organizational Inquiry. *Journal of Organizational Behavior*. Vol.15, No.4, pp. 295-306.
- Arthur, M.B. and D.M. Rousseau eds. (1996). *Boundaryless Career: A New Employment Principle for a New Organizational Era*. Oxford University Press, New York.
- Barker, K. and K. Christensen (1998). Controversy and Challenges Raised by Contingent Work Arrangement. In *Contingent Work: American Employment in Transition*. (K. Barker and K. Christensen eds.) ILR Press, Ithaca, NY. pp. 1-20.
- Cappelli, P. (1999). *The New Deal at Work: Managing the Market-driven Workforce*. Harvard Business School Press, Boston, MA.
- Castells, M. (1996). *The Rise of the Network Society*. Blackwell, Malden, MA.
- Castells, M. (2001). *The Internet Galaxy: Reflections on the Internet, Business, and Society*. Oxford University Press, Oxford.
- Ciborra, C.U. (1996). The Platform Organization: Recombining Strategies, Structures, and Surprises. *Organization Science*. Vol.7, No.2, pp. 103-118.
- Ciborra, C.U. and R. Andreu (2001). Sharing Knowledge across Boundaries. *Journal of Information Technology*. Vol.16, No.2, pp. 73-81.
- Davenport, T.H. and L. Prusak (1998). *Working Knowledge: How Organizations Manage What They Know*. Harvard University Press, Boston, MA.
- Imai, K. and I. Kaneko (1988). *Nettowaku Soshikiron (The Theory of Network Organizations) (in Japanese)*. Iwanami, Tokyo.
- Jarvenpaa, S.L. and B. Ives (1994). The Global Network Organization of the Future: Information Management Opportunities and Challenges. *Journal of Management Information Systems*. Vol.10, No.4, pp. 25-57.
- Kakiyara, M. and C. Sørensen (2002). 'Post-Modern' Professional Work and Mobile Technology. In *Proceedings of the 25th Information Systems Research Seminar in Scandinavia (IRIS 25)*. Bautahøj, Denmark. 10th-13th August 2002.

- Knights, D., F. Murray and H. Willmott (1993). Networking as Knowledge Work: A Study of Strategic Interorganizational Development in the Financial Services Industry. *Journal of Management Studies*. Vol.30, No.6, pp. 975-995.
- Kogut, B. and U. Zander (1996). What Firms Do? Coordination, Identity, and Learning. *Organization Science*. Vol.7, pp. 502-518.
- Malone, T.W. and R.J. Laubacher (1998). The Dawn of the E-Lance Economy. *Harvard Business Review*. Vol.76, No.5 (September-October), pp. 145-153.
- Malone, T.W., J. Yates and R.I. Benjamin (1987). Electronic Markets and Electronic Hierarchies. *Communications of the ACM*. Vol.30, No.6, pp. 484-497.
- Maturana, H.R. and F.J. Varela (1980). *Autopoiesis and Cognition: The Realization of the Living*. Reidel, Dordrecht.
- Maturana, H.R. and F.J. Varela (1992). *The Tree of Knowledge: The Biological Roots of Human Understanding*. (Revised edition) Shambhala, Boston, MA.
- Matusik, S.F. and C.W.L. Hill (1998). The Utilization of Contingent Work, Knowledge Creation, and Competitive Advantage. *Academy of Management Review*. Vol.23, No.4, pp. 680-697.
- Meager, N. (1992). The Characteristics of the Self-employed: Some Anglo-German Comparisons. In *The New Entrepreneurs*. (P. Leighton and A. Felstead eds.) Kogan Page, London. pp. 69-99.
- Mintzberg, H. (1983). *Structure in Fives: Designing Effective Organizations*. Prentice-Hall, Englewood Cliffs, NJ.
- Mol, A. and J. Law (1994). Regions, Networks and Fluids: Anaemia and Social Topology. *Social Studies of Science*. Vol.24, pp. 641-671.
- Morgan, G. (1997). *Images of Organization*. (2nd edition) Sage Publications, Thousand Oaks, CA.
- Nakane, C. (1983). *Japanese Society*. Penguin, Middlesex.
- Nollen, S. and H. Axel (1996). *Managing Contingent Workers: How to Reap the Benefits and Reduce the Risks*. Amacon, New York.
- Nonaka, I. and N. Konno (1998). The Concept of 'Ba': Building a Foundation for Knowledge Creation. *California Management Review*. Vol.40, No.3, pp. 40-54.
- Nonaka, I. and H. Takeuchi (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. Oxford University Press, New York.

- Powell, W.W. (1989). Neither Market Nor Hierarchy: Network Forms of Organization. In *Research in Organizational Behavior Vol.12*. (B.M. Staw and L.L. Cummings eds.) JAI Press, Greenwich, Conn. pp. 295-336.
- Rheingold, H. (2002). *Smart Mobs: The Next Social Revolution*. Perseus Publishing, Cambridge, MA.
- Rochart, J. and J. Short (1991). The Networked Organization and the Management of Interdependence. In *The Corporations of the 1990s: IT and Organizational Transformation*. (M.S. Scott-Morton ed.) Oxford University Press, Oxford. pp. 189-216.
- Schön, D.A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. Basic Books, New York.
- Segal, L.M. and D.G. Sullivan (1995). The Temporary Labor Force. *Economics Perspectives*. Vol.12, No.2, pp. 2-19.
- Segal, L.M. and D.G. Sullivan (1997). The Growth of Temporary Services Work. *Journal of Economics Perspectives*. Vol.11, No.2, pp. 117-136.
- Snow, C.C., J. Lipnack and J. Stamps (1999). The Virtual Organization: Promises and Payoffs, Large and Small. In *Trends in Organizational Behavior: Vol. 6. The Virtual Organization*. (C.L. Cooper and D.M. Rousseau eds.) John Wiley & Sons, Chichester. pp. 15-30.
- Snow, C.C., R.E. Miles and H. J. Coleman (1992). Managing 21st Century Network Organizations. *Organizational Dynamics*. Vol.20, No.3, pp. 5-20.
- Townsend, A.M., S.M. DeMarie and A.R. Hendrickson (1998). Virtual Teams: Technology and the Workplace of the Future. *The Academy of Management Executive*. Vol.12, No.3, pp. 17-29.
- Urry, J. (2000). Mobile Sociology. *British Journal of Sociology*. Vol.51, No.1, pp. 185-203.
- Wenger, E. (1998). *Communities of Practice: Learning, Meaning, and Identity*. Cambridge University Press, Cambridge.
- Whalley, P. and S.R. Barley (1997). Technical Work in the Division of Labor: Stalking the Wily Anomaly. In *Between Craft and Science: Technical Work in U.S. Settings*. (S.R. Barley and J.E. Orr eds.) Cornell University Press, Ithaca. pp. 23-52.