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## ESCAPE FROM THE FISHBOWL? OFFICE WORKERS GO VIRTUAL<sup>1</sup>

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Working paper

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# ESCAPE FROM THE FISHBOWL? OFFICE WORKERS GO VIRTUAL

## ABSTRACT

This paper is about how teleworkers communicate to learn and coordinate work. We look at variations in the work structures of remote sales personnel that shape help from others to do their jobs. We compare the bounded as opposed to unbounded work communities of sales employees. These two forms of distant work communities communicate differently and telework differently.

In the negotiated sales process of salaried employees of a large company, there are three sets of players: formal and informal workmates and customers. The key to effective telework is the ability to communicate with these significant others at a distance. This interaction is based on the different work processes and their success rests on the work place structure and the kind of help they need.

We contrast the exchanges of information and coordination of help in two work communities, one with bounded (fishbowl) and unbounded (fishnet) work relationships. Those with bounded ties, or fishbowl workers, communicate to get the job done quickly, and with fewer mistakes. With limited time and place flexibility, fishbowl workers used those modes of communication and technologies that gave fast results (phone, yelling). In contrast, employees with unbounded ties, or fishnet workers, have greater time and place flexibility. They have to draw more widely for broader input to their work. The modes of communication they used broaden the network of those involved (email, planned meetings) and helped them gather in

new complements in their proposals to meet their clients needs.

By reshaping the modes of communication, telework may hinder or ease access to others, thereby affecting how employees work. The paper identifies the structure of the work community and communication as factors that companies must take into account before implementing teleworking.

Key words:

telework, telecommuting, communication, learning, collaboration, networks, sales work

The exciting organizational innovation of telework has long signalled sales workers as central figures (Cascio, 1999). Driving from client to client, they connive, bully, gamble, and win sales against the odds. The reality of the competitive telecommunications market is far from the lone figures of heroic sales makers portrayed in the literature, however (Miller, 1949; Dorsey, 1994). Corporate sales people work closely with coworkers. Teams develop complex proposals to land a sale. Their formal and informal channels mobilize information and coordinate coworkers to do the job. When teleworking firms decentralize the traditional office, employees must work apart from the firm's central hub and coworkers. Even if work content does not change, teleworkers will communicate differently because their physical relations are altered. Although many firms restructure, few have studied how employees actually talk with their coworkers. Restructuring without tending to information flows, teleworking companies frequently undermine the sharing that employees need, endangering the sales that they thought they could boost. (Krebs, 1999).

To locate where restructuring reshapes work-related communications, this paper compares two teleworking communities of sales people that configure and sell sophisticated telecommunications equipment to business clients. Before teleworking, one sales group operated out of a traditional, bureaucratic office. The other performed as a decentralized, networked team. Their communication styles differed (DeSanctis, Staudenmayer, & Wang, 1999; Wellman, 1997). Then both sales communities began to telework from decentralized locations. We wondered why? the communications of one group suffered, but not the other. Technol-

ogy is often seen as solution to communication in the decentralized organization (Cohen & Mankin, 1999). However, we find that the restructured time, space, and collegial boundaries in the work place also affect information exchange (DeSanctis et al., 1999). Technology is not enough.

In this paper, we first look at writings on the dimensions of information exchanged on the job. We then consider patterns of communication in the bureaucratic (the office fishbowl ) and networked (the office fishnet ) work groups. After tracing the history of teleworking in the company, we enter the worlds of two groups of teleworkers who shifted from office to home-based work. We expect that the two structures will reshape work relations and their employees communications. We analyze how specific organizational structures affects these patterns.

## THEORY

### Two Forms of Work Related Communications

Organization theorists distinguish between routine and non-routine work processes (Cyert & March, 1963). More or less routine work processes are usually marked by different timing and work cycles. Facing different work demands, employees develop distinct ways to collaborate and to act when rules fail. Over time, they develop their own patterned communications. Teleworking challenges these collaborative sequences.

Learning and coordination in routine work. If all work were standardized, trained

employees would not need to turn to others for help. Telecommunication companies, like the one we study, make available procedures and training to do the job. The organization divides work into functionally specialized units that need to be coordinated. Through their experience, employees should be able to apply these routines to do the job under time pressure.

However, when routines do not fit the job, even employees with predictable work turn to each other for help reading between the lines. They form communities of practice that contain undocumented, informal knowledge (Brown & Duguid, 1991; Wenger, 1998). Although most exchange facts, rather than interpretations or opinions, they need to build a common paradigm to communicate around the rules. They usually do so face to face. The community of practice unifies their vocabulary and framework so that they can use the same materials and get like results.

Time pressures for coordinating expertise force synchronous communications. Perrow (1984) finds that routine work cycles are usually closely linked together with tight coupling. Those working together on the same project often have to take quick action to adapt their work to each other. Short work cycles are common in tasks with established procedures. These interdependent activities put premium on employees to respond quickly and adapt to each other.

One of our sales groups configures standard telecommunications products and solutions that are adapted to customers existing equipment. The group often has to talk with others to solve unexpected problems. These intensive and unscheduled exchanges become a problem for telework..

Non-routine work. Companies cannot assign tidy routines to unstandardized products and services. Their organizational procedures will not cover the contingencies that occur in prac-

tice. Employees that tailor their product to their customers needs search for useful sources of information from external as well as internal experts to serve their customers. They combine resources in novel ways. By acting as a bridge, employees working with a range of products bring to each of their relationships new information that they garner from others (Burt, 1992). They need to build trust to solve problems, get advice and support with this broad span of people (Krackhardt, 1992). Fitting complex equipment to customers needs requires employees with various skills to cooperate over a longer time period. To coordinate such problem solving, they manage complex projects by splitting them into predefined parts and allowing loose coupling (Perrow, 1984). For these reasons, sales employees that exchange complex information with a wide range of people to design products and services to customers requirements have more time and space flexibility.

One of our sales group services the corporate market. They communicate differently from those that design standard equipment.

#### Two Forms of Work Structures

Specialized employees need to work together to arrive at solutions to common problems. But those that handle more and those with less routine information develop different ways to learn and coordinate. These two forms of interaction are associated with different work structures.

Writers contrast two forms of office communities, distinguishing traditional versus virtual work groups (DeSanctis et al. 1999), bureaucratic versus network organization (Bena-

ssi & Greve, 1996; Ibarra, 1992), bounded and unbounded work communities, or fishbowl and fishnet (Wellman, 1997). We apply the designations of fishbowl to describe bureaucratic, and fishnet to portray network structures in our two work communities.

The group characteristics that most affect communications include boundary, space, time, and culture (DeSanctis et al. 1999). In bureaucratic organizations, employees in functionally specialized units do the work, by following standard operating procedures. These tightly coupled units are located together at the same office to ease coordination (Thompson, 1967). Their work groups are bounded. In such circles, roles may overlap. Team members engage exclusively with the same people on each project. They yell over baffles or use other direct modes of communication. They develop an organizational culture. Bounded work groups with overlapping contacts maintain social control through face to face pressure. Before teleworking, our small business sales group did their routine work from just such a bureaucratic office fishbowl.

Those in newer network organizational forms communicate diverse information (DeSanctis et al. 1999). They typically build wider ranging helping contacts to solve their non-routine problems. The colleagues and clients of those in unbounded networks are spread out over a wide territory. These usually go outside the firm, and personnel from different organizations also exchange tips. Relations are mainly with outside contacts, thus working with personnel from many organizations. They repeat only some of their diverse work contacts for each project. Network participants are called upon to create and share knowledge depending on the situation and may enter or leave, activating and deactivating their contacts. Few can concentrate their communications in a delimited space or among the same people.

Those in networked organizations rely on asynchronous communication, not confined to an office, with a wider range of communication forms, especially phone, fax and other mediated communication. Our corporate sales group takes the form of employee fishnet.

Companies need to ensure continuity of information exchange. Teleworking challenges this process, by making it harder to share experiences and get timely help. But there are differences between those exchanging more and less routine information. Since tightly and loosely bounded groups construct different coworker relations, they are also likely to communicate in different ways after teleworking and find their own ways to adapt to the new work setting. We can see this in the cases of our two groups of employees.

#### THE COMPANY AND OUR DATA

The telecommunications provider we study ( the Blue Company ) is a key industry player, with an established history. Its sales teams handle various products and services in two provinces. All do collaborative selling, implementation and after sale service of complex, integrated telecommunication solutions. In this paper we compare sales workers in several Blue departments that serve different market segments.

One group sells small phone switches and data lines and 1-800 phone lines to small business clients with under \$10,000 billed revenue a month. Several team members, referred to as long distance machinery and data sales people, work together. Teams work out of the office fishbowl on hundreds of accounts at a time. They are organized by geographical district. Their customer base is redistributed yearly in the interest of fairness. At the same time, this

destabilizes customer loyalty.

Medium segment salespeople sell long distance services, PBXs and other technologies and systems to around 20 large companies. By contrast, high-end salespeople configure complex phone systems, like call centers, to departments in national accounts with multi-million dollar a year business. These sales teams are sole representatives to their corporate clients, and have to meet a wide range of telecommunications needs. They construct an office fishnet to do so.

In the mid-1990s, Blue initiated a pilot project for volunteers to telework, drawing on employees from several departments. In 1996, Blue expanded telework to the entire business sales force (both fishbowl and fishnet).

Not a precise technical term, teleworking takes many forms (Lamond, Daniels, & Standen, 1997). Full and part time teleworkers differ by the amount of time they spend in their home office and the manner of rearranging work relationships and interactions. Part time telework changes the location of some of the work, but like working at home in the evening and weekends, it least rearranges traditional work forms. For this reason, companies find that part time telework is easiest to implement (Bailey & Kurland, 1999). In contrast, full time telework, which removes the employee from the company office entirely, forces a total rearrangement of communication patterns. This more radical organizational innovation offers a window onto employees communication both within and outside the office.

We report here on full time Company sales employees, eligible for internal careers, that have given up of the sole use of a company office or cubicle to telework. Their employee status did not change. Their work arrangements range from those with their main office at home, who

may occasionally drop in on a company office, to those that prefer to book a cubicle, much like a hotel room, at company quarters. The cubicles are not theirs, and employees bring their own laptops and files with them to work every day. All are teleworkers in its most extreme form: they have no escape from telework. This change in spatial arrangements deeply affected how they worked with each other, often in unintended ways.

Data gathering. We chose our sample from sales teams to small business medium, and corporate clients. We interviewed at length 57 sales employees (45 were rank and file sales workers, and 12 were sales support and managers.) Thirty three of these employees had mobile experience. The sales force is mature; their modal age is 38. Our sample includes more men than women. Three-fifths came up through the ranks; the rest were new school graduates or fresh from sales work in other firms, reflecting Blue s turn towards a more competitive force. Both fishbowl and fishnet sales people were fairly well educated; nearly half had at least some University. Most of those with only high school, or some college courses, had been with the firm a long time. On the other hand, two-thirds of those with University and post-university schooling had more recently joined the company.

Those in the medium business and corporate sales teams had experience in different company sales sections. The corporate sales had the most, averaging 18 years in the Blue firm. The typical fishnet employee had university education. Some got the job because they knew people. *Oh, so you are Jack s son!* They still have to qualify through their university degrees.

We gathered material with a three-session, in-depth interview schedule, did on-site observations, sat in on focus groups, collected time-budget studies and analyzed 850 responses

to an internal Blue survey. We conducted many interviews in the teleworkers home office, to understand the family context. We talked with spouses. We spoke with their supervisors. We taped interviews, transcribed them verbatim and analyzed the texts qualitatively on NUD\*IST, a textual data management system, to search for themes in the data while keeping the context.

It was clear to us that the groups we studied did not work the same ways. They held widely different expectations of how they should work and what they need from others to deliver their product. These factors revealed the different ways the groups collaborated.

## TWO CASES: COMPARING SALES WORKER COMMUNITIES

The structure of the sales group helps us understand how they communicate, and in turn the trouble or ease they have teleworking. We illustrate this concretely by comparing the modes of cooperation and coordination of sales workers of different market segments, starting with the small business sales force.

### Small Business Market Fishbowl

Structure of their space. The term fishbowl depicts the concentrated location of the sales groups to the small business market in the office before teleworking. Prior to teleworking, the fishbowl sales group was located on one floor of a central office building. Within a sales group, several parallel teams serve different areas. Each team is comprised of different complementary competencies (specialists in long distance lines, machinery, and

data). Although there is little overlap in a single team, alike specialists in other teams serve different districts. The network long-distance person (the Prime for this team) takes charge of the sale, and brings in the other team members when needed. An administrative support person elsewhere in the building does the paper work for the group. Other departments carry out actual technical installation. The team Prime is responsible for seeing the project through to the end. After telework was implemented, the team was dispersed to alternative locations, while the administrative support person and other clerical workers remained at the company office. This dispersal created a stumbling block for the employees, who for the first time had to communicate with each other and with their support staff from afar.

Delivering standard solutions quickly. Fishbowl projects are quick and dirty . Management prizes standardized solutions and high numbers. Since most routines convey the necessary knowledge, supervisors expect sales people to increase their contacts, not the content of each contact, nor the linkage of contacts with each other. In the small business market, clients are scattered and do not form extensive networks of their own. Some supervisors believed telework was efficient precisely because of the scattered customer base: these sales people did not need a physical locale.

*The idea is they're on the road dealing with customers. They aren't sitting there at home and making calls.*

Learning in a community of practice. The formal team structures combine salespeople s expertise and requires close cooperation between employees. The team, which is comprised of salespeople with different backgrounds, depend on each other to configure complex systems for the same accounts.

Before teleworking, these personal office relations cut across the formal team structure, yet were office based. In these co-located networks, most knew each other and were aware of who did what work. Most exchanges were work centered and took place within the formal work team framework. The centralized location that preceded telework allowed quick and efficient contact. They did not have to go far afield for the information needed for the sale. They give their product solutions quickly, and need to get others feedback. Team members with the same products who worked different locations stood in for each other and offered answers. They knew where each other was. Sales workers easily called over the low barriers or caught the eye of the person they wished to contact for information about pricing or functionality, capabilities, integration and other information. They did not use remote technology. Supervisors expected that teammates would complement each other to execute the sale. They did not expect that the sales representative needed extensive consultation with outside experts. Speed and specialization were important; trust mattered less.

This changed when they worked apart. They missed out on important work leads by being apart.

*If there are some issues that are happening with some of my colleagues that I should learn about, I'm not going to find out about it at home. (Small business Long distance sales woman, teleworker, age 50, 6 years with company.)*

Providing answers was easy together, hard when apart.

*The down side [of telework] is because you're not meeting with your co-workers on a regular basis, you might be knocking your head against the floor trying to figure out a solution and those things before it would be like you would talk over a coffee and that person*

*would have that solution for you in two minutes and you took two days to figure it out. So there's less group cohesion, you know So the only way I'd find out [an answer to a problem] is if I called around ...but if everybody's out on the road the way we're supposed to be during the day you're not going to get hold of somebody, so you don't get to bounce a lot of ideas off each other.*

Coordinating support staff. The Blue Company supplanted human with technological resources, and expected the teleworking employees to proceed as usual. It promised the teleworking sales people technical supports which unfortunately either did not materialize or did not work as expected. If those they needed to contact for information were not available, new telephone hot lines could respond to major issues. But the recently developed software to connect them to databases was poorly organized and not interactive, and the sales representative had to return to the office to input data and do paper work. Even when up and running, such software programs may prove less useful than the people they replaced.

Paper work and bureaucratic procedures did not lend themselves to the remote paperless office.

*The most difficult part is the resources in terms of the orders and the procedures. They are not up to snuff. If we had the confidence that we could go to our laptops and input all our needs and know that someone's going to do it at the other end, providing we provide them with the proper information. [I]t's the procedure .There should be more done on line. As I said, there's too many people touching paper They have to fax [the order] somewhere else. My support [is not always able to ] input the order on line. I should be able to download it directly to the person that's going to complete the order and get a due*

*date for me and it should be downloaded back to me on my computer. (Small business Sales teleworker, with company 6 years.)*

Since the on-line software that was supposed to coordinate work schedules did not work properly, few check it or update it. They send duplicate messages by phone and e-mail. They mainly use the phone because of the uncertainty that the other person will read the on-line materials in time, or even at all. The twice a month get togethers became weekly meetings, and even those were not enough. Few supervisors wholeheartedly supported telework. Some of the reasons were related to need for quick response.

*I haven't checked my [intranet] in three days to tell you the truth. Because if I don't do it first thing in the morning or if I don't do it from home late at night, then I don't get a chance to do it. (Q. [W]hen you communicate with [your supervisor] what is the content of the communication) To get advice. Mostly I would send her a voice mail though because I would know that she will get that voice mail right away. Cause if she hasn't checked her [intranet] either, I could be waiting a couple of days to get a response. So I would e-mail her to ask her a question or to keep her up-dated on a couple of customer situations, to let her know what I've been doing in some cases, to give her high lights. Or to let her know of some problems that I'm running into At least maybe once or twice a week.*

Even before telework, it was often impossible to meet the Blue Company goals of high speed routine work. Part of being a seasoned sales person was learning from their more experienced peers how to bypass procedures by consulting others, building contacts, and discovering who would help them.

After telework, apart from returning to the office to exchange data, the fishbowl sales-

person often needed to return to build support. To get extra informal help from technical supports or other staff in other departments, they greased the wheels and bypassed the formal bureaucratic chain of command. The bureaucracy was so immense and problems so pressing, employees needed to know which button to push to get work done quickly. This was mainly to cut through red tape, to be able to call upon others to do what they needed to be done more quickly. To fashion dependable office-based ties that were instrumental to their work, many sales people built sociability into the needed relationships through exchanges that showed consideration. They reached technical support networks in different Blue Company reporting lines by going to their office or work sites. They never forgot a birthday, bought flowers for their support staff, coffee and donuts for their installers and repairmen. I promise installation a beer and a pizza for getting me out of a jam, of course I never pay up, another joked. Although these members are part of formal flow processes, the nature of the contact is not. Short term reciprocity was the key note. These communications occurred in the office, as the sales force competed for the attention of the overloaded administrative support staff and technicians. Competition for leads and even stealing accounts undercut formal group solidarity. To get the help they needed a lot of bargaining.

The complexity of the work demanded personal intervention, best done face to face.

*A sales individual like ourselves, we have objectives now put upon us to be out on the road a certain period of the day and then to pass our work over to individuals on the inside, our support people who are supposed to implement and run with the problems but in most cases the complexity of the request is something that just can't be handed over through a telephone call, or a quick e-mail to the other member of the team. Every customer that we go*

*and see is complex in themselves as far as their requirements are concerned, and the time it takes to explain the situation to another individual is wasted time whereas I feel most of the time that I could probably end up getting it done much faster if I did it myself.*

The team member personalized the formal flow process in order to get the work done. Sales workers had mental or paper card files of people that could help them. One new employee explained, *Ted [his manager] helps me skip stages and get to the next level. He helps me network, he knows who to call to get things done, call X manager s manager . I watch what he does and then I can do it, or I tell Theresa [his support] what to do. For instance, we needed something installed, need go ahead , like the 1-800 numbers that belongs to nobody, somewhere in the US controls it, and we need to [get permission to] use it. Someone in Ottawa can do it, in X company, a woman can get it done. We know the office but not the person. Ted told me [who], and I told Theresa.* They most needed immediate technical help, and mainly those currently on the job could offer solutions.

The new hires might also turn to the old timers for help on an account, but the mutual dependency did not always work. There was no reward for the old timers to offer such help, and they resented being asked to give their time. An old timer, *[I]f they come to me as a peer and ask advice, I ll be glad to share it, if they can catch me standing still long enough,... I have no problem with that. But it is not my job to sit and educate them, and so each of them has to find their own way to handle their own problems...*

A saleswoman anticipated that as a teleworker, she would still have to go to the office often to make sure the work got done:

*I would almost have to because of the way I work and the way I feel, the only way I'd*

*be able to get the job done right is to be on top of things. And the only way I can be on top of things is to see the individual and what they've done. Not necessarily every day but it may be every other day It's a big question that we all have as to how are we going to operate because we deal with so many different individuals on a daily basis within the organization. Not only to get the job done but our team players. We have people responsible for phone equipment for our customers that we have to meet with on an ongoing basis. To pass leads to them, to talk about a specific application with the customer, and to even sometimes go out to see the customer together with them . (Non-teleworking Sales Representative, 39 year old woman, taking early retirement)*

Many complained about the bureaucracy that undid their hard work. One protested that no one followed up her work with the clients. She informally arranged for her support to do something that she felt should have been assigned to another person. *I've been bitching about [the follow-up call] for about two or three years and saying to management staff here, Salespeople can't do it, there is not enough hours in a day for us to do that . And it should not be a sales function. Either the regional centre or my support person or the win back group because they are involved in this as well . Somebody has to follow up because we're winning too many customers back, and having these types of mistakes [i.e. no follow up call.]...And I don't even know to this date whether somebody has been assigned, believe it or not, something as important as this. So what I do myself, I have Dolly [her support] follow through now. And I'll say Dolly I won this [person] back, follow through in a week, and make sure that they're picked over. And she'll phone them and make sure it is done and then call me on my cell phone just to let me know, so then I don't have to worry about this sort of thing going to*

*happen again There is a tendency within the organization to drop the ball, [it s] somebody else s ball, somebody else s responsibility.* She deliberately built an inside track to her support over the years.

Nevertheless, because of the external environment or internal bureaucratic structure that enmeshed them, their supervisors often could not cut through red tape when needed. Instead, the fishbowl sales force built up information about their work to problem solve on their own, turn to their team or other coworkers for advice to get around the bureaucracy. When the demands of the firm were too much to bear, they resisted by doing what they had always done, more than what the supervisors advocated.

The office and the clients. To supplement the bureaucracy in client relations, those with experience gave the little bit extra. They spotted problems of technology integration and unmet needs on site visits. Some of the problem solving was in their line of work, but they often wanted to go the extra step, even if it were not a paying proposition, as a sign of their professionalism. One senior sales person referred to the fuller service she provided to her clients as TLC (Tender Loving Care). Since the service the fishbowl sales team gave was not complex, it was hard to keep client loyalty, however. Reliability was a more important aspect of their client work than building trust. Their negotiation verged on manipulating their clients need for personal service. Building client trust was harder when, alongside telework, the company increased the work load.

*Because when we go out to see a customer we like to be organized. We like to have all of the data, all of the information in a file folder. We like to go through the processes in a specific way because that's the way we've been trained to do it for the last 10 years as well.*

*Maybe isn't the right way to do it any longer. So just go in and shoot from the hip and you know get the job done and don't worry about all of the paper processes. But then if we don't do it the way we think is right for the customer, the customer is going to be the one to suffer in the long run. Cause I mean I talk to customers every day. They appreciate what we do for them based on being able to know their business before we even walk in the door, be able to communicate to them you know where they stand with us as far as the services, show them information. They appreciate all that. Be able to talk to them about more than just long distance, you know, talk to them about telephone equipment, talk to them about their bill, if it boils down to that. And customers appreciate that, and that's not what's going to continue with the new breed in the company. (Non-teleworking Sales Representative, 39 year old mother, taking early retirement.)*

Several studies have documented how the workers collective or team acts as a defense mechanism against the rational-technical system that management represents (Lysgaard, 1961). The workers collective has its own norms requiring obedience by workers to satisfy the needs of the group. Solidarity is one of the norms. Blue Company formal group members with the same functions did share views of the work process, and their dislike of how they were treated by the organization. Conflicts emerged over expectations of performance goals and the way the force was organized. While they competed with each other at times, common team problems—low or unclear bonuses, poorly organized customer lists—bound them.

Learning how to bypass standard operating procedures and getting collaboration from others -- frequently brought them to the office. However, once there, they could not count on finding others for help. The fixed time and space needs of handling the bureaucratic office

fishbowl increased rather than eased work demand. Teleworking did not suit the bounded office fishbowl.

#### Corporate Business Market fishnet

High-end corporate sales people configure complex telecommunications systems to a handful of national corporate accounts that give Blue millions of dollars of business yearly. Each sales worker is dedicated to serve one customer. Blue has support teams representing all the special knowledge they need to do the complex installations at customers. These teams are marked by their long term dedication to specific clients, and are organized around the industry, not geographical location. Among their corporate clients are car manufacturing plants, the entertainment industry, universities, and banks.

Structure of their space. Prior to teleworking, the business fishnet occupied their own floor at the company headquarters. One manager supervises several mini teams with similar functions that craft their proposals to different clients. The corporate sales team includes a dedicated support person shared with only one other sales person, but does not contain the full complement of people for their complex projects. After teleworking, their dedicated support person became a teleworker, too. They all share another general administrative support person who remained in the office. This did not faze them because they were long used to unbounded work relations.

The sales workers do not engage in projects with those in the central office, and do not depend on their office based sales group members for specific sales leads. Nor do they share

revenue. Instead, they give advice and recommend solutions to different departments and sites of the account, each of which is a project.

The Blue Company believes there is need for a sizable social network for corporate sales to do the job. The employees' contacts span internal and external Blue Company office participants. The Company expects team members to initiate contacts and obtain information from many contacts, not just those of team members.

Since they do not work with the other office members, and their client work is also away from the office, they had no special need to return to the office. Teleworking was a matter of choice. One recalled that she had herself proposed working from home because the sales unit was expanding, and they were short of space.

Learning from each other. With ownership of their accounts, consultants and sales people generate their own projects and make the major project decisions. Taking care of their clients' needs, these sales people are generalists that have to bring in other specialists that are not all in one office. The high-level corporate clients make decisions that involve hundreds of thousands of dollars and take months to complete. Due to the analytic nature of their projects, the sales workers do not turn to office mates for quick answers to requests. Fishnet projects are lengthy and entail analytic work.

Consultants coordinate their work with their national counterparts to achieve uniformity and share information about the client. Much of their exchange can be at a distance. Teleworking helps them because the wide time zones puts some of their contact hours out of the regular office hours.

*I can't be in Vancouver and I can't be in Montreal because we have territory assigned*

*but we are working with the same customer so I would call my counterpart in B.C., in Montreal, all over the country. We exchange information and say, this is what we are doing in Toronto, what are you doing in Vancouver?*

Interacting with clients. They have been the dedicated representatives to their clients for years. The linking of social contacts is essential for keeping customers and doing the work. The clients must have basic trust in the sales person. They gain this trust over time, having had dealings with the same person before. Or, they may hear about the representative from others in their company that installed the same system. Golfing, boat launch parties, annual Christmas cocktail parties, and other occasions dot their calendars. Seeing the sales worker in familiar, congenial events establishes a common framework and further increases trust.

To configure the system for their large clients, sales people need to develop and draw on a range of contacts of a technical nature. Since the companies they sell to are large enough to have many specialized needs, the sales person's formal work group extends to a host of others that are brought from other departments and sometimes from other firms, depending upon technical requirement. They also activate informal networks of people for information and tips. They cross lines of reporting to discuss complex questions with sales people on their same levels, drawing on their contact's specific experience. These contacts are other Blue Company representatives to the corporations in other provinces and those of allied companies, which become part of the sales network. They also contact a wider range of co-workers outside their reporting group for specific information. Their informal networks that are competent to answer questions may be anywhere in the region or even the country. The members of this far-flung informal consulting network do not all know each other personally.

Often even the sales person has never met all of her work contacts. *I just talk to her on the phone, we've never met,* said one mid-level sales woman.

The client's clients. The high-end salesperson must network within the client's network. The client network lies outside the formal line of command of the Blue Company, and is an additional social context for the sales person. They may broker or organize the client's clients. To network with the client's network, corporate sales people enter the client's territory, further reducing the significance of centralized location. They may even be assigned a temporary office in the client's office, and network there.

The corporate sales person knits together the networks in two ways. First, the sales person must present a package of products to the client by nurturing a loose informal network comprised of distant representatives of different departments within Blue and even different companies outside.

*There's a number of ways we would meet with the business units. Because I've been on the Chemical Org. account for a long time most of them know who I am and would call me directly. Often I go with my contact out of head office to meet with them as her source of expertise. Sometimes, the head office people bring me in when the applications is starting to develop and they get a little over their heads or need us for whatever.*

*At Chemical Org., it's middle or lower management. Chemical Org. is a really flat organization so they don't have multiple layers of people to deal with but I deal with everyone from director down. Typically the V.P. usually doesn't know that much about telecommunications. They're very, how do you call it, self managed and very empowered. You know, the lower management people have enormous multimillion dollar budgets that they are*

*responsible for. With Hardware Org., I deal with everyone from the president to the switchboard operator.*

Second, the sales person nurtures the network of corporate clients. In this way the corporate salesperson is a broker between two networks.

*At the higher levels and the senior executive levels we need to talk about business issues and like with Chemical Org. we just had a meeting with one of their business units to talk about the marketplace they're in and the problems they're having selling... and problems that consumers are having. Then we would come away from that and probably develop a solution to help them. So I guess part of some of the sales training we have is to understand our customer's customer. So we help our customer deliver to their customer and so with medical products division of the business unit that we met with we were able to come back to them with a really interesting solution that they're really excited about. So that's from the higher up relationship developing from just understanding what their business does and how we can help that business. That's a whole brand new sales outreach, an idea that we opened up*

Sales people to medium clients also need a number of inputs, but not so wide ranging. A saleswoman with 20 company accounts explained, *So I act as the liaison between the specialists that we have at Blue and my customer because we are geared to be generalists and understand all of the products and portfolio from Blue and then we bring in people [as they are needed]*

Another, on the job for six years, explained that a crucial part of her job was networking her client s clients to organize their telecommunications systems to become more

homogeneous, like a large corporation s. *A lot of social coordination. It's like I always say We're Julie, the cruise director ! I think we do about 15 social events a year. So it's getting the appropriate people and then all the coordination with getting that done.* The client s request to provide internet service precipitated one event. The client was an umbrella organization of other associations with their own members. *They had actually called a couple of weeks ago because they wanted to get a costing to add some more lines on their digital network that they have. I asked them what they needed it for and they said it had to do with the internet. So that s where the conversation started off. First I found out that the general manager, and he s the biggest person there, he was looking at X internet service provider and they were looking at getting internet access for all the members of Sports and Rec. which is about 250 people. So, and what Sports and Rec. is they re actually a corporate administrative kind of service for people such as the Hockey Association, the Soccer Association, there s 40 associations And a bunch of these associations have gone on independently and put up their own web sites. So what they want to do is amalgamate everything together, have everybody have internet access and email internally, and also to have some web development done so that it comes off as one web site. So you would have Sports and Recreation as a home page and then you could go off to the various associations.*

*[T]here's some little infrastructures built in by each association. Some don't have any and some have some. But kind of have to take everybody's and kind of make it similar, the look and feel, so it looks like it's coming from one association I wanted to invite all the directors of each of the associations downtown to Blue s communications centre and it's kind of, you walk through this tour and they show you applications for ISDN and wireless technology and*

*cellular and all kinds of things . So what I wanted to do was I wanted to host a day and just have all the directors of the associations come, do a tour, and then we would provide them a luncheon in the dining room that we have and have guest speakers speak about applications that I thought would be specific to them. ...And that's, I mean it's just a huge circle cause then you have all these associations going out independently and then they all decide oh it's better if we all go together, it's more cost effective, and then you go through the, it's a full circle, go through it again. So that's what the meeting was about. It was perfect.*

This extended example reveals the wheeling and dealing of the middle level sales person as she mobilized her networks. Fishnet workers using the new teleworking flexibility to improve social relations. Blue Company supervisors encouraged corporate sales people like her to use their social networks to build trust and good customer relations, to acquire knowledge, get information of projects and look for new opportunities, and for support during sales projects. More than selling a given product, fishnet sales people work on the relationships connecting people and products. This eased work-related exchanges between loosely organized colleagues.

Fishnet sales workers corporate accounts were clearly delineated, they were dedicated to a few accounts, and spent most of their time developing relationships with clients. Consequently, they did not compete with each other for leads. They cooperated by offering advice to colleagues. Said one, *I was reading in the paper that the X bank has started a new on-line service. That s not my bank, but it s John s, he s the prime for that bank, so I called him right away, and just left a voice message, in case he hadn t read the business section this morning.* (corporate market saleswoman aged in her 40s.)

Those in the work fishnet hold the same expectations as the company. They were historically the best-paid sales people and were well socialized into company culture. Their supervisors gave them a lot of leeway. Yet, sales people and their supervisors held different expectations about frequency of contact. Freed from office fetters, fishnet sales personnel felt coming back there just to be seen was not necessary. Supervisors had some complaints. The supervisor pointed out to the salesperson that there was a fine line between over identification with the customer and serving the customer. The supervisor recognized that the employee may take the part of the customer, whose company is in many cases as large as the Blue Company but did not encourage this.

Finally, while salespeople wanted to be recognized for their output, supervisors realized Blue Company encouraged the sales rep. to be there and to do good deeds like volunteering for high visibility internal company projects. Blue Company executives practiced management by walking around on late Friday afternoons, noting the presence of employees. It is often stated that telework reduces the visibility of the employees and diminishes their chances at promotion. This most occurred for the sales fishnet-workers who worked at a distance anyway. Although they have the greatest identification with the company and represent it to top level clients, and can be apart from the company the longest of any of the sales people, even here there are limits.

Since these fishnet employees mainly conducted their exchanges outside the office, home-based telework did not hamper them. For them, the flexibility that telework gave was empowering, for they could turn their attention to creating more relationships. They could pursue these relations unhampered by the confines of the office hours and locations. They

could organize their time in concert with the demands of the customer.

## CONCLUSION: STILL IN THE OFFICE FISHBOWL!

### MOBILIZING KNOWLEDGE AND COORDINATING AT A DISTANCE

Knowledge-based organizations coordinate information to get work done. The work of the sales force, like others in the knowledge based service sector, emerges from communities of practice, sharing knowledge and coordinating expertise..

Few employees in the information society can supply all the needed information to develop their products alone. Cross communication helps overcome the limitations of specialists (Brown & Duguid, 1998). The projects of firms without networks that cross different knowledge bases often fail (Garud & Rappa, 1994). For telework to be effective, organizations need to analyze the workers need for interaction and localization to develop communities of practice (Barley, 1996). These two communities of sales workers draw on diverse information bases, turn to manuals and coordinate other specialists to sell different products in the information service sector. By exchanging the knowledge they need in specific ways to create their distinct products, fishbowl and fishnet sales teams developed diverse work structures (Brown and Duguid, 1998).

Fishbowl employees work under time pressures, responding to changes in product specifications and customer needs. Expected to do their work themselves, fishbowl workers mainly turned to specialized members of their team. Clustered in an office, they developed a community of practice by sharing knowledge. Their communities of practice solved problems that

lurked beneath organizational routine. They coordinate this information both through formal standard operating procedures and informal relations, and speedily mobilized partners and support. They had to be available to each other to do so.

Formally organized work teams had met these needs of the small business sales persons, who were not encouraged to go afield to get more personal resources. All developed informal ties to break through bureaucracy, but even these were in the fishbowl. Proximity helped them get the work done. Remote work curtailed sociability, impeding getting help. Contacting peers was harder. The significance of the office as the heart of bounded relationships revealed the more limited nature of communications for this group. They did not so much use the extra time and space flexibility from telework to improve their work contacts. They used it to make up for the difficulties in contacting the office network. Most complained that it was harder to work remotely than in the office fishbowl.

In contrast, the fishnet sales community developed long term projects to fit their corporate customers needs. They drew on bodies of knowledge widely distributed among communities of practice that were located in diverse organizations outside their office. Despite intermittent contacts with colleagues, trust got them the needed information. Developing contacts with big customers, they communicated across a wide social space of external as well as internal contacts. The office fishnet draw on functionally specialized units and this was legitimized as the networked organization by telework (Cascio, 1999 ).

Teleworking disadvantaged some of those in the telecommunications sales force, but not others. The fishbowl employees chasing the less prized small business market segment found communication harder. Where time pressure creates need for immediate coordination of func-

tional specialists and quick responses, telework disrupts work processes within organizational groups. Teleworking did not liberate the bounded sales force from the fishbowl.

What can we learn from the fishnet workers for a future telework scenario? Writers continue to detail the many structural and interactional barriers to teleworking (Bailey & Kurland, 1999), and the difficulty of organizing knowledge (Brown & Duguid, 1998), telework can be efficient under some circumstances. Telework is not the quick answer to cut road costs. We wonder if telework is even most suitable for the free floating body of knowledge contract labor anticipated by Transaction cost theory. Applauding modern technology for improving communication efficiency. some predict that all organizations will dissolve into independent employees, who contract themselves to organizations for short periods (Malone, Yates, & Benjamin, 1987). Telework is often promoted because it may allow firms to take on distant specialists for short periods of time. We find teleworking most compelling when, as in the fishnet, the knowledge that employees need is distributed, and external contacts are crucial, whether full or part time. Such a networked sales community can comfortably travel the information highway. However, they may require a long time to build the necessary network and to develop the knowledge they need to do the job and connect to their colleagues. All the successful teleworkers in our study had been with the company for years. The virtual organization take those that are already widely connected on the future road.

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