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# IMPACT OF INTRANETS ON EMPLOYEE PERCEPTION AND BEHAVIOR: A CASE STUDY IN A UK BANK

*Web-based Information Systems and Applications*

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## Abstract

*This paper deals with the question of how intranets impact on employee perception and behavior. The study uses a five year longitudinal study following the evolution of an intranet in a UK bank to analyze how it changed the relationships between employees and between managers and employees. The discussion integrates two different research domains, the intranet literature and the organizational trust literature. Qualitative data is presented to show the impact of intranets on communication, sharing of information, collaboration, organizational bonding, feeling of empowerment, power distance and sense of closeness. The discussion uses three metaphors to convey the key findings: The Plumbing System, the Iconic Building and the Soap Opera. The main contribution of this paper is in using constructs from the organizational trust literature to better understand how intranets impact on employee perception and behavior.*

**Keywords:** Intranets, organizational trust

## Introduction

The impact of information technologies (IT) in business is well researched, especially how IT reduces transaction costs and shapes industries (Brynjolfsson et al. 1994; Malone et al. 1987). However, the impacts of information technology inside the organizations, such as their effect on employee perceptions and behavior, are topics less well researched.

Galbraith conceptualizes organizations as information processing systems, and he sees IT as way of increasing their information processing capabilities (Galbraith 1973). Intranet systems are Web-based technologies that have the potential of increasing the quantity, quality and speed of internal communication in organizations. Intranets may also support collaboration and connectivity between employees. From this perspective intranets enhance information processing capabilities and business effectiveness (Premkumar et al. 2005). Curry et al. (2000: p. 263) argue that intranets increase effectiveness because they *"improve the ability to deliver the right information to the right people at the right time"*.

However, the impact of intranets on organizations goes much beyond business effectiveness, and into the deeper levels of the organizational culture and social fabric. This is because intranets are context dependent and interplay with the culture of the organization of which they are part. Newell et al. (2000a) highlight three dimensions of intranet systems: the *infrastructure*, the hardware and software to publish information and make it accessible to all employees; the *inforstructure*, the formal rules governing exchanges and sense making between network actors; and

the *infoculture*, employee beliefs and values which are often taken for granted. For some researchers (Lamb 1999; Lamb et al. 2003) intranets are especially social in their nature:

> *"Intranets are inherently about people and organizational cultures. A successful intranet contains three critical elements: good content, good technology, and a positive culture – miss one of these and an intranet will surely fail"* (Fichter 1999: p. 74).

Every intranet is therefore unique because each one is the result of a specific interplay between technology and the behavior of people which is only found in the realms of that specific organizational context (Newell et al. 2000a).

The development of intranets is ambivalent, untidy and often unpredictable (Ciborra et al. 1994b). Improvisation is perhaps a better way to describe this process because it reflects more the result of ongoing interactions and negotiations among organizational stakeholders than a planned activity. Technology, institutional context and individual cognitive frames together shape how actors negotiate their interests throughout the development process (Ciborra et al. 1994b; Orlikowski 1992).

Intranet developers do not start with a clear view as to what the system should or should not do (Bansler et al. 2000). New features are usually small tasks rather than part of a "grand plan" (Ciborra et al. 1998). This type of ad-hoc development, constantly adapting to organizational events, contrasts with traditional structured approaches to IS development. This effect has been referred to as *drifting* (Ciborra 2000; Ciborra et al. 1994a) or "interpretive flexibility" (Bjiker et al. 1987; Orlikowski 1992). Orlikowski et al.. (1995: p.424) stress the importance of allowing this constant tension, drifting and duality between the social context and the technology in order to reach equilibrium. Intranets *drift* and constantly interplay with their organizational context to become stable (Clarke et al. 2005).

This interplay is also illustrated by Ruppel et al. who argue that when intranets are introduced, the organizational culture has to change, otherwise

> *"The existing culture will find a way to preserve old forms of functioning such as face-to-face meetings or hard-copy documents, despite electronic alternatives. Because the old forms are part of the employee's ingrained habits and are familiar and comforting to organizational members"* (Ruppel et al. 2001: p. 39)

However implementing intranets does not always lead to change; instead, it might actually reinforce pre-existing cultural values. Newell et al. (2001) show how, despite the efforts to encourage knowledge sharing in a global scale, conflicting reward structures encourage localized knowledge-hoarding rather than sharing. They argue that

> *"The interplay between the innovation process and the pre-existing organizational structures and routines may shape the use of the technology and lead to the rather different outcomes to those intended"* (Newell et al. 2001: p. 110)

This paper examines the impact of intranets on organizations and more specifically the impact on employee perception and behavior. The paper is structured as follows. The next section reviews the literature on intranets examining the impact of intranets on organizations. It reveals that intranets impact on internal communication, sharing of information and collaboration and proposes another body of literature to help study this phenomenon. The second part of the paper presents the organizational trust literature and shows that this literature shares commonalities with the intranet literature. The next section proposes four themes developed from combining the intranet literature with the organizational literature to use in data collection and analysis. The fourth section of the paper describes the methodology followed in this study. The fifth section presents the findings and analyses data according to the themes derived from the literature review. The sixth section discusses the data proposing three key metaphors as a way of expressing the main learning from this study. The last section concludes and describes key contributions and implications of this study.

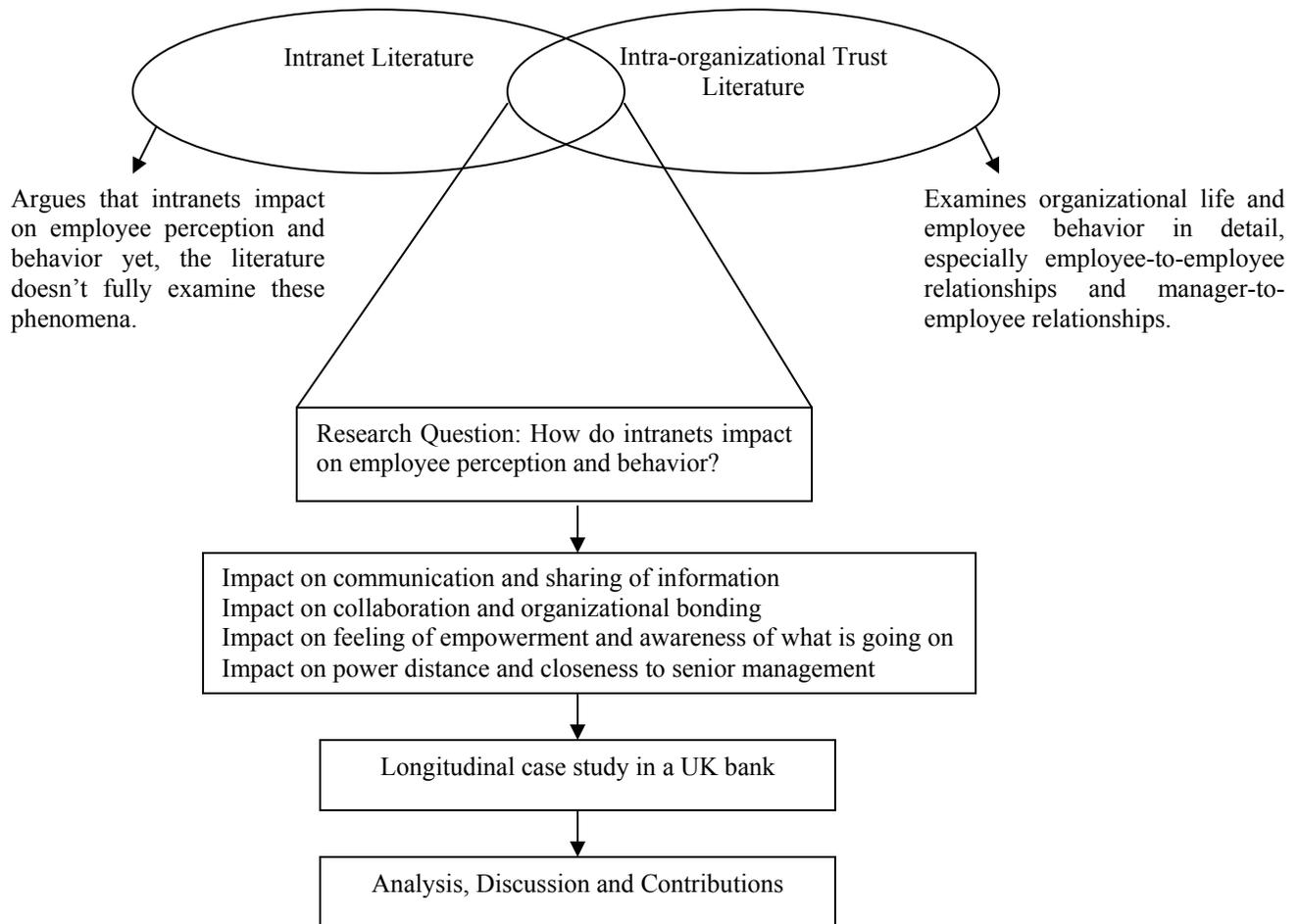The logic of this paper is represented in figure 1 below.

**Figure 1. Logic of the Argument in this Paper**

## Intranet Literature

Intranets are often adopted for specific objectives such as reducing printing costs (Denton 2003b) and improving business effectiveness through better communication, collaboration and sharing of information. Managers often portray intranets as "business tools", using financial measures such as direct cost savings and increase in revenues to justify investment in these technologies. However, the conceptualization of intranets as business tools and the focus on tangible benefits is myopic and problematic. It is myopic because intranets have a broader impact on organizations than just on business processes, for example, they change perceptions and behavior. It is problematic because if employees perceive the intranet as "just work", they tend to be less interested and engaged with the system (Curry et al. 2000).

The effects of intranets on organizations become more visible over time, especially the intangible effects on employee perception and behavior. For example, Denton (2003a) argues that employees perceive themselves as part of the organization through what they read on the intranet. Employees also develop a greater sense of belonging, of organizational commitment and an increased awareness of what is going on in the organization. These intangible effects have been compared to the kind of benefits accrued from "air conditioning", which improves the wellbeing of all employees but can only be indirectly related to increased sales or cost reductions.

In the intranet literature indirect benefits, for example, relate to how improved internal communication encourages more loyal and committed staff because employees feel that they are being kept informed of important developments. Results show that an effective intranet significantly enhances information dissemination (Murgolo-Poore et al. 2003). Duane and Finnegan (2003) study how Hewlett Packard's (HP) new intranet heightened employee's perception of empowerment, improving satisfaction and productivity. Another study of HP's intranet (McGovern 2002) illustrates how intranets may be used to manage crisis and gather organizational support for initiatives such as fighting large scale staff redundancies. Employees used the intranet to support a voluntary payroll reduction when HP was experiencing a large staff redundancy program. The study reports that over 90% of HP's staff volunteered for a salary reduction through the intranet. The intranet allowed staff to check how many others had already volunteered and this generated a snowball effect motivating more staff to join in. Bansler et al.(2000: p. 10) show how senior management used the intranet for planned organizational change and to promote a culture of transparency and openness.

> *Management believed that the intranet would support the new philosophy by breaking down existing information fortresses and promoting openness and sharing of information and ideas*

Intranets are also used by top management during mergers and acquisitions. Intranets reach wide audiences rapidly and reliably, enabling consistency and integrity of communication. Cowley (2001) describes how the intranet was used during the merger between Norwich Union Life and Honeywell International, while Heal and Karlenzig (2001) describe the use of the intranet during the merger between Chevron and Texaco in the US.

The impacts above are hard to quantify in financial terms (McGovern 2002). Hence, Ruppel and Harrington (2001) argue that a hard approach to measuring the *return on investment* of intranet systems is counterproductive. Table 1 lists the various types of impacts of intranets to organizations found in the intranet literature:

| Table 1. Summary of Impacts of Intranets to Organizations | |
|---|---|
| Improved communication, collaboration, teamwork | (Curry et al. 2000; Leow et al. 2000; Ward 2002; Wright 2001) |
| Information, knowledge  sharing | (Curry et al. 2000; Lai 2001; Wright 2001) |
| More accurate information Increased consistency of information | (Lai 2001; Wright 2001; Ward 2002) |
| Better decision making | (Ward 2002) |
| Empowerment of employees | (Lai 2001) |
| Learning, training, career development | (Curry et al. 2000; Duane et al. 2003; Lai 2001) |
| Improved efficiency and productivity | (Curry et al. 2000; Lai 2001; Ward 2002; Wright 2001) |
| Better organizational bonding | (Lai 2001) |
| Culture of transparency | (Murgolo-Poore et al. 2002) |
| Help with mergers and times of crisis | (Bansler et al. 2000) |

The intranet literature identifies and acknowledges the above impacts but does not examine these phenomena in detail. This is perhaps because the intranet literature is not conceptually equipped to deal with such human and social phenomena. In order to explore further these social and organizational issues, we propose to use the conceptual understanding from the organizational trust literature which, by contrast, does have tools and concepts appropriate for such study.

## Intra-organizational Trust

From the large body of organizational trust literature, this study selects the literature for one domain only, the intra-organizational interpersonal trust body of literature, and leaves aside other domains of the trust literature, such as inter-organizational trust and trust in the system.  The focus of interest of this paper justifies this course of action.

Interest in intra-organizational trust has been growing steadily in the last 10 years. Kramer (1999: p. 569) argues that *"trust has a number of important benefits for organizations and their members"*. This is because organizational structures have become flatter and structures resemble more networks of collaborative work (Sheppard et al. 1996). Other factors raising the importance of studying trust in organizations include: the loosening of hierarchical obligations and ability to sanction deviant behavior (Kramer 1996); the introduction of collaborative technologies in

the workplace such as intranets; and the changing nature of work towards being increasingly centered around intellectual labor. This type of work is more difficult for managers to monitor and requires the willingness of employees to engage actively with the work (Tyler 2003). This increasingly decentralized *modus operandi* and the shift towards intellectual work relies more on trust for effective functioning than did the traditional hierarchical structures (Creed et al. 1996). Trust is also vital in organizations because it is a *"social commodity"* (Tyler et al. 1996: p. 345) and an important lubricant of social interactions, facilitating coordinated action and holding together teams and groups.

## *Inter-personal Trust*

The study of trust between people, inter-personal trust, implies the existence of a trustor and a trustee who interact within a social system (the culture of their organization) to meet a certain objective; the trustor is vulnerable to the actions of the trustee and cannot control the trustee's behavior. The role of context in which the relationship develops is highlighted because, as Hardin (2002) argued, trust is a three-part relation defined not only by the characteristics of the trustor and trustee, but also by the domain or context in which their relationship is embedded. This focus on the context and the cognitive abilities of the actors to interpret that context is further explored by the neo-institutionalist views of organizational trust (Child et al. 2003; Lane et al. 1996; Zucker 1986). This body of research sees trust relationships embedded in institutionalized behavior and as part of the "formative context" of that organization (Ciborra et al. 1994b). Formative context refers to the norms, values and beliefs that constitute the specific culture of the organization. This culture influences both the way individuals interact and collaborate and how trust is formed to govern those relationships. An example of how context plays a critical role in establishing interpersonal trust is in geographically dispersed group work where member interaction is mediated through technology (Zolin et al. 2004a; Zolin et al. 2004b).

Intra-organizational interpersonal trust manifests itself in two types of relationships: the *hierarchical,* employee-employee and manager-employee; and the *networked,* collaborative work across functions and geographically dispersed areas (Kramer et al. 2004). Trust shapes hierarchical relationships (Atkinson 2004) because it underpins information sharing and incentivizes employees to make necessary additional efforts beyond formal agreements. Trust is also important for managers when coordinating activities, delegating jobs and sharing information with their employees. Perhaps more importantly, trust is considered critical because it dictates the employee's *"willingness to defer voluntarily to the decision of authorities"* (Tyler et al. 1996: p. 333). Network trust refers to group or collective work. Unlike hierarchical relationships which are often face-to-face, network relationships often require collaborative work across different geographic locations and are mediated by technology.

## *Outcomes of Trust in Organizations*

In the literature there is general agreement that greater cooperation, sharing of information and other trusting behavior, leads to improved organizational performance (Dirks et al. 2001). One of the most cited outcomes of manager-employee trust is Organizational Citizenship Behavior (OCB). OCB refers to employee willingness to work beyond formal rules for the benefit of the group and without formal recognition for their effort (Dirks et al. 2004). Organ et al.(2006: p. 3) define OCB as:

> *Individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and in the aggregate promotes the efficient and effective functioning of the organization*

Dirks and Skarlicki (2004) argue that manager-employee trust is required for employees to be willing to undertake actions that fall outside their job description or formal roles. This is important because organizations set rules and directives but expect that employees perform tasks outside these formal arrangements. Another innovative study by Dirks and Ferrin (2001) focuses on the impact of trust on employee perceptions, attitudes and behavior. Reviewing current literature, they itemize 63 different outcomes of organizational trust (pp. 553 and 554). They group these 63 outcomes in the following categories: 1) openness in communication; 2) sharing information; 3) satisfaction; 4) commitment to the organization; 5) perceived accuracy of information; 6) acceptance of decisions. Rich (1997) provides an example of the impact of trust on employee's perceptions and its correlation with employee satisfaction. This is because managers are responsible for many tasks that have a major effect on an employee's job satisfaction, such as performance evaluations, guidance on job responsibilities, and training. Trust will also impact on the perception of other employees. It heightens the perception of accuracy of information, the willingness to accept decisions of superiors, the organizational climate and risk perception (Dirks et al. 2001). Additionally, Dirks and

Ferrin discuss the impact of trust on communication and information sharing, reduction in conflicts, negotiation behavior, better individual and group performance. Connell et al.(2003) argue that staff turnover intent and staff commitment were the most significant outcomes of trust in manager-employee relationships.

In network relationships, studies have concluded that trust between employees is highly predicative of perceived organizational support (POS) and affective commitment to the organization (Ferres et al. 2004). Ferres and Connell also show that employee turnover is strongly related to co-worker trust. Lee (2004) studies 490 shop floor workers in a high-tech multinational joint venture. Her results show that a certain type of trust, namely competence trust, together with the extent of shop floor workers' identification with their organization play a strong role with regard to organizational success in an environment where global competition is particularly strong. More specifically, she also finds that organizational trust leads to product improvement and a shared sense of belonging when the worker identifies strongly with the organization. Costa (2003) argues that work team trust is related to team members' attitudes towards the organization. She finds that trust between team members is positively associated with attitudinal commitment and negatively with continuance commitment (staff turnover). Trust is also positively related to perceived task performance and to team satisfaction. Table 2 lists the impacts of trust on organizations discussed above as found in the organizational trust literature.

| Table 2. Outcomes of Organizational Trust in the Literature | |
|---|---|
| Openness of communication<br>Organizational Citizenship Behavior (OCB)<br>Leader-member exchange | (Dirks et al. 2004; Dirks and Skarlicki 2004; Dirks and Ferrin 2001) |
| Organizational commitment, loyalty<br>Turnover intention exit/continuance<br>Conflict (negatively related) | (Connell 2003; Ferres et al. 2004; Costa 2003) |
| Sharing information<br>Perceived accuracy of information<br>Decision commitment<br>Acceptance of decisions/goal<br>Perception of procedural justice<br>Voice<br>Perceived Task Performance (PTP) | (Dirks and Ferrin 2001) |
| Satisfaction, satisfaction with leaders | (Rich 1997; Dirks and Ferrin 2001) |
| Perceived Organizational Support | (Ferres et al. 2004) |

The list of outcomes of trust in organizations strongly resembles the constructs found in the intranet literature. For example, constructs such as "sharing of information", "openness of communication" among others are directly reflected in the intranet literature. The next section establishes this connection more clearly.

## Linking Intranets and Organizational Trust

Analyzing the themes emerging from both the intranet and organizational trust literatures reveals a strong resemblance between the two. There seems to be a close relationship between the kind of impacts of intranets on organizations and the effects derived from organizational trust. This connection supports the adoption of concepts from the organizational literature to study the impacts of intranets on employee perception and behavior.

Table 3 illustrates the conceptual proximity of the themes presented in the intranet literature with the themes discussed in the organizational trust literature. The table shows that there is an undeniable intersection of topics. For example, one of the impacts of intranets is "better communication" and one of the outcomes of trust is "openness of communication". Another example is the mirroring of "more accurate information" in the intranet literature with "perceived accuracy of information" in the organizational trust literature.

| Table 3. Link between Intranet Benefits and Organizational Trust Outcomes | |
|---|---|
| **Impact of intranets on organizations** | **Outcome of trust in organizations** |
| Better communication, collaboration, teamwork | Openness communication<br>Organizational Citizenship Behavior (OCB)<br>Leader-member exchange<br>Organizational commitment, loyalty<br>Turnover intention exit/continuance<br>Conflict (negatively related) |
| Information, knowledge sharing | Sharing information |
| More accurate information<br>Increased consistency of information | Perceived accuracy of information<br>Belief about information accuracy |
| Better decision making | Decision commitment |
| Empowerment of employees | Voice |
| Learning, training and career development | Perceived Task Performance (PTP) |
| Improved efficiency and productivity | Individual and unit performance |
| Better organizational bonding | Acceptance of decisions/goal<br>Satisfaction, satisfaction with leaders, |
| Culture of transparency | Perception of procedural justice<br>Negotiation processes (integrative behavior) |
| Help with mergers and times of crisis | Perceived Organizational Support |

This intersection of the two bodies of literature justifies the use of concepts from the organizational trust literature to analyze the impact of intranets on employee perception and behavior. The link between these two domains is not confined to the academic literature and can be comprehended from a more practical perspective. Intranets change employee perception and behavior because they become the primary channel for internal communication and employees use them to develop their understanding of the organization in general and of other issues. Intranets change behaviors, such as collaboration, willingness to share information and willingness to rely on senior managers and to work beyond formal requirements. In order to investigate these phenomena, we fashioned the following research question:

**R.Q.: How do intranets impact employee perception and behavior?**

This study focuses on four key themes emerging from the literature review, which form the constructs that drive the data collection and analysis, in table 4 below. These themes represent the chief points of convergence of the two bodies of literature, intranets and organizational trust, and support the assessment of the impact of intranets on organizations. Eliciting constructs from the two literatures follows naturally from the juxtaposition of the impacts and the outcomes of trust (see Table 3 above). The four constructs selected emerge from a distillation of the mélange of elements discussed. Communication and sharing of information unsurprisingly figure as core constructs in an information systems study, while collaboration and organizational bonding are embodied implicitily in OCB, commitment and loyalty and explicitly in acceptance of decisions and leadership. These two are closely followed by the concepts predicated on power: empowerment and distance. The chosen four constructs together constitute the results of an hermeneutic process that seeks to reduce a larger number of analytic elements to a smaller, more workable ensemble.

The four themes/constructs derived from the literature are:

**1. Impact on communication and sharing of information**

**2. Impact on collaboration and organizational bonding**

**3. Impact on feeling of empowerment and awareness of what is going on**

**4. Impact on power distance and closeness to senior management**

**Table 4. Selected Constructs for Data Collection and Analysis**

These four key themes were used in data collection and for data analysis. Our main conclusions are centered on these key themes. The next section describes the methodology employed in this study.

## Methodology

This study adheres to the interpretive tradition (Lamb 2002; Newell et al. 2001; Newell et al. 2000a; Newell et al. 1999; Newell et al. 2000b), using the single longitudinal in-depth case study methodology strategy as described by Yin (1994). The empirical setting chosen is a bank in the UK: "BANK ABC"[1]. This research strategy is appropriate because, rather than test statistical relationships between variables, we aim to explore and develop understanding. Longitudinal studies assess progress of attitudes, behavior, perceptions at a number of different points during a finite period of time (Vitalari 1985), and are particularly suited to the interpretative tradition since they allow the examination of how history and values influence and bias behavior.

We use hermeneutics and a phenomenological approach for data analysis. Our use of hermeneutics uses qualitative data from various sources for triangulation as discussed by Lee (1991). Kramer (1996) illustrates the benefits of triangulating various types of data from interviews, observations and document analysis in studies that focus on humans and their perceptions of other members of an organization. We take the view of Kramer (1996) who argues that there is a pressing need for more phenomenological trust theories that are based on mental accounts of people studied. These theories are theories that *"individuals carry around inside their heads…as such, naive theories presumably play a central role in their attempts to retrospectively make sense of, and learn from their experiences"* (Kramer 1996: p. 238)

Our initial objective was to investigate the impact of intranets on organizations. To tackle this topic we started by reviewing the intranet literature. This led to the focus on their impact on collaboration, sharing of information and organizational bonding. We discovered that these issues are better understood using the conceptual tools from the organizational trust literature, and accordingly formulated the research question: *"How do intranets impact employee perception and behavior?"*

We established a link between these two bodies of literature and developed key themes for data collection and analysis. Our next step was to select a suitable empirical setting, the intranet of "BANK ABC". The literature and document analysis supported the design of the interviews and focus groups. We then analyzed all data collected and upon initial findings, some interviews were repeated. In the last stage we triangulated all data in successive cycles of data interpretation. Figure 2 illustrates the process of data collection and triangulation of data and the main outputs of each stage in that process. In the *first* stage, we focused on developing a deep understanding of the intranet environment from the management's perspective and on studying the governance and formal policies. For this purpose we interviewed key stakeholders, analyzed meeting notes of key steering committees and copies of intranet publications and other management documentation. In the *second* stage, we focused on the users of the intranet. We analyzed the users' evolving perceptions of the intranet through usability reports, log files of intranet use, interviews and focus groups. By users we mean employees who use the intranet to support their daily activities, such as administrative staff, who the intranet to book rooms and catering, check what is going on, read staff magazine, call centre staff who use the intranet to support customer service with information on interest rates and product specification, branch staff, who use the intranet to check sales performance and get in touch with other areas of the bank, and finally more senior staff in the head office, who use the intranet to communicate with employees. In the *third* stage, qualitative data from interviews and focus groups were triangulated with data from documents using hermeneutic analysis in order to examine the constructs derived from the literature review of the early stages of the research.

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[1] The identity of the company has been disguised to assure confidentiality.
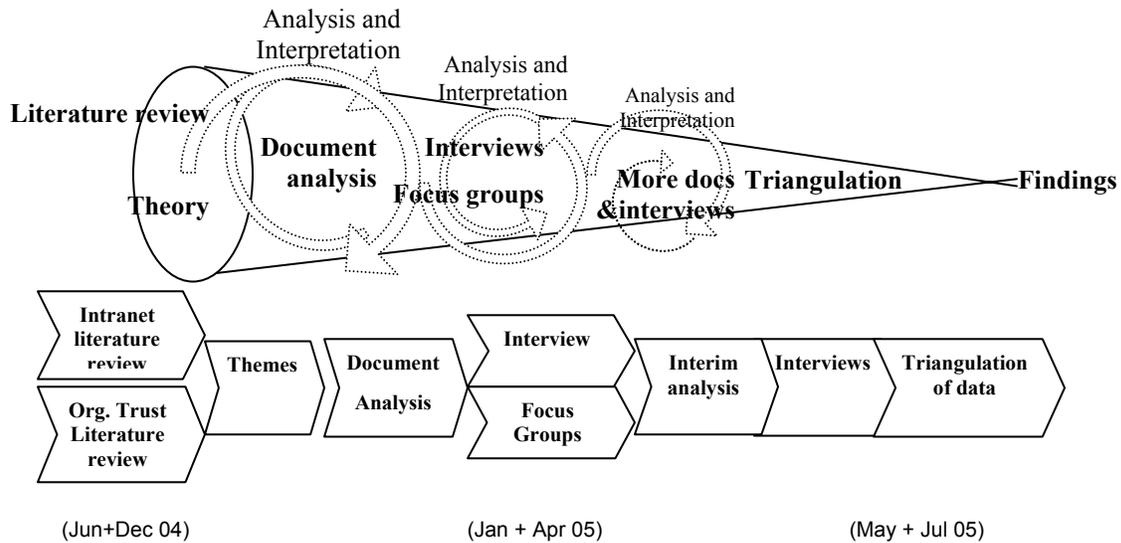
**Figure 2. Method and Hermeneutic Process**

Our data collection strategy emulates the seminal study of Markus (1983) in which she uses organizational documentation and interviews to reconstruct the history and evolution of a financial information system in a large manufacturing firm in the US. She uses various data sources to develop understanding about the feelings of users and other stakeholders during the implementation process of this system, reflecting on possible reasons for their resistance to change. We use the same technique to cover the history of the intranet at BANK ABC from late 1999 to 2005. We collected data first hand over the period from Jun 2004 until September 2005. For the preceding period, we used secondary data and relied on document analysis and interviews to reconstruct the history back to 1999, when the intranet project began. The main objective of data collection and analysis was to gain longitudinal in-depth insight into employee perception of the intranet environment and use and into the impact on employee behavior.

We gathered data from three main sources: 1) document (management documents, policies, intranet backup copies, log files, user feedback reports); 2) interviews and focus groups; and 3) observations. All interviews and focus groups were recorded and transcribed. We conducted a total of 20 interviews with members of the Group Intranet Team (Intranet Manager, Intranet Coordinators and IT Manager) and several publishers (Marketing, HR, Legal and Compliance, Retail Network, Charities, Social news). We attended various publisher meetings and observed users at work with the intranet. We also interviewed employees at different responsibility levels and from different functional areas of the bank. The interviews with the publishers followed a more structured approach in order to assess how policy and management guidelines were executed at the local level by the publishing teams. The interviews with the users were semi-structured and mainly based on the themes from the literature review and theory model. We ran two focus groups with 8 users each, both conducted in February 2005. The first focus group, with users from call centers, was important because they belonged to a group of customer-facing employees who rely on the intranet to provide advice to customers and they represent a large share of the total number of the bank's employees: 6000 out of the 9500 total number of employees work in front-line customer-facing positions, most in call centers. The second focus group, with employees who had participated in a similar assessment in 2002, and hence allowing comparisons, followed a semi-structured format mainly based on the theoretical constructs selected. All interviews were recorded and transcribed. Transcripts were then analyzed and content categorized according to the 6 main themes derived from the literature review. All categorized content was then analyzed and prioritized. The resultant data is presented in the Analysis section of this paper.

## Case Background

BANK ABC is a financial services provider in the UK, whose products range from cash handling, retail and commercial banking to personal loans. The group has a retail bank arm serving personal customers by phone and on the high street, although the bank aspires to be a bigger player in the direct market. The bank also has business

customers supported by a sales force and contact center.  In structure terms, this means that the bank has a large number of front-line teams who support customers: in person at a branch, in the field, by phone and through correspondence/administration teams.  There are also head office teams who provide support and build products. BANK ABC has 8,500 full time staff of whom approximately 66% are front-line.

Because of the fragmented nature of the organization, one senior manager says that *"we don't actually like each other"*.  Behind the scenes, the various parts of the organization are becoming more cohesive under the new CEO, but this has not always been so. The same senior manager describes the different cultures in the bank

> *"When BANK ABC and my previous bank merged in the mid-1990s, there was an agreement to keep the businesses separate for a number of years —- so the cultures are still quite strong. I can still spot a member of staff from that bank within minutes of meeting".*

The commercial bank is also considered to have its own culture and idiosyncracies. Its staff are mainly focused on business customers and have difficulty in working with *"a bunch of retail amateurs who make such a fuss over a bloody mortgage when they do 'real banking'"*. The structure of the Retail Bank prior to the recent appointment of the present CEO was hierarchical.  Many still consider the bank very bureaucratic, although there are also divergent views. Some consider the bank to be *"run by accountants, project managers and risk managers"* and say it *"has policies and procedures for everything - we even have an Official Christmas Decorations policy.  Policy is power, we map rules, exceptions and then run reports against them."*

Branches were a priority for the bank in the past, and carried considerable weight at Head Office, but with the growth of direct channels and automated decision-making, that power has evaporated. They are now seen as cost centres because the strategy of the bank is to aim at becoming a *"direct bank with high street presence"*. Branch employees think the Head Office staff to be rather superior and ignorant of what goes on at the front line. The view is also held that centre staff could not do their job without the branches, and that they spend all their time writing rules, whereas the front line teams either spend their time *"following or deliberately not following them"*.

The intranet is fairly young. The first version took six weeks to build and launch and was commissioned by a new Chairman in 1999 to mark the launch of a major strategy: Strategy 2000.  He had recently taken control and wanted to mark a step-change in the business, particularly in internal communications. The Chairman was a great believer in the Web and endorsed the Intranet as part of his general push to prioritize the Web and ecommerce. The intranet initiative was led by the Corporate Communication Department and the Intranet Manager reports directly to the Director of Corporate Communications. The organization defines their intranet as "all services delivered through the office desktop browser" and in the future they plan to offer a full self-service solution to all employees through the intranet. Some of the services currently offered include room and travel booking, HR calculators, document warehouse, all HR processes including pay slips, holiday booking, appraisals, among others.

## Analysis

This section presents data according to the four themes derived from the literature review on intranets and intra-organizational trust. More advanced interpretation of the data is in the next section, Metaphors for Discussion.

### *Impact on Communication and Sharing of Information*

The implementation of the intranet has had a great impact on BANK ABC's internal communication. Face to face meetings and team briefings seem to start being slowly replaced by the information on the intranet: *"There is more reliance now not to cascade information through your manager. We read the intranet to keep up to date with what is happening"*. Some see the reduction of face to face meetings as dangerous and problematic: "*That is the danger if it is there, you are push down that route"* and *""Although the Intranet is a brilliant source of information and knowledge, it should not become the sole means of communication and development of staff. Nothing can replace face to face communication and discussion for full understanding of new information"*.  Employees also feel that the language and style of writing for the intranet is different from printed documentation. They say *"with the paper we never find time to read it; but in the intranet it is easier and more interesting, people write differently for the intranet. Shorter paragraphs, snappier sentences headings and things, it catches the eye"*. The use of the intranet now complements other communication channels, so people first check on the intranet and then follow up with a

telephone call with more specific questions: *"Now people that phone you, actually phone for something that is a bit more specific"*.

### Impact on Collaboration and Organizational Bonding

The intranet has also made employees feel closer to senior manager and to other employees because of the intranet. They say *"in a strange way we feel smaller now, because we are closer through the intranet. It sounds strange…but before there were many departments you had not heard about, but now we are together in that way"*. The intranet is seen as a very good link between employees and it enables them to become more aware of others and about what is going on in the organization. However, some people think that the intranet isn't a fair representation of the "real" organization: *"I feel the Intranet is more <Head Office> biased and it would be nice to have some more news from outside <Head Office location>"*. Another example is: *"I feel the intranet does not focus on back offices whose work is an integral part of the business"*.

The intranet has also become the reference point for the "truth" or for what is considered the official view. Employees are asked to always use the intranet in the first instance and only escalate questions to other colleagues if they cannot find the answer there. Information on the intranet is replacing team-briefings and other face-to-face meetings and is published and cascaded down directly from senior management. Users showed concern that the intranet is replacing face-to-face interaction but some recognized that this have positive effects since it enables confidential access to information. Users also perceived the intranet specifically as a medium for communication.

### Impact on Feeling of Empowerment and Awareness of What is Going On

Employees seem to believe that the intranet is the source of the most up to date information in the organization, and it has become the single reference point, as described by one employee: *"You don't get conflicting messages because you refer to the intranet. It passes on the same message to everyone at the same time"*. Another employee said, *"For me, it is like a bible. We direct people to the intranet, they need to check the information there first, I don't have time to go round and repeat everything"*. Employees also feel that the intranet helps to keep them informed of what is going on in the organization. One said, *"I left the company for a year and when came back looked at the intranet and felt updated with the news, gossip…I felt I caught up with the moving of offices, promotions, things in my own department"* . The intranet is therefore changing the way people access information and the value they assign to it.

Employees however do not question the quality of the information on the intranet. For example one employee said, *"We always take it as correct because although we don't think about what goes on the mechanics of the intranet we know that there is red tape. At ABC we are just stringent with the checks to make sure everything is correct. That is our culture, everything is checked and double checked and triple checked"*.  Employees seem to extend to the intranet space their expectations about how things operate from other environments in the organization. This clear link with the context show how the intranet is in constant interplay with the organizational social fabric.

### Impact on Power Distance and Closeness to Senior Management

The CEO of BANK ABC has a Website that he uses to publish a diary of events and his views on company related and more general issues. The page is named with his surname here disguised to "xyz's page". One employee said about the page, *"Xyz's page is quite interesting; you get to know what goes on. It comes across as very human, quite informal. Even the term "xyz's page" is quite informal"*.  The straightforward language and approach has shortened the perception of power distance between employees and senior management. Employees also feel closer to senior managers because they get messages directly from them without being cascaded through the usual hierarchical structure of the organization. For example, *"Now you can get information directly from the Director of that area"*. The intranet is also perceived to foster transparency.

## Metaphors for Discussion and Implications

We have decided to organize the discussion around three distinctive metaphors that we perceived within this study and offer them as organizing principles for this section. Metaphors have the power of encapsulating in a shorthand and readily recognizable fashion a great deal of information about newly encountered experiences by reference to

well-understood and familiar notions and patterns of behavior. The three metaphors consist of *The Plumbing System*, *The Iconic Building* and the *Soap Opera*. Around these three metaphors we can anchor the many points that we want to discuss here.

## The Plumbing System Metaphor

One of the persistent metaphors that can be perceived in the intranet literature is the notion of an intranet as a plumbing system, where what flows instead of water is information. The phrase "flow of information", used endlessly in our field, conjures up an image of a closed system where instead of knowledgeable agents with discretion we have nodes on the system through which information is pumped in and out. Intranets have been implemented with an eye to greater efficiency and effectiveness and their benefits include the ability to speed up the delivery of information to the mortgage advisers and credit checkers that make up some of the front line services. Our respondents cited the benefit of the intranet as a "brilliant source of information". Speed of delivery and the certainty of accuracy point up the advantages. The whole delivery of banking products and services has been sharpened up with this new technology. Intranets have perfectly matched the process-led nature of doing business.

Alongside this however there is a downside. If information "flows", then instead of intelligent agents at each juncture who before making a decision take into account the information that is available and then make an informed decision, we have brainless automatons who simply launch pre-ordained sets of actions once their triggering conditions are satisfied. Indeed we could interpret the reference to the "shorter paragraphs, snappier sentences" as indicative of this "dumbing down" of communications. Of course, in reality there is a distinction to be made about the nature of work that this kind of technology, as it is used and implemented in our study, might be appropriate for. Rather than the more rarefied realms of business strategy and higher management decision making, the use that is being referred to here is much more at the operational, bank teller level. So perhaps the discussion might revolve around how far this implementation of an intranet can support all of the varied communication needs of the business. If face-to-face communication is necessary for the elaboration of business strategies and broad policy directions, it cannot be easily supported by the intranet, far more suited to supplying information to those actors with a restricted scope of operational action.

## The Iconic Building Metaphor

In the past financial institutions often used a representation of the organization's head office buildings as a logo on their written communications and documents. In that more physical, less virtual epoch the prevailing culture required the timeless, foursquare values of the resplendent edifice to symbolize the organization. The head office building stood for the bank — it was the bank. Today many head office buildings have been sold off, and businesses are global anyway. Inside the business, symbolism has changed and the intranet embodies much of the notion of the whole organization. For new employees at any rate, the intranet has almost become the organization itself, seen as the fount of all truth, as "the Bible", much like the oracles of classical times, to be consulted readily when advice and direction is needed. Above all the intranet is seen as objective, dispensing the objective truths that modern banks require. The role of the unifying symbol of trust is a critical one. Perceptions matter. If bank employees do not perceive the trustworthiness of their main source of information, then Corporate Communications has a big job on its hands now that most paper-based infrastructure has been destroyed. Manuals, policies, guidelines, current interest-rates and charges for banking products and services must all be resuscitated and brought back from the dead.

Of course there is a downside associated with this powerful position for the intranet. Placing trust in something or someone often goes hand-in-hand with switching off the antennae of risk. If that person, that system, is to be trusted, then why bother scanning the environment for contra-indications, for signs of impending catastrophe. The greater the reliance placed on the information being communicated by the intranet, the greater the value at risk if some of it is inaccurate. Should there be a mistake in an interest-rate quoted on the intranet, the likelihood is that mortgage advisers will take that rate without question, without consulting a second source, perhaps with disastrous consequences. And here we link with the problems associated with an implementation that focuses on the production-line process-type operational model, where critical thinking and reflection are not facets of employee behavior that are encouraged. The less the critical capacities of thinking are exercised in the average bank employee, the greater will be the risk of loss in the event of a malfunction of the technology.

Trust is valuable because it reinforces the perceptions that allow information to be taken as gospel and hence speeds up organizational processes, but paradoxically there is risk in an overly trusting workforce. Critical independent thinking also counts, especially as one ascends through the organizational hierarchy.

### *Soap Opera Metaphor*

The television soap opera makes stars out of its principals. But more than that, it creates stars with whom every spectator is familiar, almost a family member because they are present every day in the home. Something similar might be said for how the CEO is developing his relationship with employees through the intranet implementation. The technology is being used to shorten the lines of communication between the bank's hierarchy and its rank and file. We have learnt how organizations are becoming flatter as layers of hierarchy are being reduced and middle management numbers decimated. The intranet as implemented in our case study offers the same scenario. If the CEO can talk directly to the workforce then he or she has less need for intermediaries to filter and cascade the messages down. In the opposite direction, the intranet can act as a vehicle and repository for reports that would otherwise have first landed on middle management desks.

Returning to the theme of closeness of the CEO to the humblest bank teller, there is a risk here too. Emphasizing the jaunty, down-to-earthness of the CEO might work well when the CEO has a personality and qualities that merit that description. But emphasizing the incumbent rather than the role, can create problems of succession, if a new incumbent has a less sure common touch than the previous incumbent. The mystique of the leader has disappeared and now personal character is out on the line, given the transparency that has been engendered through the intranet implementation. Moreover, the current CEO's high profile use of the intranet to market his personal touch simply reinforces for some ordinary employees the head office hegemony of the medium. Criticism has been leveled at the way the intranet reflects just the centre of power view of the organization. Indeed, power at the branch level has been ebbing for some time, as we saw earlier. This is a result of the way that decisional power, to grant loans, to open accounts, to give access to special services, has moved up the hierarchy and away from actors on the ground with decisional discretion. Policy is decided centrally, credit checks are performed automatically and the intranet is used to enforce the process-driven rationale.

## Conclusion and Contributions

This study discusses how intranets impact on employee perception and behavior. The intranet literature presents several impacts of intranet to organizations, but does not examine them in depth perhaps because it is not conceptually equipped to deal with social/organizational phenomena. The intra-organizational trust literature resembles the intranet literature in key ways, and by combining the two we were able to present data showing clear changes in employee perception and behavior. As discussed in the Literature Review section of this paper, existing intranet studies find that intranets impact employee perception and behavior. This paper adds to that body of literature by exploring these effects in more detail using concepts from the organizational trust literature.

The study also develops three metaphors as lenses to explain and discuss major changes occurring in the social fabric of the bank studied. These metaphors help to draw out critical implications of this study for future academic work and for practitioners. Information systems research has long been pervaded with notions that hail from engineering and computer science, especially Artificial Intelligence, in the form of deep-seated understandings of what information is and how communication works. Constant use of the phrase "flow of information" reinforces a perspective of information as a fluid that circulates around a closed environment. With its roots in a corporate communications initiative, the intranet has displayed some of these features where the information takes more the form of discrete announcements and less of interactive and emergent properties. To the extent that paper manuals and guidelines have been replaced by the intranet, this perspective has validity. But the price of this hierarchical view of information dissemination has been the heightened perception of the shift in power in Bank ABC. The demise of branch power, a consequence of the move towards direct banking, goes hand-in-hand with the gain in power of the head office. Of course this departure was not part the original goal set for the intranet, which was more about reducing the cost of printed materials, but an unforeseen development, part of the "drift" rather than the "grand plan" referred to by Ciborra (1994).

Increasingly the intranet is being seen as a core element of the bank: all-pervasive, timeless in its constant presence, and authoritative in its compendious knowledge. The iconic building metaphor captures this important semiological

transition away from the bricks to the clicks. And of course the intranet is an addition to the information plumbing infrastructure that underpins the work of the bank, delivering service especially to the front-line customer-facing employees. Paradoxically the intranet has allowed the lines of communication from the topmost reaches to the front-line operatives to be shortened, exposing the character and thoughts of the chief executive to wide internal scrutiny – the soap opera star. Transparency has become the watchword of the bank. As a result of this however, perceptions and behavior are changing. Some employees feel the intranet has brought top management nearer and hence feel closer to the decision making, while others feel that the intranet has sidelined them. Countervailing tendencies in perceptions and behavior are being realized concurrently.

This study has demonstrated that there is no simple answer to the question of how an intranet impacts employee perception and behavior. Instead, we find that a variety of effects emerge over a period of time and that the effects interact on each other. Implementing an intranet permits the shortening of lines of communications and the development of trusted virtual infrastructure. It can support greater transparency, generating a feeling of closeness. However as the intranet embeds itself into the organizational culture, it becomes perceived as a powerful object itself and a measure of power. New organizational models emerge that inevitably shift power from division to division, person to person: who is connected, who controls the information delivered through it, become vital issues. The intranet becomes another part of the organizational battleground. While it may be seen as a useful addition to the "information plumbing system" of the organization, the intranet nevertheless impacts directly on employee perceptions and actions, in occasionally unpredictable ways.

This study has brought the experience of just one implementation to the attentions of researchers, and further research would add to our understanding. In particular, studies into how the perceptions of employees of power distance and organizational bonding are influenced by different publishing models, for example, with greater discretion allowed to functional and divisional groupings as to what information may be published. How important is the voice of the top executive on the intranet in shifting employee perceptions and behavior? Another important issue lies in the context, and whether different organizational contexts from a bank, with different initial organizational cultures, afford different impacts to the ones manifested in this study. Given the growing adoption of intranets, there is a pressing need to add to our understanding of how their assimilation and appropriation will alter the perceptions and behavior of employees and users.

## Acknowledgement

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