31 RESISTANCE OR DEVIANCE? A High-Tech Workplace During the Bursting of the Dot-Com Bubble

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Abstract   Under certain circumstances, a critical orientation to the study of workplace deviance/resistance is necessary to understand ICT-enabled workplace culture and employee behavior. The critical orientation to workplace deviance characterizes acts in opposition to an organization with the potential to do harm as semi-organized, group resistance to organizational authority. The questions that drive this research are, does technology enable deviance? When does an act of social deviance become an act of resistance against domination? The answers depend on the perspective of the labeler. To discuss these, I offer the example of a case study of a small software development company called Ebiz.com. For the first few years of the existence of Ebiz.com, the social control exerted on the employees increased yet there were no observable or discussed acts of employee retaliation. I argue that the social environment of the dot-com bubble allowed several myths to propagate widely and affect human behavior. As the market began to fail, and dot-coms began to close, the employees seemed to recognize their situation and enact deviant behavior, or resist. Most importantly, what I have learned from this work is that ICT work may lead to increased deviant or resistant behaviors and that ICT work may also provide a means to do increased deviant or resistant behavior.

1   INTRODUCTION

Does technology enable deviance? When does an act of social deviance become an act of resistance against domination? The answer depends on the perspective of the labeler. Workplace deviance has been defined for the most part as if there were some objective standard by which to determine what behavior is potentially harmful or

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whether or not it violates organizational norms. Most lay people would claim that there is a moral standard widely accepted by society of which behaviors are right and wrong. However, the judgment of whether some behaviors are norm-violating or whether they are potentially harmful can be very subjective. The determination of what is and is not deviant workplace behavior depends on who is asked to make that assessment.

Much of the wider research on the information and communications technology (ICT) enabled workplace has taken a normative, managerialist, or essentialist (Avgerou 2002) orientation. Using this orientation, employee actions that run contrary to organizational norms and values and may potentially cause harm to the organization are labeled as employee deviance (Bennett and Robinson 2000, 2003; Keen 1981; Marakas and Hornik 1996; Markus 1983). These actions are framed as costing the organization time, resources, and money. The deviant is portrayed as receiving legitimate social stigma, punishment, and banishment from the organizational home. In almost all cases, the deviant is portrayed as a low-level, individual employee with unfounded gripes against the organization or an unstable personality. This normative orientation results in support of the status quo and sustenance of the control of organizational elite.

Perhaps a more useful way to look at the these antiorganizational acts in the workplace, especially in the ICT-enabled workplace, is to adopt a critical orientation in which these acts are characterized as semi-organized, group resistance to organizational authority. The rationality and benevolence of organizational leadership is questioned in the following ways: Behavior is rational, efficient, and effective for whom? Whose goals are being pursued? What interests are being served? Who benefits?

Essential to understanding the critical orientation toward acts contrary to organizational norms and values with the potential to cause harm to the organization are the following six elements.

1. They are rarely committed by a solitary individual. Groups of employees who occupy similar organizational roles/space plan and enact them together.
2. They are infused with emotional qualities, such as anger, frustration, jealousy, and resentment, but are rarely directed at another single employee holding the same or lower organizational status.
3. They are rarely committed by mentally unstable employees.
4. They are committed by employees who occupy all levels of an organization, not only the lowest-level, shop-floor, blue-collar employees.
5. They are sporadic in nature. These acts are not committed continuously throughout the entire life cycle of an organization. The acts are tied to particular organizational and managerial policies, changes, and acts.
6. They are committed in information and communication technology rich environments in which the presence and use of the technology may allow for these acts to take different forms, reach wider audiences, and have more intense effects.

Several examples of acts contrary to organizational norms and values with the potential to cause harm to the organization include a system administrator distributes his root password outside the organization; a software developer installs a back door to her program so that she can access it at a later time without detection and permission; a Web-designer intentionally writes highly esoteric and complicated code so that it cannot be shared with other employees; a programmer writes a worm that deletes company files

and destroys company back-ups; a contractor inserts a software worm into each company's information system while he works for that company; a Web master engages in credit card fraud by obtaining and selling credit information she obtained from her employment; a network manager creates and distributes electronic counterfeit coupons and sweepstakes giveaways from her employer to her friends. All of these behaviors are intentional acts, initiated by organizational members that violate norms of the organization and have the potential to harm the organization.

My purposes in this paper are to clearly explain and support the argument for applying a critical orientation to the study of workplace deviance/resistance. In order to accomplish this, I present some of the relevant arguments in the literature on workplace deviance, ICT-enabled workplaces, and critical theory. I then ground these using a case study of a small software development company.

2 WORKPLACE CHANGE

"With few exceptions, research has proposed that changes in communication technologies are tightly linked with changes in organizations" (Fulk and DeSanctis 1995). Since the early 1990s, "we are now seeing a new type of postindustrial, post bureaucratic, post-Fordist workplace"(Burris and Daday 2001). While most authors agree that a change has taken place, they are divided as to the nature of the change.

Studies of ICTs in workplace organizations can be seen to have taken three general orientations: normative, analytical, and critical (Sawyer and Tapia 2003; Sawyer et al. 2004). The normative orientation refers to research whose aim is to recommend alternatives for professionals who design, implement, use, or make policy about ICTs. An analytical orientation refers to studies that develop theories about ICTs in institutional and cultural contexts, or to empirical studies that are organized to contribute to such theorizing. The critical orientation refers to examining ICTs from perspectives that do not automatically and uncritically accept the goals and beliefs of the groups that commission, design, or implement specific ICTs (e.g., Wastell 2002).

On the normative side, this new workplace has been characterized by social scientists as having a decentralized locus of control, a reduction of hierarchy, an upskilling of work, a centrality of educated knowledge workers, and more flexible democratic forms of work environment (Adler 1992; Block 1990; Clegg 1990; Hirshhorn, 1984; Piore and Sabel 1984; Smith 1990, 1997, 1998). Hammer and Champy (1993, p. 4) state that "the real power of technology is not what can make the old processes work better, but that it enables organizations to break old rules and create new ways of working—that is, to reengineer."

A scholar of the normative or managerialist orientation would look at workplace deviance and discuss it in terms of the harm it causes to the work organization, usually in terms of costs. For example, annual cost estimates range from $4.2 billion for violence (Bensimon 1997), to $200 billion for theft (Buss 1993), to $7.1 billion for corporate security against computer/information attacks, and in less direct costs such as increased insurance premiums (Allen et al. 1996; Bensimon 1997; Slora et al. 1991).

On the critical side, scholars hold the belief that although workplaces have changed, they have remained highly centralized and have adopted new forms of managerial control, including new forms of peer-driven and self-driven control, along with a polarized workplace involving expert and nonexpert sectors bringing up strong issues

for gender and race (Burris 1998; Burris and Daday 2001; Hodson 1995, 1996, 1997, 1999; Prechel 1994; Vallas 1999; Vallas and Beck 1996).

If the relationship between ICT and organizational culture is seen as mediated by an exercise of power—a system of authority and domination that asserts the primacy of one understanding of the physical world and one prescription for social organization over others—then the choice of technology represents an opportunity to affect not only the performance at work but also the status, influence, and self-concept of those promoting change. New technology may be far less attractive for what it does than for what it says symbolically about its creators, and users.

3   SOCIAL DEVAINCE AND THE WORKPLACE

Deviance is defined as

Behavior and characteristics that some people in society find offensive or reprehensible and that generates—or would generate if discovered— in those people disapproval, punishment of condemnation of, or hostility toward the actor or possessor (Goode 1997, p. 37).

Much of the work that has focused on deviants selected "nuts, sluts, and perverts" (Liazos 1994) as the subjects of study for several reasons: they were easily identifiable as deviants, they were located at the bottom of the socio-economic ladder, access to them was easily obtained, and they provided catchy titles and sensational articles that caught the public eye. There was no clear study of workplace deviance since all deviance could happen at any place at any time as long as the definition of the deviance and the deviant fit the parameters above.

During the past century, psychologists studied workplace deviance most often and social psychologists focused on behaviors such as theft, work-slowing, and sabotage among blue-collar, lower-level employees. The types of behaviors tended to be oriented toward plant floor behaviors rather than actions typical of the boardroom such as fraud, harassment, or embezzlement. Almost all conceptualizations of workplace deviance were limited to the actions of individuals rather than the deviant actions of groups, whole organizations, or even industries.

In the ICT-enabled workplace, to a passerby, a programmer engaged in code writing could be creating legitimate or non-legitimate code. This legitimate and illegitimate behavior could also be comingled throughout the day and this passerby could never discern the illegitimate, deviant behavior. An average ICT employee may have many windows open on his or her desktop at the same time and may shift between them as part of regular, legitimate employment, as well as aspects of deviant behavior. In order to detect the illegitimate behavior, the detector needs to be as complex, sophisticated, and technically knowledgeable as the deviant him- or herself.

4   THE ICT-ENABLED WORKPLACE

Only very recently has the construct of social deviance expanded to encompass the office, laboratory, and boardroom and the deviants expanded to encompass the managers, technicians, accountants, and other diverse employees. It is not possible to

discuss the modern workplace without talking about the role and place of information and communication technologies (ICTs). It is essential to view the modern workplace as the social environment into which ICTs are embedded (Mackenzie and Wajcman 1999; Orlikowski and Iacono 2001). This social constructivist model sees ICT as embedded in a web of meaning encompassing the organizational structure, functions, norms, values, and patterns of behavior. It is impossible to treat work, technology, and the people doing the work independently.

Research into forms of deviance and resistance in the computerized work environment lags far behind its prevalence in today's workplace (Colclough, and Tolbert 1992; Hollinger 1986; Hollinger and Clark 1982; Oakes and Cooper 1998; Raelin 1986; Sewell 1998; Sewell and Wilkinson 1992; Vardi and Wiener 1996; Wiseman and Bromiley 1996). ICT workplace deviance may include sabotaging computer programs, stealing proprietary information, executing viruses and hacking into private computer space. Not surprisingly, organizations spend billions annually to offset cyber attacks. While the incidence of computer crime has risen, there has been little or no movement on computer deviance/resistance committed at the workplace against the work organization or fellow employees.

The exception to this is in the area of *cyberloafing*. Technological changes have at once revolutionized the way we do work and, at the same time, multiplied the opportunities employees have to be *un*productive at work. Computer misuse or cyberloafing in the workplace is something with which employers are, or should be, increasingly concerned (Lim et al. 2001; Mastrangelo et al. 2001). Lim et al. defined cyberloafing as the act of employees using the company's Internet access during work hours to surf non-work related Websites and to send personal e-mail.

Perhaps the most notable exception to this is Wilson and Howcroft's (2000) work on the resistance to a new information system among the female nursing staff at a hospital. In this case, Wilson and Howcroft illustrate the deliberate acts of resistance, social deviance (my words), committed by the nurses when they found the information system to be incompatible with their organizational mission and role as caregivers. In this case, the authors clearly reject the normative, managerialist orientation, which they state pervades the field of Information Systems research, and select a critical orientation. This orientation allows them to see the nurses as asserting their ability to define their role within the organization through acts of resistance to what they perceived as organizational domination.

5   CRITICAL THEORY, DEVIANCE AND RESISTANCE

This critical orientation can be seen to have its roots in the critical theory of the Frankfurt School (Heidegger 1977; Horkheimer and Adorno 1972; Marcuse 1982). Critical theory, in general, can be characterized to be explicitly concerned with critiquing domination with an orientation toward praxis focused against domination. If there is one central concept running throughout the literature of critical theory, it is domination. Critical theory is also oriented toward helping people understand why and how they are dominated, and then empowering people to do something to ameliorate their misery.

The theoretical standpoint taken in this paper is that ICT has been institutionalized as a multifaceted force of industries, techniques for carrying out tasks in organizations, and principles for organizing that is closely associated with a particular form of business management. The narrowness of the managerialist perceptions and normative knowledge that has been prevalent in much of the information systems literature and practice has been subject to a great deal of critical debate. For the most part, the normative orientation can be seen as the managerialist orientation, supporting the status quo, seeking to further the interests, through increased efficiency, effectiveness, and product output, of the managerial class. Examples of this can be seen in Keen (1981), Markus (1983), and Marakas and Hornik (1996), all of whom view resistance (to the implementation of IT in their cases) as a message that something is wrong rather than as a barrier to overcome. The analytical orientation, in contrast, can be seen as a scientific, hands-off orientation in which information is gathered and categorized but rarely used by theorists themselves to enact any sort of social change.

Essential to understanding how critical theory has been applied to ICTs and organizations is the belief that ICTs are not neutral and embody the values of a particular industrial civilization and especially of its elites, which rest their claims to hegemony on technical mastery. Shields (1997) states that

> newer frameworks view technological change as a process whereby competing groups of technical experts and entrepreneurs bring technical, political, professional, economic and other values and interests to bear in trying to frame and resolve contested technological designs in their favor (p. 198).

He contends that technologies are not value neutral instruments. They are self-consciously fashioned by social groups who intentionally promote their values and interests while intentionally undermining others. Feenberg (1991) finds that the modern industrialized world has brought new forms of oppression, and he suggests that society has the ability to select the forms of technology that it will adopt, thus granting it agency in the face of oppression.

As discussed above, deviance is defined as causing harm, or the threat or potential to cause harm, to one's organization. The very definition of deviance reflects a normative, managerial orientation. The interests of the organization's management are those that are most often discussed as the victim of employee deviance. When workplace deviance is characterized, it is usually in terms of the extreme costs to institutions and organizations. Even when psychologists have attempted to find the causes of workplace deviance, they have attributed it to two principal causes: deviance as a reaction to experiences and deviance as a reflection of one's personality. In other words, workplace deviance is seen as a result of a reaction to perceived frustration and injustices, or seen as a personality flaw such as lack of control and aggressive tendencies. In almost all cases, deviance is framed as an individual issue, not a social issue

On the other hand, critical theorists would see deviant behavior as inherently social, an act of a group, and as a conscious act of rebellion or resistance to real subjugation by the dominant administrative coalition. Critical theory may form the basis for explaining what appears to be an irrational response to ICT-enabled organization to the managerialist scholar. A critical theorist would not see these responses as irrational or

deviant. They would characterize them as acts of resistance or acts of self-empowerment of the dominated class. Several authors have recently applied a critical orientation to workplace deviance. Dehler and Welsh (1998), for example, assert that the current normative definitions of workplace deviance are social constructions that support the status quo and sustain the control of the organizational elite. Critical theory is proposed as a better lens through which to view behavior that violates norms of the organization.

6   A CASE STUDY

This research began as a larger study in which three small software development companies were examined at various points during their life cycles. The goals of a larger study were to understand the organizational culture and structure of the small software development company and its relationship to technology during the dot-com bubble. I present some of this data from one of the three cases, which, in many ways, is representative of the other two.

I chose to focus on small software development companies during the dot-com bubble because of the rapid boom to bust cycle in which they existed. These types of transitions are excellent phenomena to study the relationships among organizational culture, structure, and information technology. The connections and effects among these are forming, raw and visible to those trained to observe such phenomena. The boom can be described as comprising entrepreneurs who enthusiastically set up Web-based enterprises selling everything from infrastructure, services, domain names, advertising, toys, graphics, and anything else. In 1999, the NASDAQ gained 128 percent. In 1999, there were 546 IPOs that raised over $69 billion. The average first-day gains of IPOs in 1999 were 68 percent compared to 23 percent in 1998.

However, during the years 2000 and 2001, this bubble burst. Stock prices plunged, investors lost confidence, and Web-based businesses started closing down. Evidence of the bust includes the 4,854 Internet companies acquired or shut down (3,892 acquisitions and 962 shutdowns) during the first quarter of 2000. Moreover, the first 16 months of the bust saw 44 shutdowns per month. The bust was a wide-ranging occurrence; failed companies included Internet content providers, infrastructure companies, Internet-services providers, and providers of Internet access (Webmergers.com 2002). This is a case study of a single, small software development company that was born and died during the years between 1996 and 2001, the era that has come to be known as the dot-com bubble. Ebiz.com was a small but rapidly growing firm that wrote business-to-business software and constructed Websites specifically geared to large-scale e-commerce. Their product was custom software, tailored to the user, with long-term service contracts

Charting the company's time-line reveals a life span typical of other failed small software development companies during the period of the dot-com bubble and subsequent collapse. The company was founded in 1996 by two veteran software developers. By the beginning of 2000, Ebiz.com was up to 90 employees. However, for various reasons discussed below, 65 employees were laid off during the fall of 2000. In January 2001, the remaining employees were laid off and the doors were closed. Another company purchased the software and hired 15 of the original Ebiz.com employees. This second company also had failed by August 2001.

The question that arises is how typical was Ebiz.com in terms of its organization culture during the dot-com bubble? While there are some significant efforts currently being made to chronicle, archive, and preserve what remains of dot-com era organizational materials (Webmergers.com 2002), organizational culture is nearly impossible to capture once a company is defunct and employees have scattered. Written materials such as business plans, handbooks, and organizational charts cannot begin to capture the richness of the culture of these now defunct dot-coms. The words and thoughts of the individuals involved in the situation most completely convey the cultural underpinnings of the dot-coms. It is important to note here that although I cannot know how pervasive the cultural traits discussed here were during this time period, I have seen similar behavioral and cultural patterns among the three small software development companies that were included in my larger study.

6.1 Increases in Social Control Efforts

The facts are that, during the course of the year that I spent with Ebiz.com, the management increased social control efforts over the employees. In some cases, ICT choices were used to increase the level of social control over employees. It is also clear that the employees acquiesced to all of the social control efforts enacted by the managers while blind dot-com optimism was still the flavor of the news across the country. As the market began to fail, and dot-coms began to close, the employees seemed to recognize their situation and enact deviant behavior or, as some would say, resist.

There is strong evidence that the owners and managers used several techniques to increase their control over their employees. They created an organizational culture that included the following elements.

(1) The manipulation of operating systems and programming languages to maximize owner control over workers and products.
(2) The dissolution of the boundaries between home and work life. Employees' physical and social needs were met by the workplace.
(3) The creation of a culture based on crisis that rewarded heroic behavior.
(4) The creation of self-policing, co-programming teams that developed systems of concerted control over each other.

The dot-com boom and bust resemble other episodes in history of unreasonable individual and corporate speculation. The dot-com bubble is characterized as a period of rapid economic growth with individuals and corporations taking risks they might not have taken and traditional business practices and social values being ignored.

The dot-com bubble is described as a period of enormous contagion of optimism, constantly changing opportunity, *ad hoc* organizational structures, very rapid growth, highly mobile workers, massive early investment that exerts enormous pressure to produce the goods quickly in order to turn cash-flow positive, fast and often unpredictable rate of change, and a loss of traditional human resources programs and regulations. I argue that the social environment of the dot-com bubble allowed several myths to propagate widely and affect human behavior.

- **The myth of Silicon Valley**. This myth was the belief that during the dot-com bubble, any intelligent, hard-working individual could become a millionaire before the age of 25 working in the IT industry.
- **The myth of circumventing rules**. This myth was the belief that during the dot-com bubble any intelligent, hard-working individual need not follow traditional pathways to wealth. The rules were gone. The legitimate, socially acceptable means to wealth including education, 20 years of steady employment, 20 years of smart investing, and long-term real estate ownership, for example, were seen as circumventable. A culture of the get-rich-quick mentality was created.
- **The myth of the future downtime**. This myth allowed any intelligent, hard-working individual to believe that the dot-com bubble was a short-term phenomenon in which one had to seize the opportunity while the opportunity was there. Work as hard as possible for a short time, and the rest and relaxation would come later. Hard work now guaranteed huge payoffs in the near future.
- **The myth of engineer managers.** This myth was the belief that during the dot-com bubble any intelligent, hard-working software engineer could do the job of owner and manager of any new business.

The owners and managers of Ebiz.com used these myths to increase their control over the workers. They were aware of them, manipulated them, and took advantage of them. The employees gambled that the high cost to them at the time would pay off in the future. They were speculating that their backbreaking labor would fill their metaphorical pans with gold. They acquiesced to the owner's and manager's demands because they believed that they would become millionaires soon, they believed that they could become a millionaire by unconventional means, they believed that once they made it they could rest, and they believed that the managers and owners knew what they were doing.

In the following sections, I will detail several examples of social control enacted by the management of Ebiz.com and the resulting acts of resistance (deviance) as the myths began to fail.

6.2 Software Change: Social Change

Within Ebiz.com, several technological changes transpired during the investigation period. The biggest change was the programming language in which the company created its products. The company began programming in PHP, a language considered open-source, free, and uncontrolled. The small group of original programmers who were responsible for most of the initial products was a tightly knit group who exerted significant control over the business. In a surprising move, the owners decided to change the language from PHP to JAVA. The employees of Ebiz.com characterized JAVA as unstable, complicated, more tightly controlled, and inferior to PHP. They moved from their own proprietary architecture to an off-the-shelf, more standardized architecture.

The employees believed that they had made the switch because the owners wanted to please a very large client and that JAVA, as an object-oriented language, was easier to sell to the nontechnical managers of their clients. At the time of the change, the

owners fired the original PHP programmers and physically moved around the other employees. When asked why, the owner stated, "I don't like the way these guys [the PHP programmers] were operating, all isolated from the rest. I especially didn't like their issues around marking their territory…I can't have any little fiefdoms here."

The owners then asked all of the remaining programmers to rewrite all of the existing code in JAVA. Most employees were not skilled in JAVA, so the slow learners were fired; the quick learners were forced up a steep learning curve. To fill the organizational holes a few new, hot-shot Java programmers were hired. The employees that were kept on were expected to spend 80 to 100 hours at the office rewriting products in JAVA while spending their free time learning the intricacies of the language itself. The owners instituted a testing policy in which all programmers had to pass the on-line Brainbench JAVA certification test.

The older employees, who were previously seen as experts in PHP, were thus placed on a level playing field with all other employees. The hierarchy was destabilized, restructured, and competition was fostered between employees to see who would learn and adapt the fastest. This was measured by the date on which they took their Brainbench test as well as their score and ranking. Effectively, the owners' choice of moving to a new programming technology allowed them to reassert control over the workplace, the employees, and the relationship with the clients. In the case of Ebiz.com, technological change was the result of a struggle for power in which the owners gained control by eliminating the need for difficult-to-control-experts and replacing them with new technology and new employees who were seen as easier to control.

This was only possible in an era in which the wider culture was infused with the belief that software programmers were disposable, short-term employees. In this case, the PHP programmers easily moved on to other work and new JAVA employees were easily hired. The dot-com bubble was a time of excess, not scarcity. The owners/managers of Ebiz.com had little fear of a lack of workers and had every hope of enticing new employees to come work for them.

6.3 Boundary Loss: Control Gain

Many small software companies existed because of a single initial technological innovation and were forced to continue to produce innovations if they were to continue to exist. Managers concluded that not only did they have to hire creative people but also they had to foster creativity daily.

Playful work environments that foster exploration appear to help drive the innovation that defines the high-tech sector. The owners of Ebiz.com were aware of this management trend and used it to create their own organizational culture. They recreated the elements of a playroom in the workplace including filling the environment with toys, colors, and music. They removed most of the internal walls of the building, covered all remaining walls with erasable whiteboards, and provided all of the employees with colored markers. They organized game times each day where all of the technical teams played together. A few times a week, meal times were organized where the employees ate together on company property. Constant free, cool and fun junk food was provided to all employees.

One owner said,

> All the game playing, well…its stress relief, first off. It helps the employees avoid burnout longer. If I encourage them to play everyday they'll go back to work with a fresh start afterwards, and work harder and better because of it. After they let off some steam killing their virtual coworkers, they can attack a problem with a clean slate and maybe come up with something they hadn't thought of before.

I suggest that Ebiz.com used this play room management style to create an atmosphere in which owners demanded increasing inputs in hours and effort from their employees, increased employee competition, increased self- and peer-generated control systems, increased hierarchies within technical and nontechnical employees, and do this all in an atmosphere where the dominant ideology is that the employees have more autonomy and fun at work.

Perlow (1998, 1999, 2001) states that organizational culture assumes a crucial control function in knowledge-based organizations where the work preformed is creative, open-ended, individually styled, and highly demanding. Attempts are made to elicit and direct the required efforts of members by controlling the experiences, thoughts, and feelings that guide their actions. The intent is for the workers to be driven by internal commitment, strong identification with company goals, and intrinsic satisfaction from work. It compels employees not only to do what is expected at work but also to conform to norms that determine how they lead their lives outside their work environment.

Ebiz.com does this by erasing the boundary between home and work. Ebiz.com identified the activities that employees would do at home, such as play computer games, watch TV, lounge on the couch or bean bag chairs, each lots of junk food, and hang out with friends, and incorporated all of these elements into the Ebiz.com work environment. The owners created a work environment that was so much like home that it became a second home for many employees. They provided higher quality technology, food, games and atmosphere than many of the employees could hope to afford on their own, further inducing them to stay a little longer. One Ebiz.com owner said, "I tried to make work as much like home as possible so that it would be easier for the guys to spend a lot of time here." The employees felt that work was so fun and comfortable that staying there for 12 to 15 hours a day was less painful, and perhaps even desirable. A member of the development team said,

> I used to go out for coffee and lunch almost every day, but now what's the point? They make coffee at work and there are always some food things in the fridge downstairs. I just heat up a burrito or somebody orders pizza and I don't have to even leave my desk.

6.4 Teams and Crisis: Concerted Social Control

Management by teams has been said to grant employees autonomy and a more democratic work environment through determining their own work organization,

communicating horizontally with the organization instead of up a hierarchy, building close relationships with suppliers, and sharing information. (Hodson, 1995, 1996, 1997, 1999; Smith 1990, 1997, 1998). However, the critical view of team-based management states that supervision, responsibility, and discipline are often shifted from managers to peers without any compensation or security. Workers are asked to do more without any increase in pay. There has been a shift from traditional bureaucratic control to concerted control in that workers collaborate to develop the means of their own control. They control their behaviors through a complex system of values, norms, and rules. Increased production pressures and intensification of work have been found to be legitimated by the peer relationships among the teams and as the team encouraged workers to push themselves to the limit for the good of the work group (Barker 1993; Smith 1990).

The culture of software developers celebrates and rewards workers' intensity and total devotion to work. The culture develops a system based on constant crisis and a reward system based on individual heroics, which results in workers doing whatever it takes to solve the crisis of the moment. The managers and peers model the desired behavior themselves, also putting in long hours.

One of the managers of Ebiz.com stated,

> I put in very long hours. I try to get here every day at about 7:00 a.m. and I never get out before 8:00 at night. Sometimes I stay even later. I've pulled a few all-nighters here and I come in at least for a few hours every weekend. Once I get home I also get a little done there. I've got a pretty good computer and connection there too. When the deadlines are getting close, you just gotta get it done no matter how much time it takes. I know it's a lot to ask, but I'd never ask anybody to do anything that I wasn't willing to do myself.

Ebiz.com also developed a culture of time one-up-manship, in which employees challenged each other to stay for longer and longer hours. For example, one of the employees said to another, "I was here last night until 10:00 finishing up the clean-up on that code." In response, the other team member stated, "Oh yeah, well I've been here until at least 10:00 every night this week. I'll probably have to pull an all-nighter tonight or tomorrow just to get it all cleaned up by the deadline."

One of the owners stated, "I really didn't realize that the guys were pulling that one-up-manship stuff until recently. Had I known that was going on during the big crunch time, I would've been cheering. That's exactly what I wanted to hear." From this statement, it is obvious that the owners desired the employees to goad each other into working longer and longer hours, releasing the owners from the position of having to ask for additional time directly from the employees.

Evidence was found among the teams of Ebiz.com to support the shift to concerted control. Individual members of the various teams stated multiple times that they felt that they had to work long hours for the good of the team. A member of the development team said, when asked what he was working on,

> I'm trying to get this script hammered out. We've got a deadline in a few days and I don't want to be the slacker here. Its bad if [another developer] has to bail me out and pick up my slack just to get the stuff done on time. I'm just trying to hold my own, you know, pull my own weight.

On several occasions while observing, it was noted how two members of the development team were always working to get the others to work faster. They would play loud thrash music to motivate. They would yell over the din to the others to get going, to write clean code and write it fast.

One owner said,

Putting these guys into teams was one of the best things I ever did. They get each other to work harder and better. If one of the members of their team is not doing their work, the other guys come down on him pretty hard. They do my job for me. Plus, I think they like getting criticism from one of the guys rather than from me. Its not so top down that way.

6.5 Resistance

In 2001, the economy began to falter. Stock prices plunged, investors lost confidence, and Web-based businesses started closing down. Further evidence that the organizational culture that developed at Ebiz.com was tied to the dot-com bubble are the changes that occurred after the bubble began to burst.

Ebiz.com laid off half its employees and its most lucrative account was cancelled. The employees of Ebiz.com began to doubt whether they would become millionaires as they had hoped to be, or even if they would have jobs in 6 months. They started to doubt the expertise of the managers' ability to run the company and lead the workers. They seemed to develop a collective consciousness of the number of hours they had been spending at work and the little they had to show for it. They began to complain.

As with all forms of resistance, these strategies were never direct, tended to be more for the benefit of the other exploited workers, and had a high cost attached to them if they were recognized as resistance and the resistor was singled out.

The most dramatic and damaging form of resistance that was enacted was coincidentally around the time the company switched from PHP to JAVA and began to have financial problems. The employees became aware of the financial problems despite the managers efforts to keep it secret. The old employees that had been repositioned in the hierarchy because of the move to JAVA began to put out very buggy code. These were intelligent, accomplished programmers who did not make these errors randomly. Only after several months did the managers hire an expert JAVA programmer who recognized the extent of the damaged code. Since the code had been worked on by the entire development staff, it was impossible to determine who had caused the major bugs. The project was scrapped and started over.

As discussed earlier, every wall was covered with erasable whiteboard material to encourage creativity. Several drawings appeared on the white boards. One depicted a development team member being sexually assaulted by a member of management from behind. Another drawing portrayed the development team waving from a boat deck labeled "The Titanic" with the management as its captain. A third image portrayed the cartoon robot from the TV show *Futurama* demanding that next time he wrote an interface it would be with hookers and blackjack. There were clearly several different artists for each of the drawings. The owner responded with very visual anger in which

he called an impromptu meeting, screamed at the developers, and asked them who had done it. No one volunteered any names. When later asked, the developers only smirked and refused to talk about the authors or artists. Nearly all of the technical team members mentioned the drawings on the whiteboards during interviews with the research team.

Another form of resistance was also the computer games. Ironically, the games were seen as integral to tying the playroom culture together by the management. When the dot-com bubble burst, the carrot disappeared and a more traditional managerial stick appeared. The employees began to complain about the hours and the lack of economic compensation. The owners began to complain about the gaming getting in the way of getting real work done. The owners tried to take more control of the gaming and joined in the games themselves. The games soon developed into an adversarial system of developers against owners and managers. The developers organized a point and ranking system to depict just how badly they had thrashed the managers.

Soon the Sega Dreamcast system was taken away from the workers altogether. The employees then began to play Unreal tournament with each other from their desks. If someone were to see them without seeing the fronts of their monitors, they would appear to be working diligently on coding. However, the percentage of the workday spent playing games rather than coding went up dramatically after the Sega Dreamcast equipment was taken away.

As the company began to falter financially and the first layoffs were announced, the company kitchen was also closed. The managers stated that they could no longer afford to stock the kitchen with food for everyone. They also could no longer afford to rent the additional office space needed for the lounge, game room, and kitchen, so the rooms and the equipment would be unavailable to the employees from that point forward. The employees reacted by taking breakfast, lunch, and coffee breaks together as the entire development staff for several hours a day. They would leave the office together around 9:00 a.m. for Starbucks and return around 9:45 a.m. to begin work. They would then leave again around 12:30 p.m. for lunch and return around 2:00 p.m. Finally they would take a mid-afternoon break en masse around 4:00 p.m. that might last until the end of the day.

In response, the managers instituted a whole-company meeting every morning at 8:30 a.m. At first all of the developers were present and mostly engaged. However, after one week, fewer and fewer developers arrived before 9:00 a.m. After the second week of this new policy, no developers came to the morning meeting at all.

7   CONCLUSIONS

The central argument in this work is that under certain circumstances a critical orientation to the study of workplace deviance/resistance is necessary to understand ICT-enabled workplace culture and employee behavior. I began this paper with two questions. Does technology enable deviance? When does an act of social deviance become an act of resistance against domination? The answer depends on the perspective of the labeler.

In the case of Ebiz.com, we can see that it is clear that not all acts of social control result in acts of workplace deviance or resistance. There is strong evidence that the

owners and managers used several techniques to increase their control over their employees, including the manipulation of operating systems and programming languages to maximize owner control over workers and products, the dissolution of the boundaries between home and work life, the creation of a culture based on crisis that rewarded heroic behavior, and the creation of self-policing, co-programming teams that developed systems of concerted control. For the first few years of the existence of Ebiz.com, the social control exerted on the employees increased yet there were no observable or discussed acts of employee retaliation. I argue that the social environment of the dot-com bubble allowed several myths to propagate widely and affect human behavior. The clear answer is to be found in the power of the myths employed by the managers of Ebiz.com. Those myths, the myth of the Silicon Valley, the myth of circumventing rules, the myth of future downtime, and the myth of engineer managers, were presented earlier.

As the market began to fail, and dot-coms began to close, the employees seemed to recognize their situation and enact deviant behavior, or resist. Employees at Ebiz.com committed several acts that can be construed as deviance or resistance. The employees intentionally

- produced error filled code
- publicly graphically depicted themselves being assaulted by the managers
- publicly graphically depicted the company as failing
- publicly graphically depicted the product as poor quality
- dramatically increased game playing time at work
- dramatically increased off-site breaks from work
- dramatically decreased hours spent at work.
- directly disobeyed managers when told not to engage in game playing
- directly disobeyed managers' requests for morning meetings

The question that must be asked is, do these acts fit the criteria for resistance and can they be analyzed in terms of the critical orientation? Essential to understanding the critical orientation toward these acts are the following six key elements.

- Acts are contrary to organizational norms and values with the potential to cause harm to the organization.
- Acts are rarely committed by a solitary individual. Groups of employees who occupy similar organizational roles/space plan and enact them together.

In all cases the acts of deviance committed by the employees of Ebiz.com were known to all other employees and in most cases done together. These acts were not solitary and secret from other employees.

- Acts are infused with emotional qualities, such as anger, frustration, jealousy and resentment, but are rarely directed at another single employee holding the same or lower organizational status.

The employees of Ebiz.com began to develop a sense of fear that they would lose their jobs, not find another one, or be forced to go back to school. They were angry with the

managers for poorly managing Ebiz.com and letting it fail. They were very disappointed that their dreams of becoming young millionaires would not come true. There is very clear emotional content to all of their comments at this stage in the business; however, I have no direct evidence that the acts committed were charged with these emotions.

- Acts are rarely committed by mentally unstable employees.

I have no evidence that any of the employees at Ebiz.com were mentally unstable. It would be highly unlikely that they all were unstable.

- Acts are committed by employees who occupy all levels of an organization, not only the lowest-level, shop-floor, blue-collar employees.

At Ebiz.com, the hierarchical ladder approached being flat. At the developer level, there were only two types of employees: team leaders and team members. Both forms of employees participated in the acts of resistance. None of the employees considered themselves to be blue-collar.

- Acts are sporadic in nature. These acts are not committed continuously throughout the entire life cycle of an organization. The acts are tied to particular organizational and managerial policies, changes, and acts.

It is clear that the acts committed by the employees began when the company, and the dot-com myths, began to fail. There was a decided lack of acts in opposition to the organization during the first few years of the company's existence, despite increasing efforts to control the employees.

- Acts are committed in information and communication technology rich environments in which the presence and use of the technology may allow for these acts to take different forms, reach wider audiences, and have more intense effects.

Several acts in the case of Ebiz.com would not have been possible without certain forms of ICT available to the employees. The acts of code sabotage took place in a completely virtual environment. The form of sharing the coding work, co-programming, reviewing each other's work, and building on each other's code allowed for a large amount of anonymity on the part of the saboteurs. The act of switching game playing platforms from a console game in a separate room to PC-based games using the company LAN, used the technology available to the employees to take back control of their time.

   Most importantly what I have learned from this work is that ICT work may lead to increased deviant or resistant behaviors and that ICT work may also provide a means to do increased deviant or resistant behavior. ICT work may provide both the setting and the vehicle for increased workplace deviance/resistance. In the case of Ebiz.com, some of the acts committed by the employees in opposition to the organization could be characterized as traditional office workplace deviance, such as extended lunch breaks. However, other behaviors, such as product sabotage of code, extended game playing, and cyberloafing, were enabled and defined by the ICT nature of the workplace. In the

case of the extended game playing, even after the managers thought they had removed the vehicle for deviant behavior—the Sega Dreamcast system—the employees found a new, and perhaps better, method to engage each other in deviant behavior. The Internet and the workplace LAN provided the setting and the game Unreal Tournament provided the vehicle for increased deviance.

The determination of what is and is not deviant workplace behavior depends on who is asked to make that assessment. Much of the wider research on the information and communications technology-enabled workplace has taken a normative or managerialist orientation. Using this orientation, employee actions that run contrary to organizational norms and values and may potentially cause harm to the organization are labeled as employee deviance. These actions are framed as costing the organization time, resources, and money. In almost all cases, the deviant is portrayed as a low-level, individual employee with unfounded gripes against the organization or an unstable personality. The critical orientation to workplace deviance characterizes these same acts as semi-organized, group resistance to organizational authority.

Social context matters. These small business failures were different than other business failures. They happened within a society that held some overarching beliefs that inspired certain organizational style behaviors. The pervasive dot-com, get-rich-quick mentality acted as a catalyst that urged new, small software development companies to be created, to take certain business forms, and to act in certain ways. Employees within the software development teams seemed to negotiate a fine line between acceptance and resistance of the workplace norms espoused by the owners. At the beginning of this study, the employees were clearly in support of the workplace norms governing their time and effort; they accepted the long hours and the lack of remuneration for working overtime. Upon hire, the casual clothing, the games and playtime, the relaxed atmosphere, the nontraditional and non-bureaucratic environment dazzled them. Along with this environment came the feeling that the employees were climbing aboard a ship that was sailing toward incredible success. In the case of Ebiz.com, work was constructed to be more and more like play in order to attract the highly productive computer mavericks who could write the killer application overnight. This situation was time-bounded by the fact that the dot-com bubble burst by the end of 2001 and the get-rich quick mentality along with it.

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