

CHAPTER 16

INFORMATION TECHNOLOGY ENABLED EMPLOYEE DEVIANCE

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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. Under certain circumstances a critical orientation to the study of workplace deviance/resistance is necessary to understand information and communication technologies (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 semiorganized, group resistance to organizational authority. 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.

INTRODUCTION

Does technology enable deviance? When does an act of social deviance become an act of resistance against domination? The same act completed by an employee may be labeled as a deviant act by those in power and labeled as an act of resistance by fellow employees. The same behavior carried out by a group of employees contrary to the expected norms of an organization may be labeled terrorism by owners and managers and labeled freedom fighting by coworkers. In this paper technology enabled employee behavior is examined as both deviance and resistance, respectful of the position of the labelers.

Simpson and Simpson (1999) claim that each change in the base forms of production in society have brought about parallel changes in departures from rules by workers, managers and organizations. The moves from agricultural bases to industrial and subsequently to service bases have brought about new forms of corruption, fraud, unfair competition, exploitation, and other illegal, harmful and rule breaking behaviors. This paper examines the transition from a service based economy to a knowledge or information base in terms of the behavior of managers and employees in a high tech workplace in the United States during the dot-com bubble. The author asserts that as with each previous transition, deviance has been enabled through both cultural and technological change. This transition from a service economy to a global knowledge and information economy is accompanied by an important cultural transformation; the production, dissemination, and application of knowledge, and the development and use of information technology that dominates economic activity causes a major transformation in both the type of work in which people engage and the workplace behaviors which they enact (Drucker, 1993). This transformation in the twentieth and twenty-first centuries is principally due to the growth in computer and information technologies.

Several hypothetical examples of potential deviant acts using information technologies, contrary to organizational norms and values, with the ability 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 cre-

ates and distributes electronic counterfeit coupons and sweepstakes giveaways from her employer to her friends. All these behaviors are intentional acts, initiated by organizational members that violate norms of the organization, and have the potential to harm the organization.

The study of deviant behavior among employees has always been of central interest to employers. The primary method of controlling workplace deviance has been to increase managerial control of employees' time, efforts and access to organizational goods. It is often the case that there is a strong positive relationship between managerial acts to more perfectly control employees and increased levels of employee deviant behaviors. In many cases the same tools provided to the employee to complete their work-related tasks may also be used for deviant, nonwork activities. Perhaps most importantly, with increasingly powerful technological tools provided to employees, the potential to increase productivity and efficiency rises alongside the increased potential for the range, damage and cost of deviant activities enacted via these technological tools.

The central argument of this chapter is there is a relationship between increased social control on the part of employers and increased levels of employee deviant behavior. In the information technology workplace, the tools of the tech worker (i.e., the computer and the Internet) may also become the tools of the deviant employee. While the author does not argue that technology causes deviant behavior, she does argue that ICT may enable deviant behavior. ICT also provides for new forms of deviant behavior that have potential to harm the organization in new, wide-ranging and intensified ways.

BACKGROUND: DEVIANCE IN THE WORKPLACE

In the most general sense, deviance can be defined as "behavior or characteristics that some people in a society find offensive or reprehensible and that generates—or would generate if discovered—in these people disapproval, punishment, condemnation of, or hostility toward, the actor or possessor" (Goode, 1994, p. 29) Deviance is best understood as a form of social relationship that is infused with power. Deviance exists within a social order in which social control is enacted to maintain the social order and the system of power on which it relies. Social control is necessary both internally to the individual in the form of socialization into the relevant social group and externally to the individual as it establishes a system of norms, sanctions and enforcement again, relevant to the social group.

The establishment of forms or categories of deviant behavior is essential and intrinsic to any conception of social order. It defines the confines

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of our shared reality; and it is intrinsic to a conception of order in that defining what is real and expected and what is acceptable. When categories and forms of deviance are created the society strengthens its own position and simplifies its response to the “other”: ignore, expunge, destroy, or rehabilitate them. This deviance defining helps a society to convince itself of its own normalcy by condemning and controlling those who disagree. Deviance is a phenomenon situated in power: Winners are the good and the normal; losers are the sick, the crazy, the stigmatized and the evil.

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 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.

Although the study of deviants has been a central one among sociologists for the past hundred years, researchers have wrongly focused on the low hanging fruit of “nuts, sluts, and perverts” (Liazos, 1972/1994) due to the facts that they were easily identifiable as deviants, they were located at the bottom of the socioeconomic ladder, access to them was easily obtained and studied, and they provided catchy titles and sensational articles that caught the public eye. The workplace as a location in which deviance may happen was largely ignored. Immediately after WWII there was a spark of interest in studying the workplace as a deviant or criminal scene (Appelbaum & Chambliss, 1997; Box, 1983; Braithwaite, 1984, 1985, 1989; Clinard, 1952, 1983, 1990; Clinard & Yeager, 1980; Coleman, 1985, 1987, 2001; Collins & Dalton, 1946; Croall, 1992; Cressey, 1953; Dalton, 1959; Gouldner, 1954; Levi, 1989; Roy, 1952, 1959; Sutherland, 1939). While these authors called attention to the existence of White Collar Crime, they were largely ignored until the 1980s when the subject of workplace deviance began to be more closely investigated. These researchers turned their sociological gaze upon such behaviors such as theft, work-slowness, and sabotage, among blue collar, lower level employees. These types of behaviors tend to be oriented toward plant floor behaviors and limited to the actions of individuals rather than the deviant actions of groups, whole organizations or even industries.

Several authors have attempted to create typologies of deviant behavior in the workplace. Hollinger divided workplace deviance into 2 main forms; property deviance and production deviance (Hollinger, 1982).

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Property deviance can be defined as acts in which employees steal or damage tangible items owned by the organization, such as theft, pilferage, embezzlement, and sabotage. Production deviance is behavior that runs contrary to the norms of the organization usually in the forms of changes in quantity or quality of work expected, such as tardiness, sloppiness, slowed work, and the use of alcohol/drugs at work. Both forms of deviance are acts made by employees against the norms of the management and owners of the formal work organization. Bennett and Robinson (1995, 2000) have recently developed a second 2-form typology. Behaviors in the first category, referred to as interpersonal deviance, consist of acts that inflict harm upon individuals (e.g., verbal harassment, assault, spreading rumors). Organizational deviance is defined as acts directed against the company or its systems (e.g., sabotaging equipment, theft, and wasting resources). Vardi and Weiner (1996) created a 3-part typology in which deviance benefits the deviant (self-type S), benefits the organization (Type O) or intends to inflict damage (Type D). All three of these typologies can inform research into the modern information technology enabled workplace.

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The central question that scholars of deviant behavior have been attempting to answer is what causes deviant behavior. The earliest studies of deviant behavior saw deviance as caused by demonic possession, physical or biological characteristics. These explanations have been largely discredited because faulty science and having led to such advents as the witch trials, the inquisition, eugenic programs, and general social injustice. Since this time claims have been made that deviance is caused by psychological illness, social inequality, and the act of labeling the deviant, the act of stigmatizing/punishing the deviant and by perceived injustice on the part of the deviant. In the case of the workplace, most studies of deviant behavior have either claimed the causes to be found within the deviant themselves (e.g., psychologically ill or mentally challenged in some way) or found within the perceived mistreatment of the employee by employers (e.g., substandard pay, overwork, poor job satisfaction). To this date no consensus has been reached as to the causes of workplace deviance.

As we have seen here, much of the research that has taken place regarding workplace deviance has assumed the workplace to be akin to the factory with clear delineations between management and laborers in a rigid, steep, centralized hierarchy. In order to move this discussion to the deviance that can be argued takes place in the modern, information technology enabled workplace, one must discuss the changes that have taken place to bring about this new form of work.

**WORKPLACE CHANGE: MOVING TOWARD THE
INFORMATION TECHNOLOGY
ENABLED WORK ENVIRONMENT**

“With few exceptions, research has proposed that changes in communication technologies are tightly linked with changes in organizations” (Fulk, et al., 1995) Since the early 1990s “we are now seeing a new type of postindustrial, post bureaucratic, post-Fordist workplace” (Burriss & Daday, 2001) Powell (2001) states that the new forms of work organization have been created

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to produce a distinctive and novel logic of organizing that is built around project-based work and team organization, flatter, more horizontal organizations that rely on long-term interdependent relations with external parties, and extensive efforts to leverage capabilities across a wide range of activities.... At present, it appears the flexibility of the new model is well suited to an era of rapid technological change ... what is apparent is how rapidly the social technology for organizing work has changed.

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 two orientations, normative and critical (Sawyer & Tapia, 2003; Sawyer & Tapia, 2004). The normative orientation refers to research whose aim is to recommend alternatives for professionals who design, implement, use, or make policy about ICTs. 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. In the most idealized accounts, these new workplaces are described as newly skilled, continually learning, empowered and engaged workers, with entrepreneurial managers, who strive to relax and flatten rigid bureaucracies, trim excessive use of organizational resources and improve work processes. (Adler, 1992; Attwell, 1992; Bell, 1973; Block 1990; Clegg, 1990; Hirshorn, 1984; Piore & Sabel, 1984; Powel, 2001; Smith, 1990, 1997, 1998) Hammer and Champy (1993) state, “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.”

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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 & Daday, 2001; Hodson, 1995, 1996, 1997, 1999; Prechel, 1994; Vallas, 1999; Vallas & Beck, 1996) These scholars argue that there has been no substantial break with the forms of traditional control and power in work organizations. They have been masked by misleading participatory language which may lead to even more insidious forms of control. Smith (1996) states that in these new organizations team members assume responsibilities usually held by managers allowing management to achieve its own objectives in ways that appear to be the product of the workers' own initiatives. This has been labeled as tyrannical, unobtrusive, concertive, panopticonic, and self-subordinating (Graham, 1995; Sinclair, 1992; Prechel, 1994; Barker, 1993; Zuboff, 1988; Garrahan & Sewart, 1992).

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Smith (1997) argues that the new American technologically enabled workplace is defined by its central features of employment instability, decentered control and work intensification. She stresses that while seeing the new, flexible work systems in polarized utopian-dystopian terms has been the norm, the situation is far more complex and nuanced. She stresses that the new workplace has an uneasy mix of permanent (core) and temporary (contingent) workers who benefit differentially from flexible work practices.

Yet another example of the critical side to this argument comes from Richard Sennett in his work *The Corrosion of Character—The Personal Consequences of Work in the New Capitalism* (1998). Recent efforts at corporate reengineering cause workers to experience an increasing insecurity making it impossible for them to achieve a moral identity. Sennett's book challenges the reader to decide whether the so-called flexibility of modern capitalism might be "merely a fresh form of oppression." the new flexible, reinvented corporation has "redefined work" in a context of ceaseless change—change which is leading inexorably to the "loss of anchorage and self-understanding of the employee." Sennett finds three elements of the present system corrode the characters of employees:

discontinuous reinvention of institutions, flexible specialization of production, and concentration of, without centralization of power. Corporate-sponsored rhetoric is all about 'flattening out' the old hierarchical authoritarian structures of workplaces and getting rid of the 'interference' by the State and employee associations.

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.

DEVIANCE IN THE INFORMATION TECHNOLOGY 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, 1999; Orlikowski & 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.

In the ICT-enabled workplace, to a passerby, a programmer engaged in code writing could be creating legitimate or nonlegitimate code. This legitimate and illegitimate behavior could also be co-mingled 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.

Research into forms of deviance and resistance in the computerized work environment lags far behind its prevalence in today's workplace (Colclough & Tolbert, 1992; Hollinger, 1986; Hollinger, & Clark, 1982; Oakes & Cooper, 1998; Raelin, 1986; Sewell, 1998; Sewell & Wilkinson, 1992; Vardi & Wiener, 1996; Wiseman & 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 (Mendoza, 1999). While the literature on computer crime has risen, there has been little or no movement on computer deviance committed at the workplace against the work organization or fellow employees.

Technological changes have at once revolutionized the way we do work and, at the same time, multiplied the opportunities employees have to be *unproductive* at work. Computer misuse or “cyberloafing” in the workplace is something that employers are, or should be, increasingly concerned about (Lim, Loo, & Teo, 2001; Mastrangelo, Everton, & Jolton, 2001). Lim et al. (2001) have defined cyberloafing as the act of employees using their companies’ Internet access during work hours to surf non-work related Web sites and to send personal e-mail. They stress the conundrum created by the Internet being a highly powerful work tool that is essential to worker productivity and the Internet as a highly flexible tool that can be abused by employees. They argue that organizations need to create a work culture whereby employees use the Internet effectively and responsibly.

This clarifies a second thread in IS research around the ICT-enabled workplace and deviant/resistant acts within it, the focus on policy and control systems that contradict, monitor and prevent deviant acts. Both Sewell (1998; Sewell & Wilkinson; 1992) and G. Marx (1999) discuss new forms of employee surveillance using information technologies to increase control over worker behavior, enforce organizational norms and punish offenders. Both argue that information technology when used for surveillance and control of employees can be seen as a double edged sword that if not used properly and carefully by management can produce the opposite of the desired effects of increased efficiency, productivity and adherence to organizational norms.

Theory, Deviance, and Resistance

The terms resistance and deviance are two sides of the same coin, two terms that in some cases refer to the same set of employees’ acts. The same act completed by an employee may be labeled as a deviant act by those in power and labeled as an act of resistance by fellow employees. In this paper technology enabled employee behavior is examined as both deviance and resistance, respectful of the position of the labelers. As we have seen with most research concerning the information and communications technology (ICT) enabled workplace the discussion of employee rule-breaking behavior has taken on a normative, managerialist or essentialist (Avgerou, 2002) orientation. Using this orientation, employee actions that run contrary to organizational norms and values

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and may potentially cause harm to the organization, are labeled as employee deviance (Bennett & Robinson, 2000, 2003; Keen, 1981; Marakas & Hornik, 1996; Markus, 1983). The past and present focus on consequences of workplace deviance has tended to be limited to the costs of harm done to the organization. When the astronomical costs of deviance are calculated, they typically focus on losses in productivity and material resources, heightened security and increased insurance premiums. 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 the status quo and sustenance of the control of the organizational elite.

A traditional 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 (Mendoza, 1999) and in less direct costs such as increased insurance premiums (Allen & Lucero, 1996; Bensimon, 1997; Slora, Joy, & Terris, 1991).

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 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 very same behavior that is described as deviant by traditional managerialist IS researchers can also be labeled as acts of resistance by critical IS researchers. A critical orientation characterizes these same behaviors 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?

This critical orientation can be seen to have its roots in the critical theory of the Frankfurt School (Heidegger, 1977; Marcuse, 1941/1982; Horkheimer & Adorno, 1947/1972). Critical theory, in general can be

characterized to be explicitly concerned with critiquing domination with an orientation towards 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 towards helping people understand why and how they are dominated, and then empowering people to do something to ameliorate their misery.

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. Mark Shields (1997) states,

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. (1997, 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 finds 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 (Feenberg, 1991).

As discussed above, deviance is defined as causing harm, or threat or potential to cause harm to one's organization. The very definition of deviance itself reflects a normative, managerial orientation. The interests of the organizations 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. There have been several authors who have recently applied a critical orientation to workplace deviance. Dehler and Welsh (1998) 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. 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. Critical theory is proposed as a better lens through which to view behavior that violates norms of the organization.

A CASE STUDY

Research Methods

The research was conducted by a small research team which included myself, as the principal investigator, and four advanced undergraduate students. Three IT companies who fit the description of a dot-com were examined at various points during their life cycles. Three independent case studies were conducted for this research effort. (Tapia, 2003a; Tapia, Kvasny, & Trauth, 2003b) Each was selected based on the following criteria: small, less than 500 employees; new, established after 1996; fast growing, at least tripled initial size in first year of existence; products were purely electronic, software, customization, Web pages, and databases. They were also selected to not overlap in the services they offered and to be somewhat representative of the Internet businesses of the time period. The goals of the study were to understand the organizational culture and structure of the dot-com and its relationship to technology. In this paper I present data from one of these three cases.

Ebiz.com was a small, but rapidly growing firm that wrote business to business, B2B, software and constructed Web sites specifically geared to large-scale e-commerce. Their product was custom software, tailored to the user, e-business Web management tools, Internet infrastructure with

long-term service contracts. Ebiz was in existence for approximately 28 months and at its largest had 54 employees.

I selected a mixture of methods, which would result in a richly detailed thick description, including short-term observation and in-depth interviews, the drawing of self-reported organizational charts and time diaries. It provides a very detailed snapshot of Ebiz.com during a specific period of time.

I conducted a year of informal observation within the working environment of Ebiz.com. Continuous informal observation was carried out as members of the research team spent time at the Ebiz.com work site conducting interviews, attending social engagements, and making appointments over the next several months. To clarify my approach, qualitative observational research is a systematic inquiry into the nature or qualities of observable group behaviors in order to learn what it means to be a member of that group. The researcher's job, rather than to describe a stable entity, is to give continually updated accounts of observations on multiple levels of group interactions that occur on both a temporal and continuous basis simultaneously. This type of research attempts to identify and explain complex social structures within the study group. Observations were completed between July 2000 and December 2001, both before and after the failure of Ebiz.com.

I conducted a series of semistructured, in-depth interviews with nearly all employees. Several employees were hired later during the interviewing process and thus were excluded. In addition, several employees ceased employment with Ebiz.com early in the interview process and thus they were also excluded. Thirty-two employees, including the owners, were interviewed. Included in this group are employees who have worked with Ebiz.com since its inception, new hires as well as all those in-between. Interviews were completed during the months of June, July and August 2001.

The interview had several core questions that all subjects were encouraged to answer in a structurally similar manner. While all of the questions would be considered open-ended in that no choice of answers was provided, several questions allowed the subject to respond more freely, leaving the confines of the interview. The interviews were structured more like a conversation between two individuals than as a formal interview to increase the free-response effect, build rapport, and decrease anxiety. Interview data was coded using a set of categories that stemmed originally from the literature on the IT workplace, but soon expanded to encompass a set of patterned responses found among the subjects' responses. Categories were tracked for frequency and intensity among all respondents. Systematically, I reviewed each interview for relevance to my research questions. I noted the variation in types, frequency and intensity over

time. Every instance of the research categories was catalogued. A short list of the categories tracked includes; Control efforts, concertive power, resistance efforts, and emotional responses on the part of employees.

Increases IN Social Control Efforts

As noted earlier there is a theoretical link between acts of social control and acts of deviance. Several types of theorists, including labeling theorists and control theorists (Foucault, 1975; Hirschi, 1967, 1969; Marx, 1981) would see a direct link between formal and informal acts to control employees' behavior and acts of employee deviance.

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 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, which included the following elements;

1. The manipulation of operating systems and programming languages to maximize owner control over workers and products.

Within Ebiz.com several technological changes transpired during the investigation period. The biggest change was a change in the programming language in which the company created its products. The company began programming in PHP, a language that was 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 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. In the case of Ebiz.com I see that 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. On two separate occasions one owner of Ebiz.com stated,

Yeah, at first I just moved the PHP guys to a separate office so they wouldn't be so disruptive of the new guys I was hiring. You know they just had a bad attitude, like they owned the place. I didn't want that to bleed off onto the other guys.... So, it got so bad I just had to separate them. I couldn't have them working together. You know power in numbers and all. I put one guy in the front office and the others all over the back office mixed in with the others. I hoped breaking them up would help some.

I knew PHP was stable and that they guys wrote good code. Hell, we even had finished, solid stuff out to our customers. But I just couldn't take the way they owned it.... Java seemed like a logical solution. It was big and flexible and let me hire new hot programmers who would do it the way I wanted.

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 hired. Perhaps in another situation owners may have argued that the move from PHP to JAVA because it was a decent forward-thinking business decision to switch languages. In another situation they may have argued that Java was a more established language, more likely to persist and still be around in 5 years, and a language that it would be easier to find staff to support. However, in the case of Ebiz.com this was not the case. The owners never offered any of these explanations that would support this form of business decision.

2. The dissolution of the boundaries between home and work life.
Employees' physical and social needs were met by the workplace.

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. One of the owners stated,

It's not really that I want the guys to have fun and play games all day.... I like the games too. No, what I want is for them to take useful breaks, the kind that gets the creative juices flowing. I want them to get back to work after a good game and be more productive, crank out better, cleaner code ... so what if I have to buy them so burritos and fancy coffee, a projection unit and a few beanbag chairs. I think it'll get me better product in the end.

When I feed them and let them play games they'll stay longer, write better code and complain less. It works for me.

Ebiz.com identified the activities that employees would do at home, such as play computer games, watch TV, lounge on the couch and bean bag chairs, eat 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. 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.

3. The creation of a culture based on crisis that rewarded heroic behavior and self-policing, coprogramming teams which developed systems of concertive control over each other.

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 concertive 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; Endo, 1994; Gottfried & Graham, 1993; Graham, 1995; Parker & Slaughter, 1988, 1994; Smith, 1990) Evidence was found among the teams of Ebiz.com to support the shift to concertive control. One owner stated,

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I love it. I don't even have to say anything anymore. The guys catch each other's mistakes.... Last night at the debugging meeting the guys were all over Sam (pseudonym) for buggy code. They really bitched him out and I just sat by and watched.... It's almost like they don't need me anymore.

Robert (Pseudonym) a software developer stated,

We all watch each other's backs. We know that if our code sucks, once we have to upload it, the other guys will have to work that much harder just to fix it and use it.... Its not like they'll get all over me or anything. But, you just make sure to get it done fast and right the first time.

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. The culture of software developers also celebrates and rewards workers' intensity and total devotion to work. (Kidder, 1981; Moody, 1990; Zachary, 1994)

Brandon (Pseudonym) a software developer stated,

We all work just as long as it takes. Sometimes it's done in a day sometimes it takes a lot longer. We all know we have to stay when the (expletive) hits the fan.... We just do it.

Marshall (Pseudonym) a software developer stated,

It never looks good if you aren't there when stuff needs to get done. If they other guys say they're gonna stay then you just gotta stay too.... You never want to be the first one to go home when stuff is going on.

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. Ebiz.com also developed a culture of time one-up-manship, in which employees challenged each other to stay for longer and longer hours.

The Dot-Com Bubble

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 time of rapid economic growth, individuals and corporations take risks they might not have taken, and traditional business practices and social values are 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 the Future Downtime

This myth allowed any intelligent, hardworking 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 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 of the moment would pay off in the future. They were speculating that their backbreaking labor would fill their metaphorical pans with gold. They acquiesced to the owners and managers 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.

It is apparent that all of the employees of Ebiz.com believed in these two myths strongly during the initial boom phase of the dot-com bubble. I argue that the owners of Ebiz.com only partially believed in these myths. They possessed more information about the financial status of the company than any single employee and thus were better able to see how far from going IPO they were, how likely they were to be bought out by another company, what the prospects of future contracts were, and so forth. In most cases they were cutting very close to the wire both financially and organizationally, having just enough money to make payroll and just enough staff to complete a project. Although this could be debated since the employees worked more than an average workweek, received less than standard pay, and completed almost all projects later than promised.

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 (Baumgartner, 1984). According to Baumgartner social control from below, or upward social control enacted by inferiors against superiors is adversarial, penal, authoritarian, and defined often as a crime by the superiors and a wider audience.

The most dramatic and damaging form of resistance that was enacted was coincidentally around the time the company switched from PHP to JAVA and the company 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. 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. Although there is no absolute way to know if this was clearly sabotage on the part of the old employees. I believe that, in part, this was true. Some errors could be attributed to the fact that this old PHP programmers were forced to learn a new language (JAVA) and perform in it quickly. Some mistakes must be expected. However, these were intelligent, accomplished, veteran programmers who did not make errors often, randomly or lightly. For the most part they were also self-taught PHP programmers which experience with languages changes and steep learning curves. While none of these old PHP programmers ever admitted outright to sabotage, the high and strong emotional quality of their language when discussion their new JAVA code led me to this conjecture.

Collin (pseudonym), a software developer, stated,

Frank(pseudonym for an owner) is just an a***** (expletive). Can you believe he is making us rewrite the contract code (pseudonym) over again in Java? Java sucks and he knows it.

As discussed earlier, every wall was covered with erasable whiteboard material to encourage creativity. Several drawings appeared on the whiteboards. One depicted a development team member being sexually assaulted by a member of management from behind. When asked about the drawing a developers stated, “ duh!?! Isn’t it obvious? We are getting F***** (expletive) by [the owner] ... we all know it. He’s just reaming us for all he’s worth.” Another drawing portrayed the development team waving from a boat deck labeled *The Titanic* with the management as its captain. A developer stated, “yeah, we are going down. The ship of Ebiz.com is sinking and we’re going down with it” 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, implying that they did not have fun producing the last code and intended to in the future. There were clearly several different artists for each of the drawings. The owner responded with very apparent anger in which he called an impromptu meeting, screamed at the developers and asked them who had done it. None volunteered any names. When later asked, the developers only smirked and refused to talk about the authors or artists. Nearly all the technical team members mentioned the drawings on the whiteboards during interviews with the research team. These drawings demonstrate a form of collective resistance to the increased social control exerted upon the employees. The employees used the whiteboards as means of creating solidarity among themselves and garnering support for their growing emotions of displeasure with the managers of Ebiz.com.

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 “trashed” 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 financial 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 am for Starbucks and return around 9:45 to begin work. They would then leave again around 12:30 pm for lunch and return around 2:00 pm. Finally they would take a midafternoon break en masse around 4:00 pm that might last until the end of the day.

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

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 several 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, The creation of self-policing, coprogramming teams which developed systems of concertive 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.

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 questions 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:

1. Acts contrary to organizational norms and values with the potential to cause harm to the organization...

...are rarely committed by a solitary individual. Groups of employees who occupy similar organizational roles/space plan and enact them together. Deviant behavior is group behavior. (Goode, 2001; Pontell, 1999; Pfohl, 1994; Dentler & Erikson, 1959; Durkheim, 1964; Erikson, 1962, 1966; Sutherland & Cressey, 1978)

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.

2. Deviant behavior is infused with emotional qualities, such as anger, frustration, jealousy, and resentment. (Heise, 1989; Heise & O'Brien, 1993; Kemper, 1993; Robinson, Smith-Lovin, & Tsoudis,

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1994; Smith-Lovin & Tsoudis, 1993; Smith-Lovin, 1994; Thoits, 1985, 1989)

→ 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 become 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.

3. Deviant behavior is rarely committed by all forms of human beings, not merely the mentally unstable. (Goode, 2001; Pfohl, 1994; Pontell, 1999)

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.

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4. Deviant behavior is committed by employees who occupy all levels of an organization, not only the lowest level, shop floor, blue-collar employees. (Sutherland, 1939; Braithwaite, 1984, 1985, 1989; Clinard & Yeager, 1980; Clinard, 1983, 1990; Coleman, 1985, 1987, 2001; Croall, 1992; Box, 1983; Levi, 1989; Appelbaum & Chambliss, 1997) ... are committed by employees who occupy all levels of an organization, not only the lowest level, shop floor, blue-collar employees.

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At Ebiz.com the hierarchical ladder approached being flat. At the developer level there were only 2 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.

5. Deviant behavior is 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. (Sutherland & Cressey, 1978)

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.

6. Deviant behavior is committed in information and communication technology rich environments (Colclough & Tolbert, 1992; Raelin, 1986; Hollinger, 1986; Hollinger & Clark, 1982; Oakes & Cooper, 1998; Sewell, 1992, 1998; Vardi & Wiener, 1996; Wiseman & Bromiley, 1996) in which the presence and use of the technology may allow for these acts to take difference 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, coprogramming, 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.

Mediated through the changes in the business environment, the bursting of the dot-com bubble, there seems to be a relationship between increased social control on the part of employers and increased levels of employee deviant behavior. As the company began to fail, social control efforts on the part of managers began to increase and motivational "carrots" disappeared. Employees seemed negotiate a fine line between acceptance and resistance of the workplace norms espoused by the owners. At the beginning of this study, during the boom phase of the dot-com bubble, 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 nonbureaucratic environment dazzled them. Along with this environment came the feeling that the employees were climbing aboard a ship that was sailing toward incredible success. 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. The carrots disappeared, the stick appeared and the employees began to engage in deviant acts toward the owners/managers of Ebiz.com. It is important to state that as the employees of Ebiz.com were greatly affected by the motivational myths espoused by the boom cycle of the dot-com bubble, they were equally effected by the antimotivational myths espoused by the bursting of the same bubble. Not all of the resistant behaviors can be seen as direct retaliatory efforts toward the actions of the managers of Ebiz.com.

In the information technology workplace, the tools of the tech worker (i.e., the computer and the Internet) also become the tools of deviant behavior. ICT enable deviant behavior. ICT also provides for new forms of deviant behavior that have potential to harm the organization in new, wide-ranging and intensified ways. 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 such 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 by the company provided the setting and the game Unreal Tournament provided the vehicle for increased deviance.

This discussion would not be complete without a mention of equity theory (Adams, 1965). It is possible to view this data in the light of both theoretical frameworks. Equity theory states that employees will seek to maintain a balance between efforts expended and rewards earned. Inputs are usually defined as effort, time, skill, loyalty while outputs are defined as pay, benefits, and intangible rewards such as praise, prestige, and trust. Equity theory states that an employee will compare him or herself to other employees and will adjust his or her inputs or request an adjustment in outputs accordingly. If there is a perceived inequality, this may be perceived as injustice and the employee will readjust the balance with antisocial, antiorganizational behavior. In the case of Ebiz.com, the employees collectively perceived that as long as the “carrot” of the dot.com boom was operating and they believed themselves on the path to success the owners and managers could ask for increasing inputs in terms of time, effort and loyalty. When the boom became a bust and the carrot disappeared the employees then began to perceive their situation as inequitable and unjust. Their tangible benefits did not change after the bursting of the bubble. They received the same amount of pay and benefits. However, the potential for future pay and benefits became less assured. This demonstrates even more clearly the power of the myths of the dot-com boom. Intangible hopes were enough to motivate employees to increase inputs above what they would normally consider unjust.

Implications

Here we arrive at the crux of the problem. In this post-dot-com era there are few carrots to entice IT employees to give 110% of their time

and effort to their employers. From the example give in this chapter, we can also see that in times such as these, once the carrot disappears, the stick will not give IT managers their desired results. Increased efforts to control employees may lead to increased deviant behavior. It is increasingly important for IT managers to find ways to both control IT employees' potential for deviant behavior and to retain highly-skilled, well-trained staff. Below are several suggestions for managers of IT staff that may reduce the instances of IT enabled deviance.

1. Make expectations of IT employees in terms of time and effort the same as all other employees.

During the time of the dot-com bubble IT employees were held to different standards than all other employees within an organization. They were expected to work far above a normal work week in terms of hours and effort. They were expected to be on call 24 hours per day. This led to burned out, short term, disposable employees. IT employees felt exploited. This fostered a short-timer culture in which anything was acceptable since most employees would be gone in a matter of months. During the initial boom phase of Ebiz a software developer (Herman, a pseudonym) stated,

Everyone thinks they're gonna be a millionaire these days. Hell, I'm no different. Why not? We all took this job thinking we'd go IPO and make the big bucks. If not, so what, I'll get another job that will.... I'll be here, at most, another year, but probably less.... If this doesn't work out, screw'em. I'll go somewhere where it will.

There was generally no time for rules, policies or procedures. Institute human resources policies designed for consistency, ready availability, fairness and equity with all employees of the organization. According to equity theory, if there is a perceived inequality, this may be perceived as injustice and the employee will readjust the balance with anti-social, anti-organizational behavior. The relationship between an employee's productive time and effort and the rewards for that behavior should be known and similar for all employees.

2. Change the culture of IT employees. Find and hire IT employees who value different carrots.

The culture of IT employees is often described as competitive, proud, arrogant, verbose, and secretive. IT employees as labeled antisocial, mavericks, prima donnas, and hostile to nonexperts (Symonds, 2000; Woodfield, 2000). Suriya, discussing the work of McIllwee and Robinson

describe the culture as macho, as requiring “aggressive displays of technical self-confidence” (Suriya & Panteli, 2000). Citing Sproul, Woodfield describes an elite computing culture that creates a concept of “them and us”: the technically competent and the incompetent. It is also suggested that the use of technical jargon makes the culture more exclusive (Pearl, Pollack, Riskin, Thomas, Wolf, & Wu, 1990; Woodfield, 2000). In this highly competitive and individualistic culture, working styles seen as “feminine,” like teamwork and consensus can be considered weak (Suriya, et. al., 2000). These maverick-style IT employees may be highly intelligent, yet will only work to their potential when under competitive stress, the illusion of constant crisis, or fueled by a get-rich quick pay-off. Presently, organizations are striving for well-rounded, collaborative, and flexible workers to suit their fast-paced, dynamic organizations (e.g., Nielsen, von Hellens, Greenhill, Halloran, & Pringle, 1999). The new IT workers can be motivated by more traditional means.

3. Increase the diversity of IT departments.

Homoogeneity of IT departments increases the likelihood of the development of deviant subcultures, acceptable (normalized) antisocial behavior. Diversity of skill sets is important for the economic success of businesses in the industry. In addition, homogeneous IT worker populations lead to a lack of creativity, stagnation and potential business failure (Florida, 2002). Real intellectual and social diversity should foster constructive dissent. Homogenous IT departments can also breed Groupthink (Janus, 1972) in which the group can make bad or irrational decisions as each member attempts to conform his or her opinions to what they believe to be the consensus of the group. Janis cited a number of antecedent conditions that would be likely to encourage groupthink. These include: Insulation of the group, high group cohesiveness, directive leadership, lack of norms requiring methodical procedures, and homogeneity of members’ social background and ideology.

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4. Stop rewarding heroics. Reward steady, careful progress.

Discourage the IT employees from pulling all-nighters, giving up of home life, and competition of one-upmanship. Develop motivation and reward practices that encourage well-rounded, stable employees. Offer IT employees midyear raises, retention bonuses, employee referral bonuses to increase stability and longevity of IT departments.

5. Increase organizational investment.

Empower IT employees. If IT employees are made to feel as if they are “system janitors” rather than valued professionals the likelihood for deviance increases. Include IT staff in high level decision making. Give IT employees a stake in organizational success. Give IT employees the authority to impact the broader picture of the organization and contribute to decisions and strategy, problem solving and policy making.

Travis Hirschi (Hirschi, 1969, p. 20). presented four social bonds which promote socialization and conformity. These include attachment, commitment, involvement, and belief. He claimed that the stronger these four bonds, the least likely one would become deviant. Two of these bonds can be seen as instructive here, commitment and involvement. The second bond is that of commitment and it involves the support of and equal partaking in social activities tie an individual to the moral and ethical code of society. Hirschi’s control theory holds that people who build an investment in life, property, and reputation are less likely to engage in criminal acts which will jeopardize their social position. The societal accumulations that one accrues throughout a lifetime represent assurance to society that this person is committed to conventional values. He has more to lose by violating laws. Not only can one be committed to conformity by what he has obtained, but the hope of acquiring goods through conventional means can reinforce one’s commitment to social bonds

The third bond is involvement. This addresses a preoccupation in activities which stress the conventional interests of society. Hirschi argues that an individual’s heavy involvement in conventional activities does not leave time to engage in delinquent or criminal acts. He believes that involvement in school, family, recreation, and so forth, insulates a juvenile from potential delinquent behavior that may be a result of idleness. Engrossment in conventional activities comprises the component of involvement.

If the managers of IT personnel can enable employees to strengthen their bond with the employer through commitment and involvement activities it is possible that instances of employee deviance will decrease.

6. Understand the technical nature of IT staff.

Employees monitoring systems will not work on employees who have the skills to disable and manipulate them. Monitoring programs will only serve to engender mistrust and added division between IT staff and managers.

Developing these strategies may lead to (1) stable, yet creative organizations that are capable of adapting and remaining competitive over time, (2) loyal IT workers who stay with the company and remain productive,

and (3) organizational success, in terms of dollars, value, and industrial power.

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