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Technological determinism and discursive closure in organizational mergers

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Abstract *In times of organizational change leaders often tell stories that justify publicly the directions in which organizations move. Such stories are always political in nature and often reflect the motives of the storyteller. We observe how leaders in high-tech organizations use the story of technological determinism in organizational settings as a discursive practice through which they invoke the “inevitability” of technology to justify managerial decisions to the public. Rather than taking ownership of certain actions, managers are able to use this story to claim that certain organizational changes are inevitable, and to eliminate alternative stories. We examine this strategy as it appears in the public discourse produced during two mergers in the high-tech and telecommunications industries occurring from 1998 to 2002: US West and Qwest, and AOL and TimeWarner. Finally, we demonstrate that the story of technological determinism performs discursive closure around each merger.*

Organizational change, often contested, is likely to be even more so in the case of a corporate merger. As Howard and Geist (1995) remark, “The decision to merge provides a dramatic enactment of organizational change” (p. 110). Although merging may affect organizational processes and discourse on all levels, we are concerned with the discourse that, seeking to make sense of the merger, answers the questions “Why should we change?” and “What should we change to?”. Following Alvesson (1990), and Cheney and Christensen (2001), our concern is with issue management, or the ways in which this discourse positions the new organization within its environment and eliminates controversy and oppositional discourses. We suggest that this discursive positioning can occur through storytelling. While stories certainly make sense of changes (Weick, 1993), in doing so they suppress certain conflicts and mask multiple interpretations of the situation (Martin, 1990), and perform what Deetz (1992) has called “discursive closure”. Through elimination of alternative conceptualizations, storytelling discourses deliver political, social, and economic advantages to certain organizational ideologies over others (Deetz, 1992).

One of the challenges faced by merging organizations is that of crafting and then communicating a new corporate identity (Gancel *et al.*, 2002; Ralls and Webb, 1999). Although traditional research has focused on the practices of internal communication surrounding a merger (Larkin and Larkin, 1994; Schweiger and Denisi, 1991), recent



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studies have shown that communication by executives to the public is also important (Lindeborg, 1994; Prasad and Mir, 2002). Executive discourse must function both to make sense of the changes and also to “sell” them as positive. The discourse corporate executives employ when communicating publicly about their organization profoundly shapes the ways in which the organization is perceived, valued, and even financed (Hyland, 1998; Prasad and Mir, 2002). Executive discourse in this situation is strategic action, which not only explains why the merger makes sense given contemporary economic and social trends, but also makes the case for why the change had to be this way rather than that (Cornett-DeVito and Friedman, 1995; Howard and Geist, 1995).

In this essay, we examine two highly publicized mergers of high-tech organizations to explore how they make this case. In each, organizational leaders use the story of technological determinism to suppress controversy and create discursive closure. These stories create a “discourse of inevitability”, in which certain changes are made uncontested due to their grounding in what is portrayed as the intrinsic nature and effects of technological progress. We argue that regardless of whether or not it accurately describes the world, technological determinism is a powerful story that can be used by organizational members to frame organizational change as inevitable and, therefore, uncontested.

To demonstrate this point, we detail the discourse surrounding two mergers in the high-tech industry. Several internal and external groups contested each merger, and in both cases organizational leaders directed a substantial effort toward issue management (Cheney and Christensen, 2001). The first example, from telecommunications, is Qwest’s acquisition of US West. The second, from communications and media, is AOL’s acquisition of TimeWarner. We begin, however, by more carefully laying out the relationship between storytelling and organizational change, and the specific story of technological determinism.

Storytelling and organizational change

Stories help institutionalize certain organizational practices, ideologies, and culture (Boje *et al.*, 1997; Browning, 1992; Clair, 1993; Martin *et al.*, 1983; Mumby, 1987). Sociologists of knowledge describe how stories are used to produce knowledge about certain “immutable truths” through rhetorical processes that persuade through representation (Knorr, 1999; Latour and Woolgar, 1986). Stories are accounts that privilege certain conceptual systems while excluding others, and in the case of scientific practices, even have the potential to determine what is understood as fact.

Stories clearly have their politics. In a critical re-read of a story recounted in Martin *et al.* (1983). Mumby (1987) contends that stories may hold deeper meanings that aid in the creation and proliferation of distinct dominant interests. That is to say, stories may appear to provide factual accounts of events, yet they always embody certain politics and ideologies. As such, stories are a prime medium through which organizational leaders can attempt to influence culture strategically. Public organizational discourse, represented by organizational leaders speaking on behalf of the organization as a whole, can be understood as an important means for ideological-cultural control, whether intended or not (Alvesson, 1993; Mumby and Stohl, 1991).

One instance where cultural control is desirable, and often an explicit goal, is in change processes. When organizational change is a major undertaking requiring transformation of cultural practices, people turn to stories in order to assuage tension

and release anxiety (Boje, 1991; Lewis and Seibold, 1998). Telling stories about change can alleviate the pressures associated with change processes and ease the transition from one ideological position to another (Howard and Geist, 1995). Given that there are often multiple and conflicting views about the direction in which an organization can change, stories must be selected that speak to the incongruities made manifest in change processes. Stories are the narratives that reconfigure the organization and the interpretations that organizational members give to their experience (Czarniawska, 1997). But what story does one tell? McGregor (1960) observed that in organizational contexts “the power to influence others is not a function of the amount of authority one can exert. It is, rather, a function of the appropriate selection of the means of influence which the particular circumstances require” (p. 31). Creating a cogent story of change requires a logical and indisputable answer to the questions of “why should we change,” and “what should we change to”, as well as specific attention to the processes and artifacts that make change a feasible option. In modern high-technology corporations technology is often this catalyst for change (Carlson, 2001; Jackson *et al.*, 2002). Therefore, one influential story organizational leaders in high-tech organizations can tell is a story of technology.

Telling the story of technological determinism: creating a discourse of inevitability

Generally, technological determinism is represented by either one of two beliefs (Bijker, 1995b). The first is the belief that technological development follows a trajectory that is intrinsic to the technology itself. Technology “advances”, with newer artifacts replacing the old, on a progressive course. Denying technological advance is to intervene socially – which in this context means prejudicially – and to work against the natural order of the world. The second is the belief that technologies act upon the social world in predictable, inevitable ways (Heilbroner, 1967). In “hard” versions of determinism, this is a clear causal relationship; in “soft” versions, agency is deeply embedded in larger social structure and culture (Marx and Smith, 1994). Both hold that a technology’s intrinsic properties and functionalities determine or drive socio-cultural changes. Michael L. Smith characterizes the relationship this way,

“Technological determinism” is a curious phrase. The gist of it is heartbreaking in its simplicity: the belief that social progress is driven by technological innovation, which in turn follows an “inevitable” course (Smith, 1994a, p. 38).

A substantial body of research challenges the accuracy of technological determinism’s depiction of reality. Histories of technology and studies in the social shaping of technology demonstrate the complex, political, and thoroughly social nature of technological development (Bijker, 1995a; Bijker *et al.*, 1987; Smith and Marx, 1994). Without denying the power of technology to create and constrain the world (Schwartz, 1983; Winner, 1977), research adopting a social-centered or constructionist perspective of technology nevertheless shows repeatedly the ways in which users not only subvert the uses for which technologies were intended (Fulk, 1993; Scott *et al.*, 1998), but also reconstitute artifacts in social interaction (Barley, 1986; Poole and DeSanctis, 1990).

Despite the evidence against its empirical accuracy, technological determinism remains powerful and persuasive. Throughout the history of the US, the notion of progress has rested on a doctrine of technological development: the more we build,

create, and automate, the more progressive we understand ourselves to be (Smith, 1994b). Based on this doctrine, a general discourse about technology has evolved that holds technology as the harbinger of social progress. Another reason determinism is powerful is that it offers stability in the face of technological change. As Scranton (1994) observes, “[Technological] determinism calls forth images of universal structures and dynamics that deny or sharply delimit the capacities of individuals or institutions to alter history’s trajectory” (p. 144).

Determinism is also persuasive at the organizational level. Reports and research of new technologies in organizations often treat change as a deterministic process by assuming that when individuals are equipped with certain technologies, their work practices will change in inevitable ways (O’Mahony and Barley, 1999). As Edwards (1995) notes, larger discourses of technological determinism in society have influenced managers to believe that productivity gains and social changes will be the automatic result of the introduction of new technologies. Moreover, sociological studies of organizations report that bosses and managers defend certain work arrangements because they are “inevitable”, explaining that particular organization processes are “a necessary corollary of modern production technology” (Edwards, 1979, p. vii). From a social constructionist perspective (Jackson *et al.*, 2002), technological determinism is a story organizations tell to privilege certain changes over others.

Following Houston and Jackson (2003), we acknowledge that all accounts of technology are constructed, but that each account is adopted to meet certain needs or in accordance with certain assumptions. Determinism is an account that presumes certain relationships between technology and the world and, therefore, can justify certain choices, actions, and policies. We adopt a constructionist perspective to explore the performative force of the story of technological determinism and how social actors can use it to justify certain accounts of reality.

While technological determinism might surface at any level of an organization, our interest is with the organization’s public face, as constructed through the discourse of its leading executives. At this level, an important function of discourse is issue management, where

... the *issue* becomes a universe of discourse designed, managed, and ultimately, shaped by organizational rhetors and strategists in an attempt to shape the attitudes the audience holds toward the organization or its concerns. From this perspective, the audience or public becomes something that is ‘pursued’ with the goals of understanding, persuasion, and control (emphasis in original, Cheney and Christensen, 2001, p. 239).

In modern critical scholarship, the invocation of technological determinacy is seen increasingly as a discursive strategy aimed at privileging certain meanings and attaining certain social and political advantages (Deetz, 1990). In this view, technological determinism is rhetorically persuasive. An organization that uses such processes to proactively manage issues acts not by response, but by setting the agenda for public discourse, which then shapes the content and tone of the discussion. This is discursive closure at the public level:

[T]he proactive organization attempts to influence and shape external developments in ways considered favorable in terms of its own aspirations . . . Being proactive means being involved in the definition and construction (albeit not necessarily control) of reality. . . While a proactive management of issues may allow organizations (large, powerful organizations in

particular) to define rhetorically their own discursive domain, it makes it possible for such organizations to determine the appropriate responses to the issues in question (Cheney and Christensen, 2001, p. 253-255).

Methodology

This study examined the public discourse produced by company officials about the mergers of US West and Qwest Communications and of American Online (AOL) and Time Warner, Inc. Qwest completed the acquisition of US West in June, 2000, 10 months after it was announced. AOL and Time Warner announced their merger in January, 2000, with AOL's acquisition completed in January, 2001. We collected press clippings about the mergers that appeared in daily newspapers over the two year periods before and after the mergers were announced (1998-2002). These were collected from two archival databases: Lexis-Nexis and FirstSearch. We first located articles about the mergers in major US national newspapers. We performed a second search to locate additional coverage on the US West and Qwest Communications merger in major newspapers of the western region of the US.

Criteria for including an article in our database depended on the time period in which the article appeared. For the years preceding the merger, an article had to mention both of the companies and talk about either the merger specifically, or the possibility of a merger. Post-merger articles needed to mention the organizations' future or vision. Also, each article contained public discourse about the company or the nature of the merger delivered by either a public official or industry analyst. In total, we collected nearly 250 news articles about the companies[1]. In addition to the secondary material obtained from press clippings, we also collected primary material about the companies and the mergers (speeches, press releases, and official statements) from each organization's Web site. Finally, we contacted the public relations departments of the new organizations to obtain their "pillar messages" about the merger.

Following Dobers and Strannegård (2001), we used the collected material to form a chronological outline of the public story told by company officials about the mergers. Arranging the data chronologically allowed us to construct a more complete story that each organization told about the mergers than would a focus on proclamations made at specific instances. We were then able to examine the ways company officials strategically positioned the mergers, paying specific attention to how the public discourse about the mergers created an overarching coherent discourse that espoused certain ideologies and beliefs about the nature of the changes. Thus, the stories we reconstruct for each of the mergers represent one discursive instrument used by the organizations to frame the changes that occurred (Deetz *et al.*, 2000).

Our interest was in exploring how technological determinism is appropriated as a discursive strategy for framing mergers. We paid particular attention to elements of narrative reasoning (Czarniawska, 1997) including plot, the explanations given for the mergers, explanations given for the cultural and technological changes that took place following the mergers, narrative presentation, and visions proffered of the future of the organizations. Consequently, working from prior research that has examined technological determinism as a theme in history (Marx and Smith, 1994), we identified three themes that are at the core of such a story and that display the above

elements of narrative reasoning. First, technology is a change agent. Technology acts upon the social world; the social world does not shape technology[2]. Any attempts to act upon technology, diverting from its natural course, are bound to fail. In this sense, technology is neutral with respect to values or biases; it is independent of the people creating it or using it. The second theme is inevitability. Both the development and the consequences of technology follow natural courses that are predetermined by a technology's intrinsic properties. Thus, all views must be broad and seen in the context of history and the future. The elements of the situation are larger than any specific issue or set of players. The third theme is the reliance on progress as an unarguable social value. A deterministic story will see new opportunities as valuable and will exhibit a bias against conservatism. In the next section, we use these themes to analyze how technological determinism is used as a discursive strategy in each merger.

Case examples

US West and Qwest

On June 2000, Colorado-based US West and Qwest Communications International completed a \$40 billion merger. Analysts assailed the union, saying that the two companies had incompatible technologies and corporate cultures. There was reasonable evidence for this position: US West was a legacy phone company with over a 120 year history in its 14 state territory, while Qwest had just completed its fifth birthday at the time of the merger and was promoting itself as an international Internet company. US West had 25 million customers and Qwest had none. Technologically, the companies were very different. US West used copper wire technology for voice data transfer and dabbled in DSL over its phone lines. Qwest was laying over 4 million miles of fiber optic cable around the world. In terms of culture, US West was known for its dense bureaucracy and unwavering loyalty to its employees. Qwest was designed much like an Internet start-up and had one of the highest employee turnover rates in the industry.

Nevertheless, US West was looking for a technology and Qwest for a service. Owing to an inflated stock price and a burgeoning Internet economy, Qwest was able to purchase US West in a move that epitomized the "new economy" and fulfilled the connotations of its name in undertaking a grand and epic adventure. US West, despite having all the customers, profit, and history, saw its technology and its culture replaced by those of Qwest. Qwest used the presumption of technological determinism to obliterate the long-standing corporate identity of US West.

Technology as change agent. Officials at Qwest frequently commented publicly that the successful telecommunications companies would be those that capitalized on the changes technology brings. In Qwest discourse, technology is typically situated as the subject, acting upon the world and sweeping Qwest along with it. As a member of the board of trustees at Qwest proclaimed, "(Fiber optics technology) is the future. We can't do anything to change it. We might as well use it to our advantage". Repeatedly, Qwest officials took advantage of the discourse already popular in the telecommunications industry: that technology is an actor that *causes* change. The comments of one industry analyst, commenting on the merger, are illustrative:

While many areas will be transformed by the businesses being run there, one agent of change stands out – technology. From wireless communications to online trading, technology might

not be changing everything, but it's touching nearly every aspect of life from the way we do business to the way we travel.

One of the ways Qwest officials worked to position the organization as a “cool internet company” was to argue that Qwest was simply riding the wave of change. As CEO Joseph Nacchio commented in a media interview,

What surprises me is that [the Internet] continues to grow as fast as it's growing. I think people are starting to understand the phenomenon of the Internet – the whole collection of technologies. It's creating a completely different world that we're all going to live in.

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And as one vice-president remarked, “We've seen the revolution of technology. Now we're seeing a revolution of Internet possibilities”. Company officials tell the story of societal change as an outcome of technological advancement generally, and of Internet technology specifically.

Portraying the Internet as an independent entity that will evolve regardless of any particular intervention justifies why the new Qwest should focus its energy on new Internet technologies rather than on antique copper wire phone technology as US West had done. Setting the stage for change in this way, Qwest officials positioned the company as simply taking advantage of the opportunities created by technological change.

Inevitability of technological change. Although Qwest used the popular theme of technology as a change agent, they could not have positioned Qwest at the forefront of changes so effectively had they not been careful to point out that technological change is inevitable. Invoking important periods of technological change in history, Nacchio explains how the future of Internet technology is certain,

Nobody knows what's out there. But, what you do know is there is a fundamental economic and social shift caused by technology. There have been periods in our history – the printing press, television. This is as significant a change as those earlier events. And what we're going to do with this is . . . help shape that future.

Discourse produced about the inevitability of technological change by Qwest then justifies why the company must focus on Internet technology rather than on voice-data transfer:

We have to make sure that everyone in the company working on basic telephone service understands that's a steppingstone to bringing new customers to this world of the broadband Internet future. If they (customers) aren't on computers yet and aren't into electronic shopping yet, let's build the reputation by giving them great quality service and great value so, when they're ready, they come to us.

Nacchio's comments here are purposefully filled with “yets”. He explains how the Internet future is inevitable and that people will use the Internet, and that the statement that they will eventually be “ready” for the change is not simply a possibility but an assurance. Indeed, the inevitable march of technological change will not slow to allow us to cope. Companies like Qwest, therefore, have an obligation to help us manage this new world. Nacchio proclaims,

If you're going to be one of the big companies on a global basis, you're inevitably going to be joining or buying companies . . . We have a responsibility to help regulators and politicians and businesses and consumers not get left behind in the digital divide.

Qwest officials constantly played with the idea that because technology is on a predetermined course, so too should their business practices.

Technology as social progress. Qwest officials never wavered on the position that Internet technologies would positively impact society. In a letter to shareholders Nacchio explicitly ties Qwest's focus on technology in with the advancement of society:

Today, our new technology signifies a change of even greater magnitude. Bits and bytes. . . are transforming not only how we communicate, but how we work and how we live. People are using televisions as computers and computers as telephones. Children play games across oceans instead of across tables. . . Even grandmothers are surfing the Internet. While few of us know what is around the next technology bend, one thing is certain: the ability to communicate effectively in digital bits and bytes is quickly becoming the foundation of our new economy and society.

By invoking the easy link between technology and progress presented by determinism, Qwest justified its commitment to innovation.

Similarly, Qwest's 1999 annual report highlights the company's interest in providing the technology that will help society progress: "From our first days as a new company, Qwest has been dedicated to harnessing the power of technology to deliver the benefits of the Internet to customers," or in another of Nacchio's letters to shareholders, "(The completion of) this transcontinental (fiber optic network) link ushered in an era of industrial, economic, and social progress that exceeded possibilities envisioned by all but a few pioneers".

The corollary to the promotion of progress is a bias against conservatism. Qwest officials consistently positioned Qwest and its use of technology as progressive and US West and its lack of interest in new technologies as conservative. As Nacchio proclaims, "Our business model cherishes speed and engagement. US West's business model is more traditional. . . We're changing from a culture of entitlement to a culture of growth and service". Qwest officials portrayed Qwest as a company on a quest into the future while painting the picture of US West as a company firmly rooted in the past, and thus anti-progressive.

AOL and Time Warner

According to their corporate information, AOL TimeWarner (ATW) is "the world's leading media and entertainment company" whose businesses include content and services for delivering that content over both traditional publishing media as well as over cable and the Internet. In a move that dramatically demonstrated the dominance of the new media in the late 1990s, AOL, a leading Internet service and content provider with nearly 35 million subscribers, sought to acquire TimeWarner, which billed itself as the world's largest media and entertainment company, in January 2000.

The merger was controversial on two grounds. The first was a concern for loss of market competition. The merger would give Time Warner access to AOL's 35 million customers, and AOL access to a cable platform for service delivery. As Jeff Chester of the Center on Media Education framed it, "This is the equivalent of control of the railroads in the early 20th century, but it's far more important because it's about the control of the central nervous system of our democracy" (Marks and Scherer, 2000). The second source of controversy was a possible clash of organizational cultures and values, specifically that, as an Internet company, AOL would not respect traditional journalistic values grounded historically in print media.

From the time of the announcement to its final approval, leaders of each company spoke frequently in public forums in support of the merger. Using themes of technological determinism, AOL's Steve Case and Time Warner's Gerald Levin sought to allay fears of decreased competition by portraying the merger as opening possibilities, increasing opportunities, and fulfilling destiny. The story of technological determinism deflects controversy by redirecting attention from the market to the technology.

Technology as change agent. Central to the story told by AOL and Time Warner executives is that technology will drive global change, penetrating all levels of society. Case regularly painted this picture:

Every day, we see new evidence that our world is growing increasingly connected. The interactive experience is changing the way we communicate – and the way we build our communities. It is changing the way we entertain and inform ourselves; the way we shop and share ideas. It is changing the way we do our jobs and the way we run our businesses; even the way we connect with government.

Further, Case implicates the Internet as changing the world's relationship with information and credits it for opening up avenues of inquiry and possibility where none existed before:

The Internet is democratizing education, offering young people in poor communities access to a wealth of knowledge. It is improving health care by enabling rural doctors to consult with leading specialists far from home . . . It is forging new connections and community ties across barriers of distance, class and culture – ties that can have global implications. . . The Internet isn't only changing the way we do things; it's changing the way we think about the things we do.

The global scope of these changes diverts attention away from the agency of ATW; rather, the newly formed company will be both midwife and caretaker to this transformative technology. The new company, consequently, has a responsibility in this new world where the changes wrought by technology are so extensive that they cannot be contained or directed by any single entity. In merging, therefore, the companies perform a kind of service to humanity. Case promises “. . . the merger will . . . build a truly global Internet community . . . We will use our leadership to build a better world”. Levin adds that marrying the capabilities of AOL to broadband services “will break down the digital divide . . . The Internet is the technology of human freedom”.

Inevitability of technological change. Inevitability is an important element in the discourse surrounding this merger, specifically the inevitability of technological convergence. As a position on technological development, convergence is fundamentally conservative because rather than creating new technologies, convergence ties together existing technologies into new possibilities. Convergence merely enables what is already likely to occur.

In the convergence of existing devices is the promise of new potentials. Levin portrayed the situation this way, “We're at the cusp of what we think will be a new era as the television and the PC and the telephone start blurring together and the promise of the Internet the promise of interactive personalized services really move out to the world at large”. In convergence, old technologies are born again. The head of AOLTV explained in an interview, “Your television will be a computer. It will look like a TV, act

like a TV, but it will have a computer inside . . . It will be connected to the Web and all the content will be delivered over the Internet. So will your music, your data and your telephone”.

The argument here is that since these devices are already blurring together, further movement in this direction is inevitable and, therefore, the merger is not uniquely threatening. The natural trajectory of development provides the logic to support joining the companies. The merger is simply an opportunity to take advantage of this moment in time.

A second aspect of inevitability used in this story is time. Changes brought about by Internet technologies are recent and happening very quickly. Case warns, “All this is all happening at lightning speed – sometimes faster than public policy and private sector practice can keep pace with. And certainly faster than some countries and communities around the world can keep up with”. Placing the trajectory in time makes the predictions for sweeping changes in the future seem reasonable. It also establishes a sense of urgency: the merger cannot be delayed.

Inevitability allows these companies to make a curious argument. On the one hand, convergence is inevitable. But on the other hand it needs the involvement of a merged AOL and Time Warner. Thus, the merger of the companies is itself inevitable. The companies themselves are caught up in this determined trajectory, and so it is not rational to prevent the merger.

Technology as social progress. As individual companies, AOL and Time Warner represented two very different media cultures. AOL represented the brash young Internet culture, and Time Warner embodied established cultures inherited from a legacy of print media and journalism. As such, the merger had to accomplish the integration of progressivism and conservatism. One implication for the story of technological determinism, then, was that the story had to speak to what constituted progress in both of these cultures. It had to be simultaneously progressive and conservative. This was accomplished through the strategy of seeing the merger as fulfilling history. For example, Levin frequently invoked the past in framing the merger as the means to fulfill historical visions:

It’s so fundamental with respect to the human condition . . . the Internet is essentially like the library at Alexandria, not Alexandria, Virginia, but that Alexandria – the sum total of the world’s thinking – Gresham’s Law – some good, some not so good, but it’s all there. It’s all there for me to access. We’ve never had that condition before. . .

Case, speaking on behalf of the Internet culture which had little history to be fulfilled, faced a more difficult task. Yet he, too, drew on the value of technology and progress through different strategies. One was to speak from the future, “My hope is that, 20 years from now, we’ll be able to look back on this time, and say we helped build a medium of which we could all be proud of. A medium that empowered people to make the most of their potential”.

A second strategy was envisioning promises of a new reality, and identifying the present as a time that will be seen in the future as a critical turning point. The progress of technological determinism is the sense of being swept up into something larger than oneself. Upon final approval of the merger, this theme echoed strongly throughout the press, as headlines hailed it,

“The triumph of the Internet as an irresistible force; ‘A gripping transitional moment in history;’ ‘One of those events that have the potential to change the competitive landscape so fundamentally that nothing can be the same again’” (Hickey, 2000).

Though both companies appropriated the theme of progress, they did so in a conservative sense. The merger, rather than creating anything fundamentally new, simply fulfills destiny by releasing (and realizing) the potential that already exists.

Technological determinism and discursive closure

Organizations in controversial change efforts must speak to both internal and external audiences. Our analysis of the public discourses produced during the mergers of US West and Qwest, and AOL and TimeWarner, show how these organizations attempted to justify to their external audiences the changes that were occurring through a consistent telling of the story of the merger as only an instantiation of the grander, historical story of technological determinism.

These stories closed off alternative interpretations of the feasibility and sustainability of the mergers. That is, they accomplished discursive closure, or the suppression of conflict (Deetz, 1992), which then in turn works against open and reflective communication about organizational processes and constrains organizational change. Drawing on Foucault’s concept of discipline and Habermas’s theory of communication action, Deetz argues that such discursive formations make power relations largely invisible by systematically distorting communication and disabling opportunities for genuine communication.

The key to discursive closure is that it is difficult to notice. Deetz, for example, examines the ways in which closure occurs on the level of daily interaction among organizational members, insinuating itself into ordinary practice. In terms of public discourse, as we examine here, there are no similar occasions for interaction. Closure occurs proactively, through framing the grounds for discussion and debate. Technological determinism, we argue, provides one such frame. We can demonstrate how technological determinism frames discussion by examining it in relation to the mechanisms for discursive closure provided by Deetz (1992): disqualification, naturalization, neutralization, topical avoidance, legitimation, and pacification.

Disqualification

This mechanism allows only certain individuals to speak with a legitimate and authoritative voice. Whenever change is communicated externally, organizational messages are filtered (Cheney and Christensen, 2001), resulting in the amplification of certain stories, and the disqualification of others. The heavy use of mass media to disseminate messages necessarily involves disqualification in that only certain individuals are granted access to media outlets – in this case, those with high enough rank to speak “for” the organization (Becker and Wehner, 2001). Lower-ranking members of the organizations might very well want to frame the merger in different terms (one could imagine that US West employees, for example, would want to tell the story of Qwest’s bottom-line mentality and lack of loyalty to customers). The nature of mergers may even silence executives; the number of officials speaking publicly about either merger was surprisingly low. US West’s Sol Trujillo, for example, explicitly refused opportunities to speak publicly in any detail regarding the merger with Qwest.

Naturalization

This is the mechanism by which the social is reified and taken as natural. A core tenet of technological determinism is the denial of the social influences on technical development or consequence, and a commitment instead to technology's natural evolution (Barley, 1998; Staudenmaier, 1994). Both the new Qwest and AOL TimeWarner had much to gain if the social factors of technological development were made invisible, because both companies are in the business of selling new technologies and services that run through those technologies. Although technically there are many technologies and applications that make up each company's products and services, officials repeatedly "boxed" this complexity, referring to the technology in the singular and making it a nonproblematic "it". Further, tying their own stories of technological advancement into an already popular view of computing and the Internet as socially transformative makes technological progress natural; consequently these organizations could deflect criticism that the mergers were simply about self-interested economic gain.

Neutralization

This mechanism hides values; value-laden activities are treated as if they were value-free. The appeal to "inevitability" was the core means for removing a discussion of values from these mergers. In the case of AOL and TimeWarner, for example, organizational leaders argued that their companies were caught up in a predetermined trajectory of convergence, and so it was not rational to prevent the merger. There is no space to discuss values of consumer choice, for example, for who can argue with a destiny that will make choice irrelevant? Neither the new Qwest nor ATW was a neutral player in a world filled with technological advancement and convergence. Through regulatory acts and inter-organizational alliances these companies helped create the technological world from which they benefited. Each organization stood to gain much through the mergers, in terms of monopolization, access to resources, and capital, not to mention the personal financial boon to corporate executives, by simply reveling in the *zeitgeist* of technological advancement (Dobers and Strannegård, 2001) they created.

Topical avoidance

This mechanism operates in a manner similar to interpretive framing (Mumby, 1989), in which certain events, feelings, and beliefs are systematically prohibited or discouraged. Technological determinism does not have a space for addressing topics such as power and control, which are essentially social rather than technical in nature, but yet are significant in situations of dramatic organizational change. Technological determinism allows organizations to appropriate the positive and popular ethos of progress and change and to avoid negative issues. For example, surprisingly, the discursive appropriation of technological determinism did not change during the collapse of the telecommunication sector, even though the crash occurred during the period of each merger. On the other hand, vilifying the irrational exuberance of the Internet mindset was a dominant theme in the discourse of executives that succeeded Nacchio, Case, and Levin. Further research might analyze whether later public discourse simply abandoned technology determinism, or engaged and criticized it as a guiding rationality.

Another example of topical avoidance is Qwest's avoidance of US West's famously poor reputation for service. US West's nickname among its customers was "US Worst" and the new Qwest could have played with this notion to promote its own interests. Yet this may have potentially exposed the new Qwest to many criticisms given that, on the one hand, they were deliberately trying to change the nature and content of the service, and on the other, the old Qwest had no service to sell. By invoking the tenets of technological determinism organizations were able to tell a story that favored their own business capabilities, while purposefully avoiding other, less favorable interpretive frames.

Legitimation

Deetz (1992) argues that legitimation is a process of linking "grander master values" in society to specific conditions of an organization. Technological determinism allows organizations to avoid justifying a change in terms of its own specific and local merits because the story functions on a macro-societal level (Misa, 1994). Neither the new Qwest nor ATW needed to convince the public that technologies are inherently good and that social systems are determined by systems of technology (White, 1969); the public had long before internalized that argument. In particular, the companies could ride the wave of the "New Economy" discourse, in which classic US master values loomed large, such as innovation as leadership ("lead, follow, or get out of the way"), and the presumptive valuing of the new over the old. Company officials simply needed to explain how their organizations were participative in this process. Telling a story that was already legitimized gave credence to their versions of why the changes occurring as a result of the mergers did and should have taken place.

Pacification

This refers to the diverting or subverting of conflictual discussion through an apparently reasonable attempt to engage in it. An important conflict in both of these mergers was the effect on competition and on the consumer. Both companies boldly engaged in the discussion of competition with the ammunition of the "inevitability of technological change" already present in both popular and academic discourse that treats "the digital economy" as if it were an objective, and inevitable phenomenon (Orlikowski and Barley, 2001). The reframing afforded by technological determinism turns issues into non-issues by removing the ability to act. "They work precisely because they are relevant, but they divert attention away from the things that the interactants can change . . . to the things that cannot be changed . . ." (Deetz, 1992, p. 197).

Conclusion

This study has examined mergers in two areas of the high technology industry to investigate how organizational leaders strategically adopt stories to engage in image management and to "produce an appealing picture of the company for various publics (customers, shareholders, governments), and to position it in a beneficial way" (Alvesson, 1990, p. 378). We have explored the work that can be done by the story of technological determinism; a story deeply embedded in the social psyche of the US, yet typically examined only in broader discussions of societal change. An important contribution of this study is that we find that technological determinism is also a robust

organizational narrative. It is a powerful mechanism for creating a discourse that positions certain organizational changes as inevitable, privileges certain ideologies, and prevents the telling of competing stories. In doing so, organizational leaders create an ideological fiction (Jehenson, 1984) through which they “engage in strategic interaction ... concerned with convincing themselves of the rationality of their own instrumental activities, to the extent that what matters is no more whether or not it is actually rational but whether the competing partner perceives it as such” (p. 282).

The analysis suggests at least two implications for future research. First, this study directs us to further theorize the nature of “appropriated stories”, or the strategic use of master social narratives for organizational objectives. This would extend, for example, Czarniawska (1997) categories of organizational narrative to include how stories function to communicate across organizational boundaries, not simply within them. Second, the treatment of discursive closure begun here should be further developed. Deetz (1992) outlined processes of discursive closure operating at an interpersonal level; however, the results here suggest that a similar process occurs in public communication as well. Further research might uncover the processes of discursive closure that are distinctive to public communication.

Stories, such as technological determinism, prove to be a means for discursive closure to operate on the level of public discourse. Discourse at this level is crucial in mergers, in terms of issue management and building new corporate identity. In these deterministic narratives, the organizations lose culpability (because they are not agents in the equation) and the merger takes on legitimacy as the organization helps to fulfill society’s “destiny”. In this way, the mergers themselves become legitimated as historically determined. Hence, controversies of mergers themselves are lessened, as organizations portray themselves reactive by means of the strategic and proactive appropriation of a deterministic story.

Notes

1. For a complete bibliography of news coverage and Web site material used in the generation of our case examples please feel free to contact the authors.
2. Though this is a common theme in technology studies, it may be remarkable within organizational studies. As one reviewer of this manuscript observed, if we see “agent” in Burkean terms, technology has been regarded more typically as agency, which precludes its consideration as agent.

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