



## Researching cultural metaphors in action: metaphors of computing technology in contemporary U.S. life

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### Abstract

This article presents the utility of cultural metaphor as an analytic tool and theoretical construct in consumer research. Specifically, we extend current applications within consumer research by situating metaphor as a linguistic and cultural practice in consumers' socially embedded talk and actions (vs. text and self-report) and by foregrounding an anthropological, cultural analytic framework. Based on ethnographic research, we take as our prime example the ways that computer and internet metaphors have had an impact on U.S. consumer meanings and actions in offices and other realms of daily life. We suggest that researching cultural metaphors *in situ*, in the everyday, naturally occurring context of consumer lives, has the potential to demonstrate highly relevant categories of meaning among consumers and thus represents an important strategy for market research.

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### 1. What is an office?

In late 1999, we were asked to speak to a Fortune 100 company about the impact of technology on the ways people organized information in offices, at work or home. As the anthropological voice among the handful of assembled business experts, our assignment was to address “the human need to organize.” This company, in the business of paper, file folders (“dividers”) and labels, was seeing the effects of electronic communication and storage. If the office becomes paperless, then what?

Drawing on our experiences as ethnographic researchers in consumer environments, our talk covered the multi-dimensional aspects of organization—the aesthetic, the functional and the symbolic. We emphasized the fact that organization occurs in a living space—whether office or home. As a living space, an office would be varyingly

landscaped by symbols of the self (Belk and Watson, 1998) ([Figs. 1 and 2](#)).

The underlying question the talk raised was ‘What constitutes an office?’ Across much of the last century, the answer would have foregrounded a space that included a desk with drawers, a chair, paper, pens, maybe pencils, a phone, file cabinets or other form of paper storage, a wastebasket; in the last few decades, with the addition of the desktop computer. But today, we argued, the office *is* the computer—wherever it may sit (on the kitchen counter, park bench, in a backpack, hotel room, airplane, Starbuck’s counter—wherever). We suggested to the company that it was no longer in the “divider” business, rather it was in the “computer” business because people looked to the computer not only for functionality but as a model for organization. In short, the computer had become the generative or source metaphor, and in order to develop organizer ideas that would resonate with consumers, one would need to start with the computer as the metaphoric model.

It was not clear that the Fortune 100 company found our suggestion to mine the implications of the computing

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Fig. 1. A desktop computer in a home office, adorned with Post-its (in some ways akin to refrigerator art) on a desk. The office as living space and life space; surrounding photos speak of family.

metaphor as promising as we did. But after that time, we observed the generative power of computer and internet metaphors in other quarters. BellSouth, for example, recast their Yellow Pages as a virtual store (Linnett, 2000). In the words of the chief creative officer at WestWayne, the agency responsible for the new Yellow Pages advertising campaign, “We are calling it ‘the big yellow database’” and “The final tagline that we came up with is ‘The original search engine.’ It’s a neat way to update the book with an ‘e’ word.” Similarly, a Toronto TV station adopted a Web-like format in its news broadcasting (McClain, 1999). Today, virtually all U.S. news programs have an ‘internet’ look. Jaron Lanier, a chief architect of internet Two, noted that reality TV in fact is more like a Web page than a television show (Schrage, 2000). This recasting of traditional book or broadcast media in computer terms is just the sort of

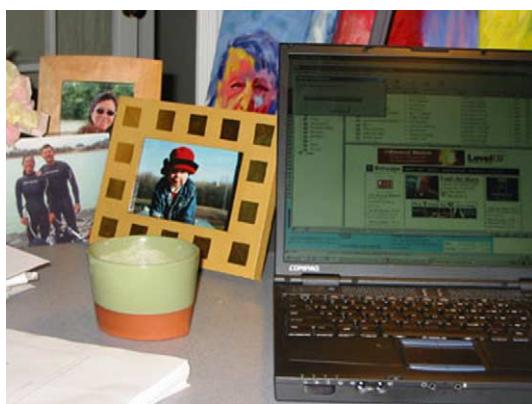


Fig. 2. Laptop computer, opened windows on the screen, surrounded by ‘windows’ of family, friends, personal life.

## BellSouth Yellow Pages recast as virtual store

‘Designing’ spokeswoman dropped from campaign

By Richard Linnett

They’re not exactly Dixie anymore over at BellSouth Corp.

The telecommunications giant is breaking a new consumer campaign this week for its on- and off-line Real Yellow Pages directory. But this latest push will not feature TV star Diane Carter, who had been the brand’s spokeswoman for the last four years.

### Big Yellow Database?

WestWayne created the campaign featuring the “Designing Woman” in a partnership with Burroughs & Hillman, New York. This time around, Atlanta-based WestWayne is on its own.

“We are calling it the big yellow database,” said Luke Sullivan, WestWayne’s chief creative officer. “They are online, and they also

have the big book. The final tagline that we came up with is ‘The original search engine’ – a neat way to update the book with an ‘e’ word.”

According to Competitive Media Reporting, BellSouth spent \$6.2 million in measured media on its Real Yellow Pages in 1999 and \$7.9 million on Internet promotions, including promotion for online directory RealPages.com.

Mr. Sullivan said research indicated the Real Yellow Pages’ biggest competitor, besides the Internet, is one-stop shopping stores such as Home Depot. Agency copywriter Scott Gandy, creative director Clay Davies, along with Mark Blanca, BellSouth’s advertising manager, then came up with the notion of representing the directory as a virtual “MegaStore.”

“The TV spots bring the book to life,” said Alan Blount, corporate as-

sistant VP advertising at BellSouth. “The viewer experiences each ‘idea’ as it springs from the aisles in the MegaStore.”

### Bride and Puppy

The MegaStore campaign launches with three 30-second TV ads. In one, a bride-to-be and her father search the MegaStore for wedding ideas. They later add items to their shopping cart. The father, worried about his wallet, stops at the “loans” section of the store.

In another spot, a young couple tries to buy a dog puppy in a MegaStore. The dog jumps from their arms and dashes down the MegaStore’s aisle but is stopped when it runs into the “fences” department.

In the third spot, a donut dev-

See BELL SOUTH on Page 62

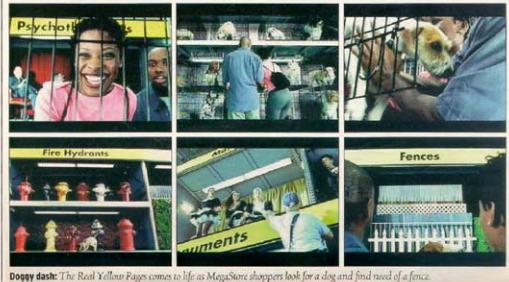


Fig. 3. Computer as metaphor and model: “The original search engine”.

metaphor-mining we had suggested that our client should be thinking about for the paper-and-desk office (Figs. 3 and 4).

## 2. Metaphoric constructions and consumer behavior

In recent years, the metaphor concept has gained attention in academic as well as applied marketing and consumer research circles. A prime catalyst for this attention can be located in the work of Zaltman and Coulter (1995), Zaltman (1997) and Coulter and Zaltman (2000). Their ZMET technique, a multi-step analytic procedure which uncovers consumers’ metaphors through guided conversation, storytelling, collage building, explorations of visual and other sensory images, leads to the extraction of consumers’ conscious and unconscious (“hidden or deep”) mental models and reasoning processes (see Zaltman and Coulter, 1995 for a more detailed description of the technique). The concept of metaphor has been utilized by Hirschman (2002) who, in a cultural reading of dog breeds, illustrated forms of metaphoric transference and by Belk (1996), who has analyzed metaphorical tropes for pets as well as metaphors of the body with implications for organ donation practices (Belk, 1990). McQuarrie and Mick (1996) consider metaphor in an analysis of literary tropes in advertising, Hanby (1999) considers the metaphoric constructions of brands, and Dodd (2002) uses metaphor as a tool for constructing a cultural model of entrepreneur-

**MEDIA**

A 24-hour all-news cable station in Toronto, CP24, offers an extreme example of a trend to put more information on television screens.

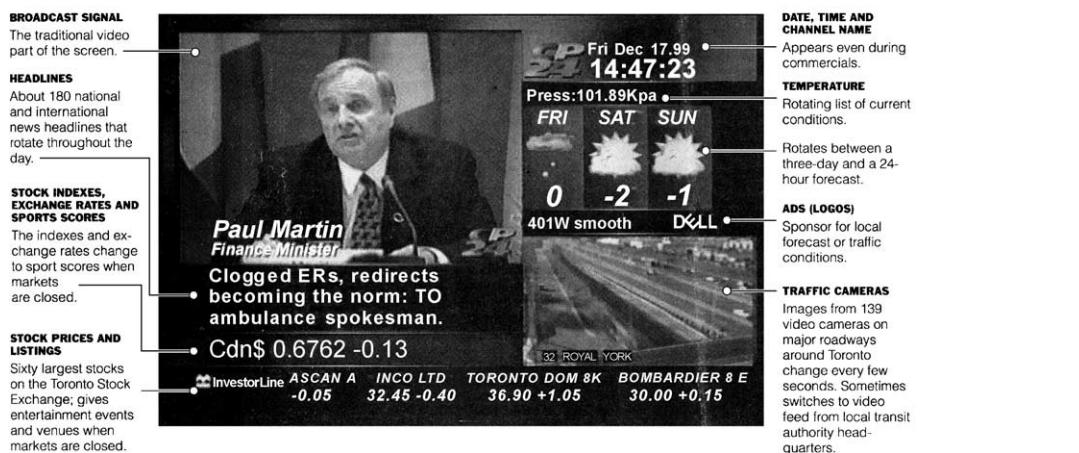


Fig. 4. Toronto station news format mimicking a Web page.

ship in the United States. Holt (1995) has also used the notion of metaphor in the development of a typology of consumption practices. (See also Piller, 1999 who analyses metaphoric meanings of U.S. car brands.)

In our own ethnographic consumer research practice, we have frequently drawn on the concept of metaphor as one of our analytic and strategic tools. For instance, in 1999, we conducted ethnographic research on the symbolic meanings of drugs and drug practices among American Tweens, ages 10 to 13 (Sunderland and Denny, 2003). Implicit in the Tweens' talk were five distinct categories of drugs: *scary* (including LSD, Special K, Ecstasy), *death* (heroin), *addiction* (cocaine), *stupidity* (inhalants) and the normative, unmarked category of *drugs*, which referenced alcohol, cigarettes and marijuana. While marijuana was articulated in terms of plant and organic substance metaphors, other categories were surrounded and permeated with chemical metaphors, framed as much more direct and harmful to bodily function. Inhalants, for example, as prototypical chemicals, "cut off oxygen to the brain." But marijuana, as a plant, became dangerous only when "laced" or combined with a drug from another category. In the unmarked *drug* category, the effects of pollution on physical appearance, not chemical damage per se, was the worry (e.g., yellow teeth and bad breath from cigarette smoke). Among our recommendations to the client, responsible for creating anti-drug use advertising, we pointed to the need to play on the pollution and chemical metaphors that resonate so powerfully for Tweens. We also pointed to ways the natural (safe, organic, plant) metaphors associated with marijuana posed a challenge in dissuading Tweens of its use.

The use of metaphor as a theoretical construct in consumer research (Dodd, 2002; Coulter and Zaltman, 2000; Hanby, 1999; McQuarrie and Mick, 1996; Piller, 1999; Stern, 1989; Zaltman and Coulter, 1995) has relied primarily on cognitive linguistic, psycholinguistic and literary views (Cameron and Low, 1999; Gibbs, 1994;

Kövecses, 2002; Lakoff, 1987; Lakoff and Johnson, 1980; Ortony, 1993), which position metaphor as an organizing principle used by individuals to construct conceptual understandings of the world.

Our approach diverges from most others in the consumer research arena by our interest and focus on the cultural (or 'supraindividual') realm over that of the individual and individual thought processes (but see Hirschman, 2002; Belk, 1990, 1996). Anthropologically trained, we do not stress the understanding of individual thought processes—or the mechanisms of the mind, conscious or unconscious—but rather the cultural level meanings and metaphors that animate consumer lives (Fernandez, 1991; Martin, 1987, 1994). Our work also extends the work of others in that we conduct the research ethnographically, stressing the importance of socially embedded and contextualized consumer action. Other consumer research on metaphor has largely concentrated on consumers' self-reports, representations and/or texts of various kinds (written, images, advertisements, etc.). We research consumer behavior in situ, and analyze metaphors as they are instantiated in social action through behavior, speech, organization, artifacts, and thoughts. Our research often includes texts (especially photos, images, and video), as well as interview, retrospective, and self-report data, but we consistently relate this to real action in real social worlds.

Thus, we are primarily interested in understanding the way consumers live out culturally relevant metaphors in their everyday lives, believing that this arena has the potential to demonstrate highly salient meanings for consumers as well as realms of opportunity for marketers. When we search to understand the metaphors that organize behavior (or vice versa), we search for the cultural level meanings—the metaphoric meanings that resonate for consumers and marketers—because these meanings are important threads and patterns in the cultural fabric that is the context for product and brand development and consumption.

During the last decade, there has been much debate on the privileged position of metaphor in the construction of thought, in which the positions of cognitive linguists and more culturally grounded theorists were in opposition (see Fernandez, 1991; Quinn, 1991; Alverson, 1991). More recently, the role of culture in mediating metaphoric constructions has been increasingly recognized by cognitive psychology (see Gibbs and Steen, 1999). And though the debate continues as to whether metaphors constitute or reflect cultural models (Kövecses, 1999), it seems clear that uses of metaphor in everyday talk are contextualized by cultural realities, whether by discursive conventions and ideology (Eubanks, 1999), historical time (Ohnuki-Tierney, 1991) or socio-cultural experiences (Gibbs, 1999; Emanatian, 1999). Our emphasis on metaphors as they are articulated in conversation and social action assumes language is a social resource and is itself a culturally defined and specified practice (Schieffelin, 1990; Silverstein, 1976). In the end, we take as a premise that language not only reflects cognitive processes but, in its use, is a creative practice of culture, in which artifacts and environment are catalysts for new expression and cultural meanings. Metaphor as a trope of everyday language thus becomes a prism through which to observe and refract consumer behavior. To further illustrate, we return to the example of computing technology.

### 3. Computing as a cultural metaphor

Early design of desktop computers pointed to the potency of paper, filing cabinet, and desk metaphors. Desks and what surrounded them were the source metaphor for computers.

- Starting with Xerox PARC and mainstreamed by Apple and Microsoft, was the “desktop,” a two-dimensional space on which file folders (“dividers”) neatly sat. We could name them and put them wherever we liked. There were even wastebaskets (now “recycle bins”) and Mac trash included visual and sound effects.

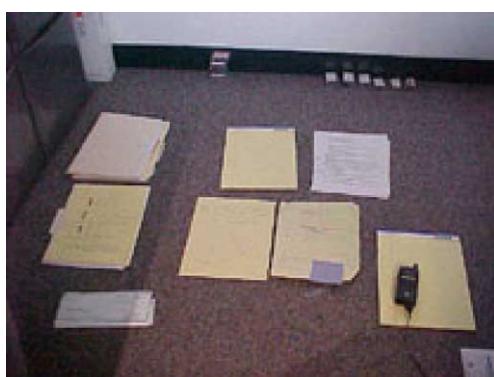


Fig. 5. Mimicking the computer's desktop: Folders on the floor, opened and closed throughout the day, as needed, then put into the backpack.



Fig. 6. Actual desktop: information less immediately needed. It might not be touched day-to-day.

- Monitors were designed on a paper icon so that when we opened a word processing application it was as though we were writing a letter.
- Keyboards were like typewriters.

But with computers came other organizational opportunities. For instance:

- Endless embedding of file folders within file folders.
- Embedding could be done with impunity because we had search functions for finding things really quickly.
- Visual icons for file types; sorting of “folders” by name listing, icon, or date.
- We could use multiple sorting possibilities. We got instant sorting capability that mixed and matched in any number of ways so that eventually we could spin incoming e-mail by date, author, recipient, etc.

With the proliferation of personal computers on desks by the 1990s, the source and target of the desk-computer metaphor could become reversed: it became possible to mimic our computers mimicking our desks. In this scenario, real desktops could be piled high with folders because of an increasing dependence on a visual cue for what is there (as our computer desktops gave us). In 2001, we observed a tech-savvy individual doing just this. On coming into the office he set up a model of his computer ‘desktop’ on the floor by his desk: File folders were laid out from his backpack, opened up when in use, then ‘closed’ when tasks were completed or the day was done. His actual desktop was piled with folders of less temporal immediacy (Figs. 5–7).

The way of doing things in non-computer realms had begun to metaphorically mimic what we did with computers. Hence, retrieval systems in the non-computer world could suffer in comparison to what had been learned was possible via the computer’s desktop. As one of our research respondents, Travis, commented, “Technology makes information management easier. You can save virtually forever. You have multiple search tools and search through the hard drive real quick, unlike file cabinets where everything is just kind of stacked there.” For a client in the filing and “divider”



Fig. 7. Desktop computer screen: Visually parsed with file folders and pictures of son, which once might have been framed and displayed on the desk.

business, it was time to consider these other, metaphorically inspired ways of doing things. What could be invented for floor-based filing systems that mimicked the computer desktop filing systems? What could be invented as computer-inspired ways of embedding, embedding, and embedding within folders? What could be communicated about the specific retrieval properties of paper products, akin to what one does with computers? These are the kinds of questions that we believed the company's strategists needed to consider as they re-thought their business in 1999.

#### 4. Computing technology: from humanly negative to personally positive

In the United States, a metaphoric migration occurred with the proliferation of personal computing technology—from conceptualizing computing technology as humanly destructive to seeing it as personally empowering. Traditionally in the U.S., there reigned an ambivalence vis-à-vis technology. Technology was seen as a force that drove society forward but, contained within this power to alter the nature of social life, was an equally powerful anti-human force—the one that made technology ‘cold’—something that deprived the world of humanity, emotions and feeling. Earlier on in the advent of personal computers and particularly the internet in the U.S., research respondents would recite urban legends (as did the mass media) of people who would stay at their computers and online, no longer caring about their family or friends—for instance, mothers who spent so much time online that the children were neglected and went unfed.

But, by the beginning of 2000, when we interviewed consumers we heard about computers and technology as “good,” “friends,” “helpers.” Metaphors of friendship and assistance had become the order of the day. At the base of the positive embrace of computing technology lay a change in the conceptualization of its power. People moved from understanding the technology of computers as a social force (outside of an individual’s power) to understanding it, and

experiencing it, primarily in personal (part of a person’s power) terms.

On the cover of a 1972 book, *The Computer: How it's Changing our Lives*, we find a man alone in a room with his hands reaching toward the controls of one big (the size of a room) computer (Snyder, 1972). The image, and its attendant associations, is reminiscent of HAL of 2001, *A Space Odyssey*, produced in about the same cultural time (1968). The (mainframe) computer of these times was crude and inscrutable, something that took over human life (Fig. 8).

In the more recent conception, computing technology has moved from being conceived as a large social force outside of us to power on an individual scale, virtually inside of us. We now observe its articulation not as something that masters us, but rather as something that makes us masters—we help ourselves, and even help others, with our own personal computing technology. Thus, an additional array of elements has been foregrounded in talk about computers, as seen below:

- Customizing a homepage, showing specific stock quotes and news means, “I manage the flow of information. I get what I need.”
- Having a hand-held computer can make me feel: “I’m supremely in control of my destiny.”
- Using the searchable OED means, “I manipulate the information. I get what I want.”
- “Via the internet I can find the information myself. I can communicate directly with people all over the world. I can find the medical information I need to assure I get—or stay—well. I can help others with their problems.”

This more celebratory sense of computers and the internet, a positive evaluation fostered by personal use of these personal machines is built on—and builds—the metaphor of computer-as-personal-power. Computer technology does help people in the world today. For the

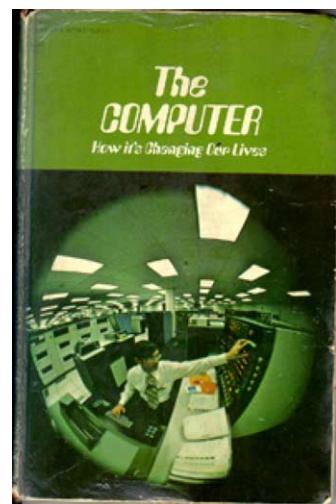


Fig. 8. Early 1970s book cover image—mainframe computer of that time as inscrutable, and with the potential to take over human life.

everyday person, computing technology really can expand memory (e.g., a hand-held device takes “the fear of forgetting out of life”) and it can facilitate communication; with e-mail, respondents maintain that they have increased their contact with others across space and time.

It would also seem that the embrace of the technology and its associated metaphors has upped performance antes. Expectations for products, our selves, our worlds have been increased. Gleick (1999) has argued that with computers speed has become the assumed standard for calibrating anything from intelligence to productivity. Faster is better. This standardization of speed paralleled the development of microprocessors—computers offered an ever finer ability to parse time. And so, as a society, we are now in the rather absurd position of finding relevance in chunks of time that are both imperceptible and measurable, e.g., the milliseconds by which races are won, or the seconds by which appliances save time.

We would argue that it is not just the computer’s speed that has infiltrated notions of work, productivity and intelligence and that has put us in a perpetual state of immediacy. It is the surfing, the e-mailing, the embedding, the instant messaging and chatting, the finding, the inserting, the linking that give the cues for comprehending and interpreting what is around us, and for enacting and re-enacting that reality. Our tropes for how we communicate with one another have also been influenced—we now have *online* and *offline* conversations. In our encounters with people, are we becoming more like our e-mail—brief, casual, punctuated and immediate? Are we surfing places much as we do websites? It is not just the idea of speed; it is the native model of what the computer does and the conventions derived from their use of them that makes a computer a potent metaphor and a native model for productivity. A tech-savvy respondent in his 20s tells us that he gets impatient and irritated at red lights not because the lights are slow, but because the lights are not “smart”—they should be able to ‘read’ traffic needs—and therefore be ‘green’ when there is no traffic. While a “fast” processing computer is a “good” computer, a “fast” computer is also one that allows us to carry out multiple processes, to simultaneously open up multiple windows, to do things like quadruple boot.

## **5. Conclusion: computing metaphors are reconfiguring the sense of self and society**

By forging their way into our notions of personal power, computing metaphors are affecting our cultural sense of what it means to be a person. These metaphors have also affected our sense of how our minds work. If people now say that something was not saved on their “hard drive,” they might not literally mean in their computer, but rather in their own memories. One respondent told us that his wife has accused him of being a “binary thinker,” using a computer-

inspired metaphor to express her exasperation over what, in other times, she might have described as his inability to think in shades of gray or his ‘black and white’ thinking. Since today the internet is increasingly synonymous with the computer, it has become an important source for contemporary mental processing metaphors. “Bandwidth” is now part of the figurative vocabulary, as in “do you have the bandwidth for that?” roughly glossed as scope and ability. And if once we “wrapped our heads around an idea,” we now “download” and “link” to it, as we download and link to sites on the internet. The use of these tropes illustrate, again, the generative or source status of the computer metaphor—which now foregrounds organization, powers of retrieval and productivity of the mind versus more creative, figurative dimensions (even if in programming and artificial intelligence circles, articulations of computer processes have gone far beyond mere retrieval and calculation, see Turkle, 1995). Notably, computing metaphors have also entered professional models of how the brain and mind works (Gleitman et al., 1999; Turkle, 1997). In the well-known work of Turkle (1984, 1995), we also find the argument that people’s sense of self has been affected in light of computer familiarity and use. For instance, she maintains that people have a Windows-influenced sense of themselves as both multiply refracted and flexible (Turkle, 1995). We would add that the current portability of the computer and related technological devices must also be considered. Beyond the sense of self, the portability of contemporary technological devices has allowed us to reconfigure our sense of social space and place.

Harvey (1990) has discussed the concept of “time–space compression” that has arisen in light of interconnected capital, transportation and communication technologies of the modern and postmodern worlds. As he observed, many have noted—with varying degrees of alarm—the seeming collapse of social space and time in light of these developments. We have observed that portable devices and wireless communications have given people the ability to collapse temporal and physical space between home and office, private and public, work and play. The kitchen counter, park bench, hotel room, airplane and the spot at Starbuck’s do become workspaces when one pulls out the laptop. Cell phones, call forwarding, internet access and dial-up networking allow for the dislocation of white-collar work from set work places. Play at work is also normative. Respondents take personal phone calls on their cell or separate lines, write personal e-mails or privately go to websites of their choice, buy and sell on favorite internet sites. Instant messaging with friends, watching sports events (streaming or with portable TVs) or listening to music with headphones—from radio over the computer or with portable CD players—is also common.

Because the spatial divide can be collapsed, and one can work where once one only played or play where once one worked, it does sometimes seem that traditional boundaries between cultural domains such as work and home have

collapsed. Technology provides the potential for increasing the integration between these domains functionally (Venkatesh et al., 2001) and subsequently, conceptually (see Nippert-Eng, 1996). But, just as Harvey (1990, p. 232) noted that spatial barriers are only overcome through the production of other spaces (e.g., air travel's reduction of spatial distance is achieved via airport 'spaces') and that even as spatial distance has become less relevant for capital, the search for the most advantageous geographic location remains highly relevant, we would suggest that the seeming elision of boundaries between cultural categories is structured. With Windows as the culturally articulated metaphor, the cultural categories of work and play that were once defined by particular senses of place are maintained in computer windows. Truly interesting are the ways in which the very same technologies that afford the space-time collapse between cultural spheres are simultaneously the means by which their functional and symbolic separation is assured.

People's actions maintain the separation of cultural categories. Cell phones are taken to work for making and receiving personal calls. People have separate e-mail accounts—one for personal, one for business. The very wired have several—the junk mail account, the friends and family account, the chat account, plus the business accounts. But even the not-so-wired with one account know which messages are personal and which are business. People play games, pull up stock quotes, peruse banking sites, download music and watch sports events during work hours, but these are in different windows—a click away from the windows of work. In essence, what we see people doing is not merging, but rather holding up the longstanding cultural boundaries between work and play, private and public, home and office, but doing so with the aid of their technological devices. Taking us full circle, the computer and related technological devices really have become our office dividers.

Today, the well-established cultural categories are kaleidoscopic, finely interwoven and parsed in windows. The switch of attention between windows is mediated only by the perceived reaction time of our hand on the mouse, the speed of the computer's processor, the time it takes to answer a ringing phone. Cultural categories and metaphors have historical roots. The physical separations necessitated by early industrial processes had a huge hand in creating the current symbolic divisions between public and private, work and play. Metaphors, as we have noted, are lenses which refract current cultural beliefs and values. They not only provide a prism through which to understand consumption behavior but, in their use/instantiations by individuals, are creative of ways of seeing. Metaphors change. For marketers, metaphorical representations must be fathomed in order to persuade, speak or resonate with target audiences (see Belk, 1990 in reference to organ donation). Culture and metaphors are lived or practiced, observable in the details of daily life—as new technologies are 'consumed' or integrated

into daily life, we can expect new refractions (see Venkatesh, 1998; Venkatesh et al., 2001).

Today, Windows give us the current model for a kaleidoscopic lens, in which multi-tasking and a recalibration of linear time are currently framed. We might expect, tomorrow, that what it means to work or to play or what counts as private and public will fundamentally change as post-Windows technology and metaphors offer us a new framework for interpreting the world around us. We do not know what will happen when wireless internet screens are everywhere, everyday computers have the power to simultaneously process in multitudes of windows, broadband allows us to become a seamless part of the show or wireless networks allow us to interface seamlessly between phone, computer, PDAs (all technologies that exist today, but that are not yet fully integrated into everyday life). But we suggest that drawing out the cultural metaphors by turning an acute ear and sensitive eye to how consumers talk and act in everyday life will provide a significant frame for marketers' attention be it theoretical or practical.

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