

Can Higher Education “Evolve?”

Mastering the Challenges of Change

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THE INTERNET AND its associated network technologies represent opportunity for some, an enormous threat for others. The World Wide Web is both the stimulus for a new organizational culture—making it necessary—and a facilitator of that same culture—making it possible. No matter where they are on the continuum of Internet use, people and organizations everywhere would do well to evolve and embrace the e-culture of tomorrow. The most successful institutions will be those that emphasize the human skills that build meaningful community out of mere connections as they strive to adapt and undergo systemic change.

Change Journeys

During 2000, my research team and I conducted a vast e-culture research project that entailed nearly 800 survey responses, over 300 in-depth interviews, and dozens of richly

detailed case studies involving organizations of all sizes and types from four continents. Our hope was to understand how the advent of a powerful new communications technology—not computing power, but communications power—was going to change the life of organizations, and to find out who was ahead of the pack in terms of embracing the possibilities and why.

Our analysis shows that established companies can be sorted into two main groups—laggards and pacesetters—that describe how they do or don't evolve with respect to Internet use.

Laggards

Laggard organizations reported feeling that they were not making progress toward meeting their goals, that they were behind their peer group or competitor institutions, and that they were not applying technology as effectively as they might. Often, too, they reported spending more on technology than the pacesetters but getting less out of it.

The first stage laggards pass through is denial. Instead of asking questions about the potential of new technology, they dismiss its importance, certain they can ignore it or do the minimum to use it. Instead of exhibiting organizational curiosity about what might be different about the new environment, they let past successes blind them into believing that they can approach it the same way they do everything else. Such “arrogance of success” was a primary reason for denial. Indeed, our analysis showed that in the business world, companies that had

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been profitable in the last two years were less likely to be among the innovators. These companies had what they considered to be a success formula and were determined to stick with it.

Another reason for denial was uncertainty and a lack of clear direction. In some organizations, strategic planning was so tight that anything that didn't have a clear outcome was paralyzing. Thus, while such organizations may have set up groups to address new issues, they generally did as little as possible to challenge the prevailing model and were bound by wanting complete certainty about the outcome.

The second stage for laggards is anger and blame. They are convinced that external forces are to blame for their problems and that competitors getting ahead of them are doing something unfair. This antagonistic response does nothing to challenge the laggards' model or assumptions.

In the third stage of the laggards' journey, they finally decide that they must do something, and so often they mount a costly, but merely cosmetic, response. They make superficial changes that amount to add-on patches rather than looking at what they might do to fundamentally alter their existing model. In the end they may change the look, but not the nature, of the beast. I liken this response to putting lipstick on a bulldog.

Pacesetters

Pacesetter organizations reported feeling satisfied with their progress toward accomplishing clear goals and felt that they

were ahead of competitors in their peer group. They reported a wider array of technological applications and believed they were deriving value from them.

Pacesetters go through a very different set of stages on their change journey than do laggards. Their first stage is characterized by dialogue: Recognizing the same uncertainty as laggards, their reaction is to open up conversations about the issue. A theme is established, and as many people as possible in the organization are engaged in discussion about it, thinking about the implications of the theme, how their work can contribute to it, and how the theme will change their work. The dialogue is both formal, within cross-sectional groups established for that purpose, and informal, by, for example, constantly having the theme on the agenda and open for discussion.

Pacesetters throw open a widespread conversation that challenges beliefs and assumptions about the models being used to deliver whatever it is of value that the organization delivers. People are free to imagine and anticipate what might or could happen under various scenarios; likewise, should one come to pass—even if imposed upon them—they are not taken by surprise but instead have been prepared for change.

Pacesetters' second stage reflects their organizational flexibility, as they form partnerships to accomplish what they can't do alone. Pacesetters group and regroup people and form creative new alliances that help them evolve. Turf is the enemy of change: Pacesetters overcome that mindset by creating a variety of structural overlays that start people working together in different ways and going in new directions to solve new kinds

of problems. In effect, pacesetters free people from the assumptions that get built into organizational structures.

Pacesetters have no hard and fast strategic plan for change. Rather, I compare their strategy to improvisational theater: It's very disciplined, but there's no script. They start with a theme and a talented group of actors who know how to interact with each other, and then keep reshaping and refining their experiments and projects, which keep getting better and better. In the high-technology world, this process is called *rapid prototyping*.

Thus, in their third stage, pacesetters find themselves with an array of experimental prototypes or incremental innovations—all of which create the potential for systemic change that truly reshapes their organization. Pacesetters are able to transform themselves not because they started with a road map or a complete plan, but because they identified a set of themes that became the basis for open dialogue, sparking myriad possible change models that such organizations are willing to embrace.

A Case Study

When Barnes & Noble first approached the Internet, culture change was not on its agenda. Barnes & Noble was a stunning success in the physical world. Leonard Riggio bought a New York icon in 1972 and built it to a thousand-store chain by 1995, when Amazon.com launched its online store. So why not use the same leaders and principles to win in cyberspace? By

2000, Barnes & Noble was also big on the Internet—with perhaps the most successful site launched by a traditional bricks-and-mortar retailer in terms of audience size—but not as big as Amazon.com.

Did any literate adult miss hearing about the rivalry between Amazon.com and Barnes & Noble? It became a cautionary tale oft cited by companies about the risks of underestimating new online competition. Barnes & Noble set the industry standard offline, and it beat traditional bookstores handily on the Internet. If Barnes & Noble lagged, its bricks-and-mortar competitors such as Borders were so slow that they were hardly in the race. Borders was late to move to e-commerce despite pioneering the use of information technology to improve customer service and inventory management and engaging in early discussions about distributing computer floppy disks that customers could use to order books from home. Borders.com, launched in May 1998, generated \$4.6 million from online sales that year, a pittance compared with barnesandnoble.com's \$63 million. But Amazon.com's \$610 million over the same period dwarfed everyone.¹

To get behind the headlines and test my hypotheses about pacesetters versus laggards, we interviewed a range of former Barnes & Noble employees who were in on major events. We steered away from those who were disgruntled, picking instead ones who said positive things such as, "I had the greatest job in the world. I really had a blast for that period of time." Or, "I had an image of them as a corporate chain, but it's really a great entrepreneurial story. The company was just super aggressive, re-

ally lean, and totally willing to spend what at the time seemed like enough money to win the online book wars.” We saw that founder and CEO Leonard Riggio and his younger brother Stephen were much admired by employees. But we also learned about the problems created when a new channel and new technology were approached in old ways. The passage from denial through cosmetic change to grappling with systemic change can be difficult without full commitment to change.

Denial

In the beginning, denial reigned. The innovators who created book superstores could not believe at first that upstart Amazon.com, founded in 1995, would make a dent in the industry that Barnes & Noble dominated. Dealing with Amazon should be like swatting a fly. So in 1996, when Stephen Riggio convinced his CEO brother Leonard that Barnes & Noble needed an Internet presence, Stephen became part-time head of a spotty effort based on the assumption that the Internet would market the physical stores. Barnes & Noble thought that its existing brand, wide distribution, and deep pockets were good enough to outcompete Amazon. After all, an online bookstore lacked features such as couches and coffee bars that the Riggios believed essential to destination retailing. The Internet could be handled with casual attention, infrequent meetings, minimal investment, and existing employees.

Throughout this first phase, Barnes & Noble tried to apply its store experience to the Internet, duplicating online what

had worked offline. The first Web site, launched in March 1997, was designed by an agency with a print background, so it looked like a newspaper. (And it went live before the external firm thought it was ready.) A former manager observed that the first Web site was treated as an online literary magazine that happened to sell books. As a retail outlet, Barnes & Noble was known for couches in the store enabling people to hang out for hours; therefore, senior management invested in message boards, online author chats, and places to hang out virtually on the Web site. “It was interesting that the two things that Barnes & Noble spent the most time focusing on in the early days were things that Amazon just flat out didn’t do, and people didn’t care about,” an insider reported. “Our research found that less than 5 percent of users were interested in reading reviews by Barnes & Noble editors or author chats, but that got 50 percent of the company’s attention.”

As Amazon.com continued to grow, denial was spiced by anger and blame. Seeing the threat posed by its online competitor, Barnes & Noble sued Amazon for unfair business practices over claims in Amazon’s slogan that Amazon, not Barnes & Noble, had the world’s largest bookstore. The title “World’s Largest Bookstore” was granted Barnes & Noble’s Fifth Avenue flagship store by the Guinness Book of Records. The parties reached a settlement several months later, but Amazon’s slogan, “Earth’s Biggest Bookstore,” remained intact. Meanwhile, public temper tantrums were unlikely to help Barnes & Noble win customers, especially among the hip young crowd of early Web shoppers. And attention was deflected from ways in

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which barnesandnoble.com had actual advantages over Amazon, such as having more books available faster through its warehouses. It was “hard to overcome the image of being a store company,” another former employee recalled. “Somehow the perception was that because they were a virtual company, they would deliver faster.”

Three other challenges finally convinced Barnes & Noble that cyberspace was different. Decisions that made sense in the offline world, such as Barnes & Noble’s traditional tests and slow rollouts place to place, did not make sense on the Web, where big everywhere fast was the rule. Adapting the corporate brand identity to the Web proved difficult. The Web site had five or six different names, logos, business cards, and branding campaigns in under three years—all driven by the simple fact that one cannot put an “&” in a URL. Barnesandnoble.com could not match Amazon’s discounts if the site was linked to physical stores because then Barnes & Noble would have to charge local sales taxes. This was another factor encouraging the Web site to cut loose from the stores—and to move toward greater independence from the parent corporation. The e-venture would not be leveraging the brand, but at least it would get room to grow.

Denial was over; cosmetic change was beginning.

Attempts at Change

In late 1997, barnesandnoble.com moved to its own space on the 11th floor of the Port Authority building on Manhattan’s

West Side, with its own dedicated leadership and a new Web design firm. But under this arrangement, it still did not move beyond stage two, cosmetic change.

Having once denied Amazon's virtues, new COO Jeff Killeen encouraged his team to become obsessed with Amazon and ritualistically imitate its features. In early 1998, a reporter wrote, "Killeen told the staff, 'You're not just here to sell books. You're here to annihilate the competition, to kill it dead!'"² The new aggressiveness led to some clear wins, an insider recalled. "We surprised Amazon because we started consistently beating them out for deals. The company was very aggressive, fast-paced, all about high growth. How could we go faster?" The affiliate network grew from a zero base to 100,000 member sites, but that quantity masked the fact that Amazon had locked up some of the biggest portals first, which drove traffic to Amazon.

Barnesandnoble.com was still putting lipstick on the bulldog. The unit produced a better-looking site, but one that was not well differentiated from Amazon. Its independence from the parent company meant that it couldn't get brand synergies, and it was reported that senior management still swooped in to micromanage. Former senior managers said that what was missing was clarity about the customer experience. One told us, "I think senior management didn't know what to focus on and tried to do too many things before doing the one or two things that customers really cared about the most, which was, 'Is the site really fast and simple, and when I place an order on the site, do you get me the book in 48 hours?'"

Killeen lasted about a year. By his exit, the company had already spent an estimated \$100 million.

As the company moved into 1999, still another new leadership era began. This one initially held the promise for culture change, in which both the Web site and its parent company would work differently. Through a joint venture with the German giant Bertelsmann, involving several hundred million dollars in new investment, barnesandnoble.com was spun off as a separate company with its own CEO (Jonathon Bulkeley, a veteran of the AOL-Bertelsmann European JV) and allowed to chart its own course, focusing once again on synergies between online and store marketing. (By the spring of 1999, for example, the Web site URL began to show up on store receipts and bags.) Barnesandnoble.com was floated in an IPO in May 1999; the partners kept a 41 percent stake, while Barnes & Noble maintained operating control. (One impetus for the IPO was the need to separate the online company as a legal entity so that it did not have to charge sales tax on online orders, as it would if it were linked to Barnes & Noble’s physical stores.)

Barnesandnoble.com rose to fourth on rankings of the most-visited e-commerce sites (Amazon.com was number one) and ranked in the top 30 most popular sites on the Web overall. The new barnesandnoble.com (also known as bn.com) started to explore electronic book publishing, and Barnes & Noble CEO Leonard Riggio indicated that he was rethinking the nature of a bookstore in light of the advent of the Internet, a sign that finally he saw how technology challenged traditional business assumptions.

Offline Barriers to Online Success

The e-venture continued to stumble over barriers to change, including internal rivalries and spillovers from the offline world. A former leader recalled, “It was still a tug of war between editorial and merchandising people who were thinking about the aesthetics of books and technologists who weren’t thinking about aesthetics of anything, really. Nobody was thinking about, ‘How do people use the Web site?’ This is a holistic experience on the site. It’s not just about the content, about the books, it’s not just about the code behind the scenes. It’s about how all those things fit together, and that’s what the company didn’t have.” Barnesandnoble.com created a product development team as a bridge between the technologists and the business strategists (the Riggios and the new CEO, who saw themselves as booksellers), staffed with strong people who could speak both languages.

Barnesandnoble.com still carried baggage from the retail world. Time was wasted redoing things that the dot-com inherited from its parent. Barnes & Noble’s back-end legacy IT systems were not built to bill direct to the customer nor to the scale of an Internet market. “Bn.com got big in all of the wrong ways,” said a former employee. “The company was less than three years old, and we had a lot of frustrating legacy issues.” There were also some successes. A dot-com customer fulfillment system was designed that was also adopted by the stores, for use when customers wanted books sent to their homes.

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Particularly disturbing to many employees was a clash between bricks-and-mortar retail culture and Internet culture. One observed, “In traditional retailing, you’re not a member of the senior management team until you’ve done your time, and that time is usually 15 years, so there wasn’t an opportunity for people from the Internet generation. Compensation and responsibility at barnesandnoble.com mirrored that of the retail side, weighted to the super senior management team of 10 people. But you have to manage 400 dot-com employees differently than you manage 25,000 retail store employees.”

A trickle of turnover in the summer of 1999 soon became a flood. CTO John Kristie left in July 1999 to co-found Online Retail Partners (ORP), a new company that incubated e-commerce businesses in partnership with established consumer-branded companies. ORP soon recruited more than 25 former barnesandnoble.com employees and contractors. In January 2000, bn.com CEO Jonathon Bulkeley announced his departure (with \$11 million for his stock options). Stephen Riggio was once again acting CEO. Between March and April 2000, the company lost its vice president for technical infrastructure (who went to Saks Direct), at least eight technical employees, and others in corporate communications, community services, and marketing.³

Former executives give the company credit for being courageous. “Bn.com was at the front line of change. They made a lot of mistakes, but did a lot right, too,” one said. “They had a lot of vision and took risks to make the culture different. They

have been walking that fine line, that tightrope, of adding the dot-com to their business. Everyone else watches with amazement as the guy gets up there and walks the tightrope. When the guy stumbles and falls, everyone laughs and points fingers. But they don't have the guts to get up there on that wire." By September 2000, there were signs that Barnes & Noble's of-line assets were finally bringing major online advantages. Barnesandnoble.com replaced Amazon as a featured merchant on Yahoo!, with new joint Internet offerings to be promoted in 551 Barnes & Noble physical stores.

Being at the front line of change implies a need to work harder to master it. The e-venture used too many imitative strategies instead of innovative improvisations. It waited too long to tap a partner network; even though it eventually attracted many partners, some of the best were already taken. Internal rivalries and tensions between the new venture and the mainstream prevented seamless operation as an integrated community. And high turnover prevailed instead of a culture that holds people.

But the story is ongoing. Barnes & Noble is learning, and I don't want to make any of this seem easy. Established institutions face numerous obstacles because of their size and history, especially in comparison with startup dot-coms, and it is tricky to see how to convert legacies into advantages. Even the most successful company cannot buy its way to change by altering its appearance; it must be willing to change more fundamental aspects of its way of life.

Building Community

The laggards and pacesetters in my study described no differences in how *hard* they work, but they are very different in how *collaboratively* they work. An appropriate organizational model for success in the Internet age is the connected community, in which collaboration is the norm. A community makes people feel like members—not just employees, but members who care about contributing to something not on their immediate list of responsibilities. Community means having something in common, a range of shared understandings transcending specific fields. Shared understandings permit relatively seamless processes, interchangeability among people, smooth formation of teams that know how to work together even if they have never previously met, and rapid transmission of information.

Universities generally do a good job of building community for their students. Possibilities for connecting faculty include having the entire faculty meet and discuss various issues and topics together, and instituting informal reward and recognition programs that allow faculty to become more aware of each other’s work. Common vocabulary and common language, too, contribute to collaboration and a sense of shared purpose. Technology is a powerful tool for building commonalities and making people feel more connected and more aware of what’s happening in their institution.

Community is not inherent in technology, though. Indeed, the Internet has the potential to become an isolating force.

Community stems from the organizational decisions and choices we make to put technology to use. All of us who teach students, for example, ought to be able to connect and compare notes and know what else our students are learning. If we could collaborate in that way, we would add value for students and create a compelling reason for them to enroll in our institutions as opposed to taking courses independently. One of my favorite examples of the use of technology to build a connected community greater than its parts is the collaboration of 15 institutions from the Associated Colleges of the South that together have built a virtual classics consortium that offers students at each college a much richer opportunity to study classics than if they were confined to taking courses at their own institutions.

Another way to build cooperation and a shared identity is through establishing overarching projects that connect people because they care. Community service is a wonderful example: Universities that make a point of being good citizens in their neighborhood benefit by engaging people in looking at the resources they have and how they can contribute to something larger that they all have in common. Community service can also help build a connected community by pulling people together from their separate disciplines. At my institution, for example, initiatives have begun between the Business School and the Kennedy School of Government to attempt to address world problems, such as HIV/AIDS, and between the Business School and the School of Education to work on public education reform.

Mastery, Membership, and Meaning

One of the key differences my e-culture research found between laggards and pacesetters was in how they treat people. The essence of motivation and morale can be captured by what I call the 3Ms: mastery, membership, and meaning. How organizations and institutions measure up on these three broad qualities largely determines the level of commitment people feel toward them. That in turn directly affects the strength and connectedness of the larger community.

The opportunity through work for people to continuously learn, stay on the leading edge of their field, and make substantive contributions imparts a sense of *mastery*. Knowledge workers, in particular, want to build their human capital—their individual package of skills and accomplishments—as much as their financial capital (recognizing that the former is also seen as a route to the latter). In higher education, the key questions are, What are the opportunities for the educators to be educated? Are the best and the latest tools available? and, What’s the quality of the work environment? Good training and the chance to learn, challenging work, paths to greater success, and a stake in the future are all components of mastery.

The second dimension of commitment is *membership*, or how much a part of the community people feel. It derives from warm, strong relationships, and also from respect for individuals and their differences, so that everyone feels included and welcome. A sense of nurturing community can be built in a

number of ways—for example, through mentoring or recognition programs, which are abundant in high-commitment settings. Colleges and universities have an advantage in terms of membership, in that faculty are a key part of their governance structures. Identity with something larger than themselves is an important component of motivation for knowledge workers in particular.

The third dimension is *meaning*, where people feel that they're serving a higher purpose. Higher education has all the advantages in this realm, as teaching and creating knowledge are a deep source of ultimate meaning and are inherent in the mission of colleges and universities. Institutions can build quality environments that stimulate people to do better work, where they feel that their work is really making a difference. Yet in the rush to technology and the commercialization of knowledge, it is critical that education's higher purpose not be forgotten.

Changing Ourselves

The skills and sensibilities people require to succeed in a fast-paced work world all involve the best of human intelligence—or, following Howard Gardner, multiple human intelligences. Success stories come about because people use their heads—or to put it more technically, their intellectual/analytic skills (cognitive intelligence) plus intuitive/empathic skills (emotional intelligence).

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Star performers are characterized by seven qualities of mind, drawing on both analytic and emotional abilities:

- They display curiosity and imagination that allow them to envision and grasp new possibilities as they emerge, to find new patterns in the kaleidoscope.
- They are adept at communication with others, near and far. They work to make themselves understood and to understand people who have not shared their life experiences.
- They are cosmopolitans who are not confined to a single world view but are able to understand and create bridges of thought.
- They can grasp complexity—connecting the dots that make sense out of complicated multipartner alliances. They can tune into the reactions of multiple audiences with conflicting points of view and chart a course that takes the complexity into account.
- They are sensitive to the range of human needs as well as to the messages conveyed by actions that create organizational cultures. They care about feeding their teams’ bodies and spirits.
- They work with other people as resources rather than as subordinates, respecting what others bring to the table and listening to their ideas.
- They lead through the power of their ideas and the strength of their voices more than through the authority of formal positions.

This could be a definition of what it means to “evolve.”

In addition, the stars of the digital culture of tomorrow have one other characteristic especially helpful for settings where the work is never done: stamina. Their high energy depends on being healthy, well-nourished, and psychologically supported by family and friends. Behind every successful person is a supportive environment that fuels and refuels his or her brain-power.

There has been a great deal of attention in the United States and other developed countries to the Digital Divide—the fact that people in poor neighborhoods and less-developed countries lack access to computers and related Internet-relevant technology and, thus, could fall further behind. But it’s not the Digital Divide we should be worrying about, it’s the Social Divide—the fact that some people live in an environment that does not develop the intellectual and social skills outlined above, nor ensure physical health and psychological support.

It’s not very complicated to figure out how to put computers and network connections everywhere. Between public subsidies and private donations, facilitated by falling prices, I have no doubt that we’ll get devices into every nook and cranny. That’s easy compared with the challenge of building enriching social environments. In Singapore and Taiwan, two countries with lots of computers and programmers, executives and government officials have said repeatedly that their biggest concern was whether their people will be creative enough for the Internet age. A Singaporean economic minister asked me how America encourages the arts and reinforces community volun-

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teerism; these dimensions of human experience form part of Singapore’s strategic plans for technology competitiveness in the twenty-first century. In the United States, at the same time, there are concerns about a loss of “social capital” (local bonds of service and support) that is considered critical to child development. And in an ironic reversal, American technology advocates want to make sure that children in lower-income households and poorer schools have Internet access, while affluent parents worry that Internet access is not good for their children.

Does the Internet itself help or hinder the development of the skills that Internet-enabled organizations need to operate? Concerned citizens and outright critics express three kinds of worries about the impact of the Internet. These worries involve social ties and skills, intellectual development, and community responsibility. Reviewing a few of the prominent arguments and evidence regarding each worry brings us back to the social challenge: The issue is not the computer or electronic communications but the social environment itself. The Internet and its close cousins can have a positive effect when the right social context is in place, but a negative effect when it is not. Getting the best of what the online world can offer requires a well-connected offline community.

Worry 1: Social Graces

Is Internet use good or bad for relationships? Let’s begin with the argument of the critics. Some people worry that time spent

on the computer is not time spent with other people. Some admit that computer use is less passive than television watching, and the Web is less isolating than individual computer use. The Web includes communication as well as interactivity. Still, critics argue, people could end up more isolated, relationships could become more fleeting and superficial, and both social skills and social support could decline, tearing the social fabric and damaging mental health. Critics are concerned that Internet use further erodes people's face-to-face connections to one another. Even e-commerce gets attacked for making it easier for people to shop in private rather than venturing into public places where they can encounter one another.

There is ample evidence about the positive impact of electronic communication for specific tasks in the workplace when it is used in addition to other communication. For example, survey data from a large U.S. multinational corporation showed that employees who used e-mail extensively were better informed about the company and more committed to management's goals, in part because of information spillover as people forwarded messages.⁴ An experiment in another company compared the work of two large task forces over the course of a year, one with and one without electronic communication. Electronic communication increased people's involvement—the computer network users served on more than one subgroup, developed more complex relationships among the working groups, created new groups, and kept meeting after the official year was over.⁵ Under those circumstances, relationships were strengthened and performance was better.

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The Internet also seems a good way for busy people to find others who can help them with their work, anywhere in the world—tapping so-called weak ties to get advice they can't get from colleagues close at hand. Nearly 150 employees at Tandem Computers broadcast internal requests for technical information over a six-week period, and 82 replies were posted in a public file for study by researchers. The investigators found that the most useful information over the Web came from people with whom there was no relationship, no similarity (even in country base), and no expectation of reciprocity—and it came from peers, not from those higher in the hierarchy. The number of replies did not increase usefulness—it was the ability to find just that one person somewhere else who had just the right piece of the puzzle. The givers of the most useful information did it, they said, for organizational benefit, not for an expectation of rewards—in my terms, because they were part of the community.⁶

But these are adults at work on tasks. Even in the workplace, some consultants find backlash against e-systems that appear to reduce face-to-face relationships, such as employee assistance on the Web rather than through meetings and counseling. Cheryl Shearer, a director at IBM Global Services in London responsible for e-business consulting throughout Europe, saw a backlash against e-systems there: “There are challenges particularly in cultures like, for example, the Italians, who like to work person to person, to go and see someone to discuss a problem. Elements which look to systematize, mechanize, even robotize our lives are culturally not acceptable in Europe.”

Worse than resistance, some critics hold, is acceptance of virtual work that then spills over to personal life, undermining social graces. A business psychotherapist in New York, who had worked in corporate employee assistance programs for 15 years, expressed common concerns about the impact of work styles in which people do not have to face each other directly: People working in the same location must know how to get along with each other or they are not likely to get much done. But if relationships are conducted via e-mail or on the Web, how are people going to learn to negotiate, learn to read subtle signals about others' true views, or learn to work out differences and recover from missteps?⁷ The worry is that social skills will decline, with dire consequences for people and organizations.

To test the social and psychological impact of Internet use, 93 Pittsburgh families were given computers, phone lines, free Internet access, and a battery of psychological tests. Some of the families started their Internet use in 1995, and others in 1996. A year later, the researchers found, the 73 families remaining in the study had experienced a modest reduction in social involvement, family communication, and psychological well-being. People who had large social circles tended to use the Internet less, but holding constant the initial size of social circles, there was a decline over the year in contact with people nearby with whom the subjects had previously socialized at least once a month. Being initially depressed or lonely didn't predict Internet use, but over the year those who were heavier Internet users reported larger increases in loneliness and depression and marginally more daily life stressors.⁸

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A flurry of rebuttals greeted publication of this study. Objections were raised to the study’s methodology, findings, and claims. One psychologist pointed out that all the effects were small: People in the study used the Internet infrequently (contrast their three hours a week to the three hours a day the average American watches television) and showed only a small increase in distress. A group of female mental health practitioners cited their own experience with an ongoing e-mail discussion forum that gave them “permission to be authentic” and “expand our very real feelings.” Far from becoming lonely or depressed, they said, the Internet helped them feel “freer—we bring our voices onto the screen.”⁹

Which is it, isolating or enriching? Answer: It depends. Anything can be taken to pathological extremes; the really Net addicted—who spend over 30 nonworking hours a week online—are likely to lose sleep, ignore family responsibilities, and let job performance slip. But what about average people? A pair of reports of large surveys in 2000 present contradictory evidence. A study by Norman Nie at Stanford University made headlines with its claims that “the more hours people use the Internet, the less time they spend with real human beings.” Nie called the Internet “the ultimate isolating technology that further reduces our participation in communities even more than television did before it.”¹⁰ But a daily tracking poll in March 2000 of 3,533 Americans, 1,690 of whom were Internet users, found the opposite. The Pew Internet and American Life Project reported that its survey provides clear evidence that e-mail and the Web enhance users’ relationships with

family and friends. About 60 percent of Internet users have more contact with family and friends thanks to e-mail. Internet users are more likely than nonusers to have a robust social world with deeper social connectedness to a significant network of helpful relatives and friends—although differences are small, and those in touch with family don't seek advice from them or discuss things that worry them.¹¹

The latter result is a clue to resolving the contradictions—the fact that people who stay close to their families and friends might still prefer to discuss their worries with strangers over the Internet. Research at Harvard Medical School showed that parents of special needs children who used electronic support groups experienced more stress and stigma in real life. They felt that family and friends were less supportive, so they turned to the Web to find people with whom they could exchange experiences and advice.¹² The impersonality and anonymity of the screen makes it possible for people to confess things they wouldn't reveal face to face, for young people to ask questions of adults they would be embarrassed to ask in person, and to find people far outside their usual circles who might have a useful new perspective. This is the “weak ties” point made by the research at Tandem Computers.

Some people worry that not only is the computer isolating, but that its use also shapes a world view, a particular way of using one's mind and seeing the world. So it is not only the time online that is a problem, it is what happens in on-screen interactions.

Worry 2: Intellectual Development

The argument by critics begins with the social isolation assumption—that even when the Internet is used for communication, it is used alone. This perspective holds that on-screen dialogue lacks the richness and unpredictability of face-to-face communication, thus inhibiting the development of children’s (and adults’) intellectual as well as social skills. One extrapolation from poll data estimated that children aged 10 to 17 in 1999 will experience 31 percent fewer face-to-face interactions than the previous generation and will thus be more reserved, with fewer social skills (though, the authors added, five times as worldly because of exposure to other cultures).¹³

In a widely reprinted article, Todd Oppenheimer said that it is a “computer delusion” to imagine that the computer improves education when its use might hurt real education. It encourages, he wrote, a “fundamental shift in personal priorities—a minimizing of the real, physical world in favor of an unreal virtual world.” It teaches that “exploring what’s on a two-dimensional screen is more important than playing with real objects, or sitting down to an attentive conversation with a friend, a parent, or a teacher.” It downplays the “importance of conversation, of careful listening, and of expressing oneself in person with acuity and individuality. In the process, it may also limit the development of children’s imagination.” He lumped it with television for giving the illusion of acquiring information without work and without discipline, despite the extra interactivity.

As the final blow, he cited Hewlett-Packard—a computer company that rarely hires people who are predominantly computer experts, favoring people who are flexible, innovative, and have a talent for teamwork. Moreover, he said, HP’s contributions to public schools involve math and science lessons involving hands-on work with real materials such as seeds and magnets.¹⁴

Massachusetts Institute of Technology (MIT) sociologist Sherry Turkle is one of the few experts who has studied the ways children interact with computers and what they learn. The computer, she argued in an influential book, “evokes both physical isolation and intense interaction with other people” through multiuser domains (MUDs). Kids raised with computers and video games know that “to learn to play, you play to learn. You do not first read a rulebook or get your terms straight.” One popular game, *Myst*, included a blank journal for collecting information, instead of an instruction book. A nine-year-old user was able to differentiate between “rules” for the game (there are none) and “information” (the codes and secrets players collect). Although simulation games can teach players to think in an active way about complex phenomena as dynamic, evolving systems, Turkle argued, they also accustom people to manipulating a system whose core assumptions they do not see and that may or may not be “true.” A culture of simulation threatens to devalue direct experience, in Turkle’s view. “Direct experience is often messy; its meaning is never exactly clear. Interactive multimedia comes already interpreted. It is someone else’s version of reality.”¹⁵ Simulations could even replace real actors on Webcasts, further obscuring the distinc-

tion between the virtual and the real. In the spring of 2000, Britain’s Press Association introduced Ananova, heralded as the “world’s first virtual newscaster”—a real-time computer with a female face in front of it, programmed to exude a range of human emotions. On-screen simulations using emotion databases could eventually confer a weird kind of immortality, as dead actors could spring back to life in new films.

Of course, some of the same arguments can be used against any idealized or sanitized representations of life, whether in literature or in films. So perhaps the objection is that computer simulations are more powerful because of greater audience participation in shaping the outcome. Another MIT scholar, Janet Murray, offered a more optimistic view of the potential for computer-based complex role-playing games to build skills. Role-plays require players to get inside characters, understand the implications of their attributes, and negotiate the rules or the storyline with others. (In short, these are exactly the features associated with children’s play in general, but now augmented by the ability to communicate at a distance with many more variables involved.) Murray identified properties of “cyberdramas”—the narratives that can be created in digital environments—that are particularly intriguing in terms of the skills needed for e-culture:

- *Procedural*. Characters follow a set of rules.
- *Participatory*. A virtual world can respond to every possible combination of commands it has been programmed to accept. Users can construct alternatives,

cast characters, perform voices. Objects can react as users explore them.

- *Spatial*. The screen can represent space, not just display it, and users can move through it.
- *Encyclopedic*. The virtual world can hold a wealth of detail—background, spaces to explore and discover.

Consider Murray's sweeping conclusion:

The computer is providing us with a new stage for the creation of participatory theater. . . . We are all gradually becoming part of a worldwide repertory company, available to assume roles in ever more complex participatory stories. Little by little we are discovering the conventions of participation that will constitute the fourth wall of this virtual theater, the expressive gestures that will deepen and preserve the enchantment of immersion."¹⁶

Indeed, I feel that simulations involving complex role-playing games can enhance the awareness of complex interactions that helps people master an alliance-rich world, in which competitors must collaborate, and multilateral relationships must be negotiated and managed.

Whether the ability to live another life in cyberspace is an enhancement (opening new horizons) or an escape (preventing coping with reality) could depend on how appealing reality is. Young people are particularly prone to posturing and experimentation, trying on a variety of selves, and the Web provides a

handy medium. The most frequent users of anonymous chat rooms, Nie’s study at Stanford showed, are teenagers and people barely out of their teens, with use declining after age 25. Those flocking to chat rooms and adopting new personae tend to have problems in real life; other psychologists have found that most people are themselves online.¹⁷

The escapist qualities of the Web for children can be a healthy outlet. In Hong Kong, a Web consultant helped an upstart local telecom company called Sunday develop a creative Web site to help kids design their personal fantasies online. They could customize their own cyberrooms and cyberself, choosing furniture and different hairstyles and clothing for their Web personae. David Mok, a founder of the Web consultancy, saw this as a positive way to enhance the quality of life for children growing up in small, cramped quarters.¹⁸ Critics may call this the technological form of an “opiate of the masses,” but I feel that anything that stretches imagination and raises aspirations can have positive benefits.

Does the Web make fantasy more attractive than reality, or does it provide a place to test and develop responses to a wide range of real situations? The value of cyberspace for learning new skills depends on how supportive the social context is on the ground.

In the normal middle, not the pathological extremes, there is evidence that children can be sensible Internet users, letting the Web take its place as another tool for managing various aspects of their lives. A Toronto-based research firm studied Canadian teenagers, 85 percent of whom were wired, with

boys online more than 10 hours per week and girls more than 8 hours. The researchers reported that the teenagers are “normal”—playing sports, valuing friendships, and even going (physically) to the library to do research, despite the fact that homework was the single most common reason they used the Web.¹⁹ The Canadian study, like others, found that the Internet expands kids’ social connections. Advertising agency Saatchi & Saatchi’s Kid Connections group reported that pre-teen girls often have up to 100 people on their instant message lists, whereas older teens (who did not grow up with this capability) have about 10. “Lifelong interaction with multimedia technologies has created a generation which communicates in an interdisciplinary language: the marriage of words and images,” their report said. The children studied felt empowered by their expertise, because their parents came to them to learn about computers and the Web.

The most heartening Kid Connections finding is that the preteenagers placed a tremendous emphasis on learning. “Being smart has become cool.”²⁰ And evidence is mounting for the benefits of a range of Web-related technologies for helping kids get smart. Computers in classrooms are the least important manifestation of technology in education—and often the counterproductive one attacked by Todd Oppenheimer and other critics. The value of technology in education comes from the positive impact on teachers and parents—the on-the-ground real relationships that help children develop and education take hold.

In 1997, consultants at strategy firm McKinsey conducted

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an exhaustive review of hundreds of studies of the use of computers and electronic communication in K–12 education and visited dozens of classrooms. They cited increases in student reading and writing skills through e-mail use. Distance learning courses led to higher achievement because of the availability of highly skilled teachers. Connecting teachers to administrators and parents also showed up in enhanced student performance.²¹ In 1998 and 1999, even more encouraging evidence was presented about the positive impact on children’s achievement when computer networks were part of systemic reforms in teaching and school operations. Evaluations by the well-regarded Center for Children and Technology (CCT) in New York of the highest-profile and most comprehensive use of intranets and the Web—Project Explore at the Christopher Columbus Middle School in Union City, New Jersey, and the U.S. sites for IBM’s global Reinventing Education initiative—concluded that network-enabled schools can raise academic performance. (I saw this first-hand in my visits and interviews at Reinventing Education sites.) But with respect to Union City, Margaret Honey and other CCT researchers are careful to distinguish the impact of the technology itself, which was modest, from the impact of school reform, which was significant. In Union City, students’ test scores started to rise before they had computers for Internet use because of longer class periods, new books, after-school programs, and team projects. IBM itself is interested in how the networks are used to empower teachers and parents, not in replacing face-to-face instruction with computers.²²

The big experiments are yet to come, as e-learning becomes the “next big E,” and new dot-coms spring up in partnership with education. Scholastic Inc. and Harcourt General are partnering with tutor.com and thinkbox.com on online tutoring networks for children. IBM’s Learning Village software offers a suite of online services to school systems. The New York City Board of Education’s Teaching and Learning in Cyberspace Task Force was dreaming big dreams in 2000: to give all students and teachers an Internet-ready laptop computer—perhaps even funded by a public-private partnership with an ISP to create a revenue-generating K–12 Internet portal. Although the fate of the New York City proposal is unclear, plans to offer universal Internet access to school children (for example, through their own e-mail address and a dedicated network) are underway in many American states as well as countries as diverse as the United Kingdom and Costa Rica.

Such actions could take care of one aspect of the Digital Divide: access. But simple access alone will not address the larger question of educational quality: excellence, not just equity. Nor will it address the Social Divide. The evidence to date shows that those who already have rich social connections and supportive interpersonal relationships in a healthy environment will find electronic networks a huge enhancer. But those who don’t—children without adult mentors, students in crowded classrooms with no change in teacher effectiveness, young people isolated in neighborhoods with few safe places to gather, families without access to health care or clean water—could continue to fall behind, with or without computers. It’s

the quality of the community, not the availability of the technology, that matters most.

Worry 3: Social Responsibility

A third worry is about that very issue: the quality of the community. If the Internet has any isolating effects, could that combine with loss of connection to particular places to erode mutual help, civic participation, and social responsibility? What happens if virtual communities take over from real ones?

A clearly positive potential of the Internet lies in increased global consciousness. The mental boundaries of community can be stretched to encompass more people in more places. That builds the cosmopolitan sensibilities and awareness of multiple audiences needed for innovators and collaborators. Through the Web, significant contributions can be made to improving life anywhere, such as IBM's program to assist in reuniting refugee families in Kosovo. Dot-orgs are springing up to match philanthropic donors and nonprofit causes without geographic restrictions. But the critics weigh in here, too, with worries that local causes will suffer and that people will be generous and supportive only at a distance.²³

It's not just the virtual world that could threaten the real one. The workplace supporting cyberspace also threatens to overwhelm other aspects of community. Consider Nortel Networks, a leading dot-com-enabler, which made a “city” out of its new headquarters in the Toronto suburb of Brampton, co-locating 3,000 people who had previously been scattered. There are

indoor parks, a Zen garden, a full-service bank branch, fitness centers, basketball and volleyball courts, a physiotherapy area, a dry cleaning service, a spirituality room, a café, and public areas for television viewing. Insiders report greater job satisfaction and more productive relationships with colleagues.²⁴

Yes, and does anyone need to go home? I have argued that organizations need to become more like communities. But they should not do so at the expense of the rest of community life. We need to nurture the places where families bond, children go to school, amateur sports teams practice, artists create, religious rituals and personal milestones are celebrated, and people meet outside of their work roles and help each other.

Resolving the Worries

Let me summarize the worries and try to resolve them. The worries all involve either/or trade-offs, which is the wrong way to think about things in a multichannel world. The Internet is said to strengthen weak ties (mere acquaintances and even strangers who are far away), but at a price: the potential to weaken strong ties (family, friends, and coworkers in the next office). It is said to increase social identification (bigger numbers of people from more places are in the contact circle), but also at a price: a potential decline in face-to-face social interaction. These are set up as competitions, like a sports scoreboard: weak ties 1, strong ties 0; social identification 1, social interaction 0.

Why must this be either/or? An IBM virtual team provided assistance in Kosovo (distant), but some of those same team

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members are active in local schools in IBM Reinventing Education projects (close). To me, the worries stem from false assumptions—that the Internet simply takes us over and we have nothing to say about it, or that it is so powerful that it overwhelms everything else. These assumptions have interesting echoes of the dot-com frenzy that dominated the capital markets in 1998 and 1999, when some fervent e-believers said that e-commerce would replace bricks-and-mortar stores—not just augment them or enhance them, but eliminate them.

A more likely outcome, one that we are starting to see in every field, is that the real and the virtual will live side by side. The Internet means that even local businesses and local organizations, rooted in one place, must be aware of the rest of the world and must create connections to all those places. Acting as a good global citizen, everywhere a company operates, is an excellent way to create a culture that employees care about. Yet, without the services and supports and strategic discussions that take place locally, even global giants of cyberspace cannot operate. This is not an idealistic statement, but a pragmatic one. Amazon.com cannot function without warehouses and package handlers and delivery trucks.

Conclusion

Are we on the verge of the next stage of social evolution—a great leap forward to shared consciousness? The advent of the Internet, if guided by leaders who understand its full potential

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and deeper implications, can help connect people in powerful ways that build human community. The nature of knowledge is such that you have to keep evolving, keep moving to the next thing, as knowledge constantly moves ahead. Good leaders are always ready for the next development because they are constantly encouraging people to innovate and offering them the tools they need to do so.

It's not necessary to plan every step toward change ahead of time. You can't predict the future, but by building a connected community, you can put your institution in a better position not just to be ready for the future, but to create it.

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