

# Rethinking the Digital Divide

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**T**he contrast between the egalitarian ideals of many netizens, who see cyberspace as a radically democratizing environment, and the real limitations of access for most of the world continues to haunt the Net. In many ways, the domination of information technology has reinvigorated hierarchies of power, concentrating resources in the First World and contributing to the widening global economic gap between the haves and have nots, categories defined more than ever along axes of race, gender, nation, and ethnicity.

At the same time, not all the dreams of free and universal access to publishing and information have been for naught. It matters that the Net provides a home for many sites—good, bad, and indifferent—produced by all sorts of people with all kinds of politics.

In the weeks after the 11 September 2001 attack on the World Trade Center, for example, many peace activists complained bitterly that the mainstream media suppressed critical information about US policy. But dissent flourished on the Net, with e-mail position papers, listservs like Professors for Peace, and sites like that of the Revolutionary Association of the Women of Afghanistan providing a vigorous counternarrative. In some ways, the Net makes markers of gender, race, class, nation, language, and age hypervisible, but the old protocols of publication are, if not gone, certainly reconfigured.

The Net offers real opportunities for progressive scholars, teachers, computer scientists, philanthropists, and



**Can education and industry work together to bridge the widening gap between haves and have nots?**

even corporations that want to use it to make a difference.

## TEACHING ACROSS THE DIGITAL DIVIDE

We arrived at these observations while thinking about how to structure a distance-learning program in Internet computing and women's studies to reach a nontraditional group of students in Arizona: rural, homebound, or incarcerated women. We seek to provide these students with both critical-thinking skills through women's studies courses and a range of technological skills by doing the coursework. We hope that such a program might teach across the digital divide, filling a gap in access to higher education and technology skills.

The students we hope to reach have marginalized educational opportunities for several interconnected reasons. A profoundly rural state, Arizona contains many extremely underfunded public school districts. These impoverished districts serve communities that are disproportionately Mexican-American and Native American—an unsurprising situation given the uneven distribution of poverty in the US.

Further, the community college system does not serve the people in these rural communities well. Its facilities, while extensive, tend to concentrate in more populous areas. The homebound have limited access to educational opportunities—disabilities or their commitments to care for the young, ill, or elderly may immobilize them. A disproportionate number of these caregivers are women.

As we began developing a program

that would serve these students, we initially found ourselves caught up in traditional notions of the problems we would face. Many faculty members, drawn from three Arizona universities, came to the program with a resistance to distance learning and instructional technology in general.

They and many others argued that the Net remains an essentially male domain, that enacting feminist pedagogy depends on constructing a community of learners in a woman-friendly space that honors women's experiences and voices.

Frankly, this point of view irritated us both. We basically like information technology, use it in our classrooms, and feel that resisting it only puts our students at a competitive disadvantage. Nor could we imagine another instructional medium that would reach the students we hoped to teach.

## RESIDENT ALIENS IN TECHNOLOGY

At the same time, having acknowledged that new technologies both produce new social relations and reproduce old ones, we sought alternatives to the education methods that continue to

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## The Profession

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reach mostly those who already ride the broad band of technological change—the very kinds of courses that typify most distance education in technologically saturated nations.

In our search for transgressive models of distance education, we found inspiration in the “Web-back” performance pieces of Guillermo Gomez-Peña, the production of virtual favelas in Brazil, and rural education models from the Philippines and Malaysia. As we thought in particular about our desire to reach Native American reservations and Mexican-American border towns in the US Southwest, we asked how these various Third World projects profile and recruit their students and what models of virtual education and empowerment they create.

### CDI Brazil

In 1994, the group that would become the Committee for the Democratization of Information (<http://www.cdi.org.br>) opened a computer center in the Santa Marta favela. Located in one of Brazil’s infamous shantytowns, the favela has virtually no schools and only irregular access to electricity, water, and other services.

The brainchild of Rodrigo Baggio and an ever-expanding corps of volunteers, the project had, within a few years, created 10 educational centers with a budget of zero—the centers’ resources consisted solely of volunteers and donated equipment. The project sought to teach children and adults computing and Internet skills, to expand their employment prospects, and to connect the favela’s often socially and politically isolated residents to each other and the wider world.

Today, CDI runs a diverse portfolio of programs with sponsorship from corporations like Microsoft and Esso. Their online newspaper and 208 schools in 30 cities provide instruction, training in job skills, and basic educational opportunities for favela residents. An initiative inspired by CDI Brazil, called CDI Americas, has now opened offices in Colombia, Mexico,

and Uruguay and seeks to expand activities to other Latin American and Caribbean countries.

We like the extent to which this model assumes its students have neither hardware access nor computer experience and thus makes providing those things the program’s first task. We have had to think in these terms to imagine how we can involve students on the Indian reservations of Arizona, where many areas do not even have phone ser-

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vice. Indeed, the lack of telecommunications is a crucial issue across the globe: The Philippines, for example, has only nine phones per 100 residents.

Belonging to a university or corporation gives people the privilege and responsibility to use some of their institution’s resources to help change this reality. Northern Arizona University and some rural communities, for example, have been at the forefront of efforts to insist that the federal government bring telecommunications to the vast areas that Indian reservations occupy.

The CDI project has helped us think about how to set up proctored computer labs throughout the state. These labs would give people access to equipment and let us provide just-in-time instruction in Internet computing skills. Certainly, these skills might lead students to earn university degrees in the long run, but in the short run they could also improve their employment prospects immeasurably.

### The Virtual Barrio

From Guillermo Gomez-Peña and his *Virtual Barrio* Web sites (<http://www.telefonica.es/fat/gomez.html>), we accept the challenge of thinking about how

those who historically have been excluded from political power and cultural authority might imagine the utopias of the Net. Too often, they become the same old disempowering, discouraging, lonely, racist, and hostile places.

What are the implications of English being the Web’s lingua franca? Things like courseware and Web design reveal whom we expect and want in these spaces. How do we re-encode them as less hostile without engaging in the condescending practice of assuming that some people—women, people of color, people inhabiting or migrating from the global South—are somehow culturally handicapped when confronted with information technology?

When Gomez-Peña wrote in 1997 about “low-riding through the inter-neta” on a laptop that bears a 3D Virgin of Guadalupe sticker, he may have described precisely what we all, in fact, do—bring our raced, gendered, place-specified selves to the Net.

For those unfamiliar with the US Southwest’s barrio vernacular, a *low-rider* is a colorfully painted and lavishly customized car, rebuilt with hydraulics to lift and drop, that offers a way to express individuality and artistry. The police act as if everyone who drives one is suspect. Thus, to low ride is to engage in an extremely hip, male, usually harmless activity that nevertheless can subject you to police harassment.

The Virgin of Guadalupe is a particular incarnation of the Virgin Mary in Mexico: the mother of God as mestiza and the patroness, protector, and national symbol of Mexico, Mexicans, and their descendents. The “interneta” is Spanglish, that proud, edgy, post-modern, transnational language invented by US Spanish speakers, especially youth, that irritates parents, teachers, English-only policymakers, and all humorless defenders of pure languages and identities. Gomez-Peña’s point is crucial to how we invite students to use the Internet—to appropriate, engage, challenge, and transform it—in the fullness of their human, funky, troubling selves.

## NETIZEN DEMOGRAPHICS

We must also acknowledge the other problem that Gomez-Peña and all these projects point to: Not all people are netizens equally. Well-to-do and middle-class white men in wealthy countries' urban areas dominate the areas of technological knowledge and learning. Forty-one percent of all Internet users reside in the US, but even here African-Americans, Latinos, and Native Americans are underrepresented. Women make up more than 50 percent of all US Internet users, but lag in terms of contributing to design and development.

This disparity arises partly as a function of access: White, urban men in the global North constitute the demographic most likely to earn degrees in technology-rich educational settings or to have the kind of jobs that let them learn how to use these technologies while being paid. They are also the group most likely to have disposable income for buying private access to technology. Gomez-Peña's model helps us

understand these statistics by showing how some of us still experience ourselves as illegal aliens in the online world.

Granted, we can uncover holes in these generalizations among the many exceptions to these patterns found in the behavior of individual women, girls, men, and boys. Nor do we make claims about the predictive power inherent in the way things are now.

We assume that racial differentials in computing usage arise from differences in access and expectations, not intelligence or ability. Similarly, gender-divergent behavior with respect to technology has nothing to do with innate abilities or biology, but rather derives from gender-dimorphic socialization and acculturation.

In the process of developing a certificate program that might begin to address the many divides we've described, we hope also to reach across another kind of divide, that which separates academic institutions from po-

tential partners in the business community.

The commercial sector will increasingly be the source of financial support for education, especially when it's a question of wiring rural areas and supplying hardware to programs like ours. For this symbiotic educational project to thrive, we will also need our partners in business to help us tailor our curriculum, provide internship possibilities for our students, and hire the students who complete our program.

The prospect of bridging that final divide between homebound women and high-tech work is what drives us. ■

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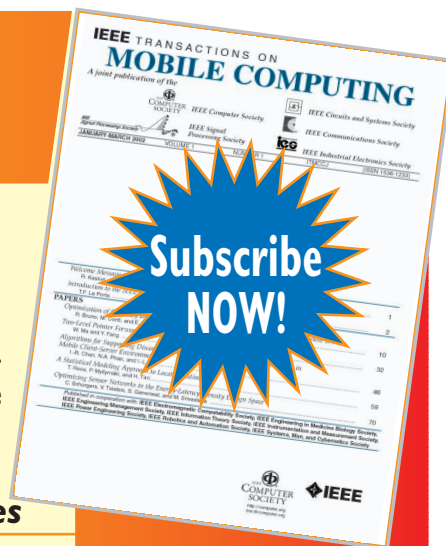
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