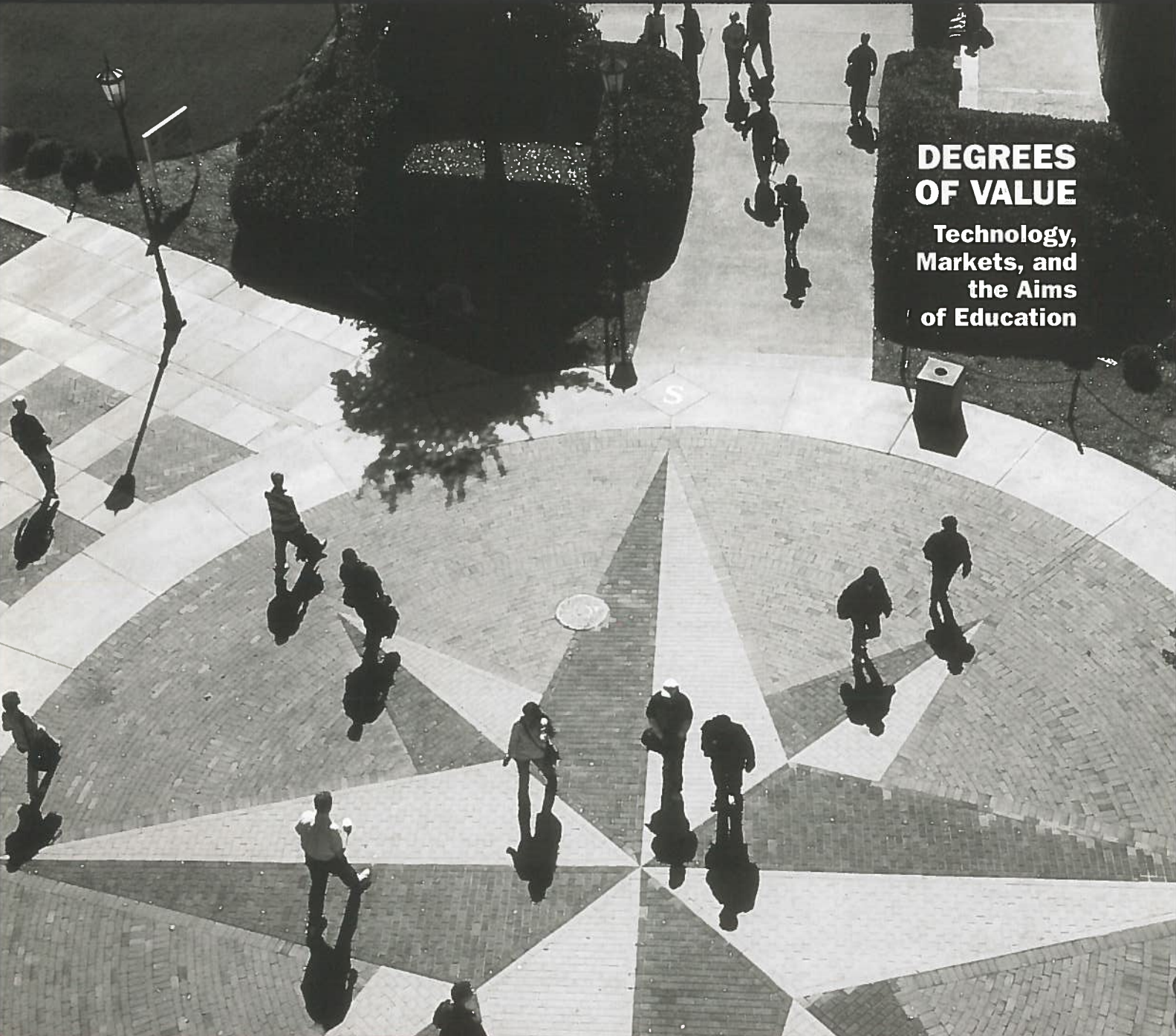




LIBERAL EDUCATION

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**DEGREES
OF VALUE**
Technology,
Markets, and
the Aims
of Education

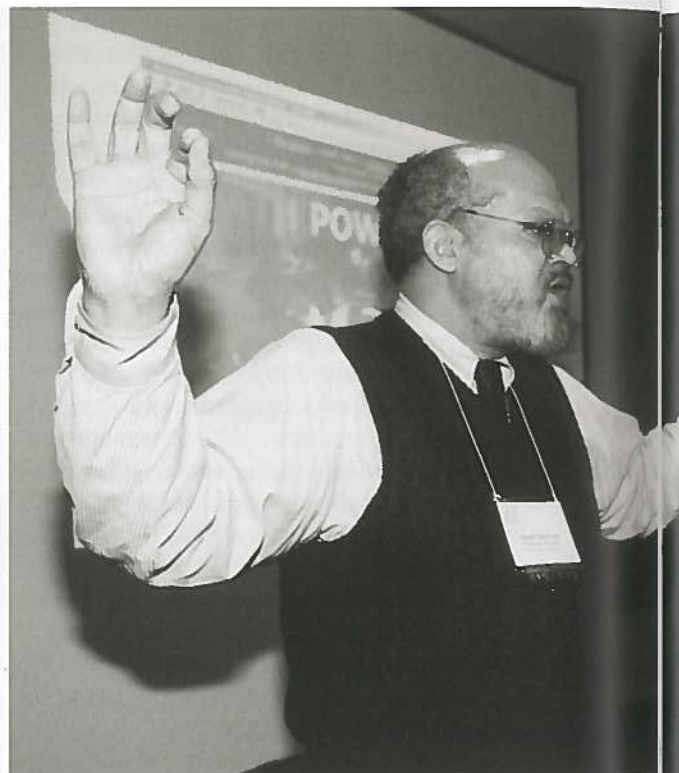
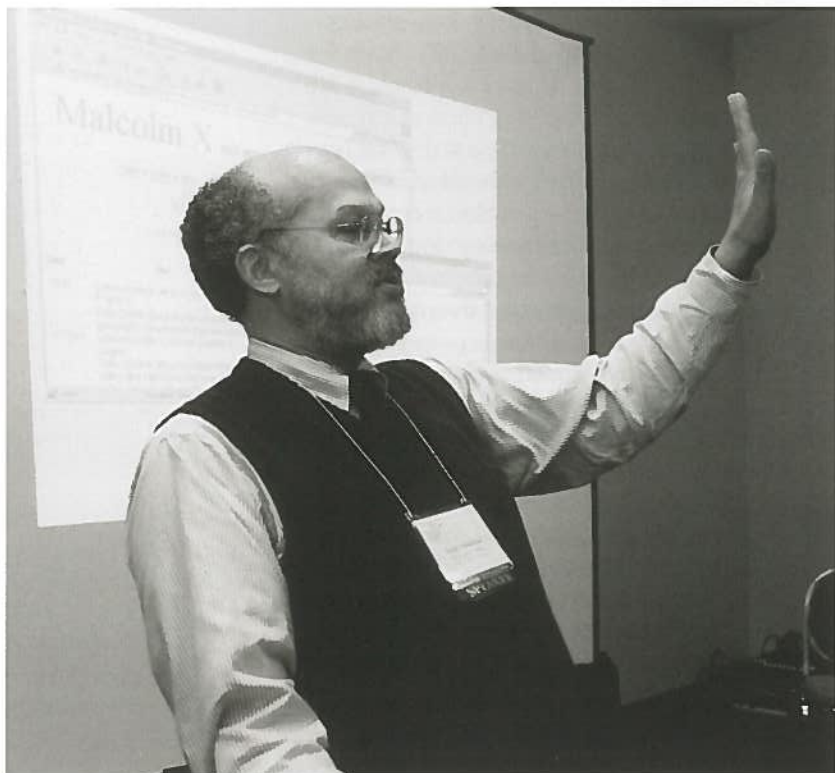
ASSOCIATION OF AMERICAN COLLEGES AND UNIVERSITIES

ABDUL ALKALIMAT

eBLACK

FACING UP TO THE DIGITAL DIVIDE IN HIGHER EDUCATION

FEATURED TOPIC



THERE IS SOMETHING EMERGING called

“eBlack.” It’s clear from scholars and popularizers that the concept of the information age or information revolution fits a general understanding of the periodization of history. Looking at history writ large, we can see that there have been at least three revolutions in which technology impacted the economy and other aspects of society: first, the agricultural revolution, the domestication of plants and animals, the establishment of settled communities and so on; next, the industrial age emerging with the importance of machines, the rapid increase in productivity and quality of life; and, now, this wonderful high-speed information revolution—where we are in its maternity ward.

ABDUL ALKALIMAT is director of *Africana Studies* at the University of Toledo

Many things about the information revolution are perhaps most like the anxious worrying of parents about what’s going to happen to their child. We are, in fact, at the beginning, and we are not quite sure what is going to happen. Being at the beginning is why it’s important to have a value orientation, as opposed to locking into a particular stage of hardware, software, or any application that might be popular now.

I want to signal that these three revolutions are code words for how one might rethink the history of the African-American experience. That history does not fit the overall historical sequencing of the three great revolutions, but it does suggest that the actual experience of African Americans has had a similar periodization, in the relationship of both African-American labor to the technological base and organization of the economy and also to cul-



tural and social life. In other words, in thinking about African-American life in the South, one can easily reconceptualize it in terms of technology. For example, the invention of the cotton gin placed great demands for field labor, and, consequently, the rise of the Cotton Kingdom—indeed, cotton was king. Not regionalized in the South, cotton was, in fact, the dominant feature of the entire economy.

More wealth was invested in slaves and the production of cotton than all of the entire U.S. economy put together—all banks, all industry, all railroads, everything. The production of cotton internationally dominated the U.S. role in world trade. Thus, it is not a regional phenomenon but a technological development that served as the material basis for the entire country. The end of this does not occur, of course, with the Civil War, a political and social development.

From a technological point of view and from the point of view of labor and what was actually happening in the lives of people in the South, the change occurs in the 1940s with the mechanical cotton picker. From the standpoint of technology and labor, the movement from slavery to sharecropping shows great consistency with some change between the social organization of labor in the plantations versus its subsequent deconstruction into sharecropping.

The point is that one can look at African-American history from the standpoint of technology. That enables us to see the emergence of industrialization, the great migrations to the city that happens at precisely the moment when industrial jobs start getting exported out of the city, even though there was a period of overlap. The industrial system in the city was already in decline before blacks

Speaker Abdul Alkallimat at Annual Meeting

Annual Meeting
participant

VOICES FROM THE ANNUAL MEETING

**Jane Fountain on Women
in the Information Age**

From the Networking Breakfast for Women Faculty and Administrators at AAC&U's Annual Meeting, January 18, 2001.

For the first time in history, says Kennedy School Professor Jane Fountain, women have the opportunity to play a major and visible role in a social transformation of "potentially monumental proportions." Of course, Fountain is talking about information technology—a field that has virtually seeped into every facet of our lives, from what we drive to where we bank to how we keep in touch. Still, notes Fountain, women may not be able to capitalize on this opportunity if their numbers in information design roles don't expand.

"Traditionally, IT-related fields haven't been as diverse as

they need to be. But the question, "Who designs technology?" matters greatly now that information technology is becoming increasingly pervasive in business, government, and nonprofit sectors. IT has become a critical element in most of the products and services we use. As computing touches more and more areas of our lives, the social implications of design—hardware, software, and interfaces—become critically important.

"Important streams of research in psychology and management demonstrate that diversity in problem-solving groups leads to different and often better outcomes. The results tend to be more inclusive, that is, they tend to take into consideration the values, interests, and needs of a variety of different parties. Attention to a wider range of computing users would benefit society.

"The gap between the number of women and men getting computer science degrees is actually getting wider, but signs of progress exist for younger students. Beginning in 1997, girls and boys began playing computer games at equal levels in grade nine. Internet use by elementary and middle school children has not differed by gender since 1997. But only 17 percent of students in AP computer science courses are girls. A number of policy interventions could reduce inequality and transform the construction of an information-based society."

(The full article originally appeared in the April 2000 issue of Update, published by the Kennedy School of Government, Harvard University. Reprinted with permission.)

**Old inequalities
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revolution**

arrived. Positions in service and information have risen, surpassing the industrial labor force already declining in the 1950s.

The industrial period for African Americans was not the late nineteenth century but rather toward the middle of the twentieth century. The question we are faced with today is whether or not a similar lag is going to occur with regard to the information revolution. Of course, when we think about the difference between the information society and industrial society, we begin to see important developments. The first time I heard the notion "dark factory," I thought that suddenly the industrial captains of industry had accepted affirmative action and that we were going to see some increase in employment. In fact, what it means, obviously, is that there are no people there. The "end of work" thesis is being challenged by data which say that jobs are being created.

The important point is that wealth continues to be generated, production continues to go on, the things we need continue to be available. Then, the question becomes, what do we do with people who don't have to go to work? And how do we figure out how to distribute wealth so that we can ensure a quality of life in this society without turning it into a garrison state? Fundamentally, that's the issue today. The message is seen in having the crime rate go down while federal policy is increasing the number of police on the streets; schools being closed and prisons being built, not just in California, but also in Toledo, Ohio. We are, in fact, moving more toward the garrison state, toward gated communities. We are moving to a high value for homogeneity even though the society may be diverse in color or language.

Fundamentally, what we are talking about is a certain kind of homogeneity that gives us comfort. We have to take the long view and be critical of this because it has serious implications for everybody not inside the gate: They will indeed storm the gate.

The African Experience

To put the digital divide in context, I want to mention some things about Africa. Clearly, one of the major points about the information society is that it is about the central role of knowledge—the production, distribution,

consumption, application of knowledge. When we look at the global scene, we see that the continent of Africa has 13 percent of the world's population but considerably less than that when it comes to the pro-

duction of knowledge. Africa is starting out considerably behind in the information age.

One indicator is telephones, an indicator relative to the industrial age with wires, telephone poles, cables on the ocean floor, and so on. Something like 90 percent of the African population has never made a telephone call. There are more phone lines in Manhattan than in all of Africa. On the other hand, what's interesting is that new telephones in Africa are mainly wireless, cellular. In other words, the new information age has technology that enables Africans to skip over one era and create the possibility for communicating in ways that in the next decades will cause a revolution in consciousness. This is different from highways. With highways, there are unintended consequences—like the spread of AIDS with truck drivers and armies. But with telephones, the languages and consciousness of Africa, always guided in the modern era by a unity theme, suddenly get a boost. African nationalism has always meant the unification of Africa. Now, for the first time, there will be a tool, an instrument to enable people—beyond governments, NGOs, and so on—to communicate and build in very practical terms this consciousness of unity in order to get around some of the problems that African societies are facing.

What I am asserting is that old inequalities are being reproduced in the first stage of the information revolution. And when it comes to the Internet, it's very clear that we are starting off with "them that's got shall have," the old Billie Holiday song. We are talking about the first stage of the adoption of new technology. In the advanced industrial countries with a high percentage of people who are Internet users in Europe and the U.S., predictions are that in the next ten to twenty years the picture is going to be very different on a global scale. The current dominance in Internet use by the developed countries is likely to decline dramatically as Asia, Latin America, and Africa begin to adopt information technology and use new telecommunications tools.

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In urban areas of Ghana, there is a great thirst among the population connected to the university, middle-classes, the government, and NGOs, to use information technology. From a computer lab at the University of Ghana, the contradiction is that as students are trained, where do they go to work? How do they work and live in their communities? It's clear that

African leaders are very much focused on this.

Former South African President Mandela identified it as a critical issue. In South Africa, they are using the concept of the telecenter. We're familiar with the cybercafe and community technology centers. This is their equivalent: to bring everything from the telephone, Xerox, fax machines, and access to the Internet. Telecenters are government-sponsored programs designed to have local entrepreneurs, as they're trained, take them over. The South African government has established that 50 percent of the people who should own these community technology centers and be managers should be women. It's a very progressive development. There is a focus on information technology. Yet, the fact remains that there is a digital divide that reflects the relation of the campus to the community.

Now, moving to our situation, it's interesting that through the Department of Commerce, the government has, over the last four to six years, generated data about the digital divide. Larry Irving, who was the person in charge, developed and popularized the concept of the digital divide. We should be clear that the current buzz-word of "digital opportunity" is now being debated. Digital divide suggests that there is an information-poor side of the polarity. When we say "digital opportunity," we want to keep that term but not to the extent that it makes us forget about the real polarity that exists.

Values

What I really want to talk about is values. There are at least three fundamental issues we've got to deal with. The term "cyberdemocracy" involves two things: First, it involves access—access to the hardware and the software. But it also involves literacy—that is, not only functional literacy, the ability to use

these and have applications that are useful, but social literacy. Social literacy raises the empowerment question of how to use the technology to serve one's social, political, and cultural ends and not just to fit into a niche that qualifies for this or that particular job. In other words, cyberdemocracy implies that access and literacy are issues to constantly be worked on. The access part is almost a done deal. It's being driven

by the dot-coms and by the transformation of the economy. Literacy is *not* a done deal. Literacy is the ability to empower people to use this technology outside the occupational niches the economy has constructed.

Secondly, there is the concept of "collective intelligence." Now I am calling on everything, from H.G. Well's book *The World Brain*, to the impulse toward encyclopedias, toward indexing, and the impulse toward aggregating knowledge writ large. At every stage in human history, when a change occurs, there's a desire to encompass everything, to try to get a perspective. At this stage, what we have is a tradition of vertical relationship in the production and distribution—the trickling down if you will—of knowledge. In the information age we're talking about the ability to reverse that from vertical to horizontal, fishing with a net, letting all the voices be heard, having the tools to analyze so that the patterns inside all that knowledge are accessible. Thereby, everybody becomes a producer of knowledge, and everybody's voice can be heard.

Lastly, the question of "information freedom." Democracy is always about maximizing an experience for everyone in the society or in the social group. We started out with the promise of the information superhighway being a free highway for everybody. Then the shell game went down, the dust cleared, and we found out we have a railroad and not a superhighway. What do I mean? If you remember how railroads were constructed in this country, millions of acres of land were given to private companies to build what would be a service. Then, if you wanted to ride or send some goods you had to pay, and that was interpreted as logically correct: Give them what you then have to pay for. Here we have the information

age with the Telecommunications Act, which few paid attention to, whereby the fundamental legal and economic relations of the information society were constructed. The issue of information freedom—as opposed to information for sale—brings up a public library system. It brings up the role of universities in society which, it seems to me—be they public or private—is to create a public sphere where everyone in the society can participate in the production and direction not only of cultural values but of policy, of the direction, the basic decisions of what go on in this society.

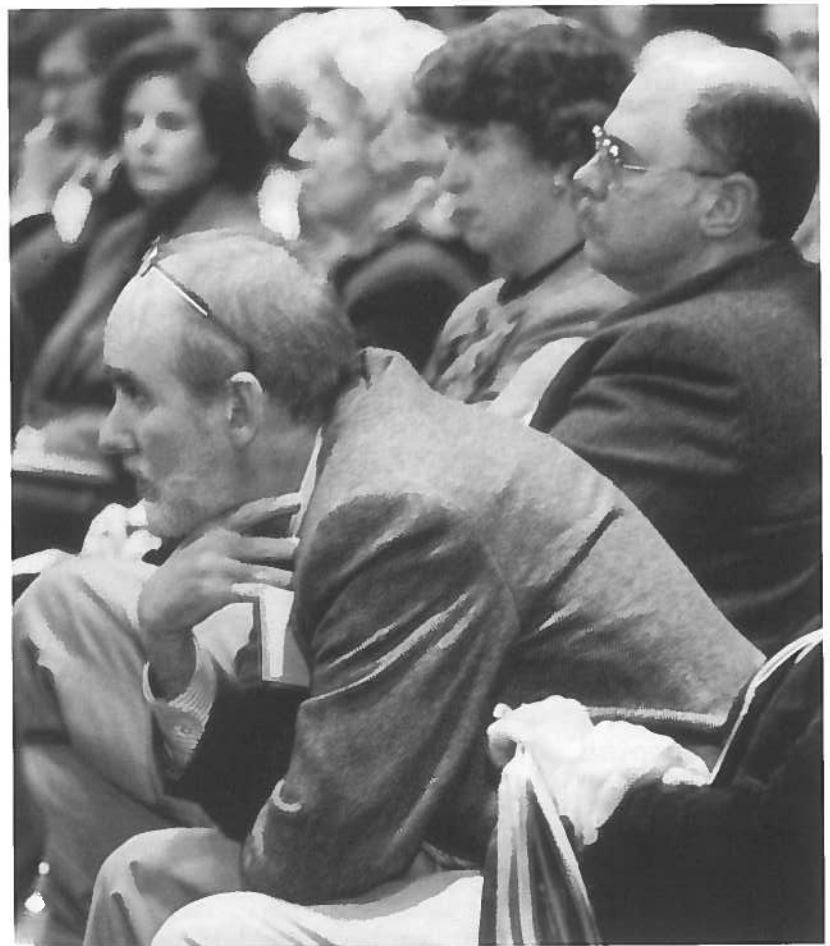
Now, by way of transitions, it's clear that when we talk about cyberdemocracy and access we have a little history because of the telephone. The telephone is the tool now that is virtually everywhere. If you're in the inner-city and you don't have a phone in your house, there's one some blocks away. It may not always work, but it's there. As I said, access to the equipment is being given, like cell phones given away in order to use. That is very likely to be the case with computers. In other words, the *tool itself* is not going to be what generates money. It's the *use* of it. And the question is whether or not the use of it is going to be in the public sphere or entirely in the commodity market.

Our approach to cyberdemocracy and to literacy is that we think the way to look at cyberdemocracy is not to look at it from the standpoint only of the information-rich reaching out to the information-poor. The question is, who do they reach out to? And what is the connection? In other words, if you think about a bridge, it spans something by drilling down and sticking a steel girder in granite, in rock. It has to be done on both sides of the river. So we know what the information-rich side is: government, the institution-driven work, the private sector. But what is it on the other side of the digital divide? What do you hook up with that enables people to get across this chasm?

For what makes democratic society possible, I turn to Robert Putnam's *Bowling Alone* to ask what it is about communities that produces a high level of participation forming a basis for democracy. His concept of social capital breaks down into two parts: bonding social capital and bridging social capital. Bonding social capital is that capital within a community—a church, a neighborhood

group, an extended family that shares something and trusts each other. Bridging social capital represents some group or some influence from elsewhere coming in to help. For example, in the civil rights movement, we see the bridging kinds—financial contributions from the North—were important. However, that was not the basis of the civil rights movement; it was the bonding social capital from within the Black community. Bridging was necessary but not sufficient. It's necessary to mobilize the social basis of a community in order to have something sustaining there.

Annual Meeting participants



A book by a British sociologist, Tim Jordan, develops three kinds of cyberpower. Individual, through skills acquisition and so on. Social cyberpower is the use of information technology to achieve community ends. And ideological cyberpower is the presentation of ideas and the development of consensus—and that is what I am talking about in this paper. □