## **Politics**

As if the *digital divide* did not pose enough of a challenge to extending the benefits of the Internet to a wider population, Pippa Norris, a political scientist at Harvard's Kennedy School of Government, contends that a *democratic divide* is being created by current government efforts to place more and more information online (2001). It is all well and good, Norris notes, that "government Web pages serve as a new channel for transparency and accountability," but in the absence of other sources of information, government postings can amount to "a form of state propaganda" (237). Her concern is that even as nations place information and policies online, "saving paper, postage and ink," they "rarely launch deliberative consultative exercises through un-moderated chat rooms" or other forms of consultation and deliberation (237). The theme of helping citizens take advantage of new information sources to further their democratic participation lies at the heart of the political case, as I see it, for open access to research and scholarship.

After all, where is a citizen, or a journalist for that matter, to turn to corroborate and check the standing of the new wealth of government information made available by the government's efforts to increase the availability of information online? It would seem, at first blush, that if citizen and journalist were to have ready access to the relevant research literature on any given political issue, they would be better equipped to participate in policy debates and make substantial contributions to what Norris terms "deliberative consultative exercises." Here, we arrive at the political import of the access principle. Politicians and bureaucrats, interest groups and activists are already using the Internet as a political information medium, and digital democracy is taking a wide variety of

forms, from online voting to cyberactivism.<sup>1</sup> Greater public access to research and scholarship has the potential to raise the level of discourse for this emerging democratic form. It could turn a citizen's online forum from a sounding board into a far more informative review of government policies and practices. It could provide a check and balance to the one-sided representations of interest groups, political parties, and governments. Such, at least, are the potential political implications of open access.

Now, my own slight experiments with digital democracy have made it clear to me just how difficult the ideals of informed deliberation are to achieve. During the late 1990s, a team at the University of British Columbia of which I was a member established the Public Knowledge Policy Forum, in cooperation with the Ministry of Education in British Columbia and the British Columbia Teachers Federation. Our modest efforts to narrow the democratic divide consisted of creating a Web site with the Ministry of Education's newly proposed policy on the educational uses of technology for the province's schools, which we linked to related background documents from the government. The Web site also featured a public online forum or bulletin board in which people were invited to comment on the policy proposal. Finally, we added a carefully organized and annotated set of links to relevant research, related policies in other jurisdictions, media coverage, and other pertinent sources for citizens to consider in judging the policy proposal and to inform their deliberations.

During the few weeks that we had to prepare the site, in advance of the ministry's "period of public consultation," we scrambled to find

<sup>1.</sup> See, for example, the Web site of the Center for Deliberative Polling <a href="http://www.la.utexas.edu/research/delpol/">http://www.la.utexas.edu/research/delpol/</a> and the U.S. <a href="http://www.e-democracy.org/us/">http://www.e-democracy.org/us/</a> and U.K. <a href="https://www.e-democracy.org/us/">https://www.e-democracy.org/us/</a> and U.K. <a href="https://www.e-democracy.org/us/">https://www.e-democracy.org/us/</a> was democracy and inclusion prepared by Creative Research [2002]); in terms of the literature, see Alexander and Pal 1998, Hague and Loader 1999, Heeks 1999, and Wilhelm 2000. Although a U.S. Office of Electronic Government was created by the E-Government Act of 2002 (Raney 2002), see Clymer 2003 on the unprecedented restrictions that the Bush administration is placing on the public release of information. On the use of the Internet for the mobilization of resistance through the Zapatista movement, see Garrido and Halavais 2003.

freely available research papers and other materials online (government policies, media reports, classroom practices, etc.) that spoke directly to the different parts of the government's proposed policy. We were careful to identify for users the type of information that each document link offered (research, policy, etc.). The idea was to provide readers with a basis for assessing the government's proposed policy from a number of different types of resources. They could then discuss their position online with others or propose changes to the policy for the ministry to review.

During the ten weeks in 1999 in which the Public Knowledge Policy Forum Web site ran, close to 100 people participated in the site's policy discussion forum, most of them teachers, with a few parents and students adding to the range of perspectives presented.<sup>2</sup> It was not many, admittedly, but then this was still a novel approach to policy consultation at the time, and we did not have the experience or resources to promote it widely within the province. A further problem was that while ministry officials checked the forum frequently, they decided against participating in the discussion. A number of the forum participants later told Shula Klinger (2001), who conducted interviews with participants in the forum, that the government's reticence made it a little like talking into a dead telephone. The people clearly felt that the lack of a sign that the government was listening did not encourage a sense of consultation.

Some who participated in the forum, we later learned, did take the time to read related materials on the site—with one stalwart teacher telling us that he had reviewed all of the studies and other documents that we had assembled—but no one made direct reference in the discussion forum to what he or she had read. This I found sobering. The idea of drawing on this range of sources to substantiate, modify, or extend one's position was not how the participants understood what it meant to participate in such a forum. Learning how to bring a recent study of children and computers or a school technology policy to bear on policy deliberations, through the lens of one's own experiences and interests, represents a skill in itself. It takes experience to develop, even as it holds

<sup>2.</sup> An archive of the Public Knowledge Policy Forum, which no longer serves as an active forum, can be viewed at the Web site of the Public Knowledge Project (http://pkp.ubc.ca).

the promise of increasing the value of consultation for all involved. Enter open access. For well-organized access to research studies on an ongoing basis, at no or very low cost, could provide people with experience critical to informed consultation, especially as it fosters a public expectation that university research has something to contribute to these deliberations.

In building our policy forum site, we had been stymied by an inability to provide the public with ready access to the research that bore directly on the issues at hand. The research was in journals that, if they were even online, required subscriptions to consult. The occasional professor had posted a copy of his or her article on his or her Web site, in an early instance of self-archiving. The Stanford Institute for the Quantitative Study of Society made available its reports on the use of the Internet. Teachers had Web sites that posted their classroom work with computers. But by and large the knowledge gleaned by the university was restricted to the university community.

It struck me as more than a little odd. With social scientists experimenting with ways of improving citizen consultation, the very knowledge and background information that the university had to offer to this process was largely locked up and inaccessible. Should we not get our own virtual house in order first, or at least concurrently, with the development of online consultation and deliberation structures? But then that academic house of ours has long been struggling with the economics of its own access to the larger body of research. The situation speaks to a need and an opportunity for reforming journal publishing in ways that would, among other things, increase the public presence and contribution of research in the marketplace of ideas that is critical to democratic life.

The open access movement's potential contribution to democratic life is well illustrated by Amy Gutmann and Dennis Thompson's (1996) *Democracy and Disagreement*. In this book, these two political philosophers deal with the thorny issue of how people can, in democratic states, work through, and ultimately live with, fundamental disagreements by "seeking moral agreement when they can, and maintaining mutual respect when they cannot" (346). The focus of these two philosophers on

deliberation—on people working though issues and giving thoughtful consideration to different positions in seeking a way forward—is what makes this political philosophy especially suitable for guiding our educational efforts to prepare the young for greater participation in democratic life. It is also a democratic model that strongly suggests the value of ensuring that intellectual resources are publicly available to support and further the kind of deliberation it advocates.<sup>3</sup>

Although Gutmann and Thompson do not consider the state of public access to research in their book, their approach certainly points to the contribution that increased access to social science research, as well as research on a range of scientific issues, might make to civic life. Greater public circulation of this knowledge might well encourage people to explore issues of interest in more depth, checking out the facts for themselves, asking questions and pushing for more work on a topic, rather than simply leaving such work to pundits and panels of experts.

Research could, on occasion, play a critical role in the "economy of moral disagreement" that constitutes, for Gutmann and Thompson, "a permanent condition of democratic politics" (1996, 3, 9). If the airing of the moral disagreements Gutmann and Thompson refer to is going to be based, as they hold, on appeals "to reasons that are shared or could come to be shared by our fellow citizens," then the use of research findings to illustrate one's reasoning would help to clarify people's positions, even as disagreements over basic values might well persist (14). Improved access to such findings and the research behind them would also make it easier to establish, in another of Gutmann and Thompson's deliberative requirements, that the "empirical claims that

3. Gutmann and Thompson contrast deliberative democracy to prevailing theories of procedural and constitutional democracy, neither of which is as concerned with creating citizen opportunities for dialogue as procedural democracy is with ensuring democratic processes and constitutional democracy is with adhering to constitutional rights. The impact of deliberative democracy has been tested empirically by James Fishkin, who has, with various collaborators, "conducted fourteen Deliberative Polls in different parts of the world with random samples of respondents, brought together face to face, to deliberate for a few days" (1999). The samples have been representative, and respondents' opinions have undergone large, statistically significant changes on many policy issues as a result of the deliberative process.

often accompany moral arguments ... [are] consistent with the most reliable methods of inquiry at our collective disposal" (14–15).<sup>4</sup>

The plurality reflected in "reliable methods of inquiry" raises an important issue about the diversity of the available scholarly literature. For example, a large-scale statistical assessment of reading achievement scores in schools produces one kind of understanding of the education children are receiving, whereas the close analysis of a program by following a few students' reading experiences as they grow comfortable in a second language leads to another. The point of making research public is not that any one study will simply resolve democratic disagreements, once and for all, although a single study may have that effect in rare cases. Rather, the value of access to this literature lies in how the body of research as a whole can serve as a public resource, helping people to articulate and understand the different positions being taken, as well as the points of disagreement. It can help people see a greater part of the picture, drawing their attention to what might be otherwise overlooked in, say, what it means to learn to read. The ready availability of relevant studies could well test people's assumptions, as well as enable them to see what can come of taking certain stances. And if people are not always ready to engage in the kind of critical reflection called for by such recourse to research, I suspect that others will be happy enough to point out the implications and consequences of different studies for their positions.

Gutmann and Thompson do suggest that people need to learn more about how "to justify one's own actions, to criticize the actions of one's fellow citizens, and to respond to their justifications and criticisms" (1996, 65). It would certainly assist people, in developing their ability to justify their actions and criticize the actions of others, to have greater ac-

4. There is an opposing view, presented by Noëlle McAfee (2004), for example, that holds that deliberative democracy's focus on giving *reasons* loses sight of a *public knowledge* based on how "people know things from their situated, partial, and interested perspectives," which McAfee sees as a form of collective intelligence, at a remove from both the expertise of scholarly work and the opinion of individual citizens (140). On the other hand, I believe the influence of scholarly expertise—itself situated, partial, and interested—to be already present in how "people know things," and I turn to open access as a way to make research's influence more transparent and readily available to more people, as well as to make rectifying the misapprehensions that much easier.

cess to relevant sources of information that they could consult and explore. Developing students' ability to draw effectively on such resources could, for example, become part of the standard high school program. Students would need to learn how readily accessible research can serve as both source and model for formulating arguments. One can see, then, how a public airing of the research relevant to particular policy or political decisions, itself open to revision in light of new information, could only increase the level of democratic accountability, enabling those who are significantly affected to substantiate their claims about the impact of those decisions. In sum, these two advocates of deliberative democracy identify what I would hold up as one of the principal warrants for public access experiments with research: "Respect for [a citizen's] basic liberty to receive politically relevant information is an essential part of deliberative democracy" (126).

At issue here is not only democracy's deliberative qualities, but a more basic principle of access to information. To move academic research more thoroughly into the public domain is to create a substantial alternative source of public information. Modern democratic states have always depended on a free press to create an informed electorate, or as Thomas Jefferson put it in his famous 1787 letter to Edward Carrington: "The basis of our governments being the opinion of the people, the very first object should be to keep that right; and were it left to me to decide whether we should have a government without newspapers, or newspapers without a government, I should not hesitate a moment to prefer the latter. But I should mean that every man should receive those papers, and be capable of reading them" (Jefferson 1787/1997).

Receiving the newspapers Jefferson spoke of, as well as being capable of reading them, is one thing. Applying similar access principles to research is another. That said, the challenges posed by creating greater public access to research might well be moot, at least in a political sense, were the media doing all they could to inform democratic processes with the full range of available information. Unfortunately, this is not the

5. For Gutmann and Thompson, the scope of accountability for such a deliberative process includes a need to "address the claims of anyone who is significantly affected" by the issue at hand (1996, 129).

case, according to those who should know, the journalists themselves. Richard Reeves, syndicated columnist and professor of journalism, puts the sense of the press's lost value this way: "Once upon a time, reporters and editors [were] the national skeptics, sifting and evaluating news for readers and viewers; now, using the new technologies, the press [is] dumping information out by the ton and the readers and viewers [are] left to do the sifting, to sort it out for themselves" (1998, 122).

Ben H. Bagdikian, the former School of Journalism dean at the University of California at Berkeley, finds that the vital press of yesteryear has been reduced to "trivialized and self-serving commercialized news," largely through corporate concentration focused on profitability (2000, ix). Not only, he notes, do a handful of megacorporations control "the country's most widespread news, commentary and daily entertainment," but these conglomerates have "achieved alarming success in writing the media laws and regulations in favor of their own corporations and against the interests of the general public" (viii). Herbert Gans, a Columbia University sociologist, sees the journalists' hands as tied by current models of reporting: "If journalists had more of an opportunity to pursue the profession's democratic ideal, they would have to consider how to reorganize journalistic assembly lines so as to reduce the emphasis on top-down news and the publicizing of the powerful. They would have to discard the data-reduction methods they now use-or find new onesthat might make citizens more newsworthy" (2003, 67-68). This state of affairs is not what Jefferson had in mind, and the current state of corporate concentration in news media—with its parallels in scholarly publishing—does little to support a rich diversity of perspectives or particularly hard-hitting journalism, especially when it comes to economic issues of poverty and equity, as well as related needs for reform and change.6

6. Todd Gitlin, for example, expresses serious concerns over the press's particular focus on "the novel event, not the underlying, enduring condition; the person, not the group; the visible conflict, not the deep consensus; the face that advances the story, not the one that explains or enlarges it" (1980, 263). For other critiques of the press's declining democratic contribution, in addition to the inevitable, indispensable Chomsky 1997, see McChesney 1999, Cappella and Jamieson 1997, Iyengar 1991, Page 1996, and Schiller 1996.

This disenchantment with the press's democratic force is not about to be cured by open access to research and scholarship. Reform along those lines will have to come from within the press itself. Yet it does speak to how access to research might add some small measure to the democratic ideal of an informed citizenship. Those readers who are tempted here to throw up their hands and tell me, "Oh sure, just what the public needs and wants, gigabytes of unfathomable research on top of their barely read, quickly scanned newspaper," should recall the discussion in chapter 8 about the growing number of people going online for additional health information in a very focused, if not always discerning, way. And as far as the inevitable limits these people experience in making sense of what they come across, especially with health research, it hardly forms a compelling argument against experimenting with increasing their access to a wider body of research.<sup>7</sup>

Now that public access to research is proving itself a viable option for scholarly publishing, the question that bears testing is whether it might offer the public (and journalists) a further source of systematic inquiry and information. Given that the research literature benefits from press scrutiny—whether one thinks of tobacco industry research from decades ago or more recent pharmaceutical industry conflicts of interest in medical research—the benefits of increased access to information from such research could begin to flow to a greater degree both ways between journalism and research, in the classic system of checks and balances that Jefferson saw as critical to democracy's resistance to tyranny.

Although the press's coverage of research has certainly increased in recent years, more than a little wariness has crept into the relationship between the media and the research community. So one finds Christopher Forrest, a professor of pediatrics and health policy at Johns Hopkins University, accusing the press, in a *New York Times* article, of

<sup>7.</sup> In experimenting with a media supplement approach for access to scholarly research, the Public Knowledge Project 〈http://pkp.ubc.ca〉 ran a week-long research support Web site with a local newspaper, the *Vancouver Sun*, allowing readers to tap into a database of links to research studies related to a series the paper was running on technology and education and to join discussion forums with researchers and view pertinent teaching materials, policies, and organizations.

supporting public shortsightedness, in effect, or as Forrest puts it, "The public reads the bottom line. They act on that without putting the study into context. In politics, there is always a context. The same is true for science, but it doesn't get reported that way" (quoted in Stolberg 2001, WK3). As if to counter Forrest's concern, reporter Sheryl Gay Stolberg concludes the article by reminding readers that science today gives the impression that "we live in a dizzying world, where scientists produce a stream of research, and each new study seems to contradict the previous one" (WK3).

The larger scientific context that Forrest is referring to has to do with the situation of any given study in relation to related work. Yet it is hard for reporters and the public to locate such a context, in part because the research literature as a whole has been placed outside their reach. With open access e-print archives and journals, it is now easier for reporters and the public at least to begin to establish a basic context or background for the latest breakthrough study. Online journals now come with tools designed to help readers assemble a context; these tools usually consist of links to related materials for interpreting, evaluating, and utilizing the articles the readers are reading (as I discuss in chapter 11).

Just knowing that this body of research and scholarship is readily accessed by people could change the tone of public debate, adding a measure of caution over factual claims made in such forums. If not everyone has an equal capacity to engage in public deliberations—which is a common enough critique of deliberative democracy—greater access to research can still strengthen the role of underfunded advocacy groups that speak on behalf of those otherwise disenfranchised. As I suggested in the previous chapter, such access could introduce into the doctor's office a greater level of deliberative democracy through shared decision making, as well as into other day-to-day relationships.

8. Although the right to the knowledge represented by this research has nothing to do with one's qualifications, the question of whether deliberative democracy favors, and thus will attract, those who already possess the capacity to deliberate (and read research) is addressed by Cohen and Rogers (2003, 244–246), who point to examples of interest and opportunity leading to wide participation in deliberation, as well as to the successful use of training programs with deliberative planning processes.

History contains numerous instances of literate classes' restricting opportunities for others to learn how to read and to access sacred or other powerful texts. Jonathan Rose sums up this politics of literacy as follows: "the exchange value of knowledge can be enhanced by creating artificial scarcities, monopolies and oligarchies" (2002, 334). He goes on to quote the anthropologist Mary Douglas to the effect that the "information class" is likely to, in Douglas's words, "erect barriers against entry, to consolidate control of opportunities, and to use techniques of exclusion" (quoted in Rose 2002, 394). Certainly, the Protestant Reformation, in conjunction with the invention of the printing press, inspired great concerns among many in power over the ready access these two events had provided to the Word, in the form of the vernacular Bible, just as it was clear to many that the printing press had led to a dangerous proliferation of secular and heretical texts. Then, centuries later, the democratic struggles of the nineteenth century over enfranchisement clearly followed on the spread of cheaply published papers and books. The prospect of increased public access to research and scholarship is not entirely removed from this earlier political history of reading and printing. Yet this time, it seems far less like the undoing of a clerisy, far less likely to threaten the position of the scholarly classes, except as it expands participation in the climb to the top ranks of professordom by offering access to those in the global academic community who are otherwise excluded from its journal culture.

Still, on hearing the case for open access, some have warned me that should we open the doors to the scholarly literature, the public will discover what many researchers already believe, which is that too much scholarly work represents poorly written exercises in career maintenance and advancement. Yet this overstated critique only raises the need for a more fundamental calling to account of higher education. If some substantial portion of the literature is indeed vacuous and bereft of value, then perhaps open access might foster, in some small measure, a correction, by making public impact and meaningfulness something worth striving for in conducting research. It could lead to greater coordination among research efforts to ensure that the cumulative value of a work is realized across a variety of settings and circumstances (Willinsky 1999).

My concern is that too many scholarly associations and publishers are building online publishing systems for their journals with little concern for how these publishing systems affect research's presence as a public good. More thought needs to be given to how these new systems might serve concerned and interested citizens, policymakers, and practitioners by enabling them to hone in on highly relevant research and scholarship, as well as establish a greater context for reading that work, in ways that could further democratic debate and deliberation.

This is not to deny the valiant efforts being made to breach the ivory tower on behalf of the public value of research. Portals such as the U.K. Centre for Evidence-Based Policy and the Web Resources for Social Workers, to name just two, do provide public access to an array of freely available research articles, conference papers, and other materials. But these still represent an intermediary step in overcoming the isolation and inaccessibility of scholarly work. Open access scholarly publishing has the advantage of making the democratic contribution represented by such work widely available, without requiring an additional investment in reassembling the research and then serving it up in a public format.

The corporate sector's recent development of pay-per-view access to journal articles may seem to bring this knowledge within ready reach of the public. People no longer have to subscribe to the journals that publish studies relevant to their particular interest or find their way to a university library that subscribes to those journals but can locate and download the studies with the aid of a credit card. In the case of policy-makers, however, what I have found, at least in a study of Canadian bureaucrats, is that to charge any price at all to view a relevant research article closes the door, in effect, to the policymaker's consultation of it (Willinsky 2003b). It is not a matter of setting a fairer price for reading a study online. The door to this knowledge is either freely open, as far as policymakers are concerned, or it is closed. And judging by

9. The Web site of the U.K. Centre for Evidence-Based Policy is available at <a href="http://www.evidencenetwork.org/home.asp">http://www.evidencenetwork.org/home.asp</a>, and Web Resources for Social Workers can be accessed at <a href="http://www.nyu.edu/socialwork/wwwrsw/">http://www.nyu.edu/socialwork/wwwrsw/</a>.

those I worked with, they are very interested, it turns out, in having it open.<sup>10</sup>

Government officials still made it clear in this study that while exercising fiscal restraint, they were consulting more research than they had previously, and it was largely by tapping into open access resources. This ability to consult online research also broadened their policy perspectives, opening their eyes to a larger world of knowledge than they might otherwise garner from the circle of academic cronies they had tended in the past to turn to for ideas about policy issues. Still, however much these policymakers' research horizons had been expanded by the Web, they still faced a limited range of research resources because of the access issue. While those working with economic issues, for example, were able to draw on the very strong open access e-print archive Research Papers in Economics (RePEc) for working papers and published articles, and those concerned with ecological issues had open access journals such as *Conservation Ecology*, the options in agriculture, foreign policy, social welfare, and law were not nearly as strong.

As a final comment on the political impact of scholarly publishing, let me return to the U.S. Education Act, otherwise known as the No Child Left Behind Act of 2001, which I mentioned in the book's introduction. This law promotes "informed parental choice," as well as "innovative programs" that are "based on scientifically based research," as the act puts it. One couldn't ask for a better entrée for research into public discourse than the legal and economic force of this act, which makes over one hundred references to "scientifically based research." Its focus on education research reflects a spillover, I suspect, from the public interest in medical research, leading to the government's narrow conception of what counts as research in school settings, namely, large-scale, randomly assigned control group studies, a definition that draws directly, if not

<sup>10.</sup> Michael M. D. Sutton provided invaluable assistance in the data gathering for this research study (Willinsky 2003b).

<sup>11. &</sup>quot;To provide funding to enable State educational agencies and local educational agencies to implement promising educational reform programs and school improvement programs based on scientifically based research." Section 5101(a)(2), No Child Left Behind Act of 2001.

always appropriately, on the evidence-based medicine movement's "gold standard" for research (Willinsky 2001).<sup>12</sup>

The effect of the approach to education research promoted by the U.S. government's definition could well be to push the work of many no less committed and no less rigorous researchers to the very margins of legitimate or fundable research in education. Only a very small proportion of studies in education follow a clinical trials model, for reasons having to do, in part, with the human qualities and values at stake in schooling, which test scores do not always do well in capturing. This means that the vast majority of studies, many of them government-sponsored, and all of them published in peer-reviewed journals, are placed outside the government's new mandate for "scientifically based research." The current administration's partial and selective approach to the sciences on environmental and health issues has already led to damning reports by the Union of Concerned Scientists. <sup>13</sup> Its approach has been summed up by a

- 12. On evidence-based approaches to social issues, see the Web site of the Campbell Collaboration (http://www.campbellcollaboration.org/), which is an international evidence-based initiative "that aims to help people make well-informed decisions about the effects of interventions in the social, behavioral and educational arenas." Educational anthropologist Frederick Erickson presents an effective challenge to the act's approach to research by raising questions that are exemplary of certain types that are important in education but that are unlikely to be answered by randomized field trials: "What's happening and what do those happenings mean? What is it like to be a child in the bottom reading group in a particular first grade class? How does Miss Smith set up her kindergarten classroom so that students learn to listen closely to what each other says? What happened as the math department at Washington High School seriously tried to shift their teaching away from math as algorithms to math as reasoning? Why do the Black kids sit together in the lunchroom and should we as educators care about that?" (2003).
- 13. In 2004, the Union of Concerned Scientists issued a report, signed by sixty leading scientists, that accused the administration of George W. Bush of misusing science for political purposes. The first finding of the report is that "there is a well-established pattern of suppression and distortion of scientific findings by high-ranking Bush administration political appointees across numerous federal agencies. These actions have consequences for human health, public safety, and community well-being" (2004, 2). The examples that the report provides of this manipulation involve misuse of research on such subjects as air pollutants, heat-trapping emissions, reproductive health, drug-resistant bacteria, endangered species, forest health, and military intelligence.

*New York Times* editorial as "a purposeful confusion of scientific protocols in which 'sound science' becomes whatever the administration says it is" ("Junking Science" 2004).

In the case of education, the reliance on a singular approach to research implied by the administration's definition could just as easily narrow the range of innovative school programs to those that lend themselves to large-scale assessments. One means of avoiding the sort of program distortion that would result from such a narrowing is to ensure that the full range of educational research is available to the teaching profession and the public. This would help people work out more of the implications of new and existing school programs in ways that could help them better gauge what those programs bring to the community.

Making itself available to be readily consulted by parents, teachers, elected officials, and administrators is precisely the role that relevant research should be playing for democratic governments. On the other hand, to have government policies appear to be driven, if not dictated, by "evidence-based" and "what-works" solutions, without ready access to pertinent educational research, only serves to undermine a democracy of autonomous citizens engaged in informed deliberation. If a single body of research determines what works and what does not work in the schools, then who among us, researcher or teacher, will dare to introduce educational innovations or call for a greater variety of educational experiences that risk falling beyond the measure of large-scale clinical trials?

No child left behind? It is a fine sentiment for an education act to uphold. Yet perhaps the motto of researchers studying the schools should be "No body of hard-won ideas and findings left behind, when it comes to deliberations over schooling." What benefit is there in jettisoning rigorously reviewed scholarship? If we have the technology to provide the public, teachers, and parents with broad access to the full range of research conducted in a field like education, then what a shame it would be to have the awakening public and policy interest in research go no farther than a strand of inquiry based solely on large-scale measures with achievement scores. Achievement in schools counts, by all means, but so should research on a child's experience with a book and a teacher's efforts within a community, and the first step to making it count is to

make it publicly available. The unrelenting focus on "what works" needs to be set within a larger and ongoing public dialogue over the nature of learning and the hopes of education.

The politics of open access to research is about the role that the knowledge represented by such research can play in the media, public discussions, and policymaking. Open access will add to the political stature and value of research in this way, as researchers see their work contributing more than it currently does to the weighing of facts, consequences, and alternatives in democratic processes. Initially, once access to such research is opened, the public is bound to experience shock and consternation over the level of disagreement and conflict that marks scholarly work, which goes well beyond the well-reported reversals over medical threats posed by coffee and salt. People will have to come to grips with how science and scholarship are rarely given to easy, straightforward, or definitive answers. But once they see how the pursuit of knowledge represented by scholarly inquiry can inform and deepen public understanding, openness about the results of such inquiry will carry lessons for both the public and researchers, even as both politics and research may well be changed by this public engagement with the work of the university.