

Measuring what Jefferson knew and de Tocqueville saw: Libraries as bridges across the Digital Divide

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**MEASURING WHAT JEFFERSON KNEW AND
DE TOCQUEVILLE SAW:
LIBRARIES AS BRIDGES ACROSS THE DIGITAL
DIVIDE**

JORGE REINA SCHEMENT

ABSTRACT

For Americans without access, public libraries function as access intensifiers. At present, because 95% of public libraries maintain an Internet connection, functional access extends to nearly every American without household Internet connectivity. Moreover, 60% of library users also go online. Clearly, without public libraries, a large segment of the American population would find themselves increasingly isolated from the public discourses of this Information Age democracy.

Jefferson and de Tocqueville witnessed democracy in the making. Jefferson's future lawyers and de Tocqueville's backwoods families grasped for connectivity, capability, and content in order to achieve democratic participation. Yet in the present Information Age democracy, gaps in access continue to pose a critical challenge. Toward that end, libraries already function as vital institutions for providing access that is all but universal.

Jorge Schement is Co-Director of the Institute for Information Policy and Professor of Telecommunications and Information Policy, Pennsylvania State University
jrs18@psu.edu. <http://www.psu.edu/dept/comm/faculty/profile/schement.shtml>

Books constitute capital. A library book lasts as long as a house, for hundreds of years. It is not, then, an article of mere consumption but fairly of capital, and often in the case of professional men, setting out in life, it is their only capital.

– Thomas Jefferson (1821)

There is hardly a pioneer's hut which does not contain a few odd volumes of Shakespeare. I remember reading the feudal drama of Henry V for the first time in a log cabin.

– Alexis de Tocqueville (1844)

In today's Information Age, the promise of democracy hinges on access. A democratic society where information constitutes a major working asset, and where citizenship finds expression through media, depends on citizens' access to communication channels and their skill with information technologies. Indeed, what Jefferson understood and de Tocqueville documented was this fundamental exercise of democracy in action.

When citizens enjoy access, they and society benefit meaningfully, but when some lag behind, all of society suffers. In the 1990s, the gap between those with access and those without entered public discourse and came to be known as the digital divide, a term apparently coined in a 1996 speech by former Markle Foundation president Lloyd Morrisett. Broad perspectives on digital divide issues are reviewed on the Digital Divide Network (www.digitaldividenetwork.org) and by the Benton Foundation (1998).

This brief essay reviews the principal themes that underpin that discourse, while emphasizing the crucial role of the public library in bridging these gaps.

THE SOCIETAL VALUES OF UNIVERSAL ACCESS

Society's belief in universal access to the national information infrastructure (NII) or Internet is the primary policy tool for enabling citizens to participate in those economic, political, and social activities fundamental to a free and good society. Universal access provides three levels of value for citizens. First and foremost, democracy requires an informed and involved citizenry; yet this is possible only if a democracy's citizens have access to information about their government and the opportunity to participate in political discourse. For those citizens unable to purchase the means of access, libraries offer access, as they have historically, to citizens seeking to prepare themselves for the discourses of democratic participation.

Secondly, in America's information economy, information networks distribute economic goods and services; consequently, the economic benefits of an interconnected NII accrue to the individuals on that network; as places of

connectivity, public libraries enhance the value of the economic networks in which they participate.

Thirdly, access to communication services available from the NII offers benefits in a broad, cultural sense. The indispensable role of libraries is perhaps most easily understood along this dimension; nearly every American has experienced the joy of finding a special book, tape, record, or website at the public library. If the nation wants to encourage the sense of shared values and mutual responsibility that comes from political, economic, and social interaction, then maximum access to the information infrastructure, and to public libraries, becomes a necessity.

The provision of access does not by itself guarantee participation. The other side of the equation requires an understanding of the tools an individual must acquire to gain full access to the national network; that basket of tools encompasses **connectivity, capability, and content**.

1. Of course, the first step toward access requires connecting to the network, often assumed to occur at the home. **Connectivity**, however, is not so simple, because the cost of information technologies—ranging from the telephone connections to Internet-ready PCs—remains beyond the means of many households. With approximately seven million American households lacking telephone service, and an average of 2.5 persons per household, that leaves 17.5 million individuals unconnected to the most basic telecommunications technology. Furthermore, even if a household earns enough disposable income to purchase Internet connectivity, geography may still impose a barrier. Significant tracts of rural America lack the infrastructure necessary for Internet access, and residents must pay long-distance charges to connect or receive access inferior to that enjoyed by their city cousins. In such conditions, public libraries offering connectivity fulfill a critical need. Jefferson's assessment of the value of books recognizes the ir potency as technologies of connectivity to that global network known in his time as the "Republic of Letters," a popular 18th century description of the intellectual community spanning Europe and the Colonies. drawn from Bayle (18xx)
2. Beyond connectivity, the utility of any technology derives directly from the skill of the user. In the information age, this **capability** consists of traditional literacy, technological literacy, and informational literacy.
3. Yet ultimately, the outcomes of access depend on the **content** available to the individual user. Indeed, the very abundance of information available today poses a paradox—with so much information, it has now become *more* difficult to find the answers to specific questions. Moreover, superabundance does not provide all with equal access.

De Tocqueville documented capability and content in America's humble log cabins. Today as then, connectivity, capability, and content vary considerably from household to household and from community to community. For many, the public library provides the venue where they can avail themselves of the intellectual and technological resources embedded in the Internet's potential.

THE DIGITAL DIVIDE AND GAPS IN ACCESS

While some households achieve access to the network through spectacular configurations of technology, a bewildering population mosaic depicts those beyond the vista of the super connected. In varying circumstances, each of the following minorities experiences obstacles to access: Blacks, Hispanics, poor households headed by women or young couples, elderly households, Native American Indians on reservations, inner city residents of all ethnicities, and, rural whites, to name a few (Perl 1983; Hausman, Tardiff and Belinfante, A.1993; Schement 1994; Schement 1998; Schement, Belinfante and Povich, L. 1997; Mueller and Schement 1996; Schement 1995; Williams and Hadden 1991; Williams and Hadden 1992).

Those without access experience the severe penalties of isolation—being unable to secure employment, being cut off from emergency services, losing touch with one's family, or being disconnected from the public discourses of the day. The repercussions of such isolation extend beyond the individual to the community and, ultimately, to the nation.

That said, not all gaps are the same. Gaps created by the diffusion of goods (such as radios, televisions, VCRs, and video games) tend to close rapidly within the intended markets. Equally consistently, gaps created by the diffusion of services (such as telephone, broadband, and Internet) tend to level off below 100% (e.g., telephone, 93%; broadband, 80%; Internet 50% or less), and, while the diffusion curve may inch upward after leveling off, the length of time overall may be quite long (e.g., telephone: 0-93% in 110 years).

Any public concern about gaps created by the Digital Divide should take these types of gaps into consideration. For most of those Americans on the disconnected side of the "gap," libraries offer the only bridge. However, the very isolation of these groups and individuals makes it hard to identify them within the larger population. Here, then, the challenge for libraries comes in knowing whom to serve and what needs to meet.

POLICY DISCOURSE AND THE CHALLENGE OF OBSERVATION

Since de Tocqueville's time, such documentation is far more likely to rely far more on quantifiable measures of deprivation. Even as early as 100 years ago, Lord Kelvin (189x) laid out the persuasiveness of quantifiable reports:

When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind: it may be the beginning of knowledge, but you have scarcely, in your thoughts, advanced to the stage of science.

Today, Kelvin usually comes in for considerable criticism as an antihumanistic positivist who believes that all of life can be boiled down to numbers. However, to view him as such is to malign his important ideas. When societies become complex, some social phenomena cannot be observed directly; large-scale human networks defy observation. The desire for direct observability drove the classical debate about the proper size of a political community. Plato's recommendation of a population of about 40,000 was based on the necessity for citizens to be able to communicate directly with each other in order to maintain a shared sense of community.¹

As a result, humans have developed two powerful tools for overcoming this handicap—math and metaphor. In the case of metaphor, story telling predates all other forms of measurement and continues to predominate in policy discourses. With its derivative statistics, math offers the potential for distilling the intangible beyond the eye.

In seeking to understand levels of access within an Information Age community, “What do we count?” is hardly an easy query because it begs the higher order question—“What do we consider access?” To answer the question, one must confront aspects of the Digital Divide debate that range from limiting discourse on the Internet, all the way to including all information and communication technologies (ICTs). The broader the technology bundle, the more variations in gaining or lacking access, yet the more realistic the assessment.

For some (e.g., the city of Seattle), this tension can result in sidestepping strategies that count everything possible, followed by attempts to induce insights from statistical bits and pieces.² Nonetheless, more data is generally better than less data, and they are a necessary condition underlying Kelvin's advancements toward a scientific explanation. As long as we lack agreement on what constitutes access, counting more will add value.

But what are we counting? Indices are not simple statistics; they can illuminate more complex conditions. Literacy rates, for example, do more than count the numbers of those who can read, since they also shed light on the ability of educational systems to deliver levels of academic and practical achievement. This situations seem the crux of what information indices of the Digital Divide need to capture—Can one measure the state of the Digital Divide

and detect the underlying forces that determine whether it narrows or widens? Kelvin grasped the import of such indices.

However, what Kelvin overlooked was the proper role of measures within the logic of policy discourse. If one views policy as a series of decisions, then measurement serves to guide and adjust it. Findings regarding the Digital Divide inform objectively with no problem. However, if one views policy as an ongoing discussion, then measurements serve the interests of the participants; findings lend themselves to multiple interpretations in a continuing war of words. Policy discourses more often progress by adapting findings to preexisting policy arguments, rather than by utilizing findings to shape discourses.

It is this latter interpretation which bears careful consideration. Whatever indices emerge from this or any other project dedicated to gauging the Digital Divide must acknowledge the policy milieu as inescapably political. Simply put, the measures themselves will become part of a policy discourse, and as such should be designed with this overriding reality in mind. Libraries, therefore, should rely on their continuing community dialogue as a basis for statistically assessing those information resources that potentially contribute to providing access.

PUBLIC LIBRARIES AND ACCESS TO THE INTERNET IN THE PUBLIC SPHERE

For Americans without access, public libraries function as access intensifiers. At present, because 95% of public libraries maintain an Internet connection, functional access extends to nearly every American without household Internet connectivity. Moreover, 60% of library users also go online as part of their use (Bertot and McClure 2000; D'Elia and Rodger 2000). Between 1998 and 2000, public libraries in low-income communities expanded public Internet availability from roughly 76% to 94%. However, that good news dat um ends at the library's doors; beyond the doors, gaps in access still persist. Clearly, without public libraries, a large segment of the American population would find themselves increasingly isolated from the public discourses of this Information Age democracy—thus, the importance of developing tools to increase the effectiveness of libraries beyond their doors (Bertot and McClure 2000).

Jefferson and de Tocqueville witnessed democracy in the making. Jefferson's future lawyers and de Tocqueville's backwoods families grasped for connectivity, capability, and content in order to achieve democratic participation. Yet in the present Information Age democracy, gaps in access continue to pose a critical challenge. To inform themselves and to contribute to those public discourses that will shape the future, Americans must first experience equal opportunity of access—the key to connectivity, capability, and content.

Toward that end, libraries already function as vital institutions for providing access that is all but universal. Lord Kelvin might note that they need

powerful, quantitative tools for assessing the information resources and needs of their communities, and that, with those tools, they will deliver on his promise.

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ENDNOTES

¹ Of course, among Plato's 40,000 people, only 5,000 were citizens and, lacking communication media, 5,000 represents the probable limit of personal interconnectedness. Aristotle thought Plato's number too large, saying that the limit should be no more than "can be taken in at a single view," in other words, the number of citizens capable of meeting in one place and making decisions. By this, he suggested that the nature of the community must be understandable to its members and that they must share a definition of themselves as a group (Aristotle (350 B.C./1927).

² Their first datum places telephone penetration for the city of Seattle at 100%, an impressive number, until one finds the asterisk at the bottom of the page acknowledging the study as a telephone survey. City of Seattle Department of Information Technology & the Citizens Telecommunications and Technology Advisory Board (2000).