

Media Access

Social and Psychological Dimensions of New Technology Use

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2004

LAWRENCE ERLBAUM ASSOCIATES, PUBLISHERS
Mahwah, New Jersey

London

CHAPTER

13

Integrating the Research on Media
Access: A Critical Overview

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What is *media access*? The chapters in this volume attempt to formulate an answer to this question through analyses of the social and psychological factors that may affect it. To their credit, the contributors have attempted to breathe some life into a term that has become overused and flattened out, an easy, almost value-free placeholder for a complex of resources, actions, expectations, and institutional forms and arrangements that affect the distribution and uses of media in society.

Yet "access," as it relates to information and communication technologies (ICTs), is seldom explicitly defined, even by experts. We tend to use the word as though we all know what we are talking about, or that we know it when we see it (just as we frequently do with such commonly used terms as *information*, *technology*, or *communication*, for that matter). Alternatively, we use it to mean different things: sometimes the existence of certain technologies or services, sometimes the policies that encourage technology adoption, sometimes technology use itself, sometimes the cognitive abilities to make sense of content. We are casual with definitions despite the fact that the ones that survive, either by design or default, shape the ways that important social, cultural, cognitive, economic, and political problems are framed and studied. So the definitional purpose of this book is not a trivial exercise.

I appreciate this opportunity to comment on the phenomenon of media access in general, and to the contributions to this book in particular. In this final chapter, I summarize some of the basic premises and findings that are presented and point out themes or frames that seem to me to run through the whole work. Second,

I return to the definitional question and propose a framework for synthesizing the various premises and themes that places the notion of "access" in a larger conceptual context.

THEMES IN MEDIA ACCESS RESEARCH

One of the main strengths of the preceding chapters is that they question some enduring assumptions in the research on ICTs and access. Principal among these is the traditional idea (widely held by policy researchers) that "access" is reducible to the availability of a service: the equivalent of telephone dial tone, over-the-air broadcasts, or the open doors of a library. It is achieved when a given technology or service is made available, whether or not it is relevant to the community involved, useful to its members, or, in fact, used at all. In the United States, as contributor Ben Shneiderman points out, the concept has its roots in the universal service policy for telephony, the brainchild of AT&T President Theodore Vail, which was integrated into the U.S. Communications Act of 1934. Vail understood that "universal service at affordable prices," based on a system of cross-subsidies for different levels of service, could serve as a strategic *quid pro quo* in exchange for monopoly protection. It would allow AT&T to eliminate or absorb its competitors and expand its system nationwide. Furthermore, AT&T's universal service obligations were strictly limited to the provision of service itself (i.e., "dial tone"); the firm would have no control over or responsibility for the messages or other information carried by the system (Brooks, 1975; Fischer, 1992; Mueller, 1993; Pool, 1977).

When "access" is conceived this way—that is, strictly in terms of technological infrastructure—the technology tends to be treated as a given. The analytic focus shifts to the demographic characteristics (e.g., income, education, gender, age, ethnicity) of the individuals who use the service versus those who do not. Data is collected about the distribution of these traits among users and nonusers, and inferences are drawn about the extent to which the traits influence or drive access. The bias toward a focus on technological availability (sometimes referred to as the *conduit* metaphor; Day, 2000; Lievrouw, 2000) has persisted in media and information policy to the present day. However, many policy experts now contend that the mere availability of an information or communication system is not a sufficient condition for real media access (for example, see the recent special issue of *The Information Society* on changing notions of universal service; Sawhney, 2000). Some have suggested that the term *universal access* should replace *universal service* because access must take into account the abilities of users and the availability of relevant and useful content as well as the provision of an information technology system or service.

The contributors here would certainly agree. If there is a single premise that knits these chapters together, it is that neither the availability of technology infrastructure or services, nor the demographics of ICT users, is enough to explain, let alone

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Therefore, Sen argued, our main concern should be in creating and maintaining the individual's *agency*, that is, his or her achievement of well being (not just the state of well-being itself). Agency is fostered by cultivating one's *functionings* and *capabilities*. "Functionings," Garnham (1999, p. 117) noted, "are what a person does or is. Capabilities are the set of alternative functionings a person has (his or her real opportunities)." Therefore, to promote access, we should think more generally in terms of the fair distribution of opportunities that allow people to achieve whatever they may value doing or being, the individual's "freedom to lead one type of life or another" (Sen, 1992, p. 40). Put another way, an effectual approach to enhancing media access would promote the fair distribution of capabilities.

A third thread that runs through these chapters is that many of the authors see media access through the prism of *barriers*. They are often as interested in what *prevents* media access as what *promotes* it. Bucy's notion of the "interactivity paradox"—that the increased skills required of and cognitive demands imposed on users of interactive systems can lead to cognitive overload, confusion, uncertainty, and to less effective access—is a prime example, as is the focus by Bessiere et al. on the frustrations that users of ICTs (specifically, computers) experience in the face of system breakdowns. Several authors examine demographic and cultural barriers to media access. Grabe and Kamhawi, for instance, find that education level is an important factor influencing media users' ability to encode information. Rojas et al. conclude that the cultural "habitus" of underserved ethnic groups can discourage computer use. Other contributors find that personality traits, self-efficacy, motivations, and uneven technical skills are potential barriers as well.

THE DEFINITIONAL QUESTION

But let us return to the original question: What exactly *is* media access? Although this discussion has unearthed some clues about what can promote or prevent it, we have not yet arrived at a clear definition of media access itself. The title of this volume and several of the chapters (e.g., Rojas et al., Youtie et al., Jackson et al.) seem to equate access with ICT use. Other authors seem to be more concerned with whether individuals have the abilities or psychological resources to benefit from use (e.g., Newhagen & Bucy, Grabe & Kamhawi, Finn & Korukonda, McCrery & Newhagen, van Dijk). The availability of meaningful and relevant content is frequently cited as an essential factor.

Yet "media access," even in a book dedicated to explicating it, still seems to be a moving target. Perhaps the difficulty lies not with the term itself, nor with the authors' attempts to nail it down. Rather, it may be that we are asking the term to do too much, theoretically. I argue that access is just one element—perhaps not even the major element—in a complex process of information generation, circulation, sharing, and use that is supported by media technologies.

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Elsewhere (Lievrouw, 2000, 2001), I proposed a model of the *information environment* that includes access as one element among many in a cycle of "informing." Ultimately, people who engage with ICTs exist in a complex life-world where "access" is just one step in an ongoing process of sense-making and action-taking. Individuals, groups, and societies inhabit different information environments at different times and places. Indeed, most of us move among several environments at once, and for some people, new media technologies have made this complex topography much easier to navigate.

In a sense, the editors have handed me the "data" (in the form of the preceding chapters) that comprise a sort of natural experiment or test of the model. Figure 13.1 summarizes the main features of the information environment model. Interested readers may wish to consult the more extensive discussion in the article that appeared in *New Media & Society* (Lievrouw, 2001). For the present discussion, I focus on two components of the model that are reflected in the chapters here: *capacity* (the central two-headed arrow) and the *cycle of informing* (the circular dotted arrow). Both elements span the boundary between the institutional and personal/relational domains or aspects of the model. That is, both capacity and informing are phenomena that are affected by the larger social, cultural, and institutional setting or milieu on one hand, and by people's individual actions and relationships on the other.

Capacity is defined as one's state of knowledge or ability to act individually or collectively. People exercise their capacity through face-to-face and mediated communication. Knowledge implies an understanding (tacitly, in many cases) of the circumstances and relationships within an individual's social world. I have suggested that capacity includes *personal factors*, such as literacy, innovativeness, technical or communicative competence, motivation, social intelligence, or social capital (see Coleman, 1988; Cronin & Davenport, 1993; Putnam, 2000). The evidence presented in this book suggests that several of these factors, including innovativeness, motivation, and social capital, play an important role in the cycle of informing. Studies gathered here specifically explain how cognitive abilities, emotions, attitudes, personality characteristics, and self-efficacy affect access to the information environment.

Capacity also includes *situational factors* that are more external to the actors involved: geographic location, community norms and beliefs, social network structures, time, economic means, and the like. The findings from several other chapters testify to the influential role that situational factors, notably social networks, cultural capital, and habitus (especially the normative expectations of the social group), play in determining access. Other situational factors suggested in this book include public sphere participation and the range of technologies and infrastructures available to users. Overall, then, the contributors have demonstrated that a complex set of interrelated factors, which might be characterized collectively as *capacity*, are involved in media access and use.

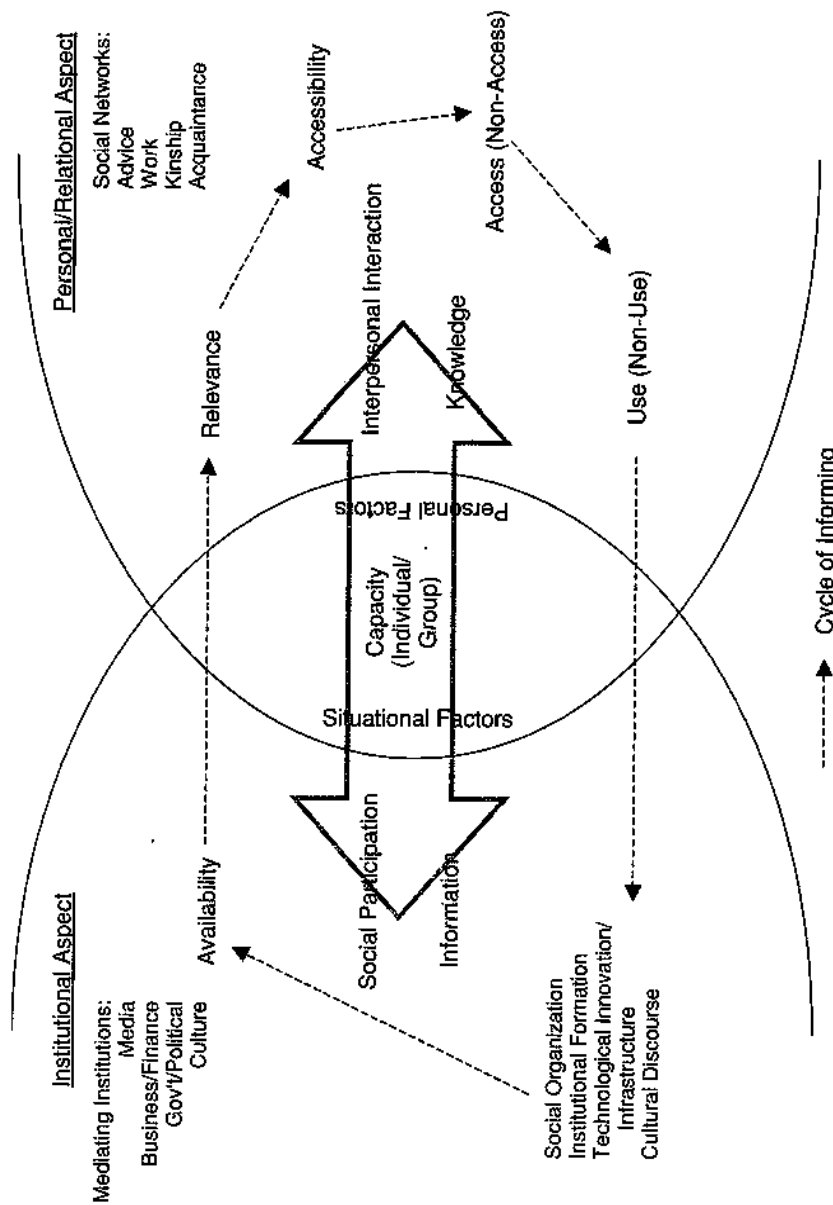


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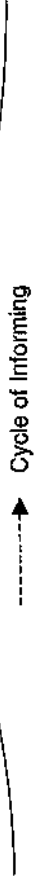
In the end, however, capacity is a state. The challenge is to relate that state to action, specifically, to "access." This brings in the second element of the model, informing.¹ Informing is fundamentally social and interactive; it is never complete but is a perpetual structuration-type process of organization, disorganization, and reorganization of knowledge and information² that occurs recursively. People in an information environment share what they know; they create and use information via various information and communication technologies. And in their interpersonal relations they express, break down, and change their shared understanding(s). Through this process, individuals share a sense of understanding the same things and, therefore, that they belong together, or share an information environment. When this understanding is lost or shifts, the information environment changes and can break down.

There is no beginning or ending point of informing. But to follow the dotted arrow in Fig. 13.1, we can begin in the institutional domain with *availability*. This is the presence and circulation of information in the environment via interpersonal interaction as well as through the use of ICTs. Individuals, groups, organizations, or institutions can create and distribute information, that is, make it available. The availability of information, in turn, can affect the character or sensibility of the environment. However, just because information is available does not insure that potential users will necessarily know about it or share it. For information to be appropriated and used, we move to the personal/relational domain, where users must first recognize the *relevance* of the information that is available, often through interaction with others.³ That is, they must decide whether the information is interesting or useful to them personally or to people they know. So the presence or availability of information is distinct from its relevance in a particular social or cultural context.

When information is both available and relevant, the next step is assessing its *accessibility*, that is, whether it can in fact be obtained, either from other people or via media channels. All of us have experienced situations in which we learn that information is available and relevant to our interests but may not be accessible due to technical, economic, or cultural barriers. Agada (2002) gave the example of people in certain West African nations who have accessibility problems with the Internet because, of all the content that is available online and relevant to them, perhaps only a handful of pages are in their local language.

DEFINING MEDIA ACCESS

So in the context of the present discussion, what is media access? I argue that it is the act of employing ICTs to obtain or retrieve information, or to communicate with others, in personally meaningful ways. This seems to be the definition that most of the contributors to this book share, although not explicitly in these terms. Indeed, users of information and communication technologies must first recognize what



Cycle of Informing

FIG 13.1. The information environment.

media (both channels and content) are available to them, and then determine their relevance to their interests or purposes. If perceived as relevant, these technologies must be understandable, usable, affordable, and local (i.e., accessible) if they are going to be employed in meaningful ways. If information is indeed accessible, one must then choose whether to actually *access*, capture, or retrieve it.

Importantly, access to information can be an end in itself. The research experience, in which articles downloaded or photocopied for potential use are not always cited or even consulted, provides a familiar example. Upon retrieval of a particular citation that sounds interesting, we may read the article and use ideas or findings from it in our next paper, book, or conference presentation. Or we may simply add the copy to one of a half-dozen project stacks where it may sit until, and if, we decide to even read it!⁴ In this respect, *media* access is more complex than *information* access—the act of obtaining information that is available, relevant, and accessible, from whatever source—because with media access, it is necessary to distinguish between access to, and use of, a particular channel. In the typology employed by Newhagen and Bucy in the introduction to this book, *access* to a media channel constitutes technological access, while *use* of a particular media channel constitutes content access. If we include both channel and content considerations in our definition, as the editors and contributors advocate, it seems clear that barriers to media access may indeed occur on multiple levels.

When they argue that appropriate, relevant, and understandable content should be made available via ICTs, a number of the authors represented here seem to be describing elements of the informing process diagrammed in Fig. 13.1. When Rojas et al., for example, propose that the cultural habitus of Hispanic teens in East Austin prevents or discourages them from using computers, they are talking about relevance and accessibility. When Bucy says that interactive technologies demand so much cognitive effort that users become overloaded and confused, or Bessiere et al. document the frustration of computer users, they are telling stories about what makes ICTs accessible. When McCrery and Newhagen find that people with high levels of political efficacy attend to or “consume” more media and engage in more political participation, they are discussing not just media access but the uses of media in the process of social and institutional change. In his provocative and insightful chapter, van Dijk even unpacks “access” into four progressive stages—mental, material, skills, and usage—that, from my perspective, resemble relevance, accessibility, access, and use in the cycle of informing. There are a half-dozen more examples in the preceding pages.

To conclude this brief commentary, I believe that the authors have done an outstanding job of trying to shift the media access research agenda in a new direction. Many of their theoretical constructs and empirical findings can be knitted together into a more comprehensive descriptive framework, which itself may suggest new categories of research questions or hypotheses. Media access is a multifaceted and rich phenomenon, and this book sets a new criterion for future work in the area.

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ENDNOTES

¹ The notion of informing is derived from definitions of information that emphasize its organized, represented, formal nature. That is, information is created when an actor gives shape or imposes structure on experience, sense perceptions, or otherwise less-organized data or stimuli—the actor “in-forms” their perception of the world. See Machlup (1983) and Pratt (1977).

² In Lievrouw (2001, p. 13) I proposed the following definitions: “Knowledge is the state of the ‘knower,’ the ‘capacity for social action’ which ‘enables an actor . . . to set something in motion’ (Stehr, 1994, p. 95). Information is a consequence or product of knowledge in the form of artifacts or expressions (such as documents, conversations, artworks, or cultural practices). Communication—coordinated action that achieves understanding or shares meaning (Rogers & Kincaid, 1981)—is the bridge between knowledge and information.”

³ Relevance is a key concept in information seeking and retrieval research. For overviews, see Harter (1992); Saracevic (1975); and Schamber (1994).

⁴ Our use or nonuse sends us back into the institutional domain of the information environment model, as it affects such factors as social organization, institutional forms, cultural discourse, and content production. These factors, in turn, determine what information is subsequently available.

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