

The Word of Mouse on Internet Research

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Consalvo, M., Baym, N., Hunsinger, J., Bruhn Jensen, K., Logie, J., Murero, M., & Regan Shade, L. (Eds.). (2004). *Internet research annual. Selected papers from the Association of Internet Researchers conferences, 2000-2002. Volume 1*. New York: Peter Lang. viii + 283 pp. ISBN: 0820468401. \$29.95 (paper).

Dodge, M., & Kitchin, R. (2001) *Mapping cyberspace*. London: Routledge. xii + 260 pp. ISBN: 0415198844. \$42.95 (paper).

Howard, P. N., & Jones, S. (Eds.). 2004. *Society online. The internet in context*. Thousand Oaks, CA: Sage. xxxiv + 350 pp. ISBN: 0761927085. \$37.95 (paper).

Word of mouse has it there is a there, there. From keyboard to screen, academics are sharing their thoughts and insights about the internet, via the internet. It's hard to imagine a discipline that has not been affected by the evolution of at least one of the technologies that are part of the internet or related information and communication technologies. Though many of the “new” communication channels and environments of interaction are not new anymore, there is still no clear agreement on even the terminology to describe them. Umbrella terminology commonly used to describe either the technologies or their processes is plentiful. A number of sample terms are listed in Table 1. The question arises: What exactly is this new potential field of study, and how can the discipline of communication relate with it?

Who Cares about Internet Research, Anyway?

In this review, the term “internet research” will be used due to its connection to an association of the same name, as explained below. Internet research tends to draw on any number of theoretical foundations and methodologies. Despite this seeming lack of coherence, the often cross- or multi-disciplinary research actually aligns along a number of topics of interest. Table 2 provides an overview of topical coverage offered by a number of recent edited collections and textbooks. The books in the table were

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Table 1 Examples of Umbrella Terminology Describing the Study of Technologies and their Processes

Computer-mediated communication
Digital communications
Digital media
Informatics
Information technology
Internet research
New media
New technologies
Online communication
Technology-mediated communication

chosen based on: (1) general applicability to and coverage of internet research rather than focus on one topic only; (2) publication date of 2000 or later; (3) variety of disciplinary perspectives; and (4) personal preference. Topics covered are identified based on my understanding of the major components of the books and often, but not always, correspond with chapter titles.

Many, if not all, of the topics listed in Table 2 have been researched in the communication discipline. Other social sciences such as sociology, human geography, or psychology are likely to have drawn on similar concepts. Due to the investigation of such concepts in the online environment, many social science disciplines and other disciplines increasingly seem to draw on perspectives from the communication discipline with regard to their own disciplinary work, simply because the internet is at its heart a communication medium. Whether email, website, chat room, or 3D virtual world, the underlying purpose is to share some sort of created meaning. As a result, academics engaging in internet research find that disciplinary boundaries are not just being crossed, but are losing their significance.

One of the academic organizations that has been providing a platform for interdisciplinary research related to the internet is the Association of Internet Researchers (AoIR, pronounced “air”). In his introductory essay to the *Internet Research Annual Volume 1*, Steve Jones outlines the history of the association. It began with brainstorming sessions by just a handful of people—several of them graduate students—attending an invitation-only conference on the “world wide web” in 1998 at Drake University. This small group of people, who came from various disciplines, all shared the desire to form a new organization, “one that would be interdisciplinary and international” (p. 5), and would focus on the internet, rather than the web only. AoIR began in late 1998 with an email listserv (air-l) with eight subscribers. After one year, the listserv had grown to 160 subscribers, and by August 2004, the listserv had grown to 10 times that size with about 1600 subscribers.

The rapid early growth of listserv subscriptions showed the clear interest in internet research, and so the association decided to hold its first conference. Internet Research 1.0 took place in September, 2000, in Lawrence, Kansas. About 290 attendees from 21 countries found their way to the small, Midwestern college town. By the third

Table 2 Guide to Selected Internet Research Books by Topics Covered

	Edited collections				Textbooks			
	<i>Communication and Cyberspace</i>	<i>Community Informatics</i>	<i>Handbook of New Media</i>	<i>Living in the Information Age</i>	<i>Computer-Mediated Communication</i>	<i>Human Communication on the Internet</i>	<i>Online Communication</i>	<i>Web Theory</i>
First author/editor	Strate, L.	Keeble, L.	Lievrouw, L.	Bucy, E.	Barnes, S.	Shedletsky, L.	Wood, A.	Burnett, R.
Date	2003	2001	2002	2005	2003	2004	2001	2003
Topics covered:								
Characteristics					×		×	×
Children			×					
Civil society/Democracy			×	×	×			
Communication channels					×		×	×
Community		×	×		×		×	
Cyberculture			×		×	×		×
Design/visuals		×						
Diffusion				×			×	
Digital divide	×	×	×	×		×	×	
Discourse/language/rhetoric	×				×			
Disruptive behavior					×			
E-commerce					×			
Economy					×			×
Education/literacy					×		×	
Feminism/women	×					×		
Gaming		×			×			
Genres					×			
Globalization					×			
Groups			×		×			
History			×					
Human-computer interaction	×		×	×	×			×

(continued)

TABLE 2 – Continued

	Edited collections				Textbooks			
	<i>Communication and Cyberspace</i>	<i>Community Informatics of New Media</i>	<i>Handbook of New Media</i>	<i>Living in the Information Age</i>	<i>Computer-Mediated Communication</i>	<i>Human Communication on the Internet</i>	<i>Online Communication</i>	<i>Web Theory</i>
Identity/self	×		×		×	×	×	×
Implementation			×					
Industry			×	×				
Informatics	×		×	×		×		
Interactivity systems			×					
Interpersonal			×	×	×	×	×	×
International perspectives		×						
Mass media/telecommunications	×	×	×		×			
News(papers)			×					×
Organizations	×		×		×	×		×
Policy	×		×					
Politics	×		×					
Pop culture/ entertainment								
Privacy				×				
Regulation/law	×		×	×	×	×	×	×
Social/society	×	×	×	×		×	×	×
Space/place	×	×	×		×			×
Theory	×	×		×	×	×		×
Therapy/social support		×						
Workplace			×		×		×	

annual conference in Maastricht, the Netherlands, attendance had grown to about 380 attendees from 44 countries, and has continued growing since at subsequent conferences. Other than disciplinary conferences, one of the special allures of the AoIR conferences is that they are “a place to refresh ourselves,” as Mia Consalvo puts it (p. 3).

Maybe the essential or important thing about AoIR and its research is the early tent-building, which led to a multidisciplinary approach to studying the Internet. Although we all have developed areas of specialty within this field, our conferences, and this annual, are spaces to step out of our comfort zones, our normal research routines, to explore what other scholars [from other disciplines] are concerning themselves with. (p. 3)

Though the association provides an archive of all conference papers, the archive is “members only,” mostly for copyright reasons. The *Internet Research Annual Volume 1* is the result of efforts to bring a selection of papers presented at the AoIR conferences to the public. The inclusion of *Volume 1* in the title clearly shows that more volumes from future conferences are to be expected.

The Solid Foundation of the *Internet Research Annual*'s Mosaic

Contributors to the *Internet Research Annual* originally conducted their research in their native language, often not English, but wrote and edited their conference papers so that despite different disciplinary roots, varying methodologies, and multiple native languages, all chapter contributions—now in English—would conform to overarching standards while retaining their unique voice. The result is an annual whose value lies in the wealth of perspectives provided. A quick look at the author information provided shows that among the 37 contributors and editors, at least 22 different disciplines and fields of research are represented, as are 10 different countries of residence. The contributors are lecturers, graduate students, assistant, associate, and full professors, news editors, directors and associates of research institutes, project leaders, and scientists. As diverse as their backgrounds are, all contributors share an interest in internet research.

As a book, the *Internet Research Annual* is organized in a similar fashion to many other edited collections. In addition to two introductory essays by Consalvo and Jones (Jones being one of the association's co-founders and its president for the first four years), a total of 26 contributions are divided in three main sections. The sections are entitled “The internet as an area of research” (Section 1, containing nine chapters), “Places, politics, and policies of the internet” (Section 2, containing nine chapters), and “Net/working communities” (Section 3, containing eight chapters). Each section was edited by the conference chair and the program chair of one of the three conferences between 2000 and 2002, but the contributions are organized by topics rather than by year of presentation to lend coherence.

Nancy Baym, conference organizer of the first AoIR conference, co-editor of the *Annual*, and current president of AoIR, is currently in the process of editing a special issue for the journal *The Information Society*. The special issue will explore the question

of whether internet research is or will develop into its own discipline, remain a research field, or be absorbed into existing disciplines as internet technology continues to affect all areas of our lives.

The notion of internet research as an “interdisciplinary discipline” is rather intriguing, and the *Internet Research Annual* provides a preview of the topics, methods, and ontologies that would inform such a discipline. At the same time, the multitude of topics discussed in the *Annual* clearly shows that the internet not only blurs disciplinary boundaries, but in some way makes them obsolete. Examples of topics addressed include: law (Burk); discourse (Herring); artificial intelligence (Warnick); ethics (Ess); commercialization (Gustafson), consumerism (Fernback) and capitalism (Mansell); urban development (Bodnar) and urban life (Gotved); war (Antonijevic); ethnicity (Zurawski); health (Orgad); and computer code (Taylor). Perhaps the most obvious example of the blurring of disciplinary lines is the differences between many of the authors’ disciplines and their areas of expertise in internet research. For example, Barbara Warnick is a rhetorician, not a computer scientist. Stine Gotved works in a department of film and media studies instead of urban geography or sociology. Consalvo summarizes, “Although the ‘sexiness’ of Internet research is perhaps on the decline, its relevance and level of sophistication are increasing” (p. 1). Thus, with regard to internet research, disciplinary affiliation seems less important than the understanding gained from engaging actively with the topic at hand. This is, perhaps, the essence of what Howard and Jones are trying to communicate with their notion of *embeddedness* which they define in the introduction to *Society Online*. In such a way, the two books go hand in hand. The *Internet Research Annual* provides a multi-perspective foundation on which the large-scale investigations of *Online Society* are built solidly.

A Duality of Embeddedness in *Society Online*

Society Online, an edited collection by Philip N. Howard and Steve Jones, is guided by the overarching argument that new media and communication technologies are embedded in society, and that, simultaneously, “our lives are embedded in new media” (p. 2). With this perspective the editors aim to depart from the more commonly argued “social construction versus technological determinism” viewpoint that dominates much internet-related research. By asking scholars from multiple disciplines (sociology, economy, political science, psychology, history, law, management, communication) to contribute to their volume, the editors implicitly acknowledge that an investigation of *The Internet in Context*—the book’s sub-title—must extend beyond disciplinary boundaries.

Asking contributors to show emerging trend lines rather than snapshot data points, the editors clearly intend their “textbook with an argument” to extend beyond short-lived timeliness as well (Howard & Jones, 2004). In fact, the majority of book chapter topics are well established in internet (with a small ‘i’ according to Howard and Jones, which was adopted here) research and represented in Table 2. A cynical critic could easily argue that the book thus does not plow new ground. However *Society Online* is

not just rehashing what previous books have presented. Instead, Howard explains, “In this volume, many contributors take what we suggest is an *embedded media perspective* by researching how new media mechanisms are also culturally laden tools for communication grounded in social contexts” (italics in original, p. 22). In his conclusion, Jones continues this thought by explaining how a better understanding and experiencing of technology-relayed communication, culture, and organization can only be achieved by striving for a different way of thinking about time and space—space being connected to our old-fashioned understanding of physical networks that many still equate to internet technology.

In order to convey their main argument of *embeddedness*, the editors have grouped their 18 chapters into five main parts, adding a foreword, a prologue, an introduction and a conclusion chapter. The authors have drawn their data from several large-scale and prominent social science projects, including the *General Social Survey*, the *HomeNet Study*, the *National Telecommunications and Information Administration*, the *Pew Internet and American Life Project*, the *Stanford Institute for the Quantitative Study of Society*, the *Survey2001 Project*, the *UCLA Center for Communication Policy*, the *Webarchivist.org*, and the *World Values Survey*. Also, Howard lists at least 12 different methodologies (pp. 3–4) employed, emphasizing how a variety of disciplinary, theoretical, and epistemological approaches were used “to triangulate on answers to some of the most challenging questions about the role of new media in society” (p. 5).

Part I, entitled “Social capital, community, and content,” contains four chapters discussing online communities (Norris), religion (Larsen), gender (Regan Shade), and racial issues of the digital divide (Nakamura). The second main part of the book, entitled “Wired news and politics online,” also consists of four chapters covering internet voting (Stromer-Galley), political involvement (Rice & Katz), news (Dessauer), and crisis communication (Schneider & Foot). Focusing on the issue of commercialization, Part III of *Society Online*, “Economic life online,” contains three chapters providing critical perspectives on online shopping (Silver & Garland), internet organizations (Neff & Stark), and web design (Kotamraju). Part IV, “Culture and socialization online,” explores ways of expression in a new forum with chapters on literacy (Griswold & Wright), music (Peterson & Ryan), and public opinion (Robinson, Neustadt, & Kestnbaum). Finally, Part V, called “Personal and global contexts of life online,” presents an inside versus outside perspective. The chapters are internet user sophistication (Hargittai), privacy (Starke-Meyerring, Burk, & Gurak), social dynamics (Sassen), future perspectives (Bainbridge), and Jones’s conclusion.

Mapping Cyberspace from a Cyberspace Perspective

Mapping Cyberspace is conceived along similar topical lines to *Society Online*, but takes a more narrow perspective. The authors, Martin Dodge and Rob Kitchin, are two geographers from Britain and Ireland respectively. Dodge and Kitchin are considered to be forerunners of cybergeography, a field of interest within internet research. In 2001, the authors published their book *Mapping Cyberspace*, and in 2002 their

Atlas of Cyberspace. The two publications are similar in content, and trend-setting in an emerging field. Books related to space in virtual worlds and visual components, published before Dodge and Kitchin's works, tended to focus on 3D animated graphics or environments. As Dodge explains on his website, the atlas is indeed intended to be just that—an atlas, a collection of maps, familiarizing the stranger with an unfamiliar territory. Dodge writes:

This is an atlas of maps and graphic representations of the geographies of the new electronic territories of the Internet, the World-Wide Web and other emerging Cyberspaces. These maps of Cyberspaces - *cybermaps* - help us visualise and comprehend the new digital landscapes beyond our computer screen, in the wires of the global communications networks and vast online information resources. The cybermaps, like maps of the real world, help us navigate the new information landscapes, as well as being objects of aesthetic interest. They have been created by 'cyber-explorers' of many different disciplines, and from all corners of the world. Some of the maps you will see in the Atlas of Cyberspaces will appear familiar, using the cartographic conventions of real-world maps; however, many of the maps are much more abstract representations of electronic spaces, using new metrics and grids. The atlas comprises separate pages, covering different types of cybermaps. (Dodge, 2004)

While the cyberatlas contains explanations and background on its maps, Dodge and Kitchin's in-depth exploration of the topic of cybergeography is found in their book, *Mapping Cyberspace*. Containing many of the atlas's graphics reduced in size, the book explores the foundations and implications of a spatial or geographical perspective on cyberspace. The book is divided into 11 chapters and a preface, a "beyond the book" page, notes, a bibliography, and an index. The titles and contents of each chapter reiterate key concepts of internet research. However, the perspective differs from any of the books mentioned earlier. The chapter titles are: "Introducing cyberspace"; "Geographies of the information society"; "Geographies of cyberspace"; "Introducing the cartographies of cyberspace"; "Mapping information and communication technologies"; "Spatialising cyberspace"; "Mapping asynchronous media"; "Mapping synchronous social spaces"; "Spatial cognition of cyberspace"; "Imaginative mappings of cyberspace"; and "Future mappings of cyberspace".

The authors' perspective derives from a focus on cyberspace as a world of its own, and not just a reflection of offline reality. Though they repeatedly draw connections to the offline world, their voice comes across more as that of explorers of the as-of-yet unknown, but for that reason fascinating, new expanse. Information about this new territory is to be discovered, rather than created in empty space.

Cyberspace has often been heralded as the great equalizer, a notion that Nakamura opposes in *Society Online*, and also as overcoming space and time. Dodge and Kitchin explore the concept of cyber "space" in its traditional definition of connecting places that are geographically dispersed in offline worlds and measured by offline metrics. They mention MapQuest as just one example of a cybermap representing real-world space. However, especially in Chapter 5 where the authors talk about dynamic maps, and in Chapter 6 on the spatialization of cyberspace, the authors prompt their readers

to understand that cyberspace is not just an empty, undefined, or imagined buzz of electronic signals. Instead, the authors provide explanations and examples that present actual visual images—pictures—of what parts of cyberspace look like. Then, the authors examine issues of mobility, power, and socio-economic constructions in these new environments. Referring to previous research such as work comparing spatial performance in virtual versus traditional geographic spaces (pp. 173–176), the authors conclude that we cannot simply draw conclusions about one environment based on knowledge gained in the other. To use an analogy, just because a person has learned how to walk on land, it doesn't mean he or she knows how to walk on water.

With regard to time, Dodge and Kitchin discuss the “timelessness” afforded by information and communication technologies, that allows international businesses to work around the clock, or people to meet others in online environments no matter what the local clock says. They show that online activities often occur in cycles, such as surges of online postings during the evening hours. In addition, the authors discuss new spatial models of space–time continua available due to developing technology. Finally, the authors touch on the subject of online time itself, but do not provide an in-depth analysis. The shelf-lives of both synchronous and asynchronous communication instances are mentioned, as is the example of AlphaWorld Standard Time (Greenwich Mean Time minus two hours), subsequently adopted by other virtual (often three-dimensional) communities and re-named Virtual Reality Time (VRT). However, the authors could have explored cybertime more, as its passing, for example in online multi-player games, often differs from offline time and “hour” or “year” do not designate the same time spans as offline. This shifting of time may have substantial influences on social interactions in such online spaces and once again calls out for an investigation of cyberspace as a world of its own rather than a copy, extension, or reflection of offline environments.

All things considered, cybergeography as a field of study is a prime example of internet research. Similar to the internet research in the publications discussed above and listed in Table 2, cybergeographers investigate issues such as power, organization, and physical/interpersonal distance both online and offline, based on their disciplinary foundation. Beyond that, cybergeographers try to cut the ties that bind them to the offline world and instead explore phenomena within their own technology-driven context. The visualization, mapping, and defining of “space” within cyberspace in some sense create new meanings for existing concepts.

Communication and—not or—Internet Research

Where then, in this colorful and multi-disciplinary approach to internet research, lies the contribution of the discipline of communication, and how can communication scholars find applications of their research topic within internet research and vice versa? The potential of communication research within internet research seems boundless. At its most fundamental level, communication is the creation of meaning. Communication can occur through various channels—nonverbal, verbal/vocal, verbal/written, pictorial, or a combination of any of these. For each of these channels, examples can be found easily within the online environment.

To many people the internet and the web are almost synonymous, and on the web verbal/written and pictorial modes of communication are most common. As many researchers have pointed out, various internet technologies (namely, computers) often filter out traditional nonverbal cues. Smiley faces and similar keyboard-based surrogates (such as capitalizing for SHOUTING, or expressing excitement !!!!! by inserting multiple exclamation marks) are simple means of providing nonverbals in textual online communication. However, internet components beyond the web provide much more sophisticated opportunities to communicate both nonverbally and verbal/vocally. Avatar based 3D chat rooms allow body movement and even facial expressions. Voice-over-IP allows for vocal transmissions. Visual as well as picture-based messages can be constructed through website, avatar, and even interface design. Thus, the main communication modes are all present online.

Communication scholars have responded mostly by viewing the internet as another context in which a particular topic can be investigated. Nancy Baym and Joseph Walther, for example, are both interpersonal communication scholars. Baym's research on social support just happened to take place in an online Usenet group, lending a new and interesting dimension to an established topic. Walther's research on group and interpersonal communication investigates how people communicate when they cannot communicate face-to-face. Susan Herring—a discourse scholar located in a department of information science—researches discourse in chat rooms, rather than, for example, in in-class notes passed around. These are three examples of how computer technology indeed mediates communication by placing it into an additional contextual frame. Other examples can be found easily. Would Martin Luther King's speeches have had different effects if they had been delivered through online web casts, or in chat rooms? How do organizations cope with both the opportunities and the demands placed on them by globe-spanning technology? Is there a relationship between John Kerry's blog use in his political campaign and voter registration among younger generations?

It is not just topics that translate easily from offline communication to online communication. Both methodologies and theoretical approaches common in the communication discipline can be and are applied to internet research. However, the online environment also allows for a re-investigation of methodologies themselves, and the development of new theory extensions. For example, survey research itself was a topic of inquiry in the 1980s. Today, researchers are looking at web and email surveys, investigating once again how the medium affects the message.

Following cybergeographers' foray into online environments, communication scholars can advance both communication as a discipline and internet research by considering interactions in cyberspace as occurring at a different level. This different level, which invites investigation of the internet itself, rather than looking at the technology as a new context for existing topics of interest, is neither higher nor lower, better or worse, than offline communication environments. It is simply different and merits an exploration of how exactly meaning is created in such an environment. Communication scholars could help develop a new mindset with new conceptualizations by following two general lines of research. First, communication

scholars could continue to engage in research that has resulted in most of the currently available publications, exploring how communication issues from the offline world play out in cyberspace. Second, communication scholars could aim to discover issues that are unique to cyberspace and then explore the meaning of these issues within the dimensions of cyberspace and the parameters set by the internet itself.

Conclusion

The three books discussed here complement each other well. The *Internet Research Annual* provides a solid foundation for both academic researchers and non-academics hoping to gain a fundamental understanding of the issues, methods, and theoretical perspectives that drive internet research. *Society Online* builds on such a foundation to explore a duality of *embeddedness*. The book's use of large-scale data allows the drawing of large-scale conclusions about how technology has become embedded in society, while at the same time our daily activities and lives are embedded in new media. Finally, *Mapping Cyberspace* continues arguments laid out by *Society Online*, but from a geographical perspective. *Mapping Cyberspace* adds a look at cyberspace from cyberspace, instead of from offline. Communication issues permeate the issues and discussions throughout all three books discussed here, as well as throughout general internet research. The word of mouse on internet research among communication scholars, then, ought to be that it's definitely worth lending an eye.

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