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The division of the communication discipline according to whether people communicate face-to-face or via a technological medium has shaped the field's development from the outset. The divide has been institutionalized over time in the structures of academic departments and schools, professional training and degrees, scholarly societies and publishing, and in the field's larger research agendas. However, critics inside and outside the field have long insisted that the differences between the two subfields actually obscure the shifting, contingent nature of communication in everyday experience, social formations, and culture. This paper traces efforts to theorize the intersection of interpersonal and media communication, and in particular the concept of mediation*, from Lazarsfeld and Katz's two-step flow in the 1950s, to the challenge of digital media technologies in the 1970s and 1980s, to the rise of new media studies and digital culture scholarship from the 1990s onward.*

Keywords Mediation; communication theory; new media; media convergence; ICTs

Introduction

The division of the communication discipline according to whether people communicate face-to-face or via a technological medium has shaped the field's development from the outset. Certainly, the differences between mediated and interpersonal (often called 'human') communication reflect different historical precedents and intellectual influences within the field. These divisions have been institutionalized over time in the structures of academic departments and schools, professional training and degrees, scholarly societies and publishing, and in the field's larger research agendas.

However, the media-interpersonal divide has been far from straightforward or unproblematic. For many decades, critics inside and outside the field have insisted that the boundaries between the two subfields actually obscure the shifting, contingent nature of communication in everyday experience, social formations, and culture. Efforts to bridge the gap between interpersonal and

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'mass' communication date back at least as far as Katz and Lazarsfeld's classic work, *Personal Influence* (2006 [1955]) and their theory of two-step flow, which included both modes of communication in the persuasion process. Two-step flow launched decades of theorizing about media 'effects' predicated on a view of audiences as selective, active, and engaged with media and each other. In the 1980s and 1990s, the introduction of digital media and information technologies confounded established distinctions between interpersonal and mass communication, and generated another wave of theorizing that brought conversation, symbolic interaction, social constructionism and small group process into accounts of computer-mediated communication, virtuality, online community, and other novel forms of mediated communication. Since the 1990s, another generation of scholars who have 'grown up digital' have proposed definitions and frameworks that articulate structure and action, materiality and meaning, and that draw on disciplinary sources beyond communication research and media studies.

In this paper, I trace the evolution of efforts to understand the intersection of interpersonal and media communication – what Gumpert (1988) calls the 'media nexus', and what Elihu Katz has described as 'the points of contact between interpersonal networks and the media' (Katz 2006, p. xxii). I review the challenges posed by new media and information technologies that have compelled the 'two subdisciplines' (Rogers 1999) to reconsider whether mass and interpersonal modes of communication are fundamentally different phenomena and experiences. I suggest that the concept of *mediation*, advanced as a bridge between the two traditions since the early days of new media research in the 1970s and 1980s, and further elaborated since the 1990s, may offer a promising direction for a discipline that faces the challenge of conceptualizing communicative practices, technologies, and social arrangements as inseparable, mutually-determining aspects of the communication process.

Slouching towards convergence: Three 'moments' in communication theory and research

> Communication models provide means of analysis while imposing research perspectives . . . . [but] To what extent do current models accommodate fundamental changes in communication technologies?
> . . . [even] Berlo's (1960) *The Process of Communication: An Introduction to Theory and Practice* hardly mentioned the relationship of media technology and the communication process . . . [and] most texts in mass media rarely mention communication theory or interpersonal dynamics . . .
> . . . the distinction between [interpersonal and media communication] is technologically outmoded as convergence and new technological communication patterns emerge.
>
> (Gumpert & Drucker 1999, pp. 9, 11–12)

Gumpert and Drucker's critique of communication models captures the intellectual dilemma that confronted communication scholars at the end of the twentieth century. They needed new frameworks to characterize and understand modes of communication and culture – especially those related to new media technologies – that did not fit easily into either the interpersonal or mass media categories (Lievrouw & Ruben 1990). '[A] widespread and enthusiastic call for convergence in theoretical approaches and research traditions' had arisen among communication scholars in both camps (Livingstone 1993, p. 5).

In this section, three broad 'moments' in the development of this 'convergence' perspective are described. The first is the stream of mass communication research associated with two-step flow and subsequent mixed (mass+interpersonal) theories of media effects (e.g., uses and gratifications and audience studies), emphasizing audiences' selectivity, active engagement, and interpersonal relations. The second is the conceptual 'crisis' in communication theory and research sparked by the rise of information and communication technologies (ICT) and new media in the 1970s and 1980s, which generated a period of intensive theoretical reframing and 'improvisation'. As new media systems began to blur familiar boundaries between the production and distribution of traditional media content, information processing and retrieval, and dyadic, small group, and organizational interaction, *mediation* emerged as a concept that might cross these various boundaries.

The third moment extends from the early 1990s to the present, as mediation, according to some prominent critics, has become the defining condition of contemporary experience (Silverstone 1999, 2002). Technical refinements like hypertext, web browsers, graphical interfaces, and search engines have helped routinize and 'domesticate' access to and use of the Internet and other digital communication technologies among non-technical users. Here, the study of the 'media nexus' has taken a more cultural turn, as analysts have sought to understand people's everyday engagement with new media and digital culture.

Two-step flow and after

As Gumpert and Drucker's critique suggests, by the 1990s the communication discipline had long been a 'house divided' between the study of interpersonal, small group, and organizational communication on one hand (with face-to-face interaction as its paradigm), and the study of mass communication on the other (dominated by mass media technologies and institutions). Historically, both areas had shared a focus on rhetoric and persuasion, a pragmatic, interactionist orientation inherited from Chicago School sociology of the 1920s and 1930s,[2] and a broadly functionalist or meliorist approach to communication in whatever form.

However, this common heritage was overshadowed after World War II, particularly in the US, by the rapid rise of television and the adoption of

'scientific', linear theories of communication and media effects adapted from information theory. David Berlo's *Process of Communication* (1960), and his 'sender-message-channel-receiver' (SMCR) model of human communication adapted from Claude Shannon and Warren Weaver's 'mathematical theory of communication' (Shannon & Weaver 1963), helped make *channel* a key variable in the communication process (Rogers 1986, 1994). Information theory became a pervasive 'climate of opinion . . . a diffuse way of talking shared by many academics in the 1950s and 1960s' – including communication researchers (Peters 1986, pp. 541–542).

Some have argued that the popularity of linear models in the 1960s helped create a 'false dichotomy' between mass and interpersonal communication study (Reardon & Rogers 1988). Because SMCR resembled the one-way, 'transmission' character of mass media channels more than the complexity of dyadic and group interaction, it was widely criticized among interpersonal and critical/cultural communication scholars (e.g., Golding & Murdock 1978). The parting of the theoretical ways was eventually reified in the structure of academic departments, degree programs, scholarly publishing – indeed, the whole discipline itself. Eventually, even mass media scholars decided that SMCR was simplistic, and abandoned linear approaches. But as Peters (1986) would later observe, 'those terms have become a permanent part of the fabric of the field, in textbooks, syllabi, and literature reviews' (p. 540).[3]

Nonetheless, some prominent communication scholars had considered the media-interpersonal divide to be problematic from the 1950s on. Notably, Paul Lazarsfeld and Elihu Katz rejected the 'direct effects' view of mass communication implied by linear models, and argued that persuasion also required interpersonal interaction: the famous two-step flow process of 'media to conversation to opinion' (Katz 2006, p. xxiii). Decades later, *Personal Influence* and the two-step model would become a touchstone among those advocating the convergence of interpersonal and mass communication theory. But at the time, two-step flow opened the way for other mass communication theories that viewed audiences as selective and active, and media as enmeshed in complex networks of interpersonal relations. According to Katz (2006), subsequent research in this line has tended to follow one of two main directions, corresponding to two main 'intervening variables' involved in two-step flow: *decision* studies that center on audience *selectivity*, and *diffusion* studies that take *interpersonal relations* as their point of departure.

Decision studies. The 'decision' stream tends to view persuasion as the archetypal form of communicative influence. It reflects Lazarsfeld's original empirical interest in opinion formation and voting decisions, and audiences' selection of sources and messages in the decision process. Uses and gratifications theory, perhaps the most influential framework in this stream between the 1960s and 1980s (Blumler & Katz 1974; Katz *et al*. 1974; McQuail 2005), assumes that

audience members are active and engaged, attribute their own purposes and meanings to media content, and make rational choices among media and messages according to their personal needs and interests. Needs and uses may be ritualistic (habits or conventions) or instrumental (means to an end), but either way, mass media should properly be seen as '. . .important and uniquely employed social resources in interpersonal communication systems' (Lull 1980, p. 198). Uses and gratifications has also been applied in some recent studies of new media (see next section).

However, it has been criticized for being overly functionalist and instrumental, and for over-emphasizing audiences' rationality, individuality, and goal-directedness. Refinements like expectancy-value theory and dependency theory have been proposed to address these problems (Littlejohn & Foss 2008; McQuail 2005). Nonetheless, uses and gratifications is still seen as an important 'interface' between interpersonal and mass communication because either mode can fulfill people's needs, motivations, uses, or dependencies (Rubin & Rubin 1985).

Another important part of the decision stream is audience reception studies, particularly the 'active audience' perspective, which examines how audiences choose, use and make sense of media to construct and share meanings about their everyday experience (Blumler 1979; Morley 1993). This approach rejects views of the audience as a largely undifferentiated 'mass' receiver of messages (Ang 1990; Hartley 1988). Taking a page from critical and cultural studies, particularly reader-response theory, these analyses frame media systems and content as 'texts' that people read, share, and interpret.

Reception and the active audience approach have been criticized for overstating the agency and capacity of audience members to resist dominant media ideologies and representations (e.g., Curran 1990; Morley 1993). Since the 1990s, 'new audience studies' (Gray 1999) has tried to achieve a balance between 'powerful media' and 'powerful audience' perspectives (Katz 1980; Livingstone 1993), especially in light of the growing articulation of the Internet and new media with more conventional channels and content. Audiences have been cast as 'diffused' or 'embedded' in their everyday lives and relationships (Abercrombie & Longhurst 1998). Livingstone (2004) has called for a rethinking of active audience frameworks and the text-reader metaphor in media studies, contending that they may have limited relevance in the new media context.

Diffusion studies. The second stream of research springing from two-step flow, 'diffusion' studies, conceives interpersonal relations as communication networks through which people share information, seek and give advice, form affiliations and loyalties, build community and trust, and so on. Here, imitation and 'contagion' communication processes are as important as persuasion in understanding interpersonal influence and social change. *Diffusion of innovations* theory, which accounts for the communication and adoption of new practices and ideas

through social systems, is the central conceptual framework in this stream.[4] Since the 1950s, the core elements of diffusion theory have been expanded and applied to a wide range of social settings and policy problems: communication researchers and sociologists have focused on social relations and interaction in the diffusion process, while economists have investigated the adoption of new products and services within a market framework (Lievrouw 2006; Rogers 2003).

Diffusion and social network analysis have also been widely used to study the adoption of new media technologies in organizational and community contexts. These studies have led to important refinements of diffusion theory that emphasize the role of adopters in the diffusion process, including *reinvention*, *critical mass*, and *thresholds* (see Rogers 2003). However, despite the turn to the adopters' perspective in recent work, diffusion continues to be criticized, particularly by critical and cultural communication scholars, for technological determinism and what they see as a *pro-innovation bias*, i.e., the tendency of researchers to view innovations positively, and thus to privilege the interests promoting them.

Two additional points about diffusion studies are worth noting. First, with its emphasis on social relations, links, and structures, diffusion tends to take an explicitly social-structural view of the communication process, in contrast to the more social-psychological approach implicit in decision studies' focus on audience members' reception, selectivity, gratifications, and construction of meaning. Indeed, diffusion and social network research have often been criticized for treating social structures as 'real' or material phenomena, at the expense of the content, meaning, and consequences of links and relationships (Monge & Contractor 2003). A second point is that diffusion studies' primary focus on interpersonal relations tends to overshadow people's engagement with mass media.

However, as Katz also points out, both decision *and* diffusion studies have tended to become 'disconnected' from media over time. For their part, decision studies over-emphasize the individual's perceptions and purposeful uses of media (uses and gratifications) or reduce all systems and contents to 'texts' open to interpretation (audience/reception studies). Thus, Katz says, we are still faced with a mass-interpersonal divide. He suggests that decision and diffusion studies should be seen as complementary, rather than competing: 'It is now clear that the diffusion model should combine with the decision model rather than displace it. The interaction of interpersonal influence and the media are central to both' (Katz 2006, p. xxiv).

The 'crisis' of new media

A second moment in the evolution of the interpersonal-media nexus can be traced to the introduction of new technologies in the 1960s and 1970s that merged computing, telecommunications, information retrieval systems, and media. Initially, few communication researchers took much interest in the

new technologies, since none of them quite fit either side of the disciplinary 'house' (Rogers 1999). Telephone conversations, for example, might be dyadic, simultaneous interactions, but to most interpersonal researchers in the 1970s, they lacked the essential qualities of face-to-face contact. Teletext and videotex systems (e.g., BBC's Ceefax or Canada's Telidon system) delivered content selectively to subscribers on demand, so did not fit the usual framework of mass audiences and generalized 'effects'.

Yet, as attention shifted to the convergence of older mass media systems with newer digital technologies, it was clear to many communication scholars that the new media were becoming an important part of interaction and media culture. Debates ensued about the suitability of traditional communication theories and methods for studying the new media environment (Chaffee 1972; Cushman & Craig 1976; McQuail 1986; Parker 1973a; Rice & Associates 1984; Turow 1992; Williams *et al.* 1988). Calls for the convergence of mass and interpersonal communication study were revived by mass and interpersonal scholars alike.

Crucially, the term *mediation* began to appear more frequently in the literature around this time as a way to articulate media and interpersonal communication within a total social or cultural context. Insisting that '*All media are not mass media*', editors of the benchmark edited volume *Inter/Media* made the case for theoretical convergence and for mediation as a new framework for communication study (Gumpert & Cathcart 1986, p. 27; emphasis in the original). Likewise, Altheide and Snow's 'theory of mediation' (1988) was debated in *Communication Yearbook 11*. A collection on the topic of 'merging mass and interpersonal processes' included discussions of mediated interpersonal communication and interactivity (Hawkins *et al.* 1988). Anderson and Meyer (1988), Meyer (1988) proposed a framework for mediation focused on emerging media formats. The relationship between mass and interpersonal communication was explored in a special issue of *Human Communication Research* in December 1988. Several theoretical frameworks combining media and interpersonal elements (including pieces by Gumpert and Cathcart, Joshua Meyrowitz, Joseph Turow, and the present author) appeared in a special section on 'Theories of Mediation' in volume 3 of *Information & Behavior* (Lievrouw & Ruben 1990).

In response to the introduction of new media technologies, communication researchers pursued two main conceptual/theoretical strategies. One was to adapt existing communication theories to the study of new systems. For example, uses and gratifications theory was applied to study audience selectivity of new media (Perse 1990), people's uses of home computers (Perse & Dunn 1998), and their perceptions of online political information (Kaye & Johnson 2002). Some studies took an effects-style approach that investigated the 'impacts' of new technologies on users' attitudes, values, behaviors, and perceptions, or the effects of ICTs on organizational structure, work performance or productivity, for example. Media policy studies considered the implications of new media for traditional media industry structures and regulation (e.g.,

universal service obligations, decency, or privacy), for media industry occupations and employment, or for economic development (Parker 1973b; Parker & Dunn 1972). As noted above, diffusion of innovations and social network analysis were also used to observe and theorize the initial spread of new technologies; more recently, they have been employed to gauge the degree and quality of sociality and community cultivated among internet users (e.g., Hampton & Wellman 1999; Wellman *et al.* 1996).

An alternative conceptual strategy was to improvise with a mix of methods and concepts from diverse disciplinary sources. For example, new media researchers dissatisfied with the technological determinism implicit in both mass media effects research and studies of the 'impacts' of new technologies in the 1980s turned to the critique of technological determinism and other key concepts developed in science and technology studies (STS) (Boczkowski & Lievrouw 2007). The *mutual-shaping* perspective from STS has become a core concept in new media studies. It holds that society and technology are co-determining and articulated in the ongoing engagement between people's everyday practices and the constraints and affordances of material infrastructure (e.g., Boczkowski 2004; Jouet 1994).

Another source of theoretical cross-fertilization and improvisation during this period was the shift within the communication discipline away from large-scale quantitative studies and toward a focus on everyday life, subjectivity, interaction, and meaning, documented in a special issue of the *Journal of Communication* in 1983 (vol. 33, no. 3) entitled 'Ferment in the Field'. Many scholars adopted ethnographic methods and subjectivist epistemologies from sociology, anthropology, and linguistics to resituate new media systems and uses within complex cultural landscapes of artifacts, meanings, and practices (e.g., the application of conversation analysis and ethnomethodology in the analysis of telephone conversations; Hopper 1992; Schegloff 2004).

Perhaps the best illustration of an 'improvisational' conceptual strategy is provided by *computer-mediated communication* (CMC), the study of interpersonal interaction and group processes via computer-based networks.[5] Since the 1980s CMC has become something of a subfield in itself, ranging from micro-scale studies of language, identity, and relationships online, to analyses of computer-supported teamwork and collaboration, to large-scale studies of online communities and cultures (see Thurlow *et al.* 2004).

CMC research seeks to understand how effective, meaningful human interaction and group process occur via technologies that span time and/or distance, that is, how interaction occurs without being face-to-face and simultaneous. Silverstone (2005) observes that historically, many communication scholars (both mass and interpersonal) have privileged face-to-face conversation as the 'best' model of dialogic, rich interaction and the intervention of technological media, such as written letters, radio broadcasts, or telephone calls, as degrading the quality of an otherwise rich and direct human communication process.

However, as the repertoire of new modes and forms of interaction via computer-supported systems proliferated in the 1970s and 1980s, analysts began to reconsider these assumptions (Gumpert & Cathcart 1986; Lievrouw & Finn 1990; Lull 1980; Rubin & Rubin 1985; Schudson 1978; White 1986). An important conceptual move was to frame mediated interaction in terms of 'presence', i.e., the variety and perceived quality of interpersonal or small group communication afforded by media and communication technologies,[6] rather than assuming the inferiority of technologically-mediated communication.

Precedents already existed for this approach. In the 1950s social psychologists identified *parasocial interaction* – an intense, personalized interest in and identification with mass media characters and personalities among audience members – as an essentially interpersonal, although unreciprocated, process (Horton & Wohl 1956). In the 1970s, some mass communication scholars saw parasocial interaction as a possible link between mass and interpersonal communication analysis (Levy 1979; Nordlund 1978; Turow 1974).[7]

Later, social psychologists also suggested that telecommunications and computer-based communication systems differ in terms of their *social presence* (Short *et al.* 1976) or *telepresence* (Johansen *et al.* 1979; Steuer 1992), or perceived *propinquity*, i.e., proximity or nearness (Korzenny 1978). *Media richness theory* hypothesizes that 'richer' (higher-bandwidth or multi-media, thus higher-presence) channels are more suited for sensitive, uncertain, ambiguous, or equivocal interaction than 'leaner' channels (Daft *et al.* 1987). Low-bandwidth, text-based communication systems like email or computer conferencing are thought to lack the *social context cues* of face-to-face interaction (such as tone of voice, gesture, or facial expression) and thus may encourage communicator *disinhibition* and aggressive or inappropriate communication (Kiesler *et al.* 1984). The *media equation* hypothesis holds that people may anthropomorphize systems with greater bandwidth and more sophisticated interfaces, and interact with communication technologies as though they are real people (Reeves & Nass 1996).

Since the 1980s, perhaps the most important 'presence'-based concept in CMC research has been *interactivity*. Whether attributable to system features or affordances, communicator perceptions, or social/cultural contexts, broadly speaking, interactivity is the extent to which media and information technologies foster a sense of reciprocity, mutuality, affiliation or feedback among system users, or between users and the system itself (Durlak 1987; Newhagen *et al.* 1995; Williams *et al.* 1988). In some of the earliest work on interactivity in CMC, Rafaeli (1988) argues that interactivity is a feature of both mediated and non-mediated communicative situations, and distinguishes CMC and new media channels from mass communication. He draws parallels between parasocial interaction and interactivity in CMC to analyze increasingly 'interactive' uses of mass media (Rafaeli 1990).

Since the 1980s, interest in interactivity as a key theoretical construct in the new media context has blossomed (Jensen 1998; Kiousis 2002). Researchers

have proposed a range of typologies or taxonomies for classifying mediated interpersonal communication based on its dialogic or interactive qualities (e.g., Ball-Rokeach & Reardon 1988; Durlak 1987; McMillan 2006; Thompson 1995; Walther 1996).

The cultural turn: From 'the media' to mediation

The third 'moment' in the development of ideas about the media nexus has been the cultural turn associated with the entry of humanistic scholars from cultural/critical studies, British media studies, and related fields into new media studies. Popular writers have extolled various social, cultural, and economic 'revolutions' associated with new ICTs since the 1960s. However, serious scholarship about new media and digital culture gained momentum mainly after the World Wide Web, browsers, client–server architectures, and search engines brought the internet and other digital media technologies into ordinary workplaces, schools, homes, and leisure activities in the early 1990s.

Key approaches and concepts from critical and cultural studies have been imported into the new media context, particularly a 'cultural transmission' view of media as powerful instruments in the reproduction and transmission of dominant ideologies, interests, or power structures. New media have been studied as cultural products or texts to be deciphered, critiqued, and resisted, as in reception and audience studies. Online representations of gender, sexuality, ethnicity, and class, and the influence of these representations on people's senses of self or identity (especially among children and youth), have also been topics of intense interest.

Even in this latest moment, some critics still consider mass media, especially television, as a kind of yardstick for evaluating new media's cultural 'effects' and significance (McQuail 2005; Thompson 1995; Slevin 2000). While acknowledging that 'self-produced media' have been neglected in the British media studies tradition, Croteau (2006) has called for the continued application of existing mass media theories to studies of new media, including a focus on production and consumption, notwithstanding the 'fragmentation' of digital media technologies. In the tradition of Toronto School of Havelock, Innis, McLuhan, and Ong, proponents of *medium theory* have also examined new communication technologies (Meyrowitz 1985; 1994).

To some extent, the migration of analytic concerns and concepts from cultural/critical studies of mass media to the new media context parallels effects researchers' application of mass communication theories to new ICTs. Some scholars have tended to approach digital media as just so many additional channels of content delivery alongside the more familiar forms of television, radio, print, and cinema, and to assume that new media are primarily designed to reinforce the interests and market power of entrenched media industries and hegemonic political systems.

Nonetheless, the cultural-transmission approach has its drawbacks. By viewing new media technologies mainly as new forms of mass media-style cultural reproduction, transmission, and domination, these studies run the risk of ignoring or discounting their equally important foundations in computing and telecommunications, and thus their interactive, participatory features that make it possible for people to adapt, use, and even subvert media for their own purposes (a point made for print and television by Barbero (1993)). The focus on reception and consumption from the cultural transmission viewpoint can also reinforce the sense that mediation is something 'the media' do – a process of cultural production and gatekeeping by powerful media institutions that intervenes in (and indeed, distorts) the relationship between people's everyday experience and a 'true' view of reality.

However, over the last decade, especially among researchers who have grown up with online interaction, information seeking, and self-expression, cultural views of mediation have begun to shift. The participatory, playful, and performative nature of digital culture and online interaction departs in certain key respects from the pervasive production-consumption logic of mass media epitomized by television (Bolter & Grusin 1999; Ito *et al.* 2005; Jenkins 2006). For example, Licoppe (2004) proposes the concept of 'connected presence' to describe the distinctly non-mass 'flow of exchanges that people maintain with those to whom they are connected', particularly via 'always-on' technologies like mobile phones, email, SMS, and chat (see also Katz & Aakhus 2002). The growing ordinariness or 'banalization' of new media (Lievrouw 2004), as well as a growing recognition among media scholars that society and technology are mutually implicated and co-determining, have helped redirect views of mediation from one of technological intervention between experience and reality to one in which the ongoing, mutual reshaping of communicative action and communication technology actually *constitutes* experience (Boczkowski & Lievrouw 2007; Jouet 1994).

One of the most influential concepts to emerge in this stream has been *domestication theory*, as elaborated by Roger Silverstone and his colleagues (Silverstone 1999; 2002; 2005; 2006). It accounts for the ways that people consume and appropriate new media technologies in their everyday lives and practices, and how appropriation affects subsequent technology development. Taking a page from the socio-technical approach of science and technology studies and cultural critic Raymond Williams, domestication rejects technological determinism as well as strong social-constructivist views that reduce media to mere reflections of existing cultural practices and formations (Silverstone 2006).[8] Domestication sees individual households as micro-scale networks of people, practices, meanings, and objects, and employs intensive ethnographic methods that combine long-term observation and interviewing. It shows how technologies move back and forth across the boundary between the home and the world beyond, i.e., the private and public spheres. Domestication emphasizes the meanings that

people attribute to technologies, as well as how they use them – that is, both the material and the symbolic aspects of technology.

Silverstone thus contends that media systems are unique among other technologies because they are 'doubly articulated'. They are commodities in themselves, consumed and appropriated from the public world beyond the home; and their content promotes and reinforces consumption. The meaning of such technologies is worked out and negotiated within the private sphere of the home, as members of the household make sense of and use the technology. By framing media technologies as *both* material and symbolic, and domestication as a process involving the double articulation of media technologies between the public and the private, Silverstone's work opens the way for an approach to the study of new media that implicates *both* communication technology and communicative practices in the continuous and dialectical 'circulation of meaning, which is mediation' (Silverstone 1999, p. 13).

Silverstone's ideas have helped establish mediation and related themes among cultural and critical scholars, and generated new debates. Livingstone (2008) examines claims for 'the mediation of everything' as a strategy that expands the brief for communication study. She reviews the etymological and historical roots of similar terms (e.g., mediation, mediazation, mediatization). Agreeing with Couldry (2008), she argues that the term 'mediation' aligns with McLuhan-style medium theory and Silverstone's analysis of the consequences of media forms in everyday life. In line with examples in European history in which smaller monarchies were subsumed or 'mediatized' into larger ones, she suggests that 'mediatization' connotes the assumption or capture of one institution's power by another – making it an appropriate term to describe the ways that the media undermine or shift the authority of other contemporary institutions. Participants in two panels at the 2007 ICA conference debated a constellation of concepts, including mediatization, remediation, transmediation, medium theory, media logics, mediation, and the mediatic turn, in an effort to find what respondent Nick Couldry called 'new terms to understand the intensification of media influence in social life'.

The 'media nexus' and communication theory

In the preceding discussion three 'moments' in the development of ideas about the convergence between mass and interpersonal communication have been sketched. In this concluding section I would like to summarize some parallels among the three moments, and to suggest their possible implications for future communication theory.

Regarding two-step flow, some fifty years on it seems clear that its power as a theory of media effects lies in its rejection of 'powerful' media and its relocation of interpersonal interaction at the center of media influence and persuasion,

effectively turning the notion of mass communication on its head. Rather than casting mass media technologies as an intervention between human communicators, two-step flow and its descendants hold that mass communication cannot occur unless people 'intervene' between message sources and targets, in the form of interactions and conversations (Schudson 1978). Two-step flow opened the door for models that focused either on people's subjective and negotiated understandings of media content ('decision' studies), or on the mediation of institutional messages through relationships and social structures ('diffusion' studies). In both cases, message transmission is largely determined by its social, cultural, and relational *contexts*, and how people make sense of, and negotiate and share *meaning* about, media content.

The advent of ICTs and new media, and the rejection of the pervasive technological determinism of traditional media effects research, prompted analysts to look for theoretical alternatives to the 'effects' or 'impacts' of media. Mediation was advocated as a concept that might capture the increasingly technologized quality of human communication in the digital era. Most early theories of mediation remained centered on (new) media as technological channels for human communication, such as those that focused on media formats, or the long line of 'presence' theories in CMC research, noted above. In some ways, these early approaches to mediation resembled mass communication theories in their focus on technological channel as a separate variable in the communication process – only instead of the channel carrying one-way mass-produced content, it now carried n-way email and teleconferences.

Nonetheless, the introduction of new media technologies also revived calls for the convergence of mass and interpersonal communication theory and research, for the reframing of communication technologies and sociality as mutually implicated and co-determining phenomena, and encouraged a turn to diffusion theories, social network analysis, and a networked, relational perspective on the communication process itself. The 'crisis' of new media thus encouraged a shift from a relatively simple focus on media *channels* to a focus on communicative *action* in the context of networked *relations* and *systems*.

The cultural turn in new media studies also took transmission as its point of departure, in the sense that these scholars originally saw new technologies as agents of *cultural* transmission, as mass media had been before them. Indeed, some cultural/critical scholars continue to view new media and digital culture mainly through the lens of television and other channels of mass-produced content. Even Silverstone (2006, p. 232), in a retrospective overview, describes domestication as essentially a 'process of consumption'. However, as cultural theorizing has shifted focus to the performative, participatory, and playful uses of new technologies, and toward the 'interior', domestic, and subjective experiences of new media users, engagement with media has also been reconceptualized in terms of articulations and the co-production of public and private, world and home, structure and action, material and symbolic, technology and

experience. Thus the third moment has seen a similar change in perspective, from cultural transmission to the articulation and instantiation of experience.

The three moments clearly differ in terms of intellectual influences, levels of analysis, epistemological commitments, methodologies, and so on. However, all three have undergone a similar move in perspective or sensibility about the nature of mediated communication. They begin from a view of communication as a more or less direct process of transmission or transportation of messages *through* various channels or technological conduits, and mediation as the intervention of transmission technologies in the human communication process. Channels may shape or constrain messages in various ways, but the communication process itself is largely a separate matter from the devices or methods used to do it.

Over time, however, this transmission view has given way to one in which the technical and social aspects of communication are seen as inseparable and even dialectical elements in a whole process of making and sharing meaning. The notion of mediation has broadened accordingly to include the articulation of technological systems and interpersonal participation. Régis Debray invokes a religious metaphor to advocate a move from the study of communication to the study of mediation: 'the Mediator supplants the messenger' (Debray 1996, p. 5).

James Carey's (1989) famous binary of 'transmission' and 'ritual' views of communication could be another way to think about these shifts. In the transmission view, 'communication is the transmission of signals or messages over distance for the purpose of control' (p. 15), while the 'ritual view of communication is directed not toward the extension of messages in space but toward the maintenance of society in time; not the act of imparting information but the representation of shared beliefs' (p. 18). Where the transmission view is broadly functionalist, emphasizing transportation, distance, novelty, and information, the ritual view emphasizes simultaneity, shared experience, order, cultural reproduction, and dramatic narrative.

However, it is difficult to see how the focus on cultural balance, order, reproduction, sharing, confirmation, and continuity in the ritual view is itself any less functionalist than the transmission view, given the inherent idealism and conservatism of classical, Parsonian structural-functionalism with its focus on social integration, stability, and control (see Alexander 1998; Lievrouw 2001). A ritual view of communication via new media would seem to close off or underplay the possibility of change, reconfiguration, or transformation of experience that figures so prominently in contemporary accounts of digital culture.

Of course, the characterization of any type of social or cultural change is a knotty problem by definition. In previous work, I have advanced several conceptual binaries of my own in attempts to capture the ways that communication may differ in social/cultural contexts dominated by mass media versus contexts

where new media technologies are more pervasive. I have characterized the differences in terms of *informing* and *involving* information environments, which can influence political and social participation (Lievrouw 1994). I have described the *pipeline* versus *frontier* visions of new media technologies and culture held by traditional media industries and new media activists, respectively (Lievrouw 2007). I have framed different perspectives on the design and adoption of new media technologies as a dialectic involving *determination* and *contingency* (Lievrouw 2006). Pablo Boczkowski and I have proposed that media technologies as a class are 'doubly material', both the tangible means of communicative expression and culture, and tangible cultural expressions in themselves: 'cultural material and material culture' (Boczkowski & Lievrouw 2007). I have also called for a shift from viewing the relationship between communication and media as *technology-in-communication* to seeing it as *technology-as-communication* (Lievrouw in press).

None of these efforts necessarily solve the problem of conceptualizing the media nexus or the convergence of mass and interpersonal communication theory. However, I would like to conclude simply, by 'siding' with the long line of scholars in the field who have pursued an integrative vision of communication study. Like them, I believe that any satisfactory theory of communication today must account for its dual social and technical nature, and for the experience of communication as a seamless and continually negotiated web of meaning, practices, tools, resources, and relations. Taking a cue from my collaborator Sonia Livingstone, we should keep in mind the multilayered meanings of the word *mediation* itself – both the technological means or forms of expression, and the interpersonal processes of moderation, negotiation, and intervention. Both aspects are necessary conditions for communication, if by communication we mean coordinated action that achieves understanding or shares meaning. Resituating mediation at the center of communication study may help us conceive of communicative action, social context, and material resources as inextricable, co-determining aspects of sociality, interaction, expression, meaning, and culture.

Notes

1 An expanded version of this paper was presented at the October 2008 meeting of the Association of Internet Researchers in Copenhagen, Denmark, and is available from the author.

2 Several writers have noted the central role of the University of Chicago in the early development of the communication discipline (e.g., Carey 1989; Peters 1986; Rogers 1994). Wahl-Jorgenson (2004) argues that the multidisciplinary Committee on Communication and Public Opinion (1942–45) and Committee on Communication (1947–60) at the University of Chicago should be considered the first formal programs of

communication study in the US, preceding the establishment of programs at the University of Illinois (1948) and Stanford University (1955).

3 It should be noted that information theory itself has moved far beyond its origins in notions of signal and noise, randomness versus order, to incorporate concepts of indeterminacy, self-organization, chaos theory, and so on. An excellent review of these developments related to the social sciences is provided by Contractor (1999).

4 Katz himself, of course, was a prominent early diffusion scholar (Coleman *et al.* 1957).

5 Walther (1995) provides a detailed review of experimental studies and theoretical approaches to relational communication in computer-mediated systems.

6 Lee (2004) proposes a three-part typology based on the literature that examines presence as a theoretical construct in communication research.

7 British sociologist John Thompson proposes a strikingly similar concept, 'mediated quasi-interaction', defined as 'social relations established by the media of mass communication' (in this case, television) (Thompson 1995, p. 84).

8 In the foreword to *Television: Technology and Cultural Form*, Williams acknowledges discussions about 'new and emerging' media technologies with colleagues at Stanford University in California, particularly Edwin Parker, as an important influence on his thinking about television (Williams 1975, pp. 7–8). Williams wrote much of *Television* while visiting Stanford in the early 1970s, where Parker and his colleagues were among the first communication researchers to investigate the convergence of ICTs and mass media.

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