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Sociological Theory

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Getting the Word Out: Notes on the Social	
Organization of Notification	228

Getting the Word Out: Notes on the Social Organization of Notification*

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Even when the timing, sequence, and manner of notification are instrumentally inconsequential, how one conveys information affects the meaning of the telling. This article introduces the concepts of "notification norms" and the "information order," showing how the former constrain the behavior of nodes in social networks as well as enabling manipulation of the relationships that comprise those networks. "Notification" is defined as information transmission motivated by role obligations and notification norms as social rules that govern such transmission. These rules produce patterns of information dissemination different from what individual volition would yield and from what technology makes possible. The capacity to wield a socially sanctioned repertoire of notification rules is a learned competence. Competent notifiers must also understand the local epistemological ecology—the distribution and trajectory of information, as well as the projects, concerns, and priorities of one's fellows. This study of notification introduces the broader concept of "the information order" and is a first step in the project of a sociology of information.

INTRODUCTION: INFORMATION HANDLING AS A SOCIAL BEHAVIOR

Wireless Internet devices, pagers, cell-phones with cameras, and text messaging greatly simplify the tasks of "letting people know," "keeping in touch," and "getting the word out." Technology, we are frequently told, "changes everything": by eliminating spatial barriers to information flow, it promises a future in which no one is left "in the dark," "out of the loop," or "stranded with news but no one to tell," a future in which the world becomes a global village "where everything happens to everyone at the same time: everyone knows about, and therefore participates in, everything that is happening the minute it happens" (Carpenter and McLuhan 1960). Indicators abound. Telecommunication allows primary relations to stretch over great distances (Wellman 1979) and rumors and "urban myths" to circulate worldwide (U.S. Department of Energy 2003). Contemporary activists can mobilize "smart mobs" at a moment's notice (Rheingold 2002) and circulate petitions internationally without ever leaving home (Ryan 2002). Cellular phones make "perpetual contact" possible (Katz and Aakhus 2002), and a wireless advertising firm even calls one of its products "OmniPresence Network" (AirVertize LLC 2003).

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In spite of these changes, something less than "tell everyone everything instantly" remains the rule for how most information is handled most of the time. We remain collectively particular about whom we inform about what, and how and when we do it. It is just not done, for example, to announce weddings over email, share personal news with mere acquaintances before best friends, or disseminate information about terrorism through "ordinary" channels. Everywhere, social rules trump technical possibilities and personal whim.

News of a death is, perhaps, the paradigmatic example of socially regulated information transmission. In his study of death in hospitals, David Sudnow wrote that "[t]here is a class of hospital-situated events of such status that it is considered mandatory that their occurrence be reported to members of a patient's family, whether or not inquiry is made about them" (Sudnow 1967:117). This observation can be extended to other settings, roles, and relationships. In general, the possession of information is accompanied by a distinctly normative feeling of obligation to inform (or not) "appropriate" others in an "appropriate" manner at an "appropriate" time. The mere acquisition of information triggers consideration of questions such as who else already knows, who should be told, and who would want to know.

I call such information-handling imperatives "notification norms." "Notification" is provisionally defined as information transmission (or nontransmission) that is motivated by role obligations. They can be called norms because rules that specify who should be told what, when, and how are coercive, external to the individual, and collective (Durkheim [1938] 1964). Field observation reveals patterns of behavior (people notify and expect to be notified), aspirational statements (etiquette books, organizational policies), and sanctions in response to noncompliance ("you should have told me" or "why was I the last to be told?") (cf. Ellickson 1991).

Informational behaviors—transmitting, withholding, storing, modifying—give rise in the aggregate to familiar epistemological geometries: circles of knowing and not knowing; chains of who found out from whom; loops that one can be in or out of. These patterns of knowing, telling, and withholding are constitutive of what I call "the information order": the orderly patterns of information acquisition, storage, concealment, exchange, and dissemination and the distribution of collective, public, and private knowledge that they produce. The "shape" of the information order emerges from the behavior of nodes—individuals and organizations—in social networks that continually make decisions about how to handle acquired information. The orderliness of the information order depends on each node wielding a socially sanctioned repertoire of notification rules. We learn that when we discover a fire we sound an alarm, when we uncover an accounting scam, we "blow a whistle," when we hear a juicy bit of gossip, we call a best friend, and when we are newly pregnant we call mom first. There are collective preferences both for what we do with acquired information and for what we expect from others. Children must be socialized in the notification ways of adult society and adults are socialized into the notification ways of the professions, organizations, and communities of which they are members.

TOWARD A SOCIOLOGY OF INFORMATION

This study is a first step in the explication of a "sociology of information" that has the information order as its object. The endeavor takes the core finding of the

¹This by way of analogy to Goffman's "interaction order" (1983). The term "information order" has been used previously, but in different contexts with a meaning different from what is here intended.

sociology of knowledge as its starting point: humans do not think as individuals, but as members of groups (Mannheim 1936; Berger and Luckmann 1967; Zerubavel 1997). It extends this insight by arguing that, in general, we are never isolated possessors of information, and that the dynamics of what we do with information, how we behave as nodes in information networks, are largely socially determined.

Notification, it should be noted, is but one feature of the information order, used here to articulate some of its important characteristics. Further, "notification" itself is broader than the topic of this article, encompassing both what would ordinarily be characterized as "official" or "formal" as well as "unofficial" or "informal" notification, the focus here being primarily the latter.

The present endeavor, ironically, derives little from literature that actually uses the word "notification." Those who patrol realms where "bad news" happens are often trained in the art of delivering it, and this has spawned a large literature that focuses on "recommendations for practice." Such studies are potential sources of ethnographic detail, but their focus is generally too pragmatic to be of use in the theoretical study of notification undertaken here. There is also an extensive literature on notification and the state (e.g., sex offender notification laws, information disclosure rules in financial industry regulation, laws regulating abortion or gun purchases, sunshine laws), but this aspect of the topic is generally beyond the scope of the present article.

The sociology of notification and information is related to work on the diffusion of innovations (e.g., Rapoport 1953a, 1953b; Coleman, Katz, and Menzel 1966), social contagion (e.g., Le Bon 1903; Tarde [1888] 1969; Gladwell 2000), news delivery (e.g., Maynard 2003), information disclosure in everyday interaction (e.g., Goffman 1959, 1963), the role of information in economic exchange (e.g., Akerlof 1970; Spence 1974), gossip (e.g., Dunbar 1996; Eder and Enke 1991; Rosnow and Fine 1976), and secrecy (e.g., Simmel 1950a; Bok 1984). Taken as a whole, such work suggests the broad scope of a sociology of information, addressing questions about how information moves (or is moved) through social space, the role of information in social interaction and exchange, the role of actors in the flow of information, and the relationship between transmission, nontransmission, and social structure.

Notification as "passing the word" is, first, akin to social diffusion (Rogers and Kincaid 1981). Diffusion studies investigate the role of media and elites in the spread of ideas, the influence of propaganda, and the effects of networks on spread of innovations (e.g., Burt 1992; Coleman, Katz, and Menzel 1966; Rogers and Kincaid 1981; Valente 1995). In addition to social structure, diffusion studies include a cognitive component: the decision to adopt/believe is modeled as either cost-benefit (will I be better off by adopting?), or threshold (how many others have already adopted?) analysis. Diffusion differs from notification by focusing on the agency of the recipient, with adoption as the dependent variable and social structure as a relatively passive factor. Notification, by contrast, emphasizes the agency of the notifier who decides whom to tell, when to tell, and how to tell. Social structure is reflexively implicated, simultaneously influencing how notification occurs (e.g., friends first) and subject to manipulation by notification (e.g., leaking information to make a new friend).

A similar shift backward from recipient to the act of information exchange is found in research traditions that examine how information is handled in interpersonal interaction. Maynard (2003), for example, uses conversation analysis to elucidate "the in situ procedures that participants use...for delivering... and receiving... bad and

good news" (2003:11). Drawing on Schutz and Garfinkel, he shows how the "punch" of news derives from the "noetic crisis"— a rupture of taken-for-granted reality—that it can generate for recipients. As with diffusion, the issue here is, ultimately, "realization" or "throughput"—how much of the message successfully reaches the recipient. In notification, though, the emphasis is less on how news content challenges the taken-for-granted state of the world, and more on how the manner of its delivery can challenge the taken-for-granted state of social relationships (e.g., the focus is not on the response "I can't believe it's true!" but rather on "I can't believe you didn't tell me before!" and the implicit question is "what does this manner of telling say about our friendship?").

Concern with throughput also dominates classical models of communication, from Saussure ([1916] 1959) to Shannon (1948). These models typically include sender, receiver, and message, and describe a process by which the mental contents of the sender are conveyed, more or less faithfully, to the receiver. More sociological linguistic models add an explicit consideration of context that is also important in notification. The sociolinguist, Dell Hymes, for example, describes the social embeddedness of communication by considering the attitudes of the sender and receiver and their mutual anticipation of each other's attitudes (Hymes 1974). Speakers empathize with listeners and engage in a Meadean internal conversation in which listeners' inferred expectations and reactions influence what is said and how it is said (Mead and Morris 1934).

Hymes broadens the idea of context with the concepts of "setting," "scene," and "key" (1974:55–57). Setting and scene refer to the entire situation in which an utterance occurs: all those things of which parties must be aware if they are to make sense, as receivers, of what is being said, or to determine, as senders, what should be said and how it should be said (1974:55ff). Competent notification depends similarly on extensive meta-knowledge about who already knows what and what others would want to know. "Key," for Hymes, refers to "meta-communicative" functions of a speech act that convey, for example, "this is play" or "this is serious," through tone, gesture, occasion, and word choice (Hymes 1974:57ff). Notification calls attention to itself as a telling in a similar manner, offering rich opportunities for meta-communication, not just for framing (e.g., "this is a secret"), but also for communicating social structural information (e.g., "you are now a part of the inner circle").

A different perspective on information and interaction is suggested in Goffman's *Stigma* (1963). Those who possess a "discreditable" identity—that is, socially undesirable attributes that are not immediately perceivable (1963:4)—face the constant question of whether "[t]o display or not to display; to tell or not to tell; to let on or not to let on; to lie or not to lie; and in each case, to whom, how, when, and where" (Goffman 1963:42). Not realization or throughput, but disclosure is at issue; the actor possesses consequential information and is more or less in control of its disposition. What interests Goffman are the implications for social interaction and identity that emerge when asymmetric information divides the world into the "wise" and the "naïve." A sociology of information investigates how information behaviors (displaying, telling, letting on, lying) can be employed to reshape that world and how they are culturally governed.

Information asymmetry has also attracted the attention of economists. Participants in real-world exchange typically fall short of the complete information necessary for a "perfect market": generally, "sellers know something that buyers do not, or

vice versa" (Krugman 2001). The resulting information asymmetry can undermine willingness to engage in exchange at all (Akerlof 1970), make it difficult for a person with inside information successfully to convey it (Spence 1974), or present the challenge of how to motivate those with information to share it (Stiglitz 2001). Information economics seeks to understand how information asymmetry affects market behavior and political processes (Stiglitz 2001). The sociology of notification and information borrows the centrality of imperfect and asymmetric information, but shifts the focus from actors' responses to imperfect information to their implication in its creation and maintenance and the evolution of norms that limit information asymmetry, on the one hand, and prevent degeneration into purely strategic information behavior, on the other.

NOTIFICATION, THE TECHNOLOGICALLY POSSIBLE, AND INDIVIDUAL DISCRETION

Why a "sociology" of information? Notification is an exemplary illustration of "the social" as a middle ground between natural phenomena governed by physical law and technological limitations, at one extreme, and individual phenomena governed by self-interest, personal whim, and individual discretion at the other (Zerubavel 1997).

For much of human history, the speed of a horse limited the size of a "notification-day"—how far word could spread in a day—to a few hundred miles.² In the 1800s railroads represented the first significant increase in centuries, but it was barely an order-of-magnitude improvement (Schivelbusch 1986). The invention of the telegraph in the 1830s was a breakthrough, virtually eliminating for notification the obstacle of distance between stations linked by wires (Standage 1999). Further improvements—voice technology and wireless—further widened what now had to be called a "notification hour"—how far word could spread in an hour.³ Contemporary technology has pushed top transmission speeds closer and closer to "instantaneous" and improvements in bandwidth (how much information a medium can carry at a given speed), cost, and access mean that more information can be transmitted more cheaply to more locations than ever before. If this trend is extrapolated, the promise, or threat, of universal connectivity and instant access to everyone and everything might seem imminent.

In practice, though, people frequently apologize when they take advantage of information efficiencies, and we even pass laws prohibiting ourselves from doing so. Group e-mails and photocopied holiday "family updates" come with disclaimers ("I too hate it when people send these but...") preemptively acknowledging and ironically reinforcing social disdain. Etiquette and organizational rules specify when to switch off cell phones. Telemarketing calls, spam, and mass mailings are regulated as a form of "information pollution." In response to such concerns, there is a subfield

²This refers to transmission over land. Transmission over water steadily increased over the centuries reaching a top speed of about 400 nautical miles per day in the mid-19th century (Encyclopedia Britannica 2004)

³It no longer made sense to talk about an "information day" since that unit was, for terrestrial purposes, more or less infinite in theory. Research suggests, for example, that 90 percent of Americans had news of the Kennedy assassination within 60 minutes (Greenberg 1964). Perhaps the most famous long-distance notification took place on April 13 1970 when the astronauts on Apollo 13 radioed to mission control "Okay, Houston, we've had a problem here." The transmission took only a few seconds and much of the world knew within hours.

in computer science called "personalization," which focuses on how new technologies can overcome these social objections (ACM 2000).

Despite what technology makes possible, there are things we never want to "find out about on the six o'clock news" or "read about in the newspapers." Authorities could disseminate accident victim identities to desktops, cell phones, and television tickers almost instantly, but they routinely withhold them "pending next of kin notification." Senders of form letters take the time to replace computer-generated formal salutations (e.g., Dear Doctor Jones) on letters to acquaintances with handwritten first names (*Indy*). One *could* share a cancer diagnosis or news of pregnancy with a mass email, but one does not. Certain kinds of notes ought to still be written by hand; certain kinds of news delivered in person; some people need to be informed before others; some information is for some eyes (or ears) only. In general, even when technology permits swift and broad dissemination, word is only exceptionally passed on using the most efficient means available.

If physics and technology set upper limits on notification, individual discretion, strategic calculation, and whim would seem to govern the "lower" bounds. Individuals, are, after all, in principle free to decide how they share information they acquire. In particular, rational individuals should be able to assess the value of information and trade what they have for what they want in a manner guided by self-interest. Their options range from getting the word out as fast and as widely as the available technology permits, to, unless, say, coerced by truth serum, "keeping their own counsel." For the free individual, notification is, in principle, discretionary; one's tellings are one's own to control.

At this end of the spectrum, though, the social attenuation of the technically possible is matched by social constraints on individual choice. Just as information rarely diffuses as quickly or widely as naturally possible, so too, it rarely spreads as narrowly as individuals might desire. We often refer to social rules when we decide whom we tell, when, and how. We keep secrets, maintain confidences, warn, notify, pass along tips, bring things to the attention of, inform, give and get scoops, not as atomistic, arbitrary, whimsical, self-reliant, or utility-maximizing individuals, but as occupants of social positions and members of social relations. Role obligations dictate that tongues must be held, beans must not be spilled, and cats must be kept in bags. Brothers must be notified, co-workers expect to be told, employers must be given notice, spouses do not expect to "hear about it from friends," adversaries expect fair warning, patients must be informed, and legal notices must be published. We are, in fact, seldom free to tell or not tell as we wish or as would serve our self-interest.

The double social attenuation of information dissemination—less than technology makes possible and different from what individual choice might dictate—is not a simple linear function of social distance. The multiple social circles in which we find ourselves give rise to complex notification geometries. Socially near does not always equate with earlier notification, nor far with later. Certain family information is kept from children; some topics are off limits at work; professional secrets may be hidden from a spouse; medical news is kept from life partners not legally recognized; celebrants and other victims are kept in the dark about surprise parties and other forms of ambush. A wide range of social controls, from etiquette to law, accelerates, slows down, holds up, and redirects the flow of information.

⁴This relationship can become tautological, of course, when timeliness of notification is taken as an indicator of social distance.

CLASSIFYING NOTIFICATIONAL VARIATION

If notification is socially regulated, what dimensions factor in its normative variation? Notification can happen sooner or later, can include some people and exclude others, can be accomplished face-to-face or via some other medium. Notification norms specify what kind of notification is appropriate in different social contexts, and so the dimensions of notification can be thought of, loosely, as "dependent" variables and the dimensions of notification contexts as "independent" variables.

"DEPENDENT" VARIABLES: WHO, WHEN, HOW

Notification varies in terms of who is the "notifier" and who is the "notifyee" (the actor or "who" dimension), the time and sequence of notifications (the temporal or "when" dimension), and the means used for notification (the medium or "how" dimension). These dimensions are, of course, not perfectly orthogonal—the "how" may partly determine the when (for example, in writing by registered mail)—but together they capture much of the notification's variability as behavior, and do not appear reducible to a smaller set. They are "dependent" variables in the sense that together they define a set of behavioral alternatives that notification rules match to social contexts in which information dissemination opportunities arise, not in the sense of being a deterministic cause of particular notification behaviors. After examining the dimensions of notification variation, we will show how the reciprocal nature of structure and agency permit these "dependent variables" to be manipulated in efforts to influence the meaning of those contexts.

Who

Notification varies, first of all, in terms of who is told and who does the telling. Multiple notifiers may be capable of notifying a given notifyee (e.g., "which of us is going to tell the boss?"), and a potential notifier generally faces a large set of potential notifyees. A mother-to-be, for example, had set up a phone tree for announcing her baby's arrival. In the event, an early notifyee prematurely broadcast the news over an email. When another friend discovered the breach, she promptly jump-started the phone tree so that everyone would get their "personalized" phone calls from the right person before receiving an email sent even to mere acquaintances (Simpson 2000). The information content was the same, but who told whom mattered.

The "who" dimension can be described in terms of the grammatical relation between the act of notifying and the "principal," the person about whom a piece of information is concerned or to whom it is most relevant or consequential (Maynard 2003:121)—the person who is getting married, the workers of the plant that is closing, the minor who wants an abortion, the released sex offender who is looking for a place to live. Speaking of news delivery, Maynard notes that "the news may concern the deliverer (first party to the telling), the recipient (second party), or some third party who usually is not present during delivery and receipt" (2003:121). Here this terminology is slightly modified. When the notifying is done by the principal, as when I tell someone that I have a disease, we have "first-person" notification. If the notifyee is the principal—for example, a doctor tells me that I have an ailment—then it is second-person notification. Finally, third-person notification occurs when a non-principal notifier—(the doctor in our example)—notifies a nonprincipal notifyee—(say, a third-party acquaintance)—that I am ill. The who dimension of notification

thus displays elements of what Sacks, Schegloff, and Jefferson (1974) called "recipient design"—a telling is oriented to how co-participants stand with respect to its content.⁵

Second-person notification is frequently an implementation of a "right to know" or "right to be told" attendant to many social statuses. Research subjects and patients are given information so that their consent can be called "informed." Investors are told about a company's financial situation. Students receive a syllabus describing course requirements. In each case, an individual is given information neither altruistically nor instrumentally, but because there is a generally recognized right to information of consequence to oneself.

Similar mandates exist in less institutionalized contexts. A generic norm of "some things must not be kept to oneself" motivates second-person notification in the form of warnings, tips, heads-ups, and FYIs. Such transmissions may be relatively focused as when an alarmed "Look out!" conveys information about a falling piano, advice such as "Don't order the steak" passes from one diner to another, or a tip about a speed trap is radioed between truckers. Or it may be highly unfocused and, essentially, a contribution to "public information" as when the above-mentioned trucker radios, to no one in particular, about the speed trap, or a janitor uses a sign to warn that a floor is wet and perhaps slippery.⁷

Third-person notification can include the routine delivery of information by, say, teachers or journalists, but the paradigmatic case is probably the transmission of rumor and gossip (Dunbar 1996; Rosnow and Fine 1976). Regulation of third-person notification includes professional codes of conduct, 8 contractual information embargoes, confidentiality agreements, gag orders, and etiquette (for example, "Unless you have something nice to say, don't say anything at all"9). Third-party notification regulation is typically negative (that is, restrictions on who may be told), but there is a trend toward mandatory notification as exemplified by laws requiring doctors to notify authorities when they suspected abuse or parents when consulted about abortion by a minor.

The normative preference for particular notifiers or notifyees is suggested by the way everyday discourse is riddled with ritual invocations of notification norms. We sanction first-, second-, or third-party notification, respectively, in exhortations such as "It's best if you just admit it...," "You cannot not tell him!," or "We must go public with this...." We add a normative dramatization to our tellings with prefaces such as "I thought I should be the one to tell you this," or "It's best if you hear this from me." Ambivalence, however, abounds: we make ritual bows to norms even as we violate them when we say, for example, "I shouldn't be telling

⁵Notification can be further distinguished as voluntary or coerced and active or passive, but these subdivisions are beyond the scope of this article. Goffman (1959) provides a starting point for such an analysis in his distinctions between sincere and insincere performances and between impressions "given" and those "given off." See also his analysis of "footing" to describe different kinds of "hearers" (1981).

⁶Such rights and their associated notification norms are highly variable. Maynard (2003) describes how the practice of first-person notification of bad diagnoses (that is, telling patients as opposed to only family members) is a relatively recent development and remains variable across cultures.

⁷Everyday life is full of artifactual second-person notifications that convey information through warning signs, cordons, locked doors, or posted guards. The absence of specific recipients allows this form of information transmission to fully exemplify notification's focus on the specific behavioral obligations of the information possessor and the expectations of generic recipients.

⁸Many such codes also require affirmative first- or second-person notification as when specialists must reveal credentials or must inform clients of options.

⁹But note this exhortation to third-party notification attributed to Alice Roosevelt Longworth: "If you can't say anything good about someone, sit right here by me" (Davis 1993:254).

you this, but...." The transmission of both gossip and secrets often announces its notificational inappropriateness by the hands behind which mouths are hidden, the desire to meet in the shadows, or requests for anonymity.

"Who" violations—arguably the most familiar form of notificational deviance—are expressed in numerous idioms. "Letting something slip"; "spilling the beans"; "opening one's big fat mouth"; "letting the cat out of the bag" can all imply improper notifyees. Inappropriate notifiers are less linguistically memorialized, but we might want to "get it from the horse's mouth," demand to know why someone "can't tell me himself," or apologize that "I should not be the one telling you this, but...." Such forms of notificational deviance disrupt the information trajectories that actors expect. Three categories can be distinguished: circumventing linearity, horizontal leakage, and unanticipated feedback.

Linear chains (or trees) of notification are an important feature of the geometry of the information order. Examples include hierarchical chains of command, concentric circles of friends, or generic insider-outsider gradients in groups. A common violation of "who" norms is to "go around someone," as when we "go right to the top" or "talk behind someone's back." Those who do so run a risk. As Dalton notes in his study of industrial organization: a "[f]ormal 'open door' policy may welcome detoured grievances, but subordinates fear leaks of their message and hidden reprisal from those they bypass" (Dalton 1959:66). Whistleblower laws and witness protection plans are, in part, a response to such double notificational deviance (National Whistleblower Center 2004).

Cross-cutting social circles and the physical juxtaposition of daily rounds provide constant opportunities for inadvertent notification. Even when word is dutifully transmitted "through channels," there is a possibility of "horizontal" leakage as otherwise virtuous notifiers share information "off the record" with lateral colleagues, friends, or spouses. Sudnow, for example, describes how news of a hospital death can prematurely reach a family through the wrong channel when staff who are "in the know" run into family members whom they assume had been notified, "[a] sort of possibility [that] is maximized when the news of a death spreads within the hospital to those occupationally involved with such matters faster than it spreads to kin..." (Sudnow 1967:126). At the macro level, concerns about such notificational dangers were made famous in world war II "loose lips sink ships" posters. 10 Such mis-notification is facilitated by the fact that social networks are, in fact, rarely linear, tree-like, or isolated, and even "socially competent nodes" have limited knowledge of the networks in which they are embedded (Freeman, Freeman, and Michaelson 1988; Krackhardt 1987, 1990). Even careful notifiers have limited control over the subsequent trajectory of information, allowing, sometimes, for "word to get back to" someone who was intended as a nonnotifyee; once let out of bags, cats are hard to leash. Dalton, again, describes how network ignorance and "circuitous routes of information leaks" led to information about a supervisor's pay bonus passing from his wife to her friends at a club, among whom was Wheeler's wife who told Wheeler who mentioned it to the chemists who work for the supervisor (1959:64). But even if we know about the network, and we pass along information with explicit instructions

¹⁰"The Office of War Information officials felt that the most urgent problem on the home front was the careless leaking of sensitive information that could be picked up by spies and saboteurs....Central to maintaining national security was the Office of War Information's drive to limit talk about the war in both the public and private arenas of American life. Silence meant security" (New Hampshire State Library 2004).

about how it should be treated, there is, frequently, an "attenuation of admonition" ¹¹ as the moral force of notificational amendments such as "don't breathe a word of this" or "for your eyes only" erodes with each subsequent telling.

When

The temporal dimension of notification can be defined relative to a number of reference points: the acquisition of information, the event referred to by the information, the notification of others, or when a notifyee would acquire the information via other channels. Notification norms may specify that information should be conveyed sooner or later, not before, only after, or within a specified period.

The temporal distance between acquisition of information and its further conveyance—how long a notifier "sits on" a piece of information—can be called, generically, "delay." Delay affects the freshness, of course, and hence the value of information (e.g., stock tips or information about a risk), but even in the absence of practical import, delay can be symbolically significant. Notifyees ask "how long have you known?" or "when did you find out?" as much to ascertain the character of a telling as to clarify the information's provenance (cf. Pomerantz 1984). Delays range from negligible as in the case of military-like transmission up or down the line ¹² or the immediate broadcast of breaking news ("this just in . . .") to the infinite delay of a well-kept secret. In between, a wide range of options is subject to social regulation.

For all manner of events, norms specify appropriate delays between occurrence and a notification. Writing of funeral announcements in the African-American community, for example, Barrett notes that "[t]he immediacy of notification is equated with importance and respect. To not be informed of the death in a timely manner is considered insensitive, lacking respect, and an insult" (Barrett 1995 as quoted by DeSpelder and Strickland 1996). Notification insufficiently in advance of an event can also be problematic. Folk singer Christine Lavin sings a song in which she apologizes for all the nasty things she said when her boyfriend "called up on a Friday morning to say that in two hours [he was] going...skiing in the Alps for two weeks." Even though she could not join him, she explains, "after going out with you for three years, I don't like surprises" (Lavin 1986).

Another aspect of the temporal dimension of notification is sequence. Again, even in the absence of practical consequences, notifyees often care about the order in which they are notified. Socially acceptable sequences direct information flow through different channels than proximity or convenience might dictate as, for example, in a university rule that "the committee's decision will first be communicated to the provost and only after this to the candidate," the practice of showing a jury's verdict to the judge before reading it to the court, the etiquette of announcing engagements to family and friends before acquaintances, and the aforementioned withholding of names from the public and press pending notification of next of kin.

When, for example, Al Gore publicly announced his endorsement of Howard Dean during the 2004 Democratic primary campaign prior to notifying former running mate Joseph Lieberman that he would do so, the notification lapse was in the news longer than the actual endorsement (Purdum 2003). And an entire episode of the American television series *The West Wing* centered on the drama surrounding how

¹¹Thanks to Alesha Durfee and the Hyatt Regency, Vancouver BC for this term.

¹²The paradigmatic case is the nearly comical transmission of orders from a ship's captain to the engine room through a long series of intermediaries: "Full speed ahead"; "Full speed ahead"; "Full speed ahead."

the main characters reconciled their professional identities with the order in which they were told about the president's illness (Sorkin 2001). The symbolic cost of being the last to know transcends the practical value of being in the loop.

While disputes about delayed notification do often characterize the costs of such delays in utilitarian terms—the value of better decisions under earlier notification—the moral animus behind questions like "what did they know and when did they know it" (read "did they fail to notify?") may have other roots. The accusatory tone of attempts to ascertain notificational delay (e.g., "when were you going to tell me?" "when was this?," "why wasn't I told?") suggests an extension of the interactional a prioris described by Goffman:

Society is organized on the principle that any individual who possesses certain social characteristics has a moral right to expect that others will value and treat him in an appropriate way. Connected with this principle is a second, namely that an individual who implicitly or explicitly signifies that he has certain social characteristics ought in fact to be what he claims he is. (Goffman 1959:13)

To these we might add a third: an individual who possesses information of interest to others in a situation is expected to share it promptly. We know, as Simmel points out, that the other can never been known completely ([1908] 1972); we demand, however, that limits on inscrutability be observed. Friends become piqued, for example, when it becomes known that notification has been delayed while trivial interaction proceeded ("I can't believe we've been talking all this time and you didn't mention this before!"). This phenomenon is parodied in party games where others know what is written on one's back or hat and the humor derives from watching someone behave under conditions of information asymmetry. The taboo against withholding information while interacting is powerful enough that in some situations preventative measures must be taken, even to the point of shutting down interaction altogether. Sudnow noted, for example, that nurses avoided making small talk with families they knew were about to receive a death announcement: "staff members felt that to say anything whatever was unkind, as it risked invitation to discourse which, they felt, the bereaved-to-be would not wish to engage in were he to know the details of his circumstances" (Sudnow 1967:125).

The possession of "notification-worthy" information, then, generates a temporal imperative. Potential notifiers must seek out those "who deserve to know," and then, in interacting with them, they should "get to the heart of the matter," and refrain from "beating around the bush."

Medium

Notification also varies in terms of *how* word is passed along. Being told in person is different from receiving the very same information in the form of a letter; being notified by telephone is not the same as hearing the identical news on the radio. Medium varies, of course, from face-to-face, at one extreme, to broadcast news, billboards, or graffiti, at the other, but medium can also be differentiated in terms of being more or less personal, "warmer" or "colder" (McLuhan 1964), faster or slower, synchronous or asynchronous, narrowly targeted or broadcast, easy or difficult to use, expensive or cheap, on or off "the record," and the opportunity it affords for feedback (e.g., to blame or thank the messenger) or inquire as to provenance and dissemination history ("Who told you? Where did you hear this?"). We are daily

reminded of the importance of the medium when, despite having access to more convenient media such as email, voice mail, or pagers, we select others as more appropriate. Indeed, it is not uncommon to use one medium to request the use of another one as, for example, in an email saying "Call me, it's important" or a phone message request to "Stop by my office when you can."

Notification norms can mandate, permit, or prohibit a particular medium. While technology facilitates both synchronous and asynchronous notification, for example, social rules sometimes indicate one, sometimes the other. Upon reaching voice mail a caller may hang up because one would not leave an engagement announcement as a message, although a notification about pending notification, a "prenotification," may be acceptable ("call me right away, I have big news!"). Some good news may be delivered asynchronously ("all the tests were negative; you're fine"), whereas the corresponding bad news could not be (and, since the rule is widely known, a prenotification ("This is Dr. Jones, can you give me a call about your test results?") may also be ruled out). Hanging up on an answering machine could also be choosing a medium that leaves no trace (talking) over one that does (leaving a message). In formal organizations, where written memos are the norm, notification via untraceable media may be a way of reconciling conflicting notification obligations that arise from one's formal and informal roles. In some cases, this difference is taken to an extreme by a notifier who tries, rhetorically, to erase even mental traces by suggesting that "this conversation never took place." And, finally, cost and effort at least partly explain the distinctions we make between telegrams, 13 letters, hand-written notes. emails, and phone calls.

Physical location frequently functions as a medium. Maynard, for example, notes that physicians prefer not to deliver bad news in patients' rooms or in their own offices (2003:26). Location can, in fact, override other imperatives as when the objection "this is not the right place..." defers a notification, or the presence of individuals with different notification rights motivates requests like "Could we have the room?" or "Let's step outside." The same scenario, alternatively, can provide an occasion for recipient mortification or aggrandizement by "public" notification (for example, "Well, this concerns Bob most of all, but maybe you should all hear it"). Locations can also possess boundaries relevant to notification. The walls of a room are often figuratively invoked to suggest a "secure" medium ("This stays in this room."). Walls can also keep notification at bay as when it is understood that a workplace should be free of personal gossip or "too much (personal) information." Similarly, domestic walls may filter out news from work ("let's not talk shop...") and "Chinese walls" are erected within organizations to reinforce prohibitions against intra-organizational notification. 14

Increasing access to, and familiarity with, "easier" media does appear to be shifting boundaries as, for example, email becomes more acceptable for notifications that once required phone or written contact. The relative positions of different media, though, seems relatively stable; more delicate matters require more intimate media, more official matters require less intimate, more formal, media that leave a "paper trail." As new media acquire traits of old (for example, producing a permanent record or becoming more "personalizable"), they may become more usable for such purposes.

¹³Now themselves history. Western Union discontinued telegram service in January 2006.

¹⁴In businesses such as finance or journalism the term "Chinese wall" refers to attempts to ensure that different parts of an organization are kept informationally separate so as to prevent conflicts of interest. Thus, in journalism efforts are made to separate editorial and advertising while in securities firms, barriers are erected between research and underwriting.

But still, the wrong choice of medium can overwhelm the message. One becomes irate, for example, not because of the content of a notification, but because a notifier "didn't even have the courage to tell me to my face...," because one had "to read about it in the newspaper," or because of that generic neglect of notificational duty that sometimes comes under the epithet "phoning it in."

The appropriateness of a notification medium can derive from the level of dissemination control it affords. Talking where one can be overheard, for example, may result in unintended broadcasting. To avoid such deviant notification we employ encryption techniques ranging from spelling out words in front of young children to high-tech coding on "secure lines" or building elaborate systems of security clearances and message classifications.

The Competent Node as Social Information "Router"

The dimensions just described—who, when, and how—define a set of behavioral options for the possessor of information. Notification norms suggest the behavior appropriate to particular contexts. But what dimensions define "context"? When asked to explain an instance of notification, informants repeatedly reference content and relationships: "When someone dies," they say, "you need to call friends and relatives," or "Tell immediate family members of an engagement in person and only after that send notes to more distant friends." Or, more generally, "when the news is about X you have to call your Y first." Who, when, and how to tell depend on the content of the information and the social relationships to which one is party. These same factors guide one's expectations about what information one should receive.

The most basic notification norm, then, is to be a dependable node in society's information network. In effect, each culturally competent notifier acts as a social filter; information acquisition triggers a decision process about selective transmission to particular others (who) at particular times (when) in particular ways (how). Individuals function as the social equivalent of a "router"—the computer message switching hardware that makes the Internet possible. Like their mechanical analogs, notifiers must know about their local connections, have the capacity to infer trajectory data from the information they handle, and be able to execute the system's rules of dissemination. And, like those analogs, competent nodes' local application of notification rules constitutes the global pattern of knowing and not knowing, having just been told, expecting to hear, or feeling entitled to know that comprises "the information order."

Information Responsibility as a Component of Social Relationships

Membership in couples, families, organizations, communities, states, professions, and contracts implies obligations to notify and expectations of being notified. Notification norms link how good a neighbor, partner, or friend one is with the degree to which one fulfills expectations of spilling certain things and keeping the lid on others. One's place in the social world is defined by the whole ensemble of relationships of which one is a member, and one's informational competence depends on the notification expectations of each one.

¹⁵A router is a message switching device. It receives messages from one or more inputs, extract address information, and then forwards them to connections that are closer to their destination.

These expectations vary with ordinary relational variables: social distance, relative size, corporateness, status, and power (cf. Black 1998). A stranger, for example, may mention with impunity that she is getting married in a few days, but with friends it would constitute a *faux pas*. The boss might poke her head out of the office to tell the secretary that she is going out for a long lunch, but the secretary needs to prearrange to take time off to go to the dentist. Similarly, the employee is expected to give two weeks' notice, but the company can say "we want you out of the office by the end of the day."

Such notification norms are not static: changes in notificational obligations are coupled to the ongoing development of relationships. One may, for example, wait until a relationship has matured before revealing that one is gay, Republican, wealthy, or looking for a job. Or, uncertain of where boundaries lie, one might preemptively utter "Maybe I haven't known you long enough to tell you, but...." Stepparents, new kids on the block, and novice spies all serve a probationary period before receiving the security clearance that permits them to expect the broad notification rights that attach to their roles.

These developmental trajectories of relationships and notification obligations are continually renegotiated. The admonishment "you should have let me know (sooner)...," for example, is literally a call to recalibrate notification expectations, as well as highlighting the discomfort engendered by information gaps among friends. Some such rebukes respecify the topical jurisdiction of notification norms, saying, in effect: "Now you know that spouses (relationship) tell each other (who) about things like X (content) right away (when)" or "Now you know X (content) is the kind of thing your boss (relationship) wants to know about right away (when)." Others are attempts to redefine relationships: "I want us to be the kind of friends (relationship) who let each other know about X (what)." There is, then, a reciprocal connection between social relations and notification; relationships both drive notification behavior and can be manipulated by it.

Content: Information Finds Its Own Path

The second "independent" variable has been implicit in many of the examples offered so far: the type (who, when, how) of notification depends on the substantive content of the information. Many everyday notifications—for example, birth, death, and wedding announcements, jury summons, draft notices, and letters of intent—are, in fact, referred to by their information content.

At the most generic level, information content varies in terms of what communication researchers call "valence"—the "goodness" or "badness" of the news—and what might be called "gravity" or "intensity of the valence" (Maynard 2003:171). In general, the greater the consequence or momentousness of the content, the more the notification must be personal and prompt. In addition to positive and negative valence, acquired information can be located along a continuum of markedness (Brekhus 1996), which actually determines whether it is notification-worthy at all. Information that only confirms default assumptions is not generally "notifiable." In most circumstances, for example, one does not come out as a heterosexual or notify others that one is a mainstream conformist. Children do not tell the teacher that a fellow pupil has followed the rules, and it is only ironically that the doctor has to tell the patient she will survive.

The content may be so tightly coupled by convention with the manner of its delivery that the former can be read in, or even constituted by, the latter. In hospitals, for

example, Sudnow noted that "[i]n instances where the news is favorable, announcers are known quickly to indicate that fact in their approach to recipients...," even shouting while "running down the hall" (Sudnow 1967:121). For bad news, by contrast, the announcer waits until s/he has escorted the recipients into a private area. Similarly, the arrival of uniformed officers at the home of a soldier's family virtually preannounces the notification that follows (Vinitzky-Seroussi and Ben-Ari 2000). In some cases the notification is even referred to by the manner of its delivery: layoff notifications are "pink slips," romantic relationships are ended with "Dear John letters," bad news comes in "the dreaded phone call," and college applicants loathe "thin envelopes." Indeed, it is often this tight link between content and medium that often allows the latter to "be the message."

Content and Relationship

Content and relationship are intertwined in several ways. In order to fulfill their notificational duties, actors must possess, in addition to generic knowledge of relationships and their information obligations, a sense of others' idiosyncratic information needs and expectations. A competent acquaintance, Goffman noted, has an "obligation to maintain an active biography of [her] acquaintances (and ensure that they can sustain the same in regard to [her])" (1983:13). This biographical awareness includes a sense of what the other (already) knows as well as what she expects to be told. Nonnotification and redundant notification are social gaffes in part because they reveal deficient awareness of the other's stock of knowledge ("why did you assume I did not know that?"). Ordinary interaction can sustain only so many prophylactic disclaimers such as "stop me if I have already told you," "I don't know if you have heard...," or "if you don't mind my asking..." before participants adjust their definition of the situation and relationship.

In order to construct what others would want to know, the competent acquaintance must have a mental picture of what Schutz called their "projects," that is, the forward-looking plans of action that guide their systems of relevance (Schutz 1962). These may be generic ("everyone in the town will want to know that the dam broke") or personal ("based on your interest in X, you'll want to know that Smith has just written a new book" or "Jill, someone needs to tell you what Jack is up to..."). Different kinds of social relationships, of course, involve different levels of knowledge of others' projects, but some level of familiarity is always necessary to successfully determine what they will expect to be told.

A common failure in this regard is illustrated by the contemporary colloquialism "too much information," which suggests a notifyee's sense of having become privy to more, or different kinds of, information than desired: uninvited gossip, excessive personal data, or, not uncommonly, information that effectively implicates the notifyee in a conspiracy. Such excessive or wanton notification is interactionally anarchic; it can be humorously dangerous as in "if I told you, I'd have to kill you," or seriously consequential, as when a lawyer suggests that not knowing everything is critical to a successful defense (cf. Mann 1985).

If "too much information" is a failure of "notificational discipline" in which notifiers misapprehend what a notifyee wants to be told, another kind of misnotification can occur when the notifyee already knows or, worse, "everyone" already knows. When content thought to be new news turns out to be old news, the deviant notification may result in anything from a polite epistemological update (e.g., "that's not actually news") to insult requiring face work and situational repair

(Goffman 1967). Notifyees may be insulted that the notifier thought she was out of the loop or notifiers may be shamed for their ignorance of the local ecology of information. Even when there is no overt reaction, such instances of epistemological deviance—demonstrations of one's failure to maintain an accurate accounting of friends' and acquaintances' stocks of knowledge—convey more than one might like about one's own.

This phenomenon is always a risk in such ritual information potlatches as occur "around the water-cooler," in the "koffee klatsch," or at academic conferences. Here acquaintances swap updates about everything from the contents of the morning paper to who heard what from whom about whom. The practical value of the news exchanged is accompanied by a constant flow of epistemological geographic information. Herbert Gans describes a classic example in the swapping of local news that took place in long, wandering after-dinner conversations among West Enders. In addition to updating others, each report "define[d] or redefine[d] the place of the reporter and his audience" in the larger network of the community (1962:78; see also Maynard 2003:30). Whenever one taps into the knowledge bases of his fellows one has to "hold one's own" with appropriate contributions of new information, corroborations, and validations.

SOCIALIZATION: LEARNING TO BE A NODE

The informationally untutored routinely "spill the beans," "over share," and "poke their nose where it does not belong." The socially competent, by contrast, are neither "loose cannons," who tell everyone everything, nor informational black holes who forever keep their counsel. They are reserved about their own personal information, while making ritual bows to discretion when passing along that of others; they know what others expect to be told and they can be depended upon to tell when they have heard.

These skills are not natural; one must learn to be a node. Informational socialization begins at an early age when small children are taught that not all acquired information is suitable for dissemination. They are taught that certain internal states ought not be reported to others ("we do not need tell everyone about your X, Bobby"), and they must be trained not to be family "security" risks (e.g., blabbering "my mom and my dad X..." at school). 16 They learn generic notification norms such as "it is not nice to tattle" to balance the glee they experience turning private observations into third-party notifications ("Mommy, Jennifer ate another cookie!"). Simultaneous exhortations to say when they need help, but never to "cry wolf," and negative reactions to barefaced honesty (e.g., shushing the child who proclaims "the emperor has no clothes!") (Zerubavel 2006) coupled with the idea that one should "always tell the truth" spur the development of strategic taciturnity and notificational discretion. Older children are told "if X, tell me right away" or "if X, call the police," and parents haggle with teens over what events, both big ("You'll tell me if you are having sex?") and small ("Let us know where you are and who you are with!"), come under the jurisdiction of notification rules. Such lessons in the contradictions among the imperatives to exercise vigilance or discretion, to be honest or tactful, lead eventually to the socially competent adult's nuanced ability to wield a repertoire of notification rules and be a dependable node in the information order.

¹⁶Hotchkiss (1967) describes the complement of this phenomenon: the use by adults of children to "spy" on the internal affairs of the households of their friends.

Notification socialization continues throughout adult life, especially in the world of work. Lawyers and doctors, for example, are professionally obligated to notify authorities about some things and forbidden to notify anyone about others. ¹⁷ A competent bureaucrat may need a mental organizational notification chart that shows what must be brought to the attention of, or withheld from, whom. Inside organizations employee training includes "information handling," though rarely under that title, and managers struggle to keep up with laws specifying who on the outside must, or may not, be notified about what. In short, a large part of taking our places in the world is acquiring a list of the informational responsibilities that go with them.

THE TOLERANCE AND CULTIVATION OF DEVIANT NOTIFICATION

Collective disdain for notificational deviance—from the gentle parental rebuke of overly candid children to the zealous governmental prosecution of spies—is common, but violations of notification norms cannot unconditionally be called a pathology of the information order. On the contrary, notificational deviance is both normal (Durkheim [1938] 1964) and, frequently, functional (Coser 1962); it is always present, often tolerated, sometimes cultivated. Though notification norms are at the heart of the information order, our everyday experience of them is marked both by their violation and observance.

Illicit notification illustrates a fundamental duality of information and the act of telling: there are occasions when the passage of information from A to be B might be collectively beneficial even though such transmission is formally proscribed. Deviant notification permits word to reach locations where it can be useful without challenging the legitimacy of established channels. In formal organizations, for example, "circuitous reporting by staff people" allows executives to access richer information than "the proper channels" provide, without threatening the formal structure that remains available for other purposes (Dalton 1959:225). Corruption or war may lead whistleblowers, informants, and double agents to bend or break notification rules for some greater good. In contexts as diverse as teenage dating, corporate management, and high-stakes diplomacy, the use of go-betweens, back channels, and other forms of inappropriate notification permits the transmission of information and the repair of relationships when the symbolic impact of overt tellings might be prohibitive.

In politics and business sending information outside its normatively prescribed envelope—obscuring sources by speaking off the record, strategic leaking, or simply planting rumors—allows senders to gauge reactions to information without being associated with its dissemination. Sourceless information can diffuse untainted by the impropriety of its telling (as was said to be common in the Office of the Special Prosecutor during the Clinton-Lewinsky affair (Sowell 1998; Zuckerman 1998)).

Deviant notification can also support the organic solidarity of multiple social circles (Simmel 1955). "Talking out of school" (talking about a topic outside its home territory) is a frequent source of ostensible mis-notification. Information thus shared creates multiple layers of expected reciprocity. Notification "leaks" create cross-linkages between notification chains: donors and recipients are reminded that social circles have permeable information boundaries and that their worlds have one

¹⁷It should be noted that in addition to their legal and bureaucratic notification responsibilities, physicians are increasingly trained in how to deliver news both effectively and sensitively (see, for example, Olsen et al. 1998; Stewart 1999; Van Bloch 1996).

more item in common. Indeed, much of what goes by the name of "networking" among active professionals amounts to cultivating situations in which notification rules can be bent, if not broken.

In general, then, many of the rules associated with the information order may be "more honoured in the breach than the observance" as social actors acting in either their self- or the collective interest choose not to observe the rules in a given situation. As Goffman writes of spatial behavior: "In general, then, we can say that a rule tends to make possible a meaningful set of non-adherences, only one of which is an infraction, the others being functions made possible by our capacity to discriminate (and to trust others to discriminate) among types of non-adherence" (1971:61). So, too, of informational behavior: the very existence of notification rules allows notification and its variants to become "the bases of a ritual idiom"—a sort of interaction language with which we modify social relations and social structures as well as communicate about them. And so, far from being threatened by deviant notification, the information order may actually depend on such negative, as well as positive, application of notification norms.

STRUCTURE AND AGENCY: META-NOTIFICATION

Notification norms thus link locations in content-relationship space with behaviors in who-when-how space, but not in a one-directional deterministic manner. Emphasis on notification rules and deviance risks implying an "over-socialized conception" of notifiers and notifyees (Wrong 1961), portraying them as buffeted and constrained by deterministic social rules external to themselves. There is, however, more to notificational competence than following rules. Notification is an active "doing" that accomplishes more than the mere transmission of a message. Notification norms do constrain behavior, but, perhaps more importantly, they enable information possessors to do things with information transmission (Giddens 1984); notification is what Austin called a performative utterance (1962). In routine notification—telling the doctor that the pain is still there, calling one's spouse about being late, or canceling a hotel reservation—the rhetorical performance, or what I call "meta-notification," may be nothing more than a ratification of business as usual. But, because notifiers know the rules and know that recipients know the rules, any telling—by this "who" to this "whom" at this "when" in this "how"—can convey structural and relational information. Being notified as expected ratifies one's sense of being "in the loop," or "someone who needs to know," or "intimate enough to need to hear it in person." Receiving a telegram confirms one's structural location as next-of-kin. Prompt intra-organizational notification tells staff they are a part of the team, and CC lists demarcate the team's boundaries. Notifyees can decode the tale told by a telling; knowing this, notifiers adjust the telling so it tells the tale they wish to convey. "Meta-notification" thus refers to a wide range of structural and relational information that can be extracted from, or inserted into, a notification by those who understand a group's notification norms.

Meta-notification is implicit in any notification, but it can be also offered explicitly with phrases like "You're one of us now, so..." or "You did not hear this from me..." or even extracted by a notifyee in subsequent conversational turns with questions such as "who else knows?," "how did you find out?," or "how long have you known?" Such "notification about notification" allows recipients to ascertain (and senders to stage manage) the meta-notificational content of an act of information transmission. Several variants of explicit meta-notification are considered below.

Dramatizing Notification qua Notification

One function of meta-notification is akin to what Goffman called "dramatic realization": "the infusion of an activity with signs which dramatically highlight and portray confirmatory facts that might otherwise remain unapparent or obscure" (1959: 30). Here we are looking at actions that declare what kind of telling a telling is or even that a telling is one. 18 Such meta-notification can be accomplished artifactually, rhetorically, or gesturally. A notification may announce itself as a notification with labels like "Top Secret" in foreboding fonts, envelopes with elaborate seals, or tapes that "self destruct in five seconds." Rhetorical meta-notification includes prefacings such as "You are the first person I've told..." or "You'd better close the door...." Gestural meta-notification comes in the form of interactional affectations such as whispering, speaking behind one's hand, or a furtiveness that says "this is all hushhush...." When meta-notificational signals are missed, as with what might be called socially tone-deaf recipients, it must be delivered with what a German idiom calls a "wink with a fence post." ¹⁹ In practice, successful interaction requires an ongoing matching of what is meta-notificationally offered by the notifier and what is needed by the notifyee; the socially sensitive may recoil at the excess meta-notification ("I get the point!") (Davis 2004).

Meta-notification works because competent social actors can reverse engineer notification: starting from the who, the when, or the how they can make inferences about relationships and content. Notifiers can thereby emphasize exclusivity or its opposite in a relationship, hint at the freshness or credibility of information (Pomerantz 1984), or attempt to direct its further dissemination. Sudnow, for example, describes a surgeon who, having taken a break between finishing work on a case and talking to family, prepares for the announcing by "put[ting] his cap and mask back on, with the mask hanging around his neck in that position which suggests it was just taken off.... With the cap and mask still on, he reported afterwards, it appears as though he has just put down the needle and suturing and carries exceedingly fresh news" (Sudnow 1967:122). Con artists, too, manipulate notifyees, enhancing their credibility with meta-notification that suggests "inside information." Meta-notificational phrases such as "just between you and me" or "I haven't told another soul" can transform a mere telling into an intimate act. Admonitions to "not breathe a word of this" or "keep this under your hat" can transform a notification from the revealing of a secret into the sharing of one.

Using Meta-Notificational Accounts to Neutralize Deviant Notification

The collective awareness of notification norms that makes meta-notification possible also means that when notification rules are broken, an "account" (Lyman and Scott 1970) may be needed to guide the meta-notificational interpretation. ²⁰ Disclaimers such as "I shouldn't be telling you this but..." or "I meant to tell you last week..."

¹⁹The phrase "einen Wink mit dem Zaunpfahl geben" suggests that, subtlety and discretion having failed, a point must be made bluntly.

²⁰Of course, accounts are not always necessary and are not always offered even when they are expected.

The deliberate omission of an account where one might be expected is sometimes a technique used to "get the message to sink in" or to focus the interaction on the message and not on the meta-notificational possibilities. Thanks to an anonymous reviewer for this observation.

¹⁸Missing the meta-notification that a telling IS a notification is a frequent source of slapstick humor (e.g., A (casually): "There's a piano about to fall on your head." B (calmly): "Thanks for letting me know." A (screams): "NO, REALLY! THERE'S A PIANO FALLING!" B: "Ahhhhhhh!").

or "I wanted to wait for the right moment..." or "I wanted to tell you in person..." can "shore up the timbers of fractured sociation" (Lyman and Scott 1970:112) that an out-of-turn telling can produce. Without an account, being left out of the loop means one is no longer a member of the inner circle, being the last to hear a good friend's news may suggest less symmetry in the relationship than one may have assumed. When the wrong person has been told at the wrong time in the wrong way, the effect may be neutralized with disclaimers that deny responsibility ("I wasn't able to call, my phone died."), invoke higher loyalties ("Mary made me swear not to say anything..."), deny that the notification was deviant ("I didn't say anything because I assumed you already knew.") or simply attempt to rule the act interpretively out of bounds by saying, in effect, "don't take this at face value, this is an exception to the rule (so don't reverse-engineer it!)" (Sykes and Matza 1957).

When, for example, a parent notifies a teenage adoptee about her status, an account such as "we waited until you were old enough" might effectively deny the notifyee: the "too young" child does not count as an un-notified notifyee. A lover who admits an affair and adds "I didn't want to have to tell you" or "you weren't supposed to find out," attempts to erase the very delay that makes the notification painful. Massproduced holiday greetings, again, that begin "we hate these photocopied letters too, but..." deny the medium. The revealer of confidences who excuses his deviant notification with "you didn't hear this from me" denies the notifier. "Forget you ever heard this" might be said to deny the notifyee. And "this conversation never happened" denies the entire notification. Beyond notifications that "never happen" are those that never do happen. In particularly proscribed situations, we find "inductive notification" whereby the notifier allows the notifyee to draw the information out, saying, in effect, "if you guess, I won't deny it" and then confirming the transaction with "you said it, I didn't" or, in the extreme, we have exchanges such as "do you realize what I am not going to tell you?" "Yes, I do." While the most common function of such denials is to excuse or explain, in more serious situations real dangers faced by potential notifiers who are, say, the victims of secret crimes, may mean that their fate depends on successful meta-notification (cf. Gordon 1988 as cited by Maynard 2003:275; Zerubavel 2006).

Meta-Notification Communicates Ecological Information

A third task for meta-notification is the elaboration of what can be termed the "epistemological ecology" within which a given piece of information is set. Full appreciation of the social meaning of information often requires awareness of both its static distribution (who currently knows and who does not) and the dynamics of its dissemination. Notifiers may disclose, or notifyees may inquire about, who else knows, who should be told, who is being told simultaneously, where the information originated, what path it has followed, or what kind of work was done to obtain it and to bring it to the point of this telling.

Some of this information is, of course, covered by conventional concerns with provenance and its implications for the credibility ("guess what I heard from Jane..."), currency ("here's the latest"), and authenticity ("from the horse's mouth...") of information (cf. Pomerantz 1984). "Knowing one's sources" influences how much faith to place in a piece of information. Some part of the rhetorical work done by such meta-notification, though, is concerned not with believability, but with the shape of the epistemological landscape. A notifier's assessment, for example, of the narrow breadth of a piece of information's prior dissemination ("almost nobody

knows...") communicates a different ecological picture than does a disclaimer ("as you've no doubt heard by now..."). Public information carries a different valence when citizens are notified only after a Freedom of Information lawsuit or as the result of investigative reporting, at one extreme, versus a timely notification in a government press release at the other. Meta-notification thus locates the notifyee in a local ecology of knowledge and ignorance as well as guiding the recipient as to what to do further with the information.

Meta-Notification and Identity

Most tellings speak loudly about where we and our listeners stand in the information order. Meta-notification enacts the loops that Washington staff members, teenage girls, or finance professionals may be in or out of. Skillful players know whom and how to notify so as to enhance their reputation as someone who is "in the know." "Pre-sequences" (Schegloff 1980)²² such as "guess what I heard" or "Have you heard the latest?" allow gossipers to "draw recipients into their social circles" and tell them "that the gossiper is on the inside of a social network" (Kurland and Pelled 2000:5). The very phrase "being in the know" elegantly expresses this geographic dimension of the information order.

Meta-notification plays a role in both the construction and maintenance of group and individual identities. Supplemental information about who has or has not been told can enhance group solidarity or even amount to a sort of ritual grooming behavior²³ (Dunbar 1996; Eder and Enke 1991). The use of CC listings on correspondence, categorical salutations such as "To all department heads" on memos, and security grades on classified documents, for example, constantly remind us that we receive, transmit, and possess information not as individuals, but as members of social categories. One often must be notified "in one's capacity as X" or as a "mere formality" or "as a courtesy" of information that is freely available through other channels; a meta-notificational "gesture" may be necessary even if the notification that supports it is moot. Indeed, notificational missteps can undermine one's status as a member. The overuse of disclaimers such as "stop me if you've already heard" or "I'm sure you already know this" mark one as an informational outsider, a visitor from the epistemological frontier, someone who is physically near, but informationally far (cf. Simmel 1950b).

THE EPISTEMOLOGICAL ECOLOGY OF THE INFORMATION ORDER

Although the focus here has been on the relational work notification norms facilitate, it would be remiss not to acknowledge that the social regulation of notification also gives rise to the distribution of knowing and not knowing that forms the static side

²³In this connection, recall that for a long time the motto of a major telecommunications corporation was "Reach out and touch someone."

²¹In network terms, a keen awareness of structural holes is called for (Burt 1992). One might speak of a notification economy in which both symbolic and instrumental rewards are reaped by inserting oneself between sources and recipients thereby controlling notification and getting credit for passing news along.

²²My interest in such presequences is different from Schegloff's. He focuses on the work such utterances do in the sequencing and organization of talk (for example, indicating that some subsequent utterance should be understood as prefatory rather than as an utterance "in its own right" (Schegloff 1980). Here, it is not the turn taking work, but the meta-information that is the focus. The notifier is aligning the recipient's sense of the local epistemological ecology with his or her own.

of the information order and that has practical consequences for social actors and for the distribution of power in society. From the level of interpersonal relations to that of the state, social actors work hard to implement notification rules, policies, and practices that structure the ecology of information to serve their interests by contributing to surveillance networks and managing information asymmetries.

The eyes and ears of others can be a valuable information resource if they can be directed to selectively deliver selective observations. In interpersonal relations we recruit one another for surveillance when we ask "if you found out that X, you would, of course, call me right away, right?" Such attempts to rationalize the information order by the elimination of notificational discretion are echoed at the level of organizations and the state. In airports, for example, public announcements tell us to notify security if we see unattended baggage and on freeways "Amber alerts" instruct motorists to call 911 if, say, they see a red Honda. Health care professionals are "recruited" to surveillance by rules that require notification for either prosecutorial or epidemiological purposes. In times of perceived crisis, calls for new forms of mandatory reporting are common as in a recent op-ed advocating mandatory reporting of disease such as bird flu (Hinrichs 2006).

The theoretical extreme, of course, is a panoptic surveillance state (Foucault [1975] 1979; Orwell 1983), but, it has been argued, such extremes are difficult to achieve in practice (Pfaff 2001; Goffman 1961). Even in less extreme cases, "resistance" is common: professionals, for example, may say to a patient or client, "Are you sure you are telling me that X? (because if you are, a whole cascade of action will follow)?" And, excessive recruitment for surveillance can lead to the "bystander effect" in which individuals fail to take action because they assume someone else will or already has (Darley and Latané 1968), or duplication that can actually overwhelm the system as when thousands of (mostly unhelpful) tips are offered during a kidnapping investigation.

Notification regulation also facilitates the social management of the information asymmetry that exists when one party to an interaction possesses information that, were it known to other parties, could change their behavior. The classic example is instability of markets for used cars where buyers' fear of getting "a lemon" reduces their willingness to pay a fair price for nonlemons (Akerlof 1970). Notification reduces such adverse selection in many types of social interactions, from economic exchanges to dating, but the boundaries of *caveat emptor*—what and how much information should be offered to transaction partners—are constantly under negotiation. About whether or not to prenotify a blind date that one is overweight, for example, a newspaper advice columnist writes:

Deception is not a good basis for a relationship. However, one does not have to reveal all of one's perceived faults up front. Some people feel that pre-qualifying themselves in this manner (e.g., as BBW [big, beautiful woman]) will weed out those who may not be interested. It's my personal opinion that such pre-qualifications lead to snap judgments based solely on physical appearance—and this is a rocky path to happiness. (Gray 1999)

Such discursive clarification of notification rules is an important part of how social actors manage information asymmetry across a broad spectrum of activity preventing the misinterpretation of the absence of notification as the notification of absence.

These practical consequences of notification norms for the social distribution of information can rarely be separated from the symbolic consequences described above.

Rights to be told or to one's privacy, duties to disclose, and expectations of being told are based on a tangle of pragmatic and symbolic issues. Adults debate telling children about tragic news; after the space shuttle Columbia was destroyed in 2003 officials question whether the astronauts should have been informed if their situation had been considered dire but beyond intervention (Associated Press 2003); a military spokesperson frankly admits that "[i]t is important to disseminate war news in just the right way. There are some things you want soldiers to know and some things you do not. That is what you wrestle with. I don't want them to get so scared they can't do their jobs" (Barnes 2003). As in other areas, neither normative nor pragmatic considerations alone resolve all questions unambiguously.

CONCLUSION: THE INFORMATION ORDER AND THE SOCIOLOGY OF INFORMATION

This article has introduced the concept of notification norms—social rules that govern the passing along of information—and suggested that they produce patterns of information dissemination that are different from what individual volition would produce and from what technology makes possible. These rules specify the who, when, and how of information sharing based on social relationships and information content. The capacity to wield a socially sanctioned repertoire of notification rules is a learned competence: children must be socialized in the notification ways of adult society and adults into the notification ways of the professions, organizations, and communities of which they are members. Familiarity with notification norms allows actors to extract meta-information from a notification as well as to manipulate social structures by injecting it into their tellings. In addition to knowing the rules, competent notifiers must possess a mental model of their local epistemological ecology where information came from, who else knows and when they found out—as well as a sense of the projects, concerns, and priorities of those around them, to determine what information they expect or hope to receive.

So much of the everyday flow of information in society is taken for granted that it is easy to overlook the degree to which it is socially regulated. The failure of new technologies to "change everything" provides an opportunity to make these phenomena visible. In particular, the persistence of information dissemination norms in the face of the removal of physical and technical barriers to communication suggests that human information processing cannot be separated from social organization. Knowing, telling, and being told are social phenomena through and through, and social organization, from the micro and informal to the macro and formal, depends on collective forms of information control.

The idiom "getting in touch with someone" reflects the ways in which sharing information is as fundamental a ritual of social solidarity for humans as is grooming in primates (Dunbar 1996). Everyday life is replete with ritual reenactments of connectivity as we weave complex webs of common knowledge (and, importantly, common knowledge of common knowledge) by notifications supplemented with metanotification that makes the meaning of the transmissions *qua* transmissions apparent. A person gets engaged and "can't wait to tell mom!" or someone dies and others "should be notified soon." Sometimes stunning news stops us in the tracks of our daily rounds and we need to notify or "check in on" people we are connected to "just to make sure they know." As news of the World Trade Center attacks on September 11, 2001 was received, for example, people around the world felt a distinct need

to "share the news" with people who had almost certainly already heard it from a public source (Ryan n.d.).

Secure occupation of social positions requires being able to take for granted that we will be told what we ought to be told. This relieves us of the need for phenomenological vigilance and constant ontological suspicion. The coercive power of notification norms relieves anxiety in the face of the inscrutability of the other. I know you have secrets, but I do not need to worry that they are arbitrary or vindictive. In fact, I expect you to have a model of my informational needs and interests—and to observe a reformulated golden rule: tell unto others as you would have them tell unto you.

The aggregate effect of notification norms is the constitution of what I have called "the information order." In speaking of an "order" I have in mind an analogy to Goffman's "interaction order." As Goffman says of the interaction order, the term is not at first meant to imply "orderliness," but it turns out that, like the interaction order, the information order too "is in fact orderly, and that this orderliness is predicated on a large base of shared cognitive presuppositions" (1983:4). Neither the distributing nor the social distribution of information is random or arbitrary. There is, in general, no Hobbesian dystopia in which caveat emptor rules every interaction. But neither are there Orwellian dystopias in which big brothers know all nor high-tech utopias with universal democratic access to everything. Neither, too, dystopias in which all information has become commodified. Instead, individual and collective social actors work to move information around in ways that reflect, establish, maintain, and modify social relations and social categories.

Every discovery, creation, or acquisition of information generates in social actors a dispositional task—what to do with the information (on the basis of its content, his/her social relationships, and notification norms)—an interpretational task—what relational information to derive from the facts of its acquisition—and a constitutional task—what sorts of relational or structural work can be accomplished in subsequent tellings. A sociology of information looks for patterns of information accumulation and flow as these tasks are accomplished.

The more general project of "the sociology of information" should not be confused with the abundant contemporary work on new information technologies. Such work is premised on the novelty of the new, but there is much work to be done in this area starting from a recognition that much of "the new" recapitulates existing forms of informational sociation. While many information behaviors have been accelerated or moved to new media, and barriers to connectivity removed, there is much that remains formally the same as what went before. New developments should focus our attention on information and information behaviors generically and we should be wary of becoming a "sociology of the novel." One component of such work is the clarification of the formal properties of what people do with information.

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