Rumor Psychology: Implications for Record-Keeping by Organizations

Owen Ambur, November 14, 2009

In *Rumor Psychology: Social and Organizational Approaches*, Nicholas DiFonzo and Prashant Bordia assert, "Rumors are an enduring feature of social and organizational landscapes. They attract attention, evoke emotion, incite involvement, affect attitudes and actions – and they are ubiquitous." (p. 3)

They note that rumors are closely related to many social and organizational phenomena including social cognition, attitude formation and maintenance, prejudice and stereotyping, group dynamics, interpersonal and intergroup relations, social influence, and organizational trust and communication. (p. 5) Where distrust grows, they say, rumor flows. (p. 8)

They define rumors as:

> unverified and instrumentally relevant information statements in circulation that arise in contexts of ambiguity, danger, or potential threat and that function to help people make sense and manage risk. (p. 13)

In other words, rumors fill vacuums created by the lack records providing good and complete information on issues that are important to us, particularly issues about which we may feel threatened, physically, financially, psychologically, or emotionally.

DiFonzo and Bordia observe that we have a core social motive to understand and to act effectively in any context and that culturally defined categories routinely help us do so. However, when events do not fit well together or fail to convey meaning that makes sense to us, we refer to the groups of which are a part to gain understanding and to guide our actions, by engaging in *group thinking* through rumor discussion. (p. 13)

Through explanations we attempt to make reality perceptible and meaningful, and rumors are a collective effort at sense-making when a group – or subset of a group – is faced with uncertainty. To some degree such explanations must pass group norms of plausibility, and when group standards are high, rumor discussions are very similar to fact finding. However, when the group norms are low, DiFonzo and Bordia note that rumor discussions are like contagion or panic. (p. 14)

In his discourse on tipping points, Malcolm Gladwell has noted that human attributes contribute to what he calls "the paradox of the epidemic," which means that many small movements often must be created in order to stimulate a single, large "contagious" movement.[1]

DiFonzo and Bordia observe that rumors are threads in a complex fabric of social exchange, information commodities exchanged between traders. In that sense, they say rumors are a

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[1] For more on Gladwell's views on tipping points, see http://ambur.net/tippoint.pdf

subclass of *memes*, ideas that survive through a process similar to those of natural selection. (p. 16)

Thus, it seems to be human nature to exchange information but not necessarily reliable records. Symbols and writing are a relatively new phenomenon in human history, and whether they may contribute to the successful passage of selective sets of genes from one generation to the next is an interesting question. On the other hand, there should be no doubt that the creation, maintenance, and availability of good and complete records is a necessity of life in many instances, such as in the case of medical, homeland and national security, as well as many law enforcement records. Moreover, short of life or death, the quality of life we are able to lead depends in large measure upon the quality of the records we make, keep, and share. Without such records, there is little chance of excellent performance by the organizations we create in order to help us overcome our frailties and inadequacies as individual human beings.

Sharpening their definition, DiFonzo and Bordia explain that rumor is important information that is communicated but is unverified or, as Rosnow put it, **rumor is "constructed around unauthenticated information**." (emphasis added) They acknowledge that does not mean rumors never have a basis in fact, as they often do. However, the basis is weak or absent, i.e., it is not "secure evidence." By contrast to news, which must be confirmed, rumor is always unconfirmed. (p. 17) In other words, rumors are fostered by and rely upon the lack or inaccessibility of good and complete records, whereas such records are required for news truly to be news.

In addition to lack of reliable information, DiFonzo and Bordia note that rumors may include *misinformation* – false statements thought by some people to be true – and that some rumors are more subject to reality testing than others. For example, whereas "a scientific theory is vulnerable to falsification, nonscientific theories are not." That is the *principle of falsifiability*. (p.17) Falsifiabilility requires reliable records. The acceptance of information that is not supported by such records conveys a high-risk power potential ceded to those who are allowed to avoid documenting their intents and actions in records that are readily accessible to those (stakeholders) who may be affected.

DiFonzo and Bordia observe that less risky rumors – such as nonscientific theories – may be immune to falsification because they assert nonobservable phenomena. (p.18) Of course, "less risky" for the purveyors of such information means far more risk for everyone else. Paradoxically, however, they point out that *gossip* arises in the context of social networks in the process of building group solidarity. (p. 19) So **to some degree**, it seems **the conveyance and acceptance of information based upon nonobservable phenomena may be central to the formation of groups, at least for social purposes**.

Indeed, the authors note that a primary function of gossip is "to define intimacy boundaries and group membership; gossiping makes members feel closer." On the other hand, they point out that "the darker side of delineating intimacy boundaries is exclusion." (p. 20) Thus, it seems reliable records that are publicly accessible to anyone may be antithetical to human desires for solidarity, membership in groups, and interpersonal intimacy. By definition, such motives cannot

be served if nothing and no one is excluded. It seems likely such dynamics contribute to the attraction and power that cults and other forms of religious fanaticism hold over their adherents and "converts".

Moreover, DiFonzo and Bordia note that gossip is morally oriented and value-laden. They say, "It forms, maintains, enforces, or disseminates group norms... gossip influences and controls attitudes and actions... In more broad terms, gossip educates people about how to act effectively in complex social environments, especially by specific comparison with the behavior of real or imagined others." (p. 21)

Interestingly, they note gossip usually occurs "with an apparent aimless or idle purpose or simply to pass time... packaged in tones of relative disinterest..." Since "gossip is talk about matters that are typically considered not that urgent or weighty," its subject matter may be deemed unworthy of taking the time and effort to document and assess in reliable records. (p. 21)

Like rumor, they observe, gossip is "transaction in which the hearsay is exchanged for some other commodity." Both have been characterized as "unofficial communication," "informal communication," and "hearsay." (p. 22) To the degree that such communications may have been documented in reliable records and thus subject to falsification, the exchange value of gossip is diminished and thus less potent for creating intimacy and solidarity.

DiFonzo and Bordia suggest, "Rumors are for ferreting out the facts, making sense, and managing risk and thus the information tends to be received in shorter packages that are relevant to a particular situation." (p. 26) Available records may be longer, more complex, and may not be directly relevant in a particular time and place, particularly if they have not been appropriately managed, indexed, and categorized for retrieval when and where needed.[2]

With respect to the categorization of rumors, the authors note, "The use of continuous scales [rather than dichotomous language] represents an advance over attempts to place a categorical label on a statement because it allows for the comparative emphasis of the statement's content, context, and function."[3] (p. 33)

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[2] In the context of electronic information systems, the terms "management" and "metadata" have essentially the same meaning. Metadata is data about data. With the appropriate elements of metadata, essentially any management function that needs to be applied to electronic records can be automated. Thus, the question is how much "management" (i.e., metadata) is warranted before reaching the point of diminishing returns, bearing in mind that the beneficiaries are often not those who bear the cost. For more information, see Wikipedia's article on metadata and/or my paper entitled "Metadata or Malfeasance: Which Will It Be?"

[3] In *Fuzzy Thinking: The New Science of Fuzzy Logic*, Bart Kosko says, "We can put black-and-white labels on ... things. But the labels will pass from accurate to inaccurate as the things change." In the context of records management, that means the distinction between record and non-record materials becomes meaningless at some point.

In analyzing rumor statements, the authors observe that "participants seem to attempt to gain a sense of control over their own situation by becoming aware of the bad things that might happen to them because of the change." (p. 41) Moreover, "Rumor effects occur even if rumors themselves are not believed... people may have disbelieved rumors ... but they still acted on them ... People apparently wanted to be safe rather than sorry ..." (p. 42)

The authors note that such effects are consistent with *prospect theory*, which holds that people are loss-averse, in that they tend to feel losses more intensely than equivalent gains. Moreover, people generally overestimate the probability of negative events, perhaps "because negative information is processed more thoroughly than is positive information ..." Thus, people are inclined to act to avoid such events, improbable though they may be. (p 43)

Based upon the *law of cognitive structure activation*, DiFonzo and Bordia note that ambiguous stimuli are likely to be encoded as consistent with the most salient schema, thereby affecting relevant judgments and behaviors. Thus, they assert, "Negative rumors almost certainly prime negative interpretation of ambiguous events by making negative schema salient, resulting in lower satisfaction, commitment, and trust." (p. 52) Moreover, research results suggest the effect of rumors is cumulative. (p. 61)

In general, DiFonzo and Bordia suggest that people interact socially to fulfill one or more of three goals:

- to act effectively – social interaction helps people to acquire socially validated sense of reality and enables effective response to, and coping with, the environment.
- to build and maintain relationships – social interaction helps build and maintain relationships that are vital for continued survival of humans as social animals.
- to manage favorable self-impressions – a more self-serving goal, and one that may lead to several biases in information processing.

In the context of rumor transmission, these goals are represented in three motivations: 1) fact finding, 2) relationship enhancement, and 3) self-enhancement. (p. 70)

With respect to the first motive, effective action requires valid and accurate knowledge of the conditions affecting us. Thus, the authors note, "When motivated by the goal of acting effectively, we seek accurate information and we evaluate that information using available strategies, such as comparing it with knowledge that we already have or evaluating the credibility of the source." (p. 71) When such information is unavailable through formal channels, we rely upon informal networks and the informal interpretations out of such collective sense-making become rumors. (p. 72)

Regarding personal effectiveness, DiFonzo and Bordia observe:

> ... rumors have been conceived as attempts to acquire secondary control over situations marked by low primary control. *Primary control* refers to action-focused coping responses: managing or changing one's circumstances in the desired direction...

> *secondary control* strategies ... involve emotion-focused coping responses such as lowering expectations, predicting the worst to avoid disappointment, attributing events to chance, and attempting to understand the meaning of events and accept them. (p. 73)

The spread of rumors is affected by both trait (dispositional) and state (situational) anxiety. (p. 73) The authors point out, "The anxiety associated with uncertain events of high personal significance biases rumor content toward negative and threatening interpretations. These rumors also help justify the anxiety being experienced." (pp. 74 & 75)

On the other hand, "people are reluctant to transmit bad news for fear it will generate negative effects in the recipients and the recipients may evaluate them negatively. This withholding of negative information has been labeled the *minimize unpleasant messages* (MUM) effect." (p. 75)

With reference to the second motive, enhancement of personal relationships, the DiFonzo and Bordia suggest context influences the way in which this goal is expressed. For example, they say:

> ... in short-term relationships or in the early stages of relationship formation, people are keen on making a good impression and pleasing others. In such circumstances, honesty may be sacrificed for other relationship-oriented goals such as generating liking or positive affect in others, and so information that helps attract or hold the attention of a desirable audience may be passed on without much care for its authenticity. However, in longer-term relationships with greater personal involvement, accurate information sharing is likely to be emphasized. (p. 75)

In both short- as well as longer-term relationships, "Possessing and sharing valued information is ... a way to heighten status and prestige in the view of others in one's social network... During times of uncertainty and threat ... information is even more valuable." Thus, in our eagerness to further our social standing, we may unwittingly pass on unfounded rumors. (p. 77) The value of information and, thus, the potential for heightened social status for those who possess it is increased to the degree that reliable records are lacking.

However, the credibility of a rumor is impacted by the target of its focus as "we readily adopt positive – but not negative – information about the ingroup as representative; in addition, we attribute outgroup success to external causes and outgroup failure to stable, internal features. Negative reactions to outgroups are particularly strong when ingroup interests are threatened and outgroup derogation is a way we boost our self-esteem." (p. 78) This socio/psychological dynamic is supported by the lack of good records. In addition to its impact on informal groups, it also threatens more formal organizations (as ingroups) due to the risk of failure to recognize and react appropriately to reality, including the expectations of customers (outgroups) in the marketplace.

"For a rumor to take hold," DiFonzo and Bordia assert, "it must find fertile ground and catch the imagination of several people; that is, it needs to serve one or more of the motivations in rumor spread." Moreover, "to widely circulate," they say, "the rumor needs to fulfill fact-finding,

relationship-enhancing, or self-enhancing motivations." They caution that the use of rumors by manipulators of public sentiments warrants scrutiny and suggest that greater awareness of the use of rumors by propagandists may help us avoid falling prey to their machinations. (p. 79)

With respect to the third motive, DiFonzo and Bordia say, "Self-enhancement motivations are ... operative when rumors are spread to rationalize self-enhancing attitudes. When evaluating rumors, people are more likely to favor those that support or justify existing prejudices. Unjustified prejudice is a distasteful notion, but the prejudice acquires legitimacy through rumors that are consonant with the prejudiced viewpoint." (p. 80) These thoughts are consistent with Ford's observation that the most important thing he has learned about the psychology of deceit is how we use lies to others in order to deceive ourselves.[4]

Generally speaking, the authors say each of the three motivations is activated when an associated goal is threatened. For example, fact finding is activated when our ability to deal effectively with the environment seems to be at risk. In such circumstances, we seek information enabling us to regain a sense of understanding, if not control. On the other hand, we are sensitized to receive information making us feel good about ourselves when we or our ingroup is threatened, thus activating self-enhancement motivations. "In such situations," DiFonzo and Bordia observe, ***"we are less likely to be concerned about the accuracy of the rumor and more concerned about its self-enhancing value."*** (pp. 80 & 81, emphasis added)

In other words, it is not truth and accuracy that matters so much as our sense of self-esteem. So we may be more interested in hearing what we want to hear than in seeing reality as best it can be documented in reliable records.

Although DiFonzo and Bordia allow that most of us are inclined to discern the truth, they declare we are sometimes notoriously bad at doing so. Thus, they note that false and "fabulous" rumors commonly achieve widespread acceptance. (p. 90) With respect to how we infer authenticity during the social exchange of rumors, they cite probabilistic mental models (PMMs) to explain how we make *confidence judgments*, which are subjective estimates of the probability that an assertion is true. (p. 91) Further, they note PMM theory is a variety of Egon Brunswik's *lens model* of judgment, which holds that people infer judgments on the basis of cues. (pp. 90 & 91) In the context of records management, such cues are contained in metadata associated with the records in question.

A considerable body of research focusing on persuasion has demonstrated that the credibility of the source is associated with attitude formation and change. (p. 100) Circumstantial evidence also suggests that repetition is linked to the assimilation of beliefs. (p. 101) Indeed, the authors quote Hasher, Goldstein, and Toppino as asserting, "If people are told something often enough, they'll believe it," a dynamic that has been called the *illusory truth* effect. (p. 102)

Conversely and unsurprisingly, if a rebuttal is provided, rumors are less likely to be believed. (p.

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[4] For more on Charles Ford's views on the psychology of deceit, see http://ambur.net/Lies.htm

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In summary, DiFonzo and Bordia observe that rumors tend to be believed to the degree they:

a) agree with recipients' attitudes (especially rumor-specific attitudes),

b) come from a credible source,

c) are heard or read several times, and

d) are not accompanied by a rebuttal.

Additional cues that have been suggested include the extent to which:

e) the denial source has nothing to gain from the rebuttal,

f) the rumor fits a pattern already in place,

g) the rumor is consistent with emerging data, and

h) the rumor agrees with expert consensus. (p. 111)

However, the authors note that rumors commonly contribute to associations that are illusory and they often spawn systematic biases in predictions as well. (p. 114) Underlying those illusions and biases are *knowledge structures*, which are mental representations of an object, event, or construct.

DiFonzo and Bordia note that activation of knowledge structures depends upon salience, availability, accessibility or similarity. If the structure is changed, they say the *law of cognitive structure activation* will be invoked, meaning that "Ambiguous stimuli will be encoded as consistent with the most salient knowledge structure and thereby affect relevant judgments and behaviors." (p. 115) In many cases, people may merely accept a readily-available explanation. (p. 116)

Closely related to knowledge structures is the concept of *stable-cause attributions*. Stable causes are relatively permanent, whereas unstable causes are relatively temporary. We are more comfortable with stable-cause explanations because we are motivated to view reality as predictable and understandable. (p. 117)[5]

Insidiously, according to DiFonzo and Bordia, rumors do not have to be believed or trusted to

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[5] When applied to judgements about the likely behavior of other human beings, stable-cause attribution is known as the *Fundamental Attribution Error*, i.e., assuming that an individual's behavior will always be consistent with their character and not affected by context and circumstances.

powerfully affect action; all that is required is that they make sense. (p. 120) Their assertions along these lines are consistent with Klein's observation that decision-making in naturalistic settings is irrational, which is to say we are inclined to accept the first plausible explanation rather than to consider all of the reasonable alternatives in order to select the best one.[6]

In the face of uncertainty, rumors become working hypotheses as groups attempt to make sense, manage threat, and restore a sense of predictive or interpretive control. The authors call them *"improvised news"*. (p 122)

DiFonzo and Bordia cite four ways in which rumor dynamics shade the truth:

> *Leveling* refers to the loss of detail and the reduction in length at each successive transmission so that the rumor is more easily grasped, especially during early transmission.
>
> *Adding* to rumor content in the form of new material or additional details. Adding has been referred to as "snowballing".
>
> *Sharpening* refers to the accenting and highlighting of certain details in the rumor message [which] may occur as the result of leveling. (p. 135)
>
> *Assimilation* refers to the shaping of rumor content – through leveling, adding, and sharpening – so as to be in greater accord with personal cognitive schemas. (p. 136)

The authors note research has shown that adding, rather than leveling, occurs in circumstances involving high ambiguity and high importance, such as catastrophes and murders. In such situations in real-life, it occurs when the group is quite interactive and collaborative. (p. 137) Whereas collaborative activity tends to produce adding, serial transmission tends to produce leveling. (p. 138)

However, these dynamics do not necessarily mean rumors are wholly untrue. Indeed, to the contrary, within established organizational settings, rumors, particularly those conveyed via the "grapevine," tend to be quite accurate, albeit incomplete. (p. 146) Based upon research evidence, the authors conclude the accuracy of rumors varies widely but that rumors within organizations tend to be accurate. (p. 147) By contrast, rumors generated by catastrophic circumstances tend to be relatively inaccurate. (p. 159)

With respect to the dynamics affecting the accuracy of rumors, DiFonzo and Bordia observe:

- Attentional narrowing leads to distortion in favor of salient information.
- Memory limits lead to distortion that favors easily encoded or salient information.

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[6] For more on Klein's views on recognition-primed decision-making, see http://ambur.net/rpd.htm

- Perceptual biases lead to selective perception and interpretation so as to cohere with existing cognitive structures such as stereotypes and schemas.

- High collective excitement leads to "suggestibility" and diminished critical ability.

- With an accuracy motivation, the capacity to check leads to increased accuracy. (pp. 161 & 162)

The limitations of human memory lead participants in the serial transmission of rumors to level the number of details recalled. Details that are more difficult to encode or retrieve are dropped. (p. 163) More generally speaking, memory limits cause inaccuracies by giving undue weight to information that is easily remembered. (p. 239)[7]

After we have generated a hypothesis, DiFonzo and Bordia say we tend restrict our attention and frame to the evidence to be consistent with our hypothesis. (p. 164) Again, their observation is consistent with Klein's assertion that we tend to accept the first solution that comes to mind, provided that it passes a mental test of plausibility. Moreover, they note a similar dynamic occurs in collective behavior, called *symbolization*, when crowds "selectively define a situation by focusing tensions and actions in a simplified way on one object, as with a scapegoat." (p. 164)

However, motivation for accuracy is higher when we are held personally responsible for what we say. Thus, within grapevines consisting of sustained relationships, we are more highly motivated to be accurate. In word-of-mouth communications, distortions hinge on our ability to evaluate the message as well as the consequences of imprecise transmission. (p. 166) The selective transmission of rumors tends to foster inaccuracy by promoting the persistence of only socially acceptable rumors that enhance relationships within our in-groups. On the other hand, desire to maintain close or long-term relationships may also motivate accuracy. (pp. 166 & 167)

DiFonzo and Bordia note information that conflicts with our stereotypes may be omitted the interest of telling "a tidy story." (p. 167) Moreover, the content may be modified to facilitate rationalization and justification of our existing beliefs. That is a relatively "cool" (cognitive) process. However, the self-enhancement motivation acts in another "warmer" (emotional) way by promoting the spread of rumors that complement our unfulfilled wishes, biases, suspicions, and desires, especially when consensus fails to emerge. In short, the authors observe that rumors vent underlying emotional tensions, thus helping to relieve, justify, or explain anxiety. (p. 168)

Consequently, the anxiety of individuals, both by nature and based upon circumstances affecting them, may aggravate cognitive processes that routinely diminish accuracy. Moreover, collective excitement – when many individuals become anxious – may compound the effect by increasing

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[7] In *Made to Stick: Why Some Ideas Survive and Others Die*, Chip and Dan Heath outline the SUCCES formula for getting ideas to stick: Ideas should be Simple, Unexpected, Concrete, Credible, Emotional, and supported by Stories that "put knowledge into a framework that is ... lifelike [and] true to our day-to-day existence." (p. 214)

suggestibility (distortion of perception) and reducing critical thought. In addition, collective excitement tends to reduce standards for verification. (p. 170)

The ability to confirm the accuracy of rumors may also be challenged by new and different channels of communication. The perceived need to act before information can be checked is another constraint on accuracy. If delays may have highly adverse consequences, we may perpetuate inaccurate rumors to avoid the potential results if the rumor were to happen to be true. (p. 171)

DiFonzo and Bordia suggest that distrust plays a central role in rumor transmission. When more formal information is mistrusted, we compensate with informal speculation, or rumor. (p. 186) Moreover, social cognition research on the perseverance of beliefs has demonstrated that impressions, once formed, are highly resistant to contrary evidence. In short, even when clearly discredited, initial perceptions tend to persist. (p. 222)

The persistence of belief has been explained by three mechanisms:

> *Confirmation bias* – the tendency to conform incoming contradictory data so that it does not challenge existing biases.
>
> *Causal inference making* – the predilection to attribute unwarranted cause-effect relationships to merely contiguous events. (p. 223)
>
> *Denial transparency* – a term that expresses the ineffectiveness of denial in negating propositions (denials are transparent in that the people see through them; i.e., they are ineffective). The theory contends that persons classify all propositions as true initially, no matter how briefly. Propositions deemed false are then appended with a *not true* tag, which is generally more difficult to remember than the affirmative proposition. (p. 224)

DiFonzo and Bordia note that the Information Dimension Scale (IDS) provides a means of categorizing information with continuous rather than discrete metrics. Instead of classifying information as either rumor or not rumor, it can be characterized as having an information dimension pattern that is strongly, moderately, or weakly characteristic of rumor. (p. 230)

The same might be said of all information, including that which is highly formalized and has been confirmed by many "news" sources. Not only is it possible that group "excitement" (hysteria) may be at work but also groupthink. Truth may not be an absolute; it may be relative not only to the time and circumstances in which it is evaluated but also to the degree to which it can be fully and accurately measured.

In statistics, the term "goodness of fit" is applied to describe the validity of hypotheses, and truth is more properly aligned along a continuum rather than at bipolar extremes. This point is also highly relevant to the discipline of records management, which continues to insists that some information, including some electronically stored information (ESI), is appropriately classified as "nonrecord" material.

Under the Federal Rules of Civil Procedure (FRCP), all ESI is potentially subject to discovery in litigation. Thus, the only question is how difficult (and costly) it may be to "discover," retrieve, access, and share when required. Effective retrieval requires metadata, but those creating and managing the records may lack incentive to provide the necessary metadata. Moreover, as human beings, we may prefer that our intents and actions not be "recorded", much less made readily available to those who may be affected. Thus, it is not surprising that records managers, as human beings, persist in promoting policy enabling avoidance of personal responsibility.[8]

Explaining why people believe rumors, DiFonzo and Bordia cite four cues we use to infer the veracity of a rumor, including whether it:

- accords with the hearer's attitude,
- comes from a credible source,
- is heard repeatedly, and
- is not rebutted.

Other cues include:

- stakeholder status, i.e., whether the rumor monger has something to gain,
- consistency with a larger pattern,
- consistency with emerging data, and
- agreement with expert consensus. (p. 234)

Among the negative consequences, DiFonzo and Bordia note that rumors commonly lead to erroneous judgments of correlation. That is, they cause people to see relationships that do not actually exist. They also prompt us to make predictions that are anti-regressive (suggesting that recent, abnormal trends will continue) and to ignore base-rate information that is more relevant for prediction of future results. (p. 235)

Insidiously, the results of DiFonzo and Bordia's studies show that rumors do not have to be believed in order to have an effect; they merely need to make sense. (p. 235) Thus, to the degree we may wish to avoid negative consequences and to act effectively and responsibly, it is incumbent upon us to do our best not only to create and manage good records of our intents and actions, as well as the results they beget, but also to insist that the organizations with which we associate ourselves do likewise.

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[8] See also Wikipedia's article on ESI.