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The ‘textual attitude’ and new technology

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Abstract

One of the most important tasks information systems executives face is making sense of emerging opportunities for organizational innovation through information technology. However, the parlance of information systems practitioners yields a variety of metaphors suggesting that this crucial task is a perilous one, in which success is far from assured. This paper reports on an interpretive study of these metaphors, using data from field interviews. Five images are identified, which evoke certain hazards and illuminate aspects of a successful executive response. The subsequent analysis of these images reveals how they serve constructively in promoting rationality in sensemaking, against a background that includes an ontologically problematic innovation and belief formation under institutional pressure. The paper concludes with some thoughts on the wider role of discourse in innovation sensemaking. © 2001 Elsevier Science Ltd. All rights reserved.

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1. Introduction

...these concepts come out — I need to know where I stand. But I also need to know where my company stands. And furthermore, this stuff is so pervasive today... everybody out there is a genius. You know, everybody is a genius. And everybody is tellin’ me what to do and how to do it. And, um... I need to be able to converse with them, or confidently agree or disagree with them. Otherwise, I’ll never get anything done. [Information systems executive, motion picture industry]

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New ideas for the application of information technology pose a relentless challenge to organizations and their managers. Extranets, data marts, network computing, ERP, e-commerce — in fast-moving waves innovative concepts like these sweep through the popular media, the business press, and the technical trades; they command the stage in conferences, expositions, and roundtables; and they saturate the talk in project meetings, boardrooms, cubicles, hallways, and elevators. Such ideas often gain tremendous momentum, but simultaneously they entail much risk. Complexity and immaturity in the enabling technologies, a lack of collective experience with their application, a shortage of insight on organizational and strategic appropriateness and fit — for the prospective adopter, these and other hazards loom large.

In this atmosphere of grand promise, deep uncertainty, and high peril, information systems executives often sit on the hot seat, pressed to articulate strategic positions on the importance of these new ideas, or challenged to respond intelligently to the innovative proposals and initiatives of other organizational members. The information systems executive is frequently among those whose “whose knowledge, interests and beliefs will make a material difference in an innovation adoption effort” (Wolfe, Fleischer, Morell & Eveland, 1990, p. 15), an individual whose “authoritative commitments” (Tornatzky, Eveland & Fleischer, 1990, p. 33) will play a crucial role in determining the course of organizational decision-making and technology transfer. But as the opening quote above suggests, such executives must define and articulate their positions on information technology innovations within a complex matrix of interests and opinions situated both within and outside the organizations they serve (Swanson & Ramiller, 1997).

This paper explores the information systems executive’s encounter with The New in information technology and with the associated social context of innovation. We focus, in particular, on representations offered by practitioners as they characterized their own and others’ responses to the innovative ideas in the field. Collected during a recent field study, these representations invoke images of failure and apparent irrationality. Such images contrast with the model of the “rational manager” commonly implied in disciplinary research in information systems — a manager who strives systematically to apply information technology in solving business problems (Kumar, van Dissel & Bielli, 1998). These images suggest instead that information systems executives are haunted by a specter of failure that potentially arises, beyond the uncertainties intrinsic to innovation, in their own selves. At the same time, these images function as a salutary alert that helps the information systems executive hew to an effective path in his/her efforts to make sense (Weick, 1979, 1996) of information technology innovations.

Understanding the utility of such imagery to information systems executives requires grasping the substantive challenge those innovations present. This demands more than merely acknowledging their often considerable uncertainty — the innovation challenge cannot be reduced to the simple fact that not enough is yet known. Rather, the innovation presents a problematic ontology (Swanson & Ramiller, 1997). Accordingly, our analysis will place the images invoked by practitioners in the context of a re-conceptualization of the information technology “innovation,” the specifics of which will help reveal the salience and power of those images.

2. Outline of the paper

The discussion begins with an overview of the field study that produced the data in which the current analysis is grounded. Following this overview, we entertain two phases in the interpretation of these field data.

In the *first phase*, we consider informants' representations about what constitutes good and bad, smart and foolish, proper and improper executive positioning on information technology innovations. This analysis focuses on the metaphors informants used to characterize the innovation–sensemaking challenge. The meaning and significance of these metaphors is amplified by an examination of informants' associated commentary. The informants' representations are brought together and summarized in five images (Fig. 1). This analytic reduction helps to reveal how the metaphors assist information-systems executives to organize their thinking about the sensemaking task. More specifically, it shows how the metaphors alert sensemakers both to the hazards in this undertaking and to means for navigating around these hazards and achieving a rational positioning.

In the *second phase* of our interpretation, we consider how to bring the five images together in the context of the managerial challenge involved in making sense of major new information systems opportunities. Here we draw on recent institutional theorizing concerning the relationship between language and practical reality (Said, 1978), and between discourses on innovations and the innovations themselves (Abrahamson & Fairchild, 1999; Bucciarelli, 1994; Latour, 1996).

3. Data and analysis

The interviews that provided the data for the current analysis were conducted as part of a broader study of managerial sensemaking and information technology innovation (Ramiller, 1996). During the study, the author interviewed 16 senior information systems managers, 10 senior systems consultants and, for added perspective, a small number of individuals in other key industry roles at the interface with systems professionals, including 4 business executives (a CEO, a CFO, a vice president of marketing, and a vice president of operations), two senior editors with information systems trade journals, two marketing representatives of technology-vendor firms, and two marketing executives with information technology research firms. The information systems managers and business executives worked in a large variety of industries, including healthcare, food packaging, insurance, financial services, entertain-

Image 1.	<i>Silver bullets and Hare Krishnas</i>
Image 2.	<i>Jumping on the bandwagon</i>
Image 3.	<i>A rose by any other name...</i>
Image 4.	<i>The wheat from the chaff (or) Money on the table</i>
Image 5.	<i>Nothing is transplantable...</i>

Fig. 1. Five images of information-technology innovation sensemaking.

ment, computer manufacturing, wholesale distribution, retail, education, and assorted other services.

The interviews took place over an 8-month period, beginning in November 1994 and concluding in early July 1995. Thirty of the 36 interviews took place in person, the remaining 6 by phone. Interviews ranged in length from about half an hour to one and a half hours. Twenty-eight of the interviews were tape-recorded and transcribed in full. For the remaining 8 interviews, detailed notes were written by hand during the conversations and then typed up immediately afterward, filling in additional detail from memory.

The basic orientation of the study was interpretive (Walsham 1993, 1995), in that it subscribed to a strategy for producing knowledge based on “understanding phenomena through the meanings people assign them” (Klein & Myers, 1998, p. 5). In particular, the study sought to learn how practitioners themselves view the task they face in making sense of information technology innovations. The interviews were accordingly conducted in the manner of “focused interviewing,” recommended by Spender for interpretive research. Focused interviewing:

...combines unstructured interviews with a loose pattern of agreement with the interviewee about the context of inquiry... It gives the subject the opportunity to express himself about matters of central significance to him rather than those presumed important by the interviewer (Spender, 1989, p. 79).

This “forces the researcher into the subject’s rationality,” and helps create opportunities “to communicate unanticipated meaning from the subject to the researcher” (Spender, 1989, pp. 75–76). In the present case, the “context of inquiry” was set by means of a standard introduction which described the research project as a study of some of the prominent ideas for innovation in the information technology arena. No formal interview protocol was used. However, a checklist was employed to keep track of basic subject areas that prior reading and conceptual foundations suggested might be pertinent. Interviews did not proceed in order by these subject areas but developed their own conversational flow and structure. Typically, all areas were covered with little or no elicitation.¹

The interview conversations addressed a variety of innovations, with a particular focus on CASE (computer aided software engineering), client server computing, data warehouse, and business process re-engineering. However, informants were given free rein to talk about other innovations, as they felt might be appropriate to illustrate points they wished to make. Additional innovations discussed with some frequency

¹ The interview procedures made the overall process “reflexive” in the sense described by Hammersley and Atkinson. In reflexive interviewing researchers “do not usually decide beforehand the exact questions they want to ask, and do not ask each interviewee exactly the same questions, though they will usually enter the interviews with a list of issues to be covered. Nor do they seek to establish a fixed sequence in which relevant topics are covered; they adopt a more flexible approach, allowing the discussion to flow in a way that seems natural” (Hammersley & Atkinson, 1995, p. 152).

included work-flow management, object-orientation, rapid application development, open systems, information architecture, and electronic commerce.

Primary analysis of the interview transcripts and notes adopted an iterative open-coding approach, working upward from the isolation, documentation, and indexing of *core concepts* to the elaboration of more complex *themes* (Creswell, 1994; Hammersley & Atkinson, 1995; Miles & Huberman, 1984; Strauss & Corbin, 1990). The openness implied by “open” coding means that the scheme for coding the data evolved as the analysis proceeded, with revisions to the working set of core concepts being made to reflect new discoveries and insights that arose in the author’s intensive encounter with the data. Once a largely stable coding scheme was attained, all transcripts and notes were re-coded based on the overall sense or “latent content” (Babbie, 1989) of informants’ remarks. A complete index linking codes to the original interview texts was also developed.

Higher-order themes relating to the challenges of innovation sensemaking began to emerge during the primary conceptual analysis and coding process. Additional themes suggested themselves with successive readings of the transcripts in the light of the coding assignments. Themes were recorded by means of memos (Miles & Huberman, 1984), cross-referenced to the coding index and, hence, back to the original transcripts. The overall focus in developing the thematic memos was to reflect upon various aspects of the informants’ grasp of the problematic in innovation sensemaking. These aspects embraced issues touching on the character of the innovation itself, the organizational context of innovation, the wider industrial landscape, and executive resources and preparedness.

With generalization a goal of the study, the thematic analysis attempted to transcend informants’ expressions of problems peculiar to their own organizations, and instead to move toward the articulation of a more fundamental problematic. This was accomplished, in part, by attending closely during the iterative reading of the transcripts to recurrent and conventionalized elements, signalled to a substantial extent by the repetition across informants of specific metaphors, narratives, and arguments. The search for metaphor, in particular, was prompted by its recognized centrality in the establishment of meaning and its pervasiveness in thought and expression (Lakoff & Johnson, 1980). Thus, for example, the prevalence of images like “silver bullet,” “bleeding edge,” and “pendulum” suggested that they function as *root metaphors* (Atkinson, 1990, p. 22) in the culture of systems practitioners, i.e., metaphors that speak in a fundamental way to practitioners’ aspirations for, and fears about, information technology innovation.

Among the themes that were identified, a prominent one concerned *departures from rationality* in innovation sensemaking. Metaphor played a particularly lively role in the expression of this theme, and helped to reveal an underlying normative view on executive responses to the sensemaking challenge. The expression of this theme in informants’ remarks also entailed active self-reflection, suggesting (as Weick (1995) argues for sensemaking more generally) the active and on-going construction of *identity* relative to organizational and professional roles and values.

This theme surrounding departures from rationality provides the focus for the current paper. Its development, as described earlier, involved the identification in the

interviews of related metaphors, their reduction into a concise set of images, and the determination of their relationship to associated commentary and reasoning. As the Outline above suggests, however, the current analysis did not stop at a simple characterization of informants' views. Subscribing to the principle that "theory plays a crucial role in interpretive research" (Klein & Myers, 1998, p. 12), the analysis exploited prior theorizing about the articulation between language and practical reality in order to gain a clearer understanding of how the images relate to one another as elements of a larger phenomenon. The decision to draw on theorizing about language was driven by the interviews themselves — a point that will be taken up more completely when we consider the images.

The final analytical event in the current study occurred in the act of writing of this paper. Writing here contrasts with mere "writing up." In quantitatively oriented research, the latter suggests a simple reporting of results. By contrast, the reporting of qualitative findings necessarily entails choices among alternative selections, arrangements, and representations of "the facts" (Hammersley & Atkinson, 1995; Becker, 1986, p. 18; Mulkay, 1985). In short, the act of writing invariably helps to produce the very results that it reports. A particular challenge in exposition, in this case, was to make the theory and argument serve and illuminate the data. To curb flights into abstraction remote from the informants' own sense of the problem, the interpretation developed in the following pages is joined to a substantial reporting of interview data.²

A bit more detail on the analysis is in order here. First, certain metaphors that appear in the interview texts quoted below are passed over without comment. In addition, since the selection of quotes revealed in this paper is from a much larger canvas of interview material, the reader may wonder about the appearance in the data of additional metaphors. Why the particular choice of metaphors for attention in the current analysis? The selection in question is justified by its relevance to the theme that is the focus here. Other prevalent metaphors ("bleeding edge" is a good example) certainly have a significant bearing on other aspects of information technology sensemaking, but not particularly so relative to informants' interest in sensemaking irrationality. On the other hand, the thoroughness of the iterative cycle of reading and analysis described above helps ensure that we have a reasonably complete identification of the metaphors that *are* relevant to the theme.

Also, certain quotes offer a mix of metaphors, potentially making them expressions of more than one of the five images isolated in the analysis. Thus, readers will note that a given informant's remark is not necessarily a pure expression of a single image.

Readers should also recognize that an informant's utilization of a given set of images is not necessarily expressive of a particular position. Metaphor is being deployed in a domain characterized by high uncertainty and ambiguity, and the various metaphors cast light on different aspects of the informants' complex experience of this domain. Thus, the focus of the presentation that follows remains on the images

² Each piece of quoted material is identified by the informant and transcript page. Thus, the quote opening this paper appears in the transcript (Information systems manager 15, p. 7).

themselves and their usefulness to informants as cognitive tools. The intent is not to categorize, characterize, or critique the informants based on their use of the images.

Finally, the analysis of imagery reported here is unavoidably an exercise in interpretation. There is no way to “prove” it correct. This is not to say that one interpretation is as good as any other (Eagleton, 1983, pp. 137–138; Rosenau, 1992, p. 122). Rather than correctness, however, an interpretation should be judged on the basis of its plausibility and utility. Concerning *plausibility* (Atkinson, 1990; Golden-Biddle & Locke, 1993), we seek a reading of the interview material that is solidly grounded in those texts and consistent with our collective understandings of the wider context that produced them. The reading-and-coding process described above helps ensure that the interpretation provided here remains close to the original texts and considers known aspects of the social and organizational contexts in which they arise. With respect to *utility*, we seek an interpretation that says something fresh and compelling about an important issue or problem. In this case, an area of significant managerial concern is explored in the light of a type of data and a theoretical perspective not yet commonly considered in the information systems discipline. In short, while alternative interpretations of the interview texts reported here remain possible — and readers will certainly develop their own — the current interpretation is firmly grounded, relatively novel, and of practical interest.

4. The five images

4.1. *Image one: silver bullets and Hare Krishnas*

...and I keep waiting for a *silver bullet*, a *magic formula*, an *answer to all my prayers*, and it never happens! (Information systems manager 7, p. 2)

They're kind of like *Hare Krishnas*, you know, they jump on the thing and that's it, it's like *the gospel*, *the only way to go*... (Information systems manager 3, p. 2)

The parlance of systems practitioners is rich with metaphors that warn against succumbing to unreasoning belief in the efficacy of new innovations.³ Thus, we hear innovations mockingly characterized as “silver bullets” (e.g., Consultant 3, p. 18), “magic wands” (e.g., Information systems manager 2, p. 2), and “technological nirvana” (e.g., Information systems manager 2, p. 2; Consultant 11, p. 5). Meanwhile, their fans and boosters are satirized as uncritical and fanatical:

... they thought that was the way to go, I mean, they became, you know, *believers*. (Information systems manager 3, p. 5)

³ In these and subsequent quotes, key elements are identified in italics.

What happens is, you have these *religious people*, almost *religious fanatics*, saying these things, and you wait, a year, two years... nothing happens. (Information systems manager 7, p. 3)

We just kinda shake our heads at people that feel they need to go to seminars and spend a lot of money on [data warehouse]... and *get religion*. (Information systems manager 12, p. 5)

This family of metaphors presents two aspects. First, it mocks claims for an innovation's almost supernatural power to solve crucial problems. For example, Brooks, in a well-known essay (1995), applies the silver bullet metaphor to the claims that are often made for productivity innovations in the software engineering domain. Second, this set of metaphors suggests that where there are wild claims on behalf of an innovation, these claims will surely find a home among the foolish and gullible. As a cautionary image, the message is clear: blind faith and fanatical adherence are contrary to the rational and moderate approach to innovation that is consistent with sound management practice.⁴

4.2. *Image two: jumping on the bandwagon*

I saw a lot of companies, you know, where the CIO dictates, 'We're gonna put client server in.' 'Well, why are we doing that?' 'Oh, because we have to put client server in, that's *the wave of the future*, and everybody's gotta *get on board* with it.' (Consultant 10, p. 20)

And that's a problem with all these initiatives, is that... you know, there's a lot of *peer pressure* out there from different companies that, 'If they have it, we need it...' (Consultant 10, p. 22)

In the '70s it was structured analysis, structured design... And if you weren't doin' structured analysis, structured design, you probably weren't an '*in*' *DP shop*. That was *the thing* to be doin'... (Consultant 3, p. 16)

⁴ Readers should not construe that informants' metaphorical references to religion are intended to malign actual religious belief. Such phrases as "religious fanatics" and "get religion" appear in speech as highly conventionalized metaphors.

The “silver bullets” image speaks of unreasoning belief in the innovation itself. Our second image, by contrast, concerns the social context of innovation and its power to influence executive response. As the preceding quotes suggest, the second image is about the pressure information systems managers feel to get with it and stay in step, and to let popular opinion define corporate direction.

The “bandwagon” and “silver bullet” images, while distinct, do come together in the portrait of the manager who believes that the crowd, by virtue of sheer numbers, must indeed “know something.” A consultant parodied this stance:

...the next *silver bullet* came along called client server. So, it’s like — well, jump off of this one [CASE] and *jump on to that bandwagon* out there. ‘Right now, it’s *on the upcurve* now, so *that must be the answer*. Let’s all go client server.’ (Consultant 3, pp. 18–19)

Another consultant invoked the inherent irrationality involved (note the word “craze”):

...they jumped into it, because it was *the latest and greatest craze* at the time and they figured *they had to sign up for it*, too... and, ‘We’ve got to go in and *we’ve got to do what everybody else is doing*.’ (Consultant 10, p. 13)

We witness in these quotes the suggestion that the very existence of a bandwagon may be sufficient to foster belief in an innovation’s efficacy.

Nevertheless, we need to be careful to separate what informants’ metaphors about bandwagons are saying about potential managerial irrationality from the more complex phenomenon associated with executives’ real and practical relationships with bandwagons, fashions, and fads (Abrahamson, 1991, 1996). Joining, or following closely behind, a bandwagon need not entail the abandonment of reason, because such action can in fact be rational and even strategic. It may: (1) involve the pursuit of managerial legitimacy; (2) exploit the informational value of marketplace signals; or (3) reflect the practical dependence of prospective adopters’ opportunities on the technical directions set by other interests.

With respect to legitimacy, an information technology innovation can offer the individual systems manager a significant opportunity for professional self-promotion. Alternatively, the failure to keep up may be professionally detrimental. One informant reported the following about his CIO, an individual who had recently enjoyed significant public recognition from peer-based organizations and the trade press:

The head of the IT organization is not an... applications development oriented kind of person. I mean, her vision has always been bigger and grander... It’s not... re-engineering, it’s not, you know, any of these other buzzwords as much as that she hears about them, and it’s important that she be able to say, ‘Yeah, we’re doing client server, and we have na-nuh, na-nuh, na-nuh.’ It was important at one point to say, ‘Yeah, we’re doing CASE and na-nuh, na-nuh, na-nuh...’ to her peers and so forth. But in terms of getting involved and saying, ‘Gee, are we

doing the right thing?’ ...that’s never been a strength. (Information systems manager 6, pp. 7–8)

As this informant suggests, such self-promotion can sometimes put the manager at odds with his/her organizational duty. A CIO described the tension this way:

...at some point I realized that I was being paid by a company that had to sell a product, and that the job of systems were to facilitate that sale in a profitable manner. And, to the extent that we help the company do that, we’re doing our job. But, you know, my job is *not* to have the latest gee-whiz. Very frequently there are systems people out there that are [far too] interested in having the latest thing. Some of them still, to my amazement, believe it’s important for them to put on their resume that they have used the latest technology... You know, one particular person said [to me recently], ‘Well... I really think I should be involved in this, because I want to have it on my resume.’ (Information systems manager 1, p. 9)

Nevertheless, when one’s legitimacy and, hence, future opportunities depend upon public displays of conformance to popular trends, following the crowd (or at least making a good show of doing so) may be quite functional:

...ideas like this *get momentum*, and a manager *starts to look like a slacker*, if he isn’t doing anything about them. (Technology vendor representative 2, p. 5)

Furthermore, professional and organizational interests are often not entirely at odds. The legitimacy of the manager’s organization, too, may be affected by similar public displays of progressiveness (Abrahamson, 1996).

The second rationale for bandwagon-following is rooted in the innovation’s inherent uncertainty. The manager may turn to market signals as a proxy for concrete information that is in sorely short supply. A CIO commented:

A lot of my information comes from the vendors and what they *want* me to believe. But then, look at the marketplace, how does the marketplace react. And that really tells you a lot, too. (Information systems manager 15, p. 6)

Somewhat later, he continued:

...in the case of client server, you see so many different vendors coming at it... And whenever you see two lines intersect, it says something. In the case of client server, 300 lines intersect. Every line you look at intersects. From the hardware vendors, they’re goin’ after it. From the software vendors, are going at it. From the systems integrators, they’re goin’ at it. From the industry side, they’re goin’ at it. So tell me again it’s not worthwhile. (Information systems manager 15, p. 10)

The general noise level surrounding an information technology innovation can

indeed be a predictor, however imperfect, of its ultimate validity and importance. But the noise level may also suggest that there are real, structural changes taking place that will transform the character of organizational computing. This can give rise to the reasonable fear that falling behind the crowd may mean being left materially out of the future. This represents the third motivation for bandwagon-following:

If you also look at the application software development vendors, they're all developing client server applications that you're not gonna be able to take advantage of. That means you're going to be behind... the people left standing are the ones that will have made that transition. (Information systems manager 3, p. 14)

[Data warehouse] is really getting a lot of people excited and impressed... If you're in a company that hasn't done anything with that yet, you're probably gonna be a little bit behind the 8-ball, if you wait to do it. And every year that you don't do it, you're gonna get way behind it. And you're not gonna be in the business arena, you're not gonna be able to compete. You're just plain not gonna be able to compete. (Information systems manager 8, pp. 7–8)

[Interviewer: "Why was the choice of a client server architecture the obvious one?"]

[It's] just where the technology was going. It looks like a lot of the companies were moving into the client server arena, and uh, and industry says that's where the future is, and... we took a gamble on it. We're pulling our hair out, but... (Information systems manager 10, p. 4)

In summary, the "buzz" in the wider community about an innovation is of considerable practical interest to the information systems executive. It helps shape the terms of legitimation for managers and organizations, it signals the innovation's likely importance, and it foreshadows technical directions that will help determine what may and may not be possible. Accordingly, the deployment of bandwagon-related imagery among the informants in the current study presents a more complex picture than that relating to "silver bullets." At one extreme, as suggested by the quotes with which this section began, running with the crowd may mean in effect to join the mindless "Hare Krishnas." On the other hand, there is virtue in a cautious watchfulness, as there is too in paying due respect to the more fundamental processes that continually weave innovations into the current standards defining managerial and organizational legitimacy.

4.3. *Image three: a rose by any other name*

...who gives a damn [what 'client server' means]. So what? It doesn't really matter that people call a rose by any other name. And maybe it isn't a rose, it's a petunia. Who cares? (Information systems manager 2, p. 10)

I think [data warehouse] is a well-worn concept, and I think a whole lot of people thought it was a good idea 30 years ago. So, yeah... it's a 30-year-old concept with a different name. It's sort of a rose by any other name. (Information systems manager 11, p. 5)

Our third image gathers together informants' reflections on the distinction between the language that labels, describes, and promotes an innovation and the actual innovation that the language purports to represent. Per the classic Shakespearian allusion,⁵ the executive's challenge is to "catch the true scent" of the innovation, in spite of the talk that surrounds it, which in fact may serve to obscure it, and possibly even misconstrue it. (Note the informant's remark, "maybe it's a petunia.")

The socially constructed and sometimes tenuous relationship between the innovation and its associated discourse can be glimpsed in the origins of innovation names. An information systems executive in a leading financial-services firm remarked:

...when we engage in an initiative and we start to do things, we get down a path [where] we have trouble trying to communicate what we're doing. And then we put our heads up and we look around, and some consultant or commentator or some book writer has put a name on what we're doing. And so... we pick it up and we grab it... And I think information highway, electronic commerce, are examples of... of labels that have been put on initiatives or activities that have been around, literally, for some time. (Information systems manager 14, p. 6)

An executive for an information technology research firm described a similar process:

We kind of become the de facto... coiner, I guess, of some of these things. Because as our analysts try and capture... some of this fuzz out here, they have to give it a name in order to give it some identity. And it's like there's identity with no name, and then you try to give it some kind of name. (Research firm executive 1, p. 16)

Meanwhile, at the far end of an innovation's lifecycle, the language/reality divide is again exposed when an innovation falls from favor. Regarding computer-aided software engineering, we hear:

...for a large system, a business-critical system, you must do CASE. You don't do it from the bottom up. Just like you don't build a 747 from the bottom up. You've got to have analysis, methodologies, change control... But you can't use

⁵ "What's in a name? That which we call a rose

By any other name would smell as sweet."

William Shakespeare, *Romeo and Juliet*, Act 2, Scene 2.

the term ‘CASE’ anymore. Instead, you call it ‘model-driven development’ (Research firm executive 2, p. 5)

...even vendors are calling CASE things, things other than ‘CASE’ (Information systems manager 5, p. 1)

When it comes to “smelling the rose,” informants argued for the virtues of common sense:

‘Does it make sense to do this?’ Um, you know, and ‘What is it, really?’ If you stand back and look at some things and say, ‘What is this, really?’ Apply some common sense to it. (Information systems manager 12, p. 9)

The need for common sense is prompted by this recognition that the words associated with an innovation do not necessarily serve its actuality well:

I get enough literature and enough mail a day... usually it’s about 3 to 4... right, about 4 inches [gestures toward a stack of paper on his desk]... and everybody has the latest and greatest, um, mousetrap. What you really have to do is to be able to figure out what’s real and what usable, and not be just sucked in. (Information systems manager 9, p. 11)

The “common” in common sense implies, in part, *in*-common or collective. Common sense grows out of the collective assumptions and understandings of a community, the sharing of a particular frame of reference. Here the frame of reference is the world of information systems practice. Such common sense, however, transcends the transitory collective-ness of bandwagons, because “common” also implies familiarity, a relationship to things already known. In short, common sense is grounded in an understanding of the innovation’s *precedents*. Determining what the innovation is, “really,” is tied inexorably to determining what it is like, to situating the potentially new and different in the context of the familiar (Weick, 1995) and in relation to knowledge that has historical depth and enjoys the status of having been tested over time.

The second information systems manager quoted at the beginning of this section evokes this role of precedents. (Note his reference to “a well-worn concept.”) Other informants made similar remarks. For example, regarding the data warehousing concept we hear:

A big idea is data warehouse. Now, again, that is not a new idea. In the mid 1960s, IBM made a big deal about something called ‘Management Information Systems’... So, that was a concept in the mid 1960s. Now we’re talking about data warehouses, distributed data warehouses, and so forth. And there are technologies that I believe are beginning... are getting us close to supporting that concept. (Information systems manager 1, p. 14)

I guess if I had to be buzzy, I'd say data warehouse is a... client-serverized definition of a very old concept, vis à vis decision support systems, vis à vis IBM's Information Center. ...So it addresses a fundamental problem... Because I've been around a while, it makes me more confident in a data warehouse type concept, because I know the lineage, I know the history, I know... it's been a bugaboo. (Information systems manager 15, pp. 12–13)

Knowing the lineage may help in identifying a worthy innovation, as these quotes suggest. However, it can also help the executive identify the linguistic repackaging of an old idea:

...what I've found is that a lot of times, stuff that's been talked about or addressed years and years ago just comes up with a different name, but it's the same thing, you know, just with a different flavor. Somebody's trying to resurrect, uh... a certain technology or a certain way of business, to sell whatever they're selling... (Information systems manager 9, p. 15)

...[data warehouse] is nothing new or revolutionary. It's something we've done for years that they gave a new name to... it helps the marketing. It helps some people probably think it's new. Um... there are new platforms that you can run it on, that you couldn't two, three, or five years ago. And so that is different. But the concept is nothing new. And people who go to these data warehousing seminars... it seems like they have an epiphany while they're there. I don't understand, because I find it to be very basic, and something that we've done for a very long time. (Information systems manager 12, pp. 1–2)

Well, re-engineering... Machiavelli thought of it long before Champy and all those other people. And he knew all about it. You know, so he wrote this thin little book, and all it is is a book on how you manage municipalities, when you take 'em over... He was an adviser to princes, and he lived in a time, right, when Europe... the little municipalities would change every fifteen minutes, who ran 'em...

So, you know, re-engineering is just, uh, 'Let's give a new buzzword for what the shit everybody should've been doin' all along.' And some of the smarter companies did. (Information systems manager 11, p. 15)

In summary, knowing the rose by its true scent depends on relevant experience and personal history in the field. "Knowing the lineage" is crucial to sound judgment because this is how one identifies what is truly new. And it is also what enables one to distinguish an old idea now enjoying an enhanced practicality or motivation from an idea that is, despite its current hype, merely old.

4.4. *Image four: the wheat from the chaff (or) money on the table*

In today's business world you really have to grab right at money. Profit before taxes, cash, cost reduction. We're gonna take a building and close it, because of this technology. We're gonna reduce our administrative staff. I mean, hard core numbers.

When you pick up these PC magazines, or these journals, or you read... or seminars... you're right-on: information warehouse, client server, CASE technology — all these buzzwords. They don't mean a damn thing until you relate them to money, in the business world. You relate them to money, it really separates the wheat from the chaff, it really, really does... (Information systems manager 8, p. 1)

If common sense is a means to move beyond the veil of language, what about the actual innovation should the sensemaker be specifically looking for? In this respect, informants invoked the principle of adhering to business value. Expressions of this commonly employed money as metaphor, as the quote above ("grab right at money") suggests. This informant continued, placing his perspective in contrast with bandwagon thinking:

I'm not the kind of senior IS executive that does these things for toys. Or who does it because it interests me, or does it because it's, uh, the buzzword or the thing to do, because our competition's doing it, or because a friend of mine is doing it... Bank of America or The Gap or Levi Strauss is doing it. I don't do that. Doesn't matter, because I get paid for performance. Aaaand... in this business arena, in a corporation, you're held accountable for the bottom line. Real simple. When you stay at that level, all the other conversations go away. And then you only have the necessary conversations...

And that's how I do it, with everything I do. What's the cost, what's the benefit. (Information systems manager 8, pp. 1–2)

A consultant provided a similar framing:

If it can't be measured, and the measurement doesn't look like it's gonna make money, I'm not interested. ...For me, being state of the art, or current, is a wasted exercise. When I don't think what we're talking about puts money on the client's table, the application of the concept, I'm just not interested. ...Very black and white. It's real simple. (Consultant 7, pp. 17–18)

That both informants found it appropriate to say the matter was "real simple" sug-

gests that we are in the domain of core values associated with the systems executive role:

...at some point I realized that I was being paid by a company that had to sell a product, and that the job of systems were to facilitate that sale in a profitable manner. And to the extent that we help the company do that, we're doing our job. But, you know, my job is not to have the latest gee-whiz. (Information systems manager 1, p. 9)

In addition to using such metaphors as “grabbing right at money” and “money on the table,” informants also invoked the principle of business value in a number of more or less literal statements:

[Business executives] don't give a damn about [the technology], you know? What they care about is, “Bob, I know that my competition has done something that's kicking the crap out of me this week, and I need to respond. And this is what I heard. And what do you know, and what are you gonna do about it?” ...So, all the technology comes down to a business-driven decision to do something. (Consultant 7, p. 4)

...it only has meaning if it's doing something for the business. (Consultant 3, p. 34)

...you have to relate everything you do into business. People really don't care about the, uh, pizzazz and all the technology things, in the business world. (Information systems manager 8, p. 3)

It's [a matter of] narrowing down to something that's gonna really add to business value, and not technology for technology's sake. (Information systems manager 3, p. 11)

Separating the wheat from the chaff and putting money on the table, while setting aside the me-too, gee-whiz, and pizzazz, all speak to the issue of proper managerial values. These images focus on the goals and orientation that should attend the execution of the systems executive's role. They remind the executive, while surrounded by the public hype and furor attending an innovation, to eschew distraction by always returning to business value.

4.5. *Image five: nothing is transplantable...*

Nothing is transplantable in the real world. Nothing is. The dynamics of any organization are too complex, the interactions go infinite on you. (Information systems manager 2, p. 3)

We have entertained the idea that the “common” in common sense involves something both collective and familiar. However, common sense can also imply recognizing what is common, or universal, to the phenomenon wherever it appears. For an information technology innovation, it is about the fundamental sense (or nonsense) of the innovation independent of particular contexts of application. Information technology innovations are indeed judged in these terms, as when we hear someone declare an innovation a bad idea altogether. Often, however, passing judgment on the business value of an innovation (as called for by Image 4) is contingent — it demands attention to the particularities of a given organization. The fifth and final image takes up this issue:

...you really see if it has meaning, you know, as you understand it. Would it help your organization, would it help certain areas of your organization, where might it help, what are the benefits of it? ...you really need to drill down, in terms of what these concepts are, and what it means from an implementer’s point of view, and what it can mean to your business. (Information systems manager 15, p. 2)

I think it’s most important being able to look at things that are spread either through the trade journals or through consultants or through, um, seminars... and I always think, ‘How can this be applied? Is it cost-justifiable to apply to my particular environment?’ I’ve seen some wonderful things that basically have absolutely no use in our industry. (Information systems manager 9, p. 15)

I don’t think [CASE is] for everyone. Just like I don’t think any of these programs are for everyone, just to jump on the bandwagon, I mean... you know, I think CASE has to be used in a specific environment... Process re-engineering is probably more applicable globally and people can... understand that a lot. Client server isn’t for everyone, for a lot of reasons. Data warehouse isn’t for everyone. (Consultant 10, p. 13)

In short, innovation sensemaking must be *contextualized*. A senior consultant with a major systems consulting firm drove this point home in an anecdote about a client seeking to replace an old, mission-critical system:

“I had a lengthy discussion with one of our clients here in L.A. And, uh, it was the CIO and the CEO and the CFO...”

And the first thing that the CIO says: ‘Okay, well, I’ve already explained to everybody, we’re going client server...’

And I said, ‘Well, why?’

‘Well, you know, because that’s where the industry is going and that’s what technology seems to be pushing to, and...’

And I said, ‘Well, yeah, that’s true. But have you done anything to evaluate the cost/benefit, uh, tradeoffs... the risks... returns for this?’

‘Well, no, we’re just very concerned that we stay current with the technology.’

...It’s like, ‘Well, there’s a Ferrari out there... I guess we’d better go buy one!’ And if you need to go to the corner grocery store and get milk, maybe a shopping cart and a new pair of sneakers is about all that’s required. (Consultant 7, pp. 6–7)

It should be recognized, however, that the executive attempting to develop, articulate, justify, and act on a fully contextualized view often faces contrary pressures, notably from interests lacking perspective on how the organization’s context shapes the innovation’s local prospects and promise. A CEO remarks:

...it’s an unpopular personal position to take... to be less than excited about whatever is blasting through all the press at any given point in time, because... it’s very hard to describe to an audience, whether it be analysts or customers or whatever it may be, that ‘Yes, this is really exciting... you know, information superhighway is wonderful, da-duh da-duh, and isn’t it great, but... our position on this is: that’s just one inch or one foot or one... yard from where we are now, even though it can be described as being ten miles out.’

And... we’d be real popular in today’s forum by talking about how we’re gonna deal with this... ten-miles-out stuff out here. But the reality of life is, ‘I understand that. Not in all its detail... but I subscribe to it as a general thrust and trend that’s occurring within the world. I agree that there’s a bunch of stuff that’s goin’ that way. But what’s really practical for us is being right here with respect to that.’

The easy response to that is, ‘You’re nine miles and 500,279 feet [sic] behind the times.’ As opposed to saying, ‘I’m one foot ahead of the times and that’s exactly where we should be.’ [Laughs.] You know, an audience can say, ‘You’ve got your head in the sand, you don’t understand change, you don’t understand what this is gonna do to your business.’ (Business executive 1, p. 10)

As we have noted already in connection with bandwagons, being current and up-to-date can mean to project the appearance of rationality, whatever the actual facts of the matter. Accordingly, where contextualized thinking argues against an innovation, an executive can entertain significant risk in bucking popular opinion and declining to pursue it.

Contextualization in innovation sensemaking also implies that the very conceptualization, and hence the content, of the innovation itself comes to depend on the

context. The quote opening this section, “Nothing is transplantable in the real world,” is a striking comment on this. If “nothing is transplantable,” then in what sense can the adoption of an innovation take place? It would seem that a kind of re-invention (Rice & Rogers, 1980) necessarily must play a part. Initially, sensemaking must involve the re-constitution and elaboration of the innovative concept relative to the particularities of the organizational setting. In the end, if adoption is undertaken, it will involve *enactment* (Weick, 1995) to create the very innovation that is the subject of the sensemaking.

5. Innovation sensemaking and the ‘textual attitude’

[These people] only know what they know because of what they read. (Business executive 1, p. 11)

Taken together, our five images shed light on how the discourse of systems executives addresses the complex sensemaking challenge posed by the information technology innovation. The “silver bullet” image warns of irrational and uncritical exuberance. The “bandwagon” image invokes ambiguities that arise from following the crowd. The final three images — which, it can be said, call for attention to “precedents, payoffs, and particularities” — invoke aspects of a more critical and reasoned executive response.

But why this set of imagery? Answering that question calls for a closer examination of the sensemaking challenge. In particular, we will consider the nature of the information technology innovation itself and also the institutional resources available to the executive to support his/her sensemaking efforts. That those resources may be deployed well or poorly in the executive’s encounter with the innovation, we will find, is what gives rise to the images at hand.

5.1. *The information technology innovation as socio-linguistic construction*

Problems of interpretability are intrinsic to technological innovation. This is, of course, a familiar notion. In one formulation, Weick (1990, p. 2) argues that a new technology:

...admits of several possible or plausible interpretations and therefore can be esoteric, subject to misunderstandings, uncertain, complex, and recondite.

What makes for such elusiveness and indeterminacy? Consider the complex phenomenon that is actually referenced by the term “innovation” (Fig. 2).

We are predisposed to think of technological innovations as quintessentially material. However, they also enjoy existence as discursive constructions. In fact, during its formative stages, when its interpretability is most problematic, a technological innovation exists primarily or exclusively as “talk” of one form or another —

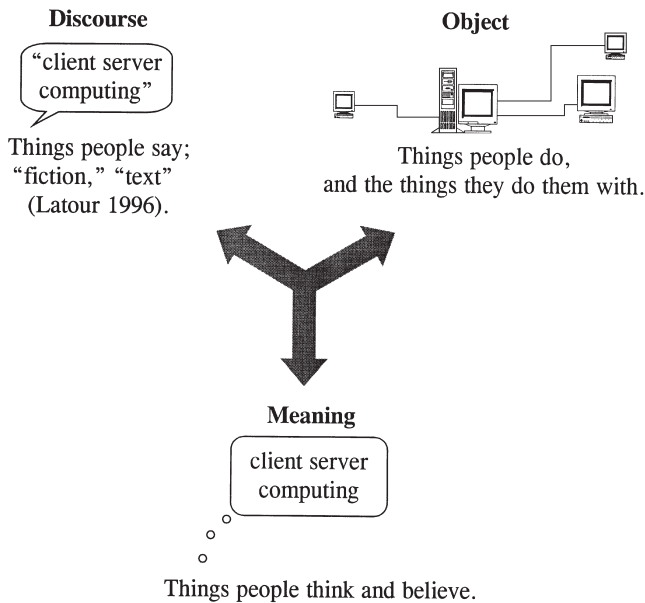


Fig. 2. Deconstructing the information technology innovation.

conversations, memos, design documents, minutes, and so on. In his studies of engineering design practice, Bucciarelli (1994, p. 177) has observed that for much of an innovation's design history, "the object the language points to does not... exist". Similarly, Latour (1996) has portrayed the emerging technological innovation as a "fiction" struggling to become "fact." The actual technology that eventually comes into being thereby takes its shape in a complex interplay of claims and representations with material stuff.

An innovation's progress toward status as a *fact* is expressed not only in its realization in tangible objects and practices but also in its insinuation into the thoughts and beliefs of the relevant social groups. As perceived problems with, and objections to, the innovation are handled, the innovation moves toward a taken-for-granted status in which public debate becomes closed and the innovation's meaning for interested parties becomes stabilized (Pinch & Bijker, 1987). Accordingly, as Fig. 2 suggests, we must not only recognize the roles of language and object in the constitution of the innovation, but also the part played by meaning.

The public discourse on the innovation is the arena in which what the information technology innovation is said to be, what it is argued to be good for, and where it is asserted to apply, are socially constructed and legitimated. In short, the innovation is publicly *theorized* (Strang & Meyer, 1993). (See also DiMaggio's reference to "public theory" in DiMaggio, 1988, p. 15. Regarding information technology innovations in particular, see Swanson & Ramiller's (1997) discussion of "organizing visions," and Kling and Iacono's (1988) treatment of ideological beliefs in computerization movements.) This entails both the theorization of the innovation itself

and of its potential adopters. In this latter respect, theorization has to do with defining the population “within which diffusion is imaginable and sensible” (Strang & Meyer, p. 495).

A crucial difficulty arises, however, in the process of theorization. The public theorization of the innovation and its adopters suffers from over-generality. Its representations gloss over the variability across adopters, and hence the theorization of the innovation itself ignores contingencies likely to affect its fit and its benefits. As Strang and Meyer remark (1993, p. 500), “...theorization defocuses individual variability, assuming equivalences that are perceptibly inaccurate given local information.” In disregarding the variability in adopters, the public theory also ignores the potential variety in the innovation itself, dictated by the need for its modification, adaptation, and re-invention in different settings (Rice & Rogers, 1980).

Such inaccuracies must be transcended in the creation of the material innovation. Where information technology innovations are concerned, the divide separating public theory from material actuality must be bridged anew for each prospective adopter organization. Given the variety in organizational environments, each case raises a somewhat unique set of design issues. Again, as the CIO quoted earlier suggested, no innovation is simply transplantable. The cumulative result across organizations, then, is no monolithic innovation but rather a myriad of innovations that can be labeled, for example, “client-server computing,” or “data warehouse,” or “electronic commerce.”

5.2. *The textual attitude and incipient institutionalization*

For a given organization, making the move from the general public text on the innovation to a more contingent understanding is not facile. The trouble with words merely is that (Said, 1978, p. 58):

...words and objects in the world are not simply interchangeable, since words extend away from objects into an entirely verbal world of their own.

Moreover, as words extend away into their own world, they create a kind of linguistic undertow: people’s beliefs have a tendency to “extend away” along with the words.

Said observed this phenomenon in his historical study on the western concept of The Orient. He remarks (1978, p. 203):

...the Orient was a word which later accrued to it a wide field of meanings, associations, and connotations, and... these did not necessarily refer to the real Orient but to the field surrounding the word.

The consequence for western scholars and diplomats who came to believe in this discursive “Orient” was to fall victim to a homogenizing (and largely denigrative) view of a vast assortment of highly diverse peoples and places. The discursive construction hampered westerners’ capacity to learn from their direct encounters with

those peoples and places, and it reduced their sensitivity, often with dire consequences, to the particularities in front of their faces.

The images of silver bullets and bandwagons suggest that the public discourse on the information technology innovation can become a kind of “Orient” for the systems executive. The executive may come to take for granted the authority of the public texts that purport to characterize the innovation, describe its virtues and applicability, and present the facts and significance of the wider community’s commitment and response (Abrahamson & Fairchild, 1999). The image those texts conjures up then takes command of the executive’s thinking, masking the variable and ambiguous aspects of the real phenomenon, its complex and contingent effects, and its reception.

Critical references to silver bullets, Hare Krishnas, and “what everyone is doing” warn about the danger of being caught in the linguistic undertow and dragged towards the abstractions and generalities of a purely wordly world. To fall victim in this way is to suffer from what Said has labeled the “textual attitude” (1978, p. 93):

...it is a fallacy to assume that the swarming, unpredictable, and problematic mess in which human beings live can be understood on the basis of what books — texts — say; to apply what one learns out of a book literally to reality is to risk folly or ruin... [However,] it seems a common human failing to prefer the schematic authority of a text...

The textual attitude is commonly seen (1978, p. 93):

...when a human being confronts at close quarter something relatively unknown and threatening and distant. In such a case, one has recourse not only to what in one’s previous experience the novelty resembles but also to what one has read about it... The idea... is that people, places, and experiences can always be described by a book, so much so that the book (or text) acquires a greater authority, and use, even than the actuality it describes.

The idea of the textual attitude can be positioned in relation to organizational theory as one potential expression, and effect, of *institutionalization*. Institutionalization occurs “...where societal expectations of appropriate organizational form and behavior come to take on rule-like status in social thought and action” (Covaleski & Dirsmith, 1988, p. 562). The effects of institutionalization “make actors unlikely to recognize or to act on their interests” (DiMaggio, 1988, pp. 4–5). In the context of innovation, it can lead to a situation where we observe “the inability or unwillingness of organizational decision makers to gather sufficient information to evaluate the likely consequences of different candidates for adoption” (DiMaggio, pp. 17–18).

“Institution” evokes something that is old and stable, taken for granted very widely (perhaps even completely) across an entire population of adopters (Tolbert & Zucker, 1983). Nevertheless, it is meaningful to speak about institutionalization as a process even in cases where the end result is not necessarily a durable institution (Powell & DiMaggio, 1991; Hirsch & Lounsbury, 1997). In the case of the information technology innovation, the informants’ images we have considered warn against falling

prey to the incipient pressure toward institutionalization — toward personal acceptance of a “rule-like” status for the public theory of the information technology innovation. Constructively, the images place in opposition to this a critical and independent interpretation, grounded in precedents, value, and context.

Institutionalization can entail both cognitive and normative aspects. Cognitive constraint is at the root of the “inability” to which DiMaggio refers in the quote above. Normative constraint can lead to “unwillingness,” whatever the adopter’s cognitive status. The cognitive/normative distinction follows more or less closely the boundary that separates the image of silver bullets from the image of bandwagons. Accordingly, we will reconsider each of these images in this light.

5.2.1. Silver bullets and Hare Krishnas: innovation discourse and cognitive constraint

It has been suggested that, paradoxically, many of the most important opportunities for managers to think strategically about information technology may arise in processes that are fundamentally institutional in character (Swanson & Ramiller, 1997). The very categories through which such opportunities are defined (e-commerce, data warehouse, intranets, and so on) are products of a convergence in public discourse of a complex constellation of heterogeneous interests (adopters, vendors, consultancies, trade journalists, and so on). For the managers of a prospective adopter organization, this institutionalized construction of opportunity is not entirely a bad thing. To the contrary, it enables them to leverage the collective efforts of many to envision the future shape of the organization’s information technology infrastructure, applications, and practices.

On the other hand, trying to think strategically about information technology using conceptualizations that are broadly collective in origin comes with built-in hazards. Knowledge and belief in a given domain (refer again to Fig. 2) tend to be squeezed and shaped by the language that is available for representing thought in that domain (Foucault, 1972). Thus, the evolving intertextual web that constitutes an innovation’s public discourse can become the primary arbiter of what passes for knowledge about it.

In this situation the interests, such as vendors and consultants, that are working toward the institutionalization of an innovative idea may appropriate this power of language to shape thinking. In effect, they will try to do the systems executive’s thinking for him/her. Alternatively, the innovation can be seen to “think itself” by means of all the actors involved (Douglas, 1986). This takes Tolbert and Zucker’s (1983) characterization of institutionalized diffusion as a “contagion of belief” from the microbe’s point of view. Replicating like a cognitive virus, the innovation spreads from one managerial or practitioner brain to another, in a self-reproducing field that requires a population of thinkers to perpetuate itself but that does not depend on any one individual. The cautionary metaphors of Hare Krishnas, religious fanatics, and the like, then, evoke the hapless victims of such contagions of belief.

5.2.2. *Bandwagons: the innovation discourse and normative constraint*

As DiMaggio suggests, the cognitive aspect of institutionalization makes actors unlikely to *recognize* their practical interests where an innovation is concerned. Failing to recognize their interests, they naturally also fail to *act* on them. The normative aspect of institutionalization may also compel actors to act contrary to their interests; however, the mechanism is different. In that case actors conform-to-rule because it is deemed “proper,” i.e., what all should be doing.

There is a potential connection between normative and cognitive constraint, in that normative conformance may in practice foreclose closer scrutiny of the innovation. Nevertheless, normative institutionalization allows for the de-coupling of belief from behavior: a manager may recognize that an alternative course of action presents an opportunity for superior practical gain but will nevertheless refrain from pursuing it. Where an information technology innovation is concerned, a manager may “jump on the bandwagon” even while recognizing that it is not necessarily rolling in the best of all possible directions for his/her organization.

The relationship between normative constraint and the pursuit of interests, however, is more ambiguous than DiMaggio’s quote suggests, because conformance to norms can be associated with its own set of incentives. As we noted in our earlier consideration of the bandwagon image, adopting an innovation that enjoys bandwagon status may enhance professional and/or organizational legitimacy, improving chances with interests that control important resources such as financing, materials and supplies, professional labor, and managerial appointments and promotions (Zucker, 1987). The potential enhancement in legitimacy that comes from conformance accordingly must be weighed against the instrumental performance gains that might be realized by demurring. A “normative rationality” thus comes into opposition with a “techno-economic rationality” (Kumar et al., 1998). Professional and/or organizational interests may best be served, on balance, by following the crowd, or at least making the appearance of doing so, even if this choice is suboptimal when considered merely on the basis of efficiency and effectiveness criteria (Abrahamson, 1996, p. 261).

Ironically, the adoption of an innovation may come to be judged *specifically* as evidence of techno-economic rationality, as public theorization aligns adoption with the pursuit of business benefit. Hence, the CEO’s comments cited earlier about the difficulty of resisting “whatever is blasting through all the press at any given point in time.” In this lies the potential perniciousness of so-called “best practices.” Absent a clear understanding of the real and contingent effects of an innovation, managers and their organizations risk their legitimacy, and in particular their standing as “rational actors,” if they fail to follow the crowd. If, by contrast, they declare allegiance to the wider vision with whatever public posturing and material investment this may demand, they signal “purposefulness and rationality” (Scott, 1995, p. 134) to external and internal constituencies and can then hope to return to innovate another day.

5.2.3. *The textual attitude, revisited*

Again, Said says that the textual attitude occurs where (1978, p. 93):

(the text) acquires a greater authority, and use, even than the actuality it describes.

The “text” that interests us here is the on-going public discourse on the innovation. We recall (following Abrahamson & Fairchild, 1999) that this discourse characterizes the innovation, its virtues and applicability, and the wider community’s commitment and response. The *discursive authority* Said refers to clearly references the cognitive constraint entailed by the images of silver bullets and Hare Krishnas. However, if “jumping on the bandwagon” can be construed as rational (at least some of the time), can we say that it too evidences the textual attitude? In other words, is the concept of the textual attitude a useful way to characterize the normative side of institutional constraint?

Given the scope of the innovation discourse, we can answer this question in the affirmative. The “silver bullet” and associated metaphors raise the specter that the discourse alone may compel belief in the techno-economic beneficence of the innovation. The focus there is on how the public text may convince the executive of the innovation’s virtues and applicability. The bandwagon image, on the other hand, invokes the discourse’s role in investing the wider community’s response with power and influence. Both images, however, portray the public text as prevailing over a manager’s practical and local engagement with the innovation. That is, sensemaking is represented shown as taking place purely within the realm of the public text, dematerialized and decontextualized. Under the domination of the discursive innovation, there is no “smelling the rose,” no asking “Would it help your organization?”

It is precisely this danger that the images of silver bullets, Hare Krishnas, and bandwagons warn against. The additional images, then, constructively point the way toward avoidance of the textual attitude. The image of “a rose by any other name” suggests that success in the innovation-sensemaking effort means, in part, to prevail in a struggle against language, against the power of categorization to shape belief in estrangement from actuality. Meanwhile, the fourth and fifth images (“money on the table,” “nothing is transplantable”) suggest that to move beyond the merely discursive necessarily means to (re)constitute the innovation in a local context, taking cognizance of contingencies and focusing on real value. This implies that the “rose” is more than merely given. It must in fact be actively constructed.

6. Conclusion: the *discourse on innovation* and the constitution of strategic sensemaking

While it is perhaps more conventional to think of the innovation itself as undergoing institutionalization, institutionalization is really a process that affects prospective adopters — those people in whose thoughts and actions the innovation advances toward a rule-like state. From this perspective, the executive who is striving to define a strategic position on an information technology innovation must struggle against

his/her own institutionalization. The sensemaker must resist falling victim to that “contagion of belief” that often accompanies prominent innovations.

While an incipient institution may under some conditions be a kind of mental infection, it can under other conditions be a resource — specifically, a resource to exploit while effecting corporate strategy and transformations in business practices (Oliver, 1991; Swanson & Ramiller, 1997; also see Hirsch, 1986, p. 823, concerning “linguistic frames” as resources in innovation). The metaphors we have considered in this paper represent cognitive tools that can be deployed in an effort to turn the discursive innovation into such a resource. Metaphor, in this instance, is an important part of how executives constitute their own rationality in the task of innovation sensemaking. It is one manifestation of an on-going “native” discourse glimpsed, it happens in this case, through the interview conversations of an academic study. Distinct from innovation-specific discourses, like those addressing client server computing, electronic commerce, ERP, and so on, this higher-level or meta-discourse speaks to the nature of information technology innovations more broadly, as well as to the social context of innovation and the innovation process. As such, it functions to raise managers’ consciousness concerning the possibilities for critical assessment and strategic appropriation of those innovation-specific discourses.

Beyond exploring the specific lessons of the five images, then, the contribution of the current paper has been to provide recognition and amplification of the constructive use of metaphor in this native meta-discourse on innovation. Promising future inquiry lies in the direction of a more complete explication of this meta-discourse and in the investigation of its practical deployment in the context of real situations involving the management of innovations.

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