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Exploring Technology Frames through Interview Narratives

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Abstract

As information technology innovation becomes increasingly complex and as information technologies diffuse into new professions and institutional contexts, researchers are looking to project participants and organizational members to understand how their interpretations of technology influence change processes and outcomes. Technology frames of reference (TFR) is a well-established theoretic framework used to explore how various groups interpret technology change in organizations. TFR analysis has been primarily technology-focused. Narrative and story research, on the other hand, focuses on the narrator's personal views of an experience; stories are necessarily told from the storyteller's point of view. We propose integrating the analysis of narratives with TFRs to paint a richer picture of how individuals make sense of and experience information technology in their professional lives, and in this way, to improve our understanding of sensemaking in the technology innovation process. We illustrate this analytic approach with a research interview narrative of a middle school teacher discussing the introduction of IT into the classroom.

Keywords: Information systems innovation, organizational change, technology frames of reference, narrative analysis, storytelling

Introduction

As the cost and complexity of technology innovation grows, organizational members with varied backgrounds, experiences and interests are finding themselves serving together on innovation project teams. Individuals with different organizational roles bring to projects diverse viewpoints along with varied expectations and assumptions, each of which shape not only technology decisions but also the process by which new technology is determined. Disparate work practices, modes of thinking and social groups also pose challenges for individuals working together in teams (Bechky, 2006; Boland and Tenkasi, 1993; Dougherty, 1992).

To understand how technology innovation occurs within organizations, we must understand how these diverse individuals make sense of and come to share (or not) an understanding of technology as they work together to foster innovation. In 1994, Orlikowski and Gash wrote a seminal paper pointing to the value of examining technology frames of reference (TFR) in revealing how individuals interpret technology innovations in organizations. They suggested that TFRs reflect organization members' experiences and understandings of technology and thus shape their interpretations of and actions toward a technology. Orlikowski and Gash (1994) further suggested that incongruence in frames among groups contributes to difficulties in organizational innovation projects.

The TFR concept privileges technology as the focus of social cognition and tends to abstract the personal experiences of the people involved. Narrative and story research, on the other hand, provides a lens, rich in context and perspective, which gives precedence to the human side of organizational experiences with technology. Given the ubiquity of communications within information systems

development, narrative research is well positioned to help researchers explore the complex filtering processes of increasingly diverse project team members as they interpret their experiences and relationships.

Because individuals work together to innovate, understanding how they influence the change process – individually as well as collectively – is critical. TFRs help us as researchers to understand how groups interpret technology and how differences among groups influence innovation processes. Stories help us to understand how individuals make sense of situations. Taking the storyteller’s perspective into account may also reveal new aspects of technology frames of reference, such as how professional identity influences perceptions of technology. In this paper, we suggest that these complementary, but distinct, socio-cognitive perspectives be joined explicitly. We examine an interview narrative and the stories it contains to illustrate the merits of analyzing stories to reveal the technology frames of reference of organizational members. First, we first provide a brief overview of technology frames and story analysis concepts and then we discuss how research interviews can provide a valuable source of story data. We briefly present an illustration from a field study of technology innovation in K-12 education, a new institutional domain for the application of information technologies.

Framing the argument

Technology frames of reference (TFR) have been defined as "that subset of members’ organizational frames that concern the assumptions, expectations, and knowledge they use to understand technology in organizations. This includes not only the nature and role of the technology itself, but the specific conditions, applications and consequences of that technology in particular contexts" (Orlikowski and Gash, 1994, p. 178). Orlikowski and Gash challenged researchers to take a more focused look at the ways in which organization members interpret technology in order to understand better their interactions with it, including systems development, implementation and use. They argued that the TFR concept could address researchers' interest in "how organizational members make sense of and assign meaning to their environment, organization and tasks" (Orlikowski and Gash, 1994, p. 176).

Frames serve as important filters and they vary over time and context. Although TFRs are implicit, they act to constrain or facilitate innovation by influencing how project members privilege certain notions or suppress others. By acting as an information filter, TFRs shape technology innovation (e.g., certain ideas may be welcomed while others are resisted) (Davidson 2002). Members of a particular social group tend to share elements of a TFR, shaped from their common experiences, backgrounds and interactions (Orlikowski and Gash 1994). However, multiple frames exist at all times because of the varied backgrounds and knowledge of organization members. In a study of the uses of a groupware technology (Lotus Notes) in a consulting firm, Orlikowski and Gash (1994) identified three frame domains that were salient to organization members, as they attempted to integrate the technology into their work practices: the *nature of technology*, *technology strategy* and *technology in use*. They found that technologists understood Lotus Notes as a revolutionary new technology that had strategic value to the firm and that was easy and practical to use. In contrast, consultants interpreted Lotus Notes in terms of technologies they already used (such as e-mail) and had concerns about how technology use could alter their work; as a result, they used it minimally.

TFR provides a rich framework on which to build socio-cognitive analysis of technology innovation in organizations (Davidson 2006). Since 1994, TFR has enjoyed wide use as a research construct and Orlikowski and Gash have been widely cited in IS literature. Davidson (2006) found that most TFR researchers (including Orlikowski and Gash) focused on identifying the knowledge and content domains of one or more general frame categories (Table 1).

Table 1: Commonly used TFR domains (adapted from Davidson, 2006)

Orlikowski & Gash (1994)	Subsequent Research
<ul style="list-style-type: none"> • Nature of technology 	<ul style="list-style-type: none"> • Technology features and attributes
<ul style="list-style-type: none"> • Technology strategy 	<ul style="list-style-type: none"> • Organizational applications
<ul style="list-style-type: none"> • Technology-in-use 	<ul style="list-style-type: none"> • Work practices
	<ul style="list-style-type: none"> • Development

TFR research has contributed to our understanding of technology innovation in organizations but, in doing so, the analytic emphasis has been on group-level phenomena (that is, frames shared among members of a group), inter-group conflict and frame incongruence, for example, between technology developers and users (Davidson 2006). While group-level issues are important in technology innovation, it is individuals (perhaps representing a group in a technology project while nonetheless remaining unique) who must actually work together to introduce technology into an organization. Moreover, because the TFR construct is by definition technology-focused, each individual’s voice and experiences tends to be abstracted from the analysis. Because technology innovation project participants often struggle to comprehend the reasons their efforts are sometimes unsuccessful, we argue for the need to better

understand TFRs as an individual construct, and to bring back the voice of individuals in analysis. To do this, we turn next to narrative analysis and storytelling as an analytic focus.

The telling of tales

Bruner (1990) suggests that individuals create narratives when they make sense of their experiences by attempting to attribute rationale to the actions and intentions of others. He states, "The typical form of framing experience (and our memory of it) is in narrative form. What does not get structured narratively is lost in memory" (Bruner 1990 p. 56). Narratives privilege the views of the narrator through an account that reflects the narrator's retrospective sensemaking (Boje 1991b; Riessman 1993). In this paper, we use the terms "narrative" and "story" interchangeably to mean: *a specialized narrative that includes an original state, an action and an outcome as well as actors, agendas and influence* (MacLeod and Davidson 2007). Because stories change with time and circumstances and vary according to the storyteller and the audience (Boje 1991a; Boje 1991b; Riessman 1993), stories offer a glimpse at the personal perspectives, ideas and experiences of the individual. MacLeod and Davidson (2007) surveyed the story literature in IS research and found that narrative analysis has been employed to answer widely different research questions. However, much of the work falls into one of three categories: knowledge (creation and management as well as problem solving), power (politics, influence and control) and identity (personal, professional and organizational) (see Table 2).

Table 2: Themes of narrative IS research (adapted from MacLeod and Davidson, 2007)

Power	Culture	Knowledge
<ul style="list-style-type: none"> • Politics • Influence • Control 	<ul style="list-style-type: none"> • Organizational • Identity 	<ul style="list-style-type: none"> • Creation • Management • Problem

While stories serve as a valuable sensemaking tool for individuals, they also reveal aspects of the individual's relationships, experiences and perspectives in relation to professional work, understanding of the organization and of technology innovation. Bechky (2006) argued, "stories are a meaningful aspect of work, as opposed to being peripheral to work activity or exclusively for building identity ... stories cannot be disassociated from the context in which they are told" (p. 1761).

Narratives and stories are particularly well suited to examining collaborative activities in social settings: participants draw readily on stories to communicate ideas, make sense of happenings, assign blame or recognition, and reconcile their personal perspectives on why a situation occurred, particularly when things go wrong (Bruner 1990). Dougherty's (1992) concept of "thought worlds" illustrates the challenges of cross-departmental cooperation and the role that storytelling may play. Members from different organizations "partition information and insights ... which colors meaning and interpretation of the same information, selectively filtering technology-marking issues, and producing a qualitatively different understanding of product innovation" (Dougherty 1992 p. 195). Her observations are echoed in the "communities of knowing" of Boland and Tenkasi (1995). For a community of knowing to be effective, it must possess a strong perspective. Given that a community perspective is largely unique, for disparate communities to work together successfully they need "an ability to overcome the degree of incommensurability between them" (Boland and Tenkasi 1995 p. 355). They argue, "perspective making and perspective taking are achieved by narrating our experience as well as by rationally analyzing it ... narrating of experience is a critically important but often overlooked element of knowledge production" (1995 p. 351).

Analyzing technology frames and narratives separately can add to our understanding of the socio-cognitive aspects of collaborative work in technology innovation projects. However, each alone has limitations. Technology frames provide a construct to consider technology but its structure generally removes the individual from consideration. Stories, conversely, are a reflection of the people who tell them but they are highly personal, subjective and guided by an agenda. Taken together, narrative analysis may make more explicit the TFRs of individual organizational members and may provide a framework from which to examine various narratives. By using narratives with technology frames, we hope to bring together the individual's influence in technology development in a way that supports thoughtful analysis of innovation projects.

Interview narratives as meaningful sources of narrative data

In TFR studies, researchers typically conduct field studies in which they interview project participants to collect data on frames (Davidson 2006). This data may be supplemented by document analysis and observations, but interview data is the mainstay of such work. Narrative studies similarly rely to a great extent on interviews, either to construct composite narratives of a project or to

identify salient stories. Of course, much story telling happens in organization members' day-to-day interactions and experiences, and such story performances are themselves of interest (Boje 1991). Here, we focus on the stories and narratives that arise in the course of interviewing project participants, both because such data is readily available and because the storytelling context that an interview provides is conducive for producing meaningful narratives.

This paper examines narrative data from an interview, conducted as part of a project to investigate individual perspectives of technology innovations. The narrative analysis below is derived from Mishler's work in "Research interviewing: Context and narrative" (1986), which recognizes the interviewer as a participant in the co-production of the narrative and of meaning. His insightful work made explicit the interviewer's role and enabled a richer reading of interview narratives through Mishler's framework:

- *Structure* (Labov and Waletzky, 1972): examines narrative elements – abstract, orientation, complicating action, evaluation, resolution and coda.
- *Meaning* (Labov and Waletzky, 1972): examines the coherence of a narrative in terms of reference ("... and then what happened?") and evaluation ("...so what?").
- *Interaction* (Mishler, 1986), examines the role of researcher and informant in the creation of meaning.

Davidson (1997) provides an example of such work in the context of technology innovation projects. She looked at the competing perspectives of organizational members participating in an innovation project by conducting interviews about the origin of an innovation. Following Mishler (1986), she completed a structural, meaning and contextual analysis of three narratives to uncover perspectives about the origin of and rationale for supporting an innovation project. She found interesting inconsistencies. The project manager's narrative attributed the project to customer service issues. In contrast, the project sponsor saw it as an initiative to implement a management information system (MIS), while the senior executive expressed the project in terms of competitive advantage. Differing perspectives about a project's origins are not necessarily troublesome. However, when participants operate with mismatched knowledge, expectations and assumptions about a technology they may have difficulty finding the common ground necessary to make the project work.

Because stories convey the ideas and agendas of the narrator, at times they may adhere to an organizational script or align with shared cultural understandings that echo commonly known themes (Boje 1991; Markus 1982). Mishler talks about the research interview as a set of "speech acts" (1986 p. 35) in which the interviewer and the informant cooperate in the "joint construction of meaning" (1986 p. 52). Davidson (1997) articulated the influence of shared experience in her interviews, noting that a shared professional background allowed her to better understand the interviewees' experiences.

Although familiarity with the organization provides insight unavailable to external interviewers, inside interviewers must be aware of informant expectations. Acknowledging the co-creating role of the interviewer does not mitigate the value of the interview text or the interpretation of meaning. Rather, as Mishler suggests, it situates the meaning of the narrative within the context of the interview and the study. It provides a more precise reading of the story as fewer elements are left undiscovered, allowing the analysis to be more focused on the meaning making elements of the story (Mishler 1986).

Narrating frames – an illustration

Using an interview narrative, we will demonstrate how TFR and narrative analysis can work together to reconnect the individual's role in technology innovation. In the interview discussed in this paper, a K-12 teacher, a former employee of a large independent school where the authors are conducting research, was asked to share her experiences with technology innovation in the classroom. Data have been analyzed in various forms: verbatim transcript, informant perspective, interviewer perspective, possible story theme (broad), and story purpose (specific). Initial analysis of interview data looked for ways the stories uncovered perspectives related to technology frames of reference. Additional analysis sought events and circumstances that might have shaped perspective.

Although the interviewer was not a close associate of the informants, she was acquainted with the teacher as a co-worker from another department. The interviewer and teacher shared, as Mishler (1986) suggested, cultural understandings. In particular, both shared an understanding of the school's values: excellence, calculated risk-taking, teacher-leadership, collaborative learning, and innovation in the learning environment. Using Mishler's framework, meaning and context were analyzed. Because a story is told "whole" rather than deconstructed, a structural analysis of the story was unnecessary.

Following Mishler's argument that "meaning is expressed in and through discourse" (p. 66), we examined the story that emerged through the interviewer's questions and informant's answers. We looked at how the story attempted to express answers to: "... and then what happened?" and "... so what?" (Alvarez and Urla p. 41). Knowing that meaning is altered if the story is told differently or

the context changes (Boje 1991a; Boudens 2005; Mishler 1986; Wagner 2002), we allowed the narrative to provide a personal account that reflected not only the interviewer's questions but also the informant's interpretation of experience (Mishler 1986; Riessman 1993).

The interview questions were intended to seek the informant's perception of technology innovation efforts at the school – what these efforts were intended to achieve, were they successful and what hurdles were encountered. The interviewee told several relevant stories during the interview, two of which we examine in this paper to illustrate her perspective. As shown below, regardless of the question asked, the informant quickly turned her answer about process or technology or innovation into a conversation about her role in the innovation project (from Story 3):

Story #3: "Cool toys"

1 "But when [the new IT director]¹ arrived ... he had all these cool toys, all the NEW hardware – not just Mac's, he
2 actually branched out to all the different other things. At that time, I was taking some classes at the University, and I
3 was just doing this for professional development – you know not to get another degree or anything. But I was
4 learning so much that I'd bring to him and he'd go 'oh my gosh' and I'd show him what I had learned and then it
5 was just like here's another program and will enhance PowerPoint and here's what you can do, you can make these
6 animation characters talk to the kids ... and you know then [the former IT director] would say 'but how is this? ...
7 Again, you are just delivering the information ... but I'd say, 'yeah – but the kids love it!' (laugh) ... and then I
8 remember [a supervisor] coming in and saying 'I would rather see a human face talking to me rather than this
9 animated character' and I would 'yeah, but that's because you are old – you are not a 12 year old.'

The teacher makes a clear, strong connection between technology innovation at the school and her own professional identity. She seemed to also see a connection between innovative technology use and student-centered teaching practices. For her, good teaching seems to be connected directly to active technology use. This pattern of response suggests a dimension of technology frames of reference related to identity. Table 3 summarizes the technology frames of reference as well as the identity frames in this and the following story.

Story 6 (a and b) illustrates, through the teacher's comments, an awareness of an ongoing tension between older teaching practices and newer ones and a belief that to truly engage students she must use technology. She seems to feel that she possesses a particular insight into this mode of teaching, although she does not articulate why. While she references helpful exposure to new technology practices, it seems she views her own insights as unique. Her narratives illustrate consistently how she connects her view of teaching and her identity as an innovative teacher to technology innovation at the school:

Story #6(a): "I'm in your face!"

1 *Question: Did the leadership or support change from the time when it was you and the IT director until this last*
2 *year?*
3
4 "I think for me, I'm just *in your face*, I was supported all along ... even with [our current IT director], she was
5 fabulous, I'm mean she's the one who let me to have more computers in my classroom than were being allotted to
6 people ... if you came into my classroom, those computers were always being used, you'd think we have enough
7 computers when they gave us those laptops but (and I don't know about the other teams in 8th grade) but our
8 classrooms, they were ALWAYS being used ... and the kids would come in from other classrooms to use them.
9 They say: "Can I take this to study hall?" "Can I do this?" and I be like: "Yeah, this is how it should be ... that's the
10 shift, it's a tool and that's how everything's going to be ... I'm just so sad that they did away with the tablets (but,
11 Again that's where I bought my own) ... and, for the kids to be able to just write, or for a math teacher or an English
12 Teacher to be able to just write ..."

In story 6(b), the informant expresses frustration at her colleagues and her principal, even though she clearly sees herself as a leader who is prepared to travel first. Looking at the technology frames in both 6(a) and 6(b), we see that this teacher believes that technology is being introduced to augment learning. She considers it a support tool to improve the classroom and teaching opportunities. Viewing the same text through an identity dimension enables us to see the almost intimate connection between the teacher's self-view and her ideas about technology. Both frame dimensions are summarized in Table 3.

The teacher seems to make no separation between her personal views of technology and her role as an educator. In contrast, she states that because her colleagues are overwhelmed with life they cannot find the time to incorporate technology into their teaching practices. She demonstrates professional identity by investing in a sabbatical, taking courses and then sharing her learning with the IT

¹ To clarify to the reader the interviewee's relationships to other organization members, and to provide confidentiality to them in this paper, we altered the story text to substitute an organizational role for the individual named.

group, school leadership and her colleagues (Alvarez and Urla 2002; Labov and Waletzky 1967). All her interactions with the innovation team are guided by the view that her identity is linked to using the technology to be a better, more innovative teacher.

Story #6(b): "My principal supported me"

1 Question: *The final thing is – where do you think the school leadership is in all this? Were the teachers involved?*
 2
 3 "I just know that from a support perspective, all I know is that [my principal] supported me ... you know, a
 4 few years ago I went into him and said "you know here you've asked me to do this, this and this and I've
 5 done it, I've done everything you've asked me to do ... but my colleagues, they don't give a rip! ...
 6 That's just the bottom line ... here I am, and we were meeting and I had shown them this is what the
 7 technology can do but they're not going to do it ... they're up to here being the parent of three kids and
 8 The teacher of 100 ... I said, they have no room in their lives for that, they have too much on their plate."
 9 So, I said, "look I appreciate everything you've given me, but I'm alone in this" and although he
 10 understood, he said "Don't give up, keep talking to them, keep showing them ..." The shift is going to
 11 Come as we get the new teachers, the ones who had their laptops in college."

Table 3: Story themes from a narrative interview

Story/Line Number	TFR Theme	Identity Theme
Story 3		
Story #3 Lines 1-3	Technology as innovation and a teaching resource	Technology to leverage my classroom
Story #3 Lines 4-6	Technology as a learning enabler, a fun "toy"	Technology as means to extend/augment my teaching style
Story #3 Lines 7-9	Technology as a learning enabler, a tool to place control in the student's hands	Technology as an attention-getter; a means to advance my views of teaching
Story 6(a)		
Story #6(a) Lines 4-7	Technology as a resource to support learning	Technology as a community builder, to support my view of teaching
Story #6(a) Lines 8-12	Technology as a resource to support learning	Technology as engagement; to connect the students to me, to my classroom, to my teaching
Story 6(b)		
Story #6(b) Line 3	Technology is necessary and important	Technology is provided because I need/want it if my classroom
Story #6(b) Line 4-5	Technology as a support tool	Technology as a differentiator (between those who are committed and those who are not)
Story #6(b) Line 6-8	Technology as a teaching tool intended to improve the classroom and the teaching	Technology as a differentiator (between those who are committed and those who are not)
Story #6(b) Line 9-11	Technology as a teaching tool intended to improve the classroom and the teaching	Technology is a reflection of me; I understand it, I know how to use it, I am set apart from others because of this technology

Narrative interviews, framing technology and innovation

It is clear that the informant's views of professional identity shaped the way she approached the technology innovation project, her relationships with her colleagues and the way she made decisions about incorporating technology into her classroom, and her life. She seemed to embrace ideas provided through professional development courses but resisted efforts from colleagues to shape her thoughts or guide her experiences. Does it matter? How do the experiences and perceptions of one teacher contribute to overall understanding of innovation in organizations?

We think that personal stories help us understand the overall frames of reference used to interpret events, circumstances and relationships. And, we believe that stories reconnect humans with development. Used together, we can develop rich descriptions of organizational experiences. Through narrative analysis, we gain a deeper understanding of the ways in which collaborative innovation occurs and the barriers that impede its success (Bechky 2006; Boje 1991a; Wagner 2004).

In many ways, TFR and narrative analysis serve as a complementary tool kit. Technology frames of reference are tacit guideposts that shape individual interpretations of technology and the ways they interact with it. TFR, however, are hidden making it difficult for project members to recognize it in themselves and in others. Narratives and personal stories engage individuals and are generally an appealing way to communicate. Individuals may be more open to ideas expressed through stories because stories are interesting and engaging. However, narratives can be difficult to analyze as researchers are not privileged with the knowledge, experiences and expectations of an informant and organizational members do not have omniscient understanding of their colleagues.

When applied together, narratives provide a means to access an individual's TFR while the TFR serves as a marker upon which an analysis can be anchored. Each framework – generally considered independently by researchers – augments the other. The value of course is that the stories already exist in technology innovation projects. Researchers gather data through interviews and observations so stories are readily available. And, narrative processes frequently guide the requirements determination exercises in which one or more organizational members participate.

Narratives and storytelling include context that helps listeners to hear the story as intended by the storyteller. Further, narratives and stories, by their nature, reveal much about the individual telling the story. At minimum, the storyteller is a narrator (Bechky 2006; Orr 1996). However, the storyteller may also be an actor in the story, playing a central role in the tale. These kinds of stories can be immensely revealing, if we let them. The narrative and stories used as illustration in the paper provide a good example of the value to be found in looking closely at narratives to reveal TFR and human influence in development.

Had we analyzed the phrases and clauses of the story out of context, an entirely different picture about this teacher's view of technology and identity might have been considered. The clear and strong connection she feels between her own professional identity and technology innovation at Independent School might have been missed. Analyzing the story in context provided a richer background upon which to paint the analysis of the story.

Finally, combining the TFR and narrative analysis frameworks allowed us to see technology frames and the framing process as a reflection of the individual, rather than as an observation of an innovation, a course of events or a process. Previous work on TFR has focused on the content or context of frames from an organizational perspective. Introducing frame as a means to explore individual's perceptions of identity, power and knowledge provides a new use for the technology frames of reference.

Concluding remarks

In this paper, we have considered two research frameworks and we have proposed they be combined to provide a richer understanding of how individual interpretations of the world shape technology innovation in organizations. Our thesis is to reconsider people in the innovation process.

We provided an overview of both technology frames of reference (TFR) and narrative analysis to show the ways in which researchers have previously applied them. Then, using a narrative interview, we illustrated how the two analytic approaches may work together to provide a deeper and more context-appropriate understanding of how events, relationships and knowledge shape an individual's views of technology innovation. Further, we showed that while researchers have used TFR to evaluate understandings about a particular technology, the framework might also be applied successfully to augment understanding of more personal connections, such as the ways in which organizational members connect technology innovation with personal identity.

Little research exists on the implications of narrative research and technology frames of reference as a joined construct. We argue that individuals' views about identity, knowledge and power must be understood in context in order to properly position their influence within a project team. Individuals' stories provide rich sources of insights into these issues. We also suggest that the stories of individual team members bear upon an innovation exercise, because it is through stories that these participants make sense of their experiences. Thus, personal stories about the innovation and other organizational experiences can be helpful in mapping the views of organizational members and may offer an important stepping stone in building a path toward project alignment.

This paper recognizes that while TFR research has generally examined frames at the group level of analysis, there are situations where consideration of the frames of individuals who comprise the groups is also important. This paper examines technology innovation occurring in a new context for IT innovation, K-12 education. TFRs may vary greatly among members of a social group such as

teachers, because teachers' experiences with classroom technology are limited and varied. Using narratives to examine each individual's frames may be useful to understand how shared frames do, or do not, emerge over the course of an innovation project. Moreover, as Orlikowski and Gash (1994) and Davidson (2002) acknowledge, influential individuals participating in technology projects must be considered separately if we are to understand how their views might shape the innovation.

Technology frames of reference shape what we hear and how we respond. Stories express how we interpret what we hear. An understanding and appreciation of both are important if disparate organizational teams are to work well together and complex innovation projects are to succeed.

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