A New Research Agenda for
Project Management Communication Theory

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ABSTRACT

Based on an analysis of 272 peer-reviewed articles on project management communication, the authors found that only four percent of the articles advanced project management communication toward a better contemporary understanding of the complexity of communication. The authors posit that project management communication research needs a new research agenda based on complex responsive processes of relating. The new research agenda proposal is to use the emerging field of complexity leadership to explain better how project managers, team members, and stakeholders communicate during a project. Adopting the new project management communication research agenda will help establish more effective project management communication tools and methods. The new project management communication research agenda will also provide new research opportunities for communication scholars.

COMMUNICATION IS VITAL TO EFFECTIVE PROJECT MANAGEMENT

It is important to note the importance of communication in project management before discussing the need for a new project management communication research agenda. Estimates from the Project Management Institute and project management researchers indicate that 80–90% of a project manager's work is communication (see Kliem, 2008, 2012; Crawford, 2002). Barkley and Saylor (2001) argue "[c]ommunication is the most important tool in customer-driven project management" (p. 274).

However, even though project management communication is considered the key to effective project management, the concept of project management communication is limited. Many definitions of project communication focus on the functional aspects such information exchange or coordinating people's actions (see Ensworth, 2001; Longman & Mullins, 2005; Burford, 2013; Kliem, 2008). Even the emerging field of agile project management still treats communication in a purely functional manner (Augustine, 2005, pp. 26–29). As Cleland & Ireland (2002) observe: "Project managers and professionals often fail to recognize that communication on a project takes many forms: verbal in-group and individual

exchanges of information, and documentation such as design drawings, reports, contracts, work orders, and the like" (p. 482).

THE CURRENT STATE OF PROJECT MANAGEMENT COMMUNICATION RESEARCH

The Functional Model of Communication. It is almost universal among recognized project management experts that there is only one model for project management communication: the functional model which is also referred to as the Source–Message–Channel–Receiver (SMCR) model. The SMCR model is based on the Shannon-Weaver Communication Model first developed in the 1950s. "Communication involves both receiving and sending messages" (McManus, 2006, p. 107; see also Cleland & Ireland, 2002; Kliem, 2008; Andriole, 2012; and Burford, 2013). Even nonverbal communication is limited to the SMCR model (Kendrick, 2012, p. 189). The leading project management professional association, the Project Management Institute (PMI), advocates the SMCR model as a best practice for project management communication in PMI's certification exams.

The author collected project management articles from the three major project management research journals (*International Journal of Project Management*, *Project Management Journal*, and *International Journal of Managing Projects in Business*); general business management journals; and communication and mass media journals. Three-hundred and thirty-three articles were initially retrieved which was then reduced to 272 articles after removing duplicates, non-peer-reviewed articles, and three non-English language articles.

The articles were carefully read and placed into one of four categories:
- **Category Zero** – No or little relevance to the research question. These are articles that mention communication once or twice at most.
- **Category One** – Firmly grounded in the functional communication model. No research in project management communication other than referencing the functional communication model.
- **Category Two** – Applied a contemporary research technique, method, or perspective to the functional communication model but the purpose was confined to exploring some aspect of the functional communication model.
- **Category Three** – Introduced a novel project management communication model or critical perspective on project management communication not based in the functional communication model.

Table 1. Count of Project Management Communication Articles by Category.

Category	Number of Articles	Percentage of Total Articles
Zero	117	43%
One	112	41%
Two	33	12%
Three	10	4%

The author then divided the articles up into articles that appeared in one of the three project management journals and articles that appeared in general management or communication journals.

Chart 1. Number of Project Management Communication Articles by Category and Type of Journal
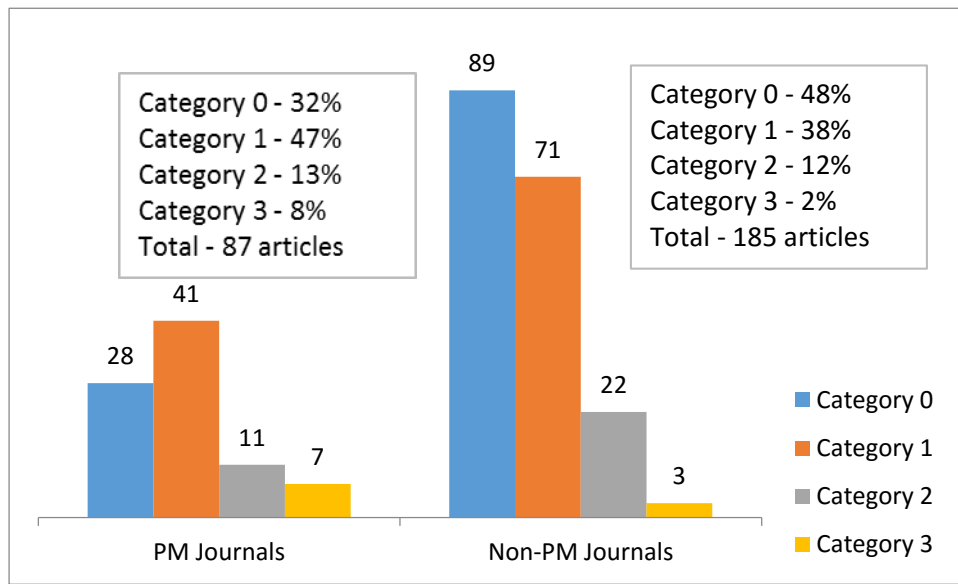

Table 2 indicates that, even though the underlying communication model used in the analysis is the functional model, the researchers were possibly attempting to extend the analysis beyond the functional model of project management communication. As Cicmil and Hodgson (2006) might observe, the researchers in the Category Two articles are attempting to "open up new trajectories within the research agenda in the field of studies relevant to projects, project performance and project management" (112).

Table 2. Research Technique, Method, or Perspective
Applied in Category 2 Articles

Research Technique, Method, or Perspective	Number of Articles the Technique, Method, or Perspective was Utilized
Actor-Network Theory	2
Complexity Theory	4
Dialogue	6
Diversity	2
Ethnographic Observation	1
Intermediate Objects of Design	1
Knowledge transfer, knowledge management	3
Mental Models	2
New Product Development	1
Project Manager Influence Methods	1
Real options reasoning	1
Social Network Analysis	6
Stakeholder Focus	1
Storytelling	1
Visual Communication	1

Continuing in the vein of opening up new trajectories in project management research, the ten articles in Category Three, offer new ways of studying project management communication beyond the functional model of communication. For example, Johannessen and Olsen (2011) introduce a five system communication model that is designed to replace the functional model. Johannessen and Olsen argue that their model better captures the coordinating functions of project management communication. Koskinen (2013) and Piperca and Floricel (2012) advocate the use of social autopoietic systems communication theory to refute the functional model's assumption that meaning is transmitted in whole from the sender to the receiver. Rather, the researchers advance the theory that meaning emerges from the interactions within the project team and interactions with stakeholders. All of the Category Three articles point toward a new and critical research direction in project management communication research. In the next section, the authors detail why staying with the functional communication model perpetuates ineffective project management and hinder the field of project management communication research.

FUNCTIONAL COMMUNICATION IS NOT SUFFICIENT FOR EFFECTIVE PROJECT MANAGEMENT

In reviewing examples of how to improve project management communication, the emphasis is on functional methods. The Project Management Institute and project management experts advise the creation of a communication

management plan that details whom to communicate to and how. There is some discussion about content, but that is also focused on just informational or transactional processes (Kliem, 2008, p. 75).

A prime example of the purely informational method for project management communication is the *One Page Project Management* tool. This tool was created to communicate vital project information in the most informative and digestible way. The tool is organized around tasks, deadlines, and status updates (Campbell & Collins, 2010). This tool essentially reduces communicating to reporting. That is also the concept behind the use of project management information systems that are also referred to as project management communication (Kliem, 2008, p. 25; see also Kendrick, 2012, pp. 223–228).

Cleland and Ireland (2002) hint at more than purely informational and transactional methods of communication in their list of channels of information: "plans; policies; procedures; objectives; goals; strategies; organizational structure; linear responsibility charts; leader and follower styles; meetings; letters; telephone calls; small group interactions; and example set by the project manager" (p. 483). Even so, the authors do not explain the communication aspects of the "leader and follower styles," "small group interactions," and "example set by the project manager," thus missing the opportunity to expand beyond purely functional communication.

Ignoring the relational aspects of project management communication is detrimental to project management because the success of projects and project managers is directly related to how well project managers communicate with stakeholders and the project team in fulfilling the project vision and building a high-performing project team. "[P]oor communications can have a costly impact on projects. When communications fail at the beginning, such as when assumptions and goals are being defined, correcting the situation later becomes more difficult and costly. Projects gain momentum, and few people want to hold them up while ways are found to improve communications. Any effort to rectify poor communications can result in slowing momentum and requiring work to be over. What's worst, however, is that the damage may not surface until the product or service is in production, leading to maintenance nightmares" (Kliem, 2008, p. 3).

Other project management experts agree with Kliem. Charvat (2003) writes "[c]ommunication is the backbone on any successful project rollout. Without it, projects have conflict, delays, and failure" (p. 181). According to Flannes and Levin (2001) "[t]echnology, tools, and techniques are not the reasons projects fail; they fail because of people" (p. 3). People fail through bad communication whether it results from a lack of information transfer or lack of acceptance by the receiver (p. 92). McManus (2006) lists the following symptoms of poor project management communication: confusion or misunderstanding, duplication of effort, demand or delay, demotivation, inefficiency, and lost opportunity (p. 100).

McManus (2006) further explains the poor project management communication is in place because "[p]roject managers are not generally measured or rewarded on their communication performance" (p. 100). Project managers are encouraged to take the "Just Do It" approach to project management (Winter &

Szczepanek, 2009, p. 15). Lack of proper communication training for project managers is another example of the need to improve the gap in project management communication.

WHY PROJECT MANAGEMENT COMMUNICATION IS COMPLEX RATHER THAN PURELY FUNCTIONAL

"Communication of the right information is a complex process that includes verbal and nonverbal forms of communication such as speaking, listening, observing, writing, and reading" (Barkley & Saylor, 2001, p. 274). Even so, project management communication is not currently seen as a complex process because the widely accepted model of communication is restricted. The previous sections of this paper have established that the prevailing model of project management communication is based on the Sender–Message–Channel–Receiver model, which is purely functional. Project managers are not measured on how well they communicate but how well they deliver the project product on time, within budget, and to the project customer's specifications. The problem with this emphasis on the functional image of project management is that it is self-defeating because it does not account for the true complexity of managing projects.

Winter and Szczepanek (2009, p. 29) list seven different images of project management:
1. Social Processes
2. Political Processes
3. Intervention Processes
4. Value Creation Processes
5. Development Processes
6. Temporary Organizations
7. Change Processes

The image or images a project management uses influences the project manager's actions. What is common to all of the images is that they are based on *complex responsive processes of relating* (CRPR), which goes beyond the current functional image of project management. "CRPR grounds the practice of managing projects firmly in the sphere of interactions between humans" (Cicmil, Cooke-Davis, Crawford, & Richardson, 2009, p. 76).

The value of using CRPR in developing the new research agenda for project management communication is that it better captures the complex reality of how project managers, project teams, and stakeholders interact with each other over the lifespan of the project. CRPR is "a particular way of thinking . . . that focuses . . . on how members . . . might cope with uncertainty and the unknown while these same individuals simultaneously co-create their collective futures together on an on-going basis" (Stacey, 2009, p. 30). It is the complex interactions (nonlinearity, evolution, emergence, and radical unpredictability) between the project participants that makes project management communication more than purely functional (Cicmil et al., 2009, p. 30).

In the next section, complexity leadership is advanced as a way to encapsulate the features of CRPR in managing projects. Complexity leadership captures the complexity of interactions between the project participants and composes the new research agenda to take project management communication out of the purely functional model.

PROPOSED RESEARCH AGENDA FOR PROJECT MANAGEMENT COMMUNICATION

Complexity Leadership. Complexity leadership theory is a framework for leadership that enables the learning, creative, and adaptive capacity of complex adaptive systems (CAS) in knowledge-producing organizations or organizational units. This framework seeks to foster CAS dynamics while enabling control structures appropriate for coordinating formal organizations and producing outcomes appropriate to the mission. It seeks to integrate complexity dynamics and bureaucracy, enabling and coordinating, exploration and exploitation, CAS and hierarchy, and informal emergence and top-down control (Uhl-Bien, Marion, & McKelvey, 2008, p. 196).

The above concepts apply as much to projects as to organizations. This new reality in projects compels project managers to move beyond their traditional functional role of managing schedules, tasks, and resources to empowering the knowledge workers that make up the project team (Stacey, 2001, p. 1). Project managers must use dialogue to "encourage and persuade people to share knowledge and spread it around" (p. 2), because knowledge is more than just what is stored in artifacts and arises from conversations and relationships (pp. 4, 98). As the communication hub for the project team, stakeholders, customers, and sponsor(s), project managers must use more than functional communication to lead effectively modern projects.

As with complexity communication, there are several models of complexity leadership. Possibly the most appropriate model for project managers is Goldstein, Hazy, and Lichtenstein's (2011) work. Their model is an "*active* and *constructional* model of leadership based on a highly engaged view of mutuality, interdependence, and share accountability" (p. 4; emphasis in original). Goldstein et al. argue that the traditional view of heroic/charismatic leadership will result in a lack of innovation because leadership is a series of events rather than relations (p. 2). Leadership events pairs well with Salem's (2009) complexity communication model's episodes as leadership develops more focused involvement and ownership between project managers and team members.

In Goldstein et al.'s (2011) model, effective leaders create "innovation-friendly social networks" (p. 171) that enable *interaction resonance*. Interaction resonance is essentially enriching information as it travels through the networks (p. 10). "[T]he more technical the work, the more that careful communication is needed to clarify and deepen it. Without the common language and these disciplined communication practices, information remains undecipherable and thereby devolves into mere data" (p. 38). It is not enough for project managers to just communicate

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information; they must be aware of how they communicate and the effects of their communication on all of their stakeholders.

BENEFITS FOR SCHOLAR AND PRACTITIONERS

Like research areas such as organizational communication or health communication, project management communication research offers benefits to scholars and practitioners. As demonstrated above, project management has a complexity beyond the functional aspects of management. This complexity arises from the interactions among the people involved in the project as they work to achieve a shared vision. Projects occur in almost every organization, encompass a great variety of communication situations, and are often well-documented. Thus, they can provide rich data for qualitative and quantitative analysis. On a more practical note, the Project Management Institute hosts a research conference every other year, and there are numerous funding sources and a large audience of practitioners eager to hear the latest research findings.

For the practitioner, increased research in project management communication will provide evidence-based tools and methods that will help improve their ability to manage projects. There is a growing consensus among project management experts that current project communication models and techniques are not effective with today's more complex and diverse projects.

Restating the arguments that opened this paper, communication is, at least, one of the top three factors for project success. The models and tools of project management communication are purely functional and transactional, which is inadequate for complex contemporary projects, especially regarding the complex responsive processes inherent in the interactions among project managers, project team members, and stakeholders. Implementing a new research agenda that recognizes the complexity of human communication will revitalize the field of project management communication by providing practitioners with better tools and methods. Ultimately, improving project management communication will aid in improving the overall effectiveness of project management.

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