International Journal of Information Management 31 (2011) 30–37

Contents lists available at ScienceDirect

International Journal of Information Management

journal homepage: www.elsevier.com/locate/ijinfomgt

Projects as communicating systems: Creating a culture of innovation and performance

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ARTICLE INFO

Keywords:
Information
Communication
Projects
Innovation
Temporary systems
Permanent systems
Temporary continuity

ABSTRACT

Although often downplayed and instrumental, there is evidence that communication in projects is essential in achieving value creation. Our main interest in this paper is on temporary continuity, a situation where the temporary becomes a permanent condition in social systems. The question that we have address is: What characterizes project communication in a situation with temporary continuity?

We argue for the need to transform communication processes into communication capabilities. In a situation with temporary continuity, there is a need to connect to a large number of value-creating processes, and communicating capabilities need to be a part of a communication system, where the aim is to bind together value-creating processes and communication capabilities. We construct a viable system consisting of five sub-systems. To become a viable system, projects in the form of temporary continuity, must handle the potential conflict between a culture of performance and a culture of innovation. This involves developing social mechanisms for coordination and interaction, with a focus on developing communication capabilities, in parallel with focusing on all of the five value-creation processes.

1. Introduction

Communication is often taken for granted in the context of projects (cf. PMBOOK-GUIDE, 2004) and the communication process is often instrumental and characterized by: "performance reports, forecasts, requested changes, recommended corrective actions, organizational process assets and updates" (PMBOOK-GUIDE, 2004: 231). External communication is associated with managing the flow of information to interested parties, or: "managing communication to satisfy the needs of and resolve issues with project stakeholders" (PMBOOK-GUIDE, 2004: 235). We are not familiar with any studies of communication in projects that define communication as a specific characteristic of projects. This might be because it is not characteristic, or because there has been no motivation to investigate communication within project systems, at least not in terms of communication capabilities. The tasks which projects have been created to accomplish have received all the attention.

There is, however, evidence that communication in various kinds of projects tops the list of reported problems and challenges. In 2007, the Norwegian oil company StatoilHydro carried out an investigation of the problems and challenges most frequently encountered in connection with its projects. 1647 reports were reviewed; and communications topped the list, followed by human resources, scope, integration and procurement (Sanberg, 2007). The classical values associated with projects – time, cost and quality – were further down the list of problems and challenges. On the plus side, communication, when it functioned efficiently, was the most important factor in achieving good results. Flyvbjerg (2007: 111) also emphasizes the significance of communications for mega-projects, stating: "communication with civil society, and with stakeholder groups and media, should be given high priority. The task of communication and participation should be taken seriously, and should be funded as adequately as the technical, environmental and economic tasks in a project, right from the early planning stages."

An important point made by Flyvbjerg (2007) is that communication in projects is decisive for the outcome of the projects, particularly for mega-projects. The larger and more complex the project, the more significant communication is for the results, because communication is the coordinating social mechanism which most strongly influences the results. This proposition is supported by the findings of Steelman and Ascher (1997), Altshuler and Luberoff (2003), Schwass and Fowler (1993), Miller and Lessard (2000), Fox and Miller (2006) and Loch, DeMeyer, and Pich (2006). Communication as a decisive critical factor in project work is also stressed by Johnson (2005: 50), who explicitly states: "The history of systems engineering shows that many complex systems problems relate to communication between organizations and

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doi:10.1016/j.ijinfomgt.2010.04.006

engineers. Two kinds of communication problems predominate: miscommunication, and the lack of communication."

In any reasonably ambitious project, it appears that the arguments for the classical emphasis on time, cost and quality should be amended to include communication as well.

It is the characteristics of communication in projects which we wish to investigate more closely, now that we have concluded that communication is a particular source of problems in project work. If the communication aspect is downplayed or removed from the project radar, then an instrumental interpretation of communication will be applied, as expressed in PMBOOK-GUIDE (2004). The instrumental interpretation of communication is serviceable when the rate of change and complexity of the project is limited. When the rate of change is great, and the internal and external complexity also increases, it would be practical to consider projects as communicating systems, because the coordination is to a greater degree accomplished through interactive social relationships and to a lesser degree through "futurum perfectum", detail planning and sequential interdependency (see Thompson, 1967). The instrumental approach to communication is so entrenched, and taken for granted, that when Engwall (2002) summarizes the reasons that a project failed, he ignores communication completely, even though Engwall attempts to disassociate himself from the mechanistic approach. Engwall (2002: 261–262) names three main reasons that the project was unsuccessful: inadequate leadership (planning, coordination, technical solutions); external factors (opposition from important partners, insufficient resources); and changing objectives (unclear specifications, adjusting goals underway). A positive interpretation of Engwall would be that communication is an implicit aspect within all three categories. The point, however, is that if something is considered implicit, attention will be directed away from it, and it will remain implicit until a crisis forces it into an explicit position.

The justification for a communication perspective on projects is that as project's rate of change and complexity increases, the social needs related to the project will also change, and coordinating mechanisms will be needed beyond those that were valid in a less complex reality. It is the transition from sequential interdependence, where the rate of change and complexity is low, to systemic dependence, where the rate of change and complexity is great, which characterizes projects as social systems. In such a reality, coordination will not be maintained by the dimensions of time, cost and quality alone.

The assumption we build on is that the larger and more complex a project is, the greater the importance of communication will be as a coordinating social mechanism. Mutual adjustment, as Thompson (1967) suggests in such contexts, is only a necessary precondition. Our proposition is that projects, especially large projects, should to a greater extent be considered as social systems, where communication capabilities are taken into consideration. Projects as social systems, from a systemic perspective, have their theoretical foundation in Luhmann (1993, 1995).

Projects are often seen as a temporary system, while the organizations which they emerge from are examples of permanent systems (Sahlin-Anderson and Søderholm, 2002). The transition from the permanent to the temporary influences social structures, individuals' possibilities of choice and institutional changes (see Johannessen, 2008). In such a situation, tensions will occur between the permanent and temporary, requiring social coordination mechanisms of a completely different complexity than those found in more instrumental communication situations. The larger projects are, the more they move away from the individual organization's control and the greater the requirement for coordination mechanisms, to cope with the systemic dependence that occurs. One of the reasons for poor project completion in large projects is that the control remains local, i.e. within the project, while the decisions

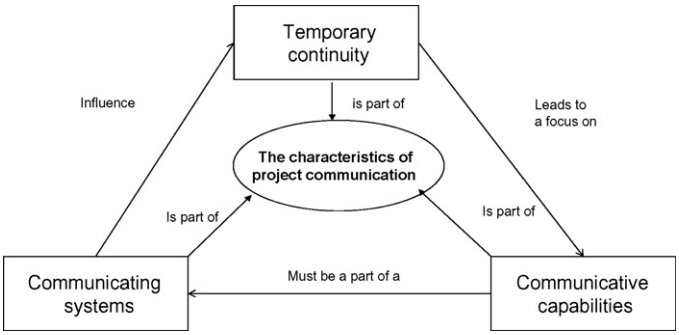

Fig. 1. Characteristics of project communication.

that affect the development of the project are taken at another level, by other institutions and social systems. The characteristic of such project contexts is that communication in the broadest sense gains in importance, as we have described above. The paradox is that communication is of great importance for the success of projects, but the focus on communication in projects is absent or de-emphasized (see Engwall, 2002).

Our main interest in this paper is neither the temporary nor the permanent as such, but on temporary continuity. When the temporary becomes a permanent condition in social systems, the phenomenon of temporary continuity occurs.[1] Temporary continuity here is understood as an integration of the temporary and the permanent, an expression of system integration; an integration between the projects and the organization(s) from which the projects originate. While system integration was earlier a technical matter, left to system engineers, it is now a strategic area of interest (see Hobday, Prencipe, & Davies, 2005).

The fundamental communication processes are exchanging information, developing mutual understanding, coordinating activities, influencing and socializing (see Poole, 2005). An important success factor for a project is to transform these processes into communication capabilities, since communication is: "the nervous system of any organized group and the glue which holds organizations together" (Poole, 2005: 47). Even though situations and contexts in different projects are apparently similar, communication will be different (see Goodman, 1981). One explanation of this phenomenon may be found in communication capabilities. If we take Leonard-Barton's (1995) analysis of organizational capabilities as an analogy for communication capabilities, then communication capabilities may be defined as the communicative system which combines economic/technical communication, management communication, social communication and cultural communication. Different projects have dissimilar relations internally and externally, and therefore also varying communication capabilities. If the projects' communication capabilities are different, then the management and execution of these projects will also vary; because communication separates, integrates and coordinates these processes in all social systems (see Luhmann, 1995).

The aim of communication capabilities is to preserve value creation. However, temporary continuity implies the need to see beyond the linear value-chain thinking (Porter, 1980, 1985), so often found within projects, and to include other value-creating processes as well. Such communicating capabilities must be a part of a communication system, with the aim of binding together value-creating processes and communication capabilities. In Fig. 1 we have illustrated the above.

The question that we address here is: What characterizes project communication in a situation with temporary continuity? We have

[1] The term *temporary continuity* is borrowed from Loizou (1986: 93).