Chapter 11
Concepts for the Design of a Manager–Centric Global Decision Support System for Organizations

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ABSTRACT

The goal of this chapter is to describe a set of concepts for the design of information systems supporting the global decision process in an organization from a management point of view. Managers are responsible for decisions that are crucial for the success of the organization. Supporting decision taking by management in an integrated way means to support the global decision process of the organization and increase its efficiency and resilience. The system is envisaged so that i) each manager has available a decision dashboard to support the flux of decision-making for which he or she is responsible; ii) the dashboards also allow managers to crowdsource from non-managers different aspects of decision iii) the dashboards are connected in a conversational network; iv) this conversational network is so structured to support the global decision process of the organization.

INTRODUCTION

This chapter extends and refines the concept of a Global Decision Support System for Organizations structured and interfaced from a management perspective. Taking the management perspective in structuring and interfacing was called a Manager-centric Global Decision Support System for Organizations (MODSSO) presented in Garrido and Faria (2012).

The extension consists in *including action* as the universal function of people in an organization, therefore the first function to support at the global level of the organization, even if the goal is to support decision. Decisions are a type of actions that select other actions to be executed. Therefore, global decision support in an organization requires and presupposes global action support.

If decisions are a subset of actions then support to decisions should be included in action support. Anyone realizing an action may need or benefit from taking conscious decisions in the process of realization. Recognizing this, a manager centric *interface to global decision support must be universal for all people in the organization* and be provided as a resource to *global action support*.

The refinements consist first in defining the *managerial function* more precisely. What distinguishes managers from non-managers is managers can take decisions on which actions other people in the organization must execute. Second, the model used for *decision processes* is given an *organization integrated functional expression* as belonging to an arch of perception and judgment followed by decision and action influencing the organization, the world the organization is in, or both.

Global Decision Support Systems for Organizations

The concept of a Global Decision Support System for Organizations (GoDSSO) starts out from the idea of a *kernel information system* for *global decision support in organizations* as described in Garrido (2010), upon previous work (Garrido, 2009; Garrido & Faria, 2008).

These previous descriptions stressed the social and conversational character of such systems and implicitly their role in becoming the primary equipment interface between each person and the organization in what respects decision processes. In Garrido and Faria (2012) the concept was shaped in an operational form, with strong emphasis of the system design on usability and use by managers and other people in the organization. Here, the concept is re-stated in terms that are more compact.

The aim of a GoDSSO is to support the *global decision process of an organization*. This presumes that an organization is seen constituted by processes, that there are processes whose output are decisions, and that all the decision processes inside an organization can be seen structured into the global decision process of the organization.

This is tantamount to assuming the global decision process of an organization as *the sum total* of actions and activities generating decisions along time in the organization. The global decision process is constituted by decision processes that either run in parallel and do not interact or interact in many ways. Often decisions taken in one decision process trigger other decision processes. The global flow of decision inside an organization appears as a complex structure.

People and equipment make up organizations. Decisions inside the flow of the global decision process can be taken automatically by equipment as some management software that implements established rules upon data. They can also be taken by managers in an individual–only basis without communicating with other people. These modes of decision taking, that make no use of communication among people, have their usefulness, but it is clear that communication and, sometimes, conversation, are required for the global decision process to function.

Actually and as far as this author knows, global decision processes in organizations are *locally* supported through a plethora of specialized decision support systems in terms of the specific class of decisions to be made, of group support systems and other team cooperation software. One must add automated decision taking systems to support decision systems. This makes a constellation of decision systems, some fully automated, some not.

Yet, this constellation is not connected through an *inner kernel of support* addressing *global decision in the organization*. The existence of this inner kernel of support would be proof that the organization is aware of its global decision process and people address what this awareness tells them.

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