

# Chapter VII

## Language–Action Perspective (LAP)

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### ABSTRACT

*The Language-action perspective (LAP) provides an alternative foundation for analyzing and designing effective information systems. The fundamental principle of the LAP approach is people perform actions through communication; therefore, the role of information systems is to support such communications among people to achieve business goals. Basing on linguistic and communicative theories, the LAP approach provides guidance for researchers to gain understanding on how people use communication to coordinate their activities to achieve common goal. Web services, a leading technology to develop information systems, aims to support communication among services to achieve business goals. The close match between fundamental principles of Web services and the LAP approach suggests that researchers can use the LAP approach as a theoretical guidance to analyze and resolve Web service problems. This chapter provides a comprehensive starting point for researchers, practitioners, and students to gain understanding of the LAP approach.*

### INTRODUCTION

Through their article, “Doing and speaking in the office,” Flores and Ludlow challenged the conventional notion that communication is merely the transmission of information or symbols and

argued that people are linguistic beings who use language to perform actions (Flores & Ludlow, 1980). Through this article, they provided awareness and relevance of communication theories for the information systems field. Goldkuhl and Lyytinen (Goldkuhl & Lyytinen, 1982) coined

the term “Language Action View” to describe an approach for designing information systems from the perspective of how people use communication to perform actions. Building on this perspective, Winograd and Flores (Winograd & Flores, 1986) presented a new foundation for designing information systems by conceptualizing actions performed through communications as recurrent communicative patterns. The revolutionary work of Winograd and Flores inspired a wave of diverse Language-action perspective (LAP) based applications in the last two decades (Weigand, 2006). They all have in common the fundamental agreement that language is not only used for exchanging information, as in reports or statements, but also to perform actions such as promises, orders, declarations, etc (Schoop, 2001; Weigand, 2003). LAP emphasizes that such actions should be the foundation for creating effective information systems.

In contrast, traditional approaches consider information systems as repositories for storing representations of facts about the real world (Yetim & Bieber, 2003). According to these approaches, the important goal of information systems is to process stored facts and provide required information for managerial and decision making purposes (Connors, 1992; Davis & Olson, 1984). Therefore, information systems development is considered a process of manipulating information to meet the requirements of a specific business task (De Michelis et al., 1997). Moreover, requirements for developing systems were based on simplified assumptions and heuristics that capture known properties of the real world while ignoring unknown properties (Oreskes, Shrader-Frechette, & Belitz, 1994). Thus, traditional information systems are seen as ‘mirrors of reality’, where users are provided with abstractions of the reality (Flores, Graves, Hartfield, & Winograd, 1988; Goldkuhl & Lyytinen, 1982). Therefore, each user has a ‘local view’ of the real world, that is the individual’s slice of the reality seen through an information system (Goldkuhl & Lyytinen,

1982). Several researchers within the information systems field have challenged this notion of information systems as an image of reality (Goldkuhl & Ågerfalk, 2000; Hirschheim, Klein, & Lyytinen, 1995; Winograd & Flores, 1986).

On the other hand, the LAP approach presumes that the purpose of an information system is to support communication among people to help them perform actions together (Flores et al., 1988; Goldkuhl & Lyytinen, 1982). LAP considers communication to be a form of action performed by the participants (Winograd, 2006). Therefore, LAP recognizes the importance of communication in an organizational context and focuses on how communicative aspects are used for performing business actions (Mulder & Reijswoud, 2003). Thus, according to the LAP approach, people are part of a community, who interpret the world and coordinate their actions together in that world (Goldkuhl & Lyytinen, 1982). The user is seen as a participant in the community of interpretation and information is contextualized for a community of interpreters (Goldkuhl & Lyytinen, 1982). Thus, appropriate level of analysis for the LAP approach is group and organization.

In spite of significant progress in the past two decades (Weigand, 2006), the LAP approach has not become a significant part of mainstream computing movement to address organizational computing problems (Lyytinen, 2004). Thus, the motivation for this chapter comes from the challenge put forth by Kalle Lyytinen (Lyytinen, 2004) to make LAP part of mainstream of organizational computing.

As organizational computing paradigm shifts away from object-orientation to service-orientation, I argue that the LAP approach provides appropriate theoretical foundations for designing and developing service-oriented Information systems (Umapathy, 2007; Umapathy & Purao, 2007b). The LAP approach would be a good theoretical framework, because it was developed in the context of coordinating communications among organizational entities (which can be considered

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