Chapter VII

Knowledge Agents: Exploiting the Community Paradigm for Collective Intelligence

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Editors’ Notes

Achilleas, Nikos, and Sotiris discuss a hot topic. Knowledge agents and societies of agents is an extremely interesting subject with multidisciplinary theoretical background and critical practical implications. They are graduates from the Athens University of Economics and Business, and we appreciate their technical and programming skills as well as their fresh minds. They have developed extraordinary applications, and we wish them a great future.

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We encourage you to go through this chapter, which is a mix of theoretical discussions and presentations of agent technologies, with “myopic” lenses. Try to interpret each sentence in the context of the corporate learning environment and go beyond their propositions by imagining how many powerful new generation Intelligent learning and knowledge infrastructures can exploit the agents society paradigm. As the case studies at the last chapters of the book, many of the things discussed in this chapter can support an argumentation to the assignments.

Abstract

In this chapter, we approach some significant concepts consistent with knowledge and cognitive processes that are essential for any kind of contemporary organization. Therefore, after citing a generic approach to knowledge management and its facilitating tools, along with a description of software agents and their categories, we indicate precious elements and details for the prerequisites while designing and implementing such intelligent solutions. As prerequisites, we deem organizational context, programming, and developing tools. We then discuss collaborative agent systems, known as agent societies, and present some appealing implementations of complex agent systems. Finally, we portray some of our thoughts regarding the perspective of employing smart agent technology in our everyday life.

Introduction

Chapter Overview

This chapter is divided into two sections. In the first one, we present the theoretical basis that lies behind the emerging smart agent technology. More specifically, we address the fundamental characteristics of smart agent systems and formulate a basic guide for IT professionals who are interested in designing agent societies. In the second section, we contend with the notion of agent societies from a technical standpoint. We also provide several attention-grabbing examples of fully functioning system prototypes. In the end, we examine available tools and languages in order to manifest and deploy agent systems.

Clarification of Terms

Avowedly, our contemporary world and its socioeconomic dimensions can be characterized by volatility, uncertainty, and high competitiveness. Simultaneously, there is

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Business Students as End-User Developers: Simulating "Real Life" Situations through Case Study Approach
Sandra Barker (2003). *Current Issues in IT Education* (pp. 304-312).
www.igi-global.com/chapter/business-students-end-user-developers/7352?camid=4v1a