

# On Achievable Goals and Feasible Plans in Open Multi-Agent Systems

Jaime Simão Sichman  
University of São Paulo  
Computer Engineering Department  
Av. Prof. Luciano Gualberto, 158, travessa 3  
05508-900, São Paulo, SP, Brazil  
jaime@pcs.usp.br

## Abstract

In this paper, we present a subjective representation of the notions of *feasible plans* and *achievable goals*, in order to model the decision mechanism of autonomous agents, immersed in an open multi-agent context. By open, we mean that agents may enter or leave the agency at any moment, without a centralized control. We believe that an agent who uses this model can better adapt himself to the changing conditions of the system, specifically to the fact that services may dynamically become available/not available.

## 1 Introduction

In [6, 11, 5], the future information processing environments are presented as being composed of huge heterogeneous networks of processing resources. These resources, autonomous and distributed, may consist of computers, huge applications and huge databases. Authors call these environments “societies of objects” or “electronic organizations”. Simply referring to such pro-