

Legal aspects of agent technology

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Abstract

Agent Technology is entering into the field of law. E-commerce is one area in which agent technology plays an important role. The legal implications regarding the use of agent technology are, however, not Always clear. The ALIAS project focuses on both the legal implications and the technical solutions, which may be used to fulfill the legal conditions derived. Different fields of expertise are combined within the ALIAS project: Computer Science, Artificial Intelligence, and Law. The aim of this project is to provide a "cookbook" for developers of agent systems, and guidelines for both Legal-researchers and AI-researchers designing intelligent distributed agent systems. In this paper a distinction is made between open and closed systems on the Internet: the legal conditions of which differ especially with respect to the use of agent technology. Three example cases are described in which both (1) the legal implications of the use of agents in these contexts and (2) possible technical solutions for these conditions, are addressed. As the Internet does not stop at a country's border, the analysis of legal implications is not restricted to Dutch law, but also considers other legal systems. As the technical solutions proposed are generic, they are not always fully compliant with legal conditions. These aspects are also discussed in this paper.

This paper presents a conceptual model that consists of five intermediary concepts: autonomy, integrity, traceability/identifiability and trust. It is argued that the model may be used to analyze and link technical and legal implications of the use of software agents. As an illustration a 'chemical marketplace' scenario is used. This marketplace is an open system with closed elements. Current research is aimed at refining the model and introducing more issues, both technical and legal. Questions are: does the framework provide insight in the fields involved? Will it provide enough support in the design of a "cookbook" for software designers in which the legal implications of design choices are made clear? How should agents identify themselves? Is the notion of originality applicable to agents? Can electronic agent perform legal acts as an agent in the legal sense? One of the platforms to address these questions is the discussion website: <http://soapbox.cs.vu.nl/ALIAS>. Apart from the discussions, the website contains a repository of relevant papers on agent technology and law. We welcome all input.

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