

An Agent Mediated Virtual Marketplace: In Context.

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Abstract: Rarely are commercial transactions made in isolation. In most cases, individual purchasing decisions must be made within both narrow and broad contexts. The narrow context may include such things as the set of previous purchases among which the new item must interact and the set of expectations for future purchases. All marketplaces (both virtual and those in the real world) are situated in a broader legal and social context. Issues such as privacy and fair marketplace competition must be addressed in the design of virtual marketplaces. To date, the legal and social context has too often been ignored. In this paper we present a context-based multi-agent architecture in which a consumer starts with a design (e.g. a house design) and seeks to purchase a set of components (e.g. cabinets, flooring) that satisfy the design and its associated performance specifications. In addition, we examine a number of legal and social issues and suggest a range of possible policy and technical solutions.