

Attribute-Based Access Control for Knowledge Representation

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Access control is a security technique that specifies which users can access particular resources in a computing environment. Over the years, numerous access control models have been developed to address various aspects of computer security. In this talk, we focus on a modern approach, attribute-based access control (ABAC), which has been proposed in order to overcome limitations of traditional models: discretionary access control (DAC), mandatory access control (MAC) and role-based access control (RBAC).

The work on integrating access control mechanisms in semantic web technologies is developing into two directions: (1) to use semantic web technologies for modelling and analyzing access control policies and (2) to protect knowledge encoded in an ontology. In this talk we focus on the first issue and investigate how ABAC can be modeled into ontology languages.