An Event Relationship Model for Knowledge Organization and Visualization

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An event is a specific occurrence involving participants, which is a typed, n-ary association of entities or other events, each identified as a participant in a specific semantic role in the event. Event types may vary across domains. Representing relationships between events can facilitate the understanding of knowledge in complex systems (such as economic systems, human body, social systems). In the simplest form, an event can be represented as Entity A <Relation> Entity B. This paper evaluates several knowledge organization and visualization models and tools, such as concept maps (Cmap), topic maps (Ontopia), network analysis models (Gephi), and ontology (Protégé), then proposes an event relationship model that aims to integrate the strengths of these models, and can represent complex knowledge expressed in events and their relationships. A prototype of the model is under construction.