Temporal Convergence for Knowledge Management

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Abstract

Time and knowledge have tended to be conceptualised in conventional knowledge management systems as either 'timeless' recordings of procedures, or time-stamped records of past events and states. The concept of temporal convergence was previously develope complex military processes such as commander's intent, shared situation awareness, and self-synchronisation. This paper clarifies the concept and introduces several others in forming a framework to assist discussion and exploration of the types of knowledge requi characterised by opposition and uncertainty. The approach is grounded in a pragmatist philosophy and constructivist epistemology. Argument proceeds along mathematical lines from a basis that the types of knowledge most valuable to goal-directed agents in uncer topologies. The framework is shown to be useful in describing and reasoning about the knowledge requirements and prerequisites for distributed decision-making through the sharing of situational knowledge and common intentions, with practical application to the pl of knowledge management systems seeking to address this space, it presents a challenge that cannot be addressed merely by construction, storage, search and retrieval of documents and records pertaining to the past.

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