

Ontology-based Multimedia Contents Retrieval Framework in Smart TV Environment

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Abstract—Semantic search promises to provide more accurate result than present-day keyword matching-based search by using the knowledge represented logically (i.e., knowledge base). But, the ordinary users don't know well the complex formal query language and schema of the knowledge base. So, the system should interpret the meaning of user's keywords. Such requirements are conspicuous especially in smart media such as smart phone, IPTV and smart TV. In this paper, we describe a framework for the semantic retrieval of multimedia contents. Our framework is ontological knowledge base-driven in the sense that the interpretation process is integrated into a unified structure around a knowledge base, which is built on domain ontologies. Our framework also integrates such components as for knowledge base augmentation by user preference and context. We also present our prototype system we have been developing to test our framework ideas.

Keyword—Knowledge Base, Ontology, Semantic Search, Smart TV



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