

UDeKAM: A Methodology for Acquiring Declarative Structured Knowledge from Unstructured Knowledge Resources

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An effective knowledge representation has always proved its importance for mankind intelligence. Among various kinds of knowledge, declarative knowledge has a vital role in medical domain and is critical for health-care safety and quality. A large volume of declarative knowledge is hidden in multiple knowledge resources such as clinical notes, standard guidelines etc. that can play an important role in decision support systems as well as in health and wellness applications after structured transformation. In this paper, an **U**nstructured **D**eclarative **K**nowledge **A**cquisition **M**ethodology, called UDeKAM, is proposed that acquires and constructs the declarative structured knowledge from unstructured knowledge resources using *Documents Clustering*, *Topic Modeling*, and *Controlled Natural Language* processing techniques. The proposed methodology is designed for different domains to serve a variety of applications. It is an ongoing work and for the realization of UDeKAM, a diabetes scenario is explained through example.