

Knowledge management in large organisations

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In this chapter we provide an overview of the knowledge management problems, and opportunities, faced by large organisations; and indeed also shared by some smaller organisations. We show how semantic technologies can make a contribution. We look at the key application areas: finding and organising information; sharing knowledge; supporting processes, in particular informal processes; information integration; extracting knowledge from unstructured information; and finally sharing and reusing knowledge across organisations. In each application area we describe some solutions, either currently available or being researched. We do this to provide examples of what is possible rather than to provide a comprehensive list. We also describe some of the technologies which contribute to these solutions; e.g. text mining for analysing documents or text within documents; and Natural Language Processing for analysing language itself and, e.g. identifying named entities. Most fundamentally, the use of ontologies as a form of knowledge representation underlies everything we talk about in the chapter. Ontologies offer great expressive power; they provide enormous flexibility, with the ability to evolve dynamically unlike database schema; and they make possible machine reasoning. The chapter finishes by identifying the key trends and describing the key challenges to be faced as we develop more powerful tools to support knowledge work.