The Challenge of Knowledge Soup

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People have a natural desire to organize, classify, label, and define the things, events, and patterns of their daily lives. But their best-laid plans are overwhelmed by the inevitable change, growth, innovation, progress, evolution, diversity, and entropy. When the Académie Française attempted to legislate the vocabulary and definitions of the French language, their efforts were undermined by uncontrollable developments: rapid growth of slang that is never sanctioned by the authorities, and wholesale borrowing of words from English, the world's fastest growing language. In Japan, the pace of innovation and borrowing has been so rapid that the older generation of Japanese can no longer

read their daily newspapers. These rapid changes, which create difficulties for people, are far more disruptive for the fragile databases and knowledge bases in computer systems. The term _knowledge soup_better characterizes the fluid, dynamically changing nature of the information that people acquire, reason about, act upon, and communicate. This talk addresses the complexity of the knowledge soup, the problems it poses for intelligent systems, and the methods for managing it. The most important measure for any intelligent system is its flexibility in accommodating and making sense of the knowledge soup.