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Week 4

The papers about common-sense interfaces all seem to desire the use of knowledge bases, repositories of facts to which the public contributes. While the paper, "Beating Common Sense into Interactive Applications", claims that the majority of the data is correct, as more and more people input data, the quality problem increases. A deeper problem, however, is this: how do you know when the knowledge base is complete? Should it be complete for a standard 10 year old? What gender? Ethnicity? What about technical knowledge? Where does it end? These questions are deep-seated questions of epistemology; I have concerns that they can ever be answered.

One of the applications mentioned tries to incorporate affective icons into e-mail messages by using knowledge-bases to infer the affect of the e-mail. There are many problems with this approach, one of them being granularity. As a user, I really don't need or want each sentence to be annotated with a circular drawing of what the agent thinks the affect of the sentence is. If anything, this should work on the paragraph level instead. Yet because the knowledge-base approach is designed to work on the sentence level, this is not possible. Even so, I question the utility of this, as people are very capable of inferring affect from text. In those cases where it would be difficult to do so (such as with sarcasm), this system wouldn't be able to help, and in fact, would most likely get it completely wrong.

Another application mentioned suggests shots for documentary film-makers. Such a system is dangerous, methinks, as it allows the film-maker to be lazy and not do research beforehand. Part of being a film-maker is discovering new ways of looking at things, at being able to come to a topic with a new view and capture the topic in a way that has never been done before. The common-sense interface mentioned is dangerous precisely because it suggests shots; it takes away the creativity the film-maker is supposed to bring. Only in very rare cases could this be useful (for example, when the film-maker is under intense time pressures); even then, however, the result would be lacking in artistic merit.

In the end, it comes down to how much we want computers to be like us. Do we want them to have the understanding of humans? Computers are not humans and never will be. Thus, I question the desire to teach computers in the way we teach children. Perhaps we should think of the strengths of computing in general and design applications that work best with that: sensing, number-crunching, real-time analysis of data, etc.