Abstract:

A terminology can be very precise -- used by specialists for clear and exact understanding -- and yet have semantics that resist description by currently popular methods. The evolution of syntax and semantics from theories on paper to engineering problems for software handling natural language has revealed vast gaps in what the theories can even discuss: an anatomical database must use terms like 'proximal' but has no way to manipulate them that respects their referents. It knows only that a truth value is present, and only if it has been entered by an anatomist. Today's software cannot assess for itself whether an organ (or a piece of shrapnel) is proximal to another, as a physician looking at a 3D scan do, and report to another physician in those terms. It cannot even decide adequately what region in the scan corresponds to an 'organ'. I will outline a few thoughts on what a computable anatomical semantics might be like, in the hope of improving my ideas and perhaps of changing somewhat the combinatorial context of much semantic discussion.

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