The Conversational User Interface

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ABSTRACT
Work on both the graphical user interface (GUI) and the conversational user interface (CUI) started at about the same time, about 40 years ago. The GUI was a lot easier to implement, and it made computing and information resources available to ordinary people—but over the years it has lost much of its simplicity and charm. The CUI has taken many more years to develop, requiring major scientific and engineering advances in speech, natural language processing, user-modeling, and reasoning, not to mention increases in cost-effective computation. But the infrastructure is now in place for the widespread distribution of conversational interfaces, and we have begun to imagine and create sophisticated ways of exploiting this new mode of interaction. This may well be the "killer app" for deep natural language processing and complex reasoning.

KEYWORDS: Conversational User Interface, Deep Natural Language Processing, Reasoning.