

# From Facts to Acts: Knowledge Graphs for Personal Assistant

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## Abstract

The current generation of knowledge graphs (KGs) make it easy to deliver answers to popular factoid questions, but provide weak support for more personalized, task-oriented assistance. There are general KGs and KGs associated with assistants, but they have quite different characteristics and are distinctly separate: the former are relatively well understood, stable, focused on explicit factual knowledge; the latter are more volatile, focused on personal user state and implicit knowledge, and still largely being defined. Interfacing the two is not well understood. This talk will present open research areas for both KGs in the assistant domain including properties of their construction, representation, and inference.

## Bio

Jeff Dalton is a Lecturer in the School of Computing at the University of Glasgow. Until recently he was a Software Engineer at Google, where projects included the Google Assistant Natural Language Understanding and automatic knowledge graph construction. He completed his PhD at the University of Massachusetts Amherst with James Allan in the Center for Intelligent Information Retrieval. His research focuses on the intersection of Information Retrieval and Natural Language Processing.

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