# Generations of Knowledge Graphs: The Crazy Ideas and The Business

##### Keynote Speech

Knowledge Graphs (KGs) have been used to support a wide range of applications, from web search to personal assistant. In this talk, we describe three generations of knowledge graphs: entity-based KGs, which have been supporting general search and Q&A (e.g., at Google and Bing); text-rich KGs, which have been supporting search and recommendations for products, bio-informatics, etc.; and the emerging media-rich time-based KGs, which would play a critical role for personal virtual assistants. We explain the characteristics of each generation of KGs, and the crazy ideas behind the scenes in constructing such KGs. In addition, we also use knowledge graphs as examples to demonstrate how we evolve research ideas from innovations to practice, and then to the next level of innovations, to advance both science and production.

## Speaker

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| **Xin Luna Dong** | Principal Scientist at Meta Reality Lab. Prior to joining Meta, she was a Senior Principal Scientist at Amazon, leading the efforts of constructing Amazon Product Knowledge Graph, and before that one of the major contributors to the Google Knowledge Vault project, and has led the Knowledge-based Trust project, which is called the “Google Truth Machine” by Washington’s Post. She has co-authored books "Machine Knowledge: Creation and Curation of Comprehensive Knowledge Bases" and “Big Data Integration”, was awarded ACM Distinguished Member, and VLDB Early Career Research Contribution Award for “Advancing the state of the art of knowledge fusion”. She serves in the VLDB endowment and PVLDB advisory committee, and is a PC co-chair for KDD'2022 ADS track, WSDM 2022, VLDB 2021, and Sigmod 2018 |