Can Machines Discover New Knowledge?

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Abstract

For many years, the quest to determine the most efficacious representations of knowledge for machines has been at the forefront of research. Historically, this focus has centered on knowledge retrieval, whether from unstructured text corpora, structured collections (e.g, knowledge graphs, key-value memories), or the parameters of a neural model. How can we evolve these representations to not just retrieve, but actively discover new knowledge?

Keywords

Knowledge Graph, Large Language Model, Knowledge Retrieval

Biography

Dr. Fabio Petroni is the Co-Founder and CTO at Samaya AI, building an AI-powered knowledgediscovery platform. Before that he was a Researcher at FAIR and Thomson Reuters, focusing on representing, gathering, extracting, using, reasoning on and creating world knowledge using AI.