Alexa, Can You Help Me Shop?

Yoelle Maarek

Amazon

MATAM Park, Haifa 3508409, Israel

yoelle@yahoo.com

ABSTRACT

In a previous keynote address [1], we have described how voice-enabled intelligent assistants are revolutionizing the way humans interact with machines and how their ubiquitous presence in homes, cars, offices are taking us closer to the old dream of ambient computing. We also explained how Alexa, Amazon's intelligent assistant, is pioneering the domain of voice shopping, considering the customer's shopping journey in a holistic manner.

In this talk, we will discuss in more details the key stages required in addressing customer's needs, namely (1) understanding customers, (2) satisfying their needs, and (3) predicting them. We will also provide a finer analysis of customers' needs, be they informational, transactional or navigational needs [2]. We will conclude by presenting some associated research challenges and encouraging the community to explore the unchartered area of voice-enabled product discovery.

CCS Concepts/ACM Classifiers

• Information systems~Information retrieval   • Information systems~Question answering   • Human-centered computing~Personal digital assistants

Author Keywords

Personal Intelligent Assistants; Voice search; Product search; Product Question Answering;

BIOGRAPHY

Yoelle Maarek is a Vice President at Amazon, heading research for Alexa Shopping. Prior to this, she was Vice President of Research at Yahoo, guiding the research teams worldwide. Before Yahoo, she was the first engineering hire of Google in Israel and opened the Haifa engineering office. One of the most notable features her team launched is Google Suggest, the query auto-completion service. Before Google, she was with IBM Research, first in the US then in Israel, holding a number of technical and management positions, eventually becoming an IBM Distinguished Engineer. She has been serving in various senior roles at leading academic research conferences in the field of Web search and data mining, such as SIGIR, The Web Conference (formerly WWW) and WSDM. She is a member of the Technion Board of Governors and was inducted as an ACM Fellow in 2013. Yoelle obtained her PhD in Computer Science from the Technion, Israel in 1989, and holds an engineering degree from the Ecole des Ponts et Chaussées, and a DEA (graduate degree) in Computer Science/AI from Paris VI university, both awarded in 1985.

REFERENCES

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[2] A. Broder, *A Taxonomy of Web Search*, ACM SIGIR Forum, 36:2, Fall 2002.