Digital Marketing in the Artificial Intelligence and Machine Learning Age

TREO Talk Paper

Zhihui Ruan
Missouri University of Science & Technology
zrr8p@mst.edu

Keng Siau
Missouri University of Science & Technology
siauk@mst.edu

Abstract

We are living in a period of profound change driven by digitization, information and communication technology, artificial intelligence, machine learning, and robotics (Gupta, Keen, Shah, and Verdier, 2017; Wang and Siau, 2019). Traditional marketing is shifting to digital marketing enabled by AI and machine learning. Customer consumption behavior has changed from traditional in-store shopping to online shopping (Thiraviyam, 2018).

The large volume of transaction and demographic data enables business analytics, AI, and machine learning to analyze and predict customer behavior to improve customer satisfaction and enhance sales (Siau and Wang, 2018). For example, predictive analytics uses different algorithms to predict the relationship between results and variables and to identify data patterns (Turban, Sharda and Delen, 2010). Marketers use data mining techniques to analyze the data trend to predict customer consumption hobbies. With AI and machine learning, marketers can now automate the pattern searching and identify processes to enable personalized and one-to-one digital marketing to deliver individualized messages and product offerings to existing and new customers.

This research will focus on AI and machine learning effort on digital marketing and customer behavior. This research involves both interview and survey. This qualitative study will examine how marketers are capitalizing on the capabilities of AI and machine learning to predict customer behavior, offer one-to-one digital marketing, enhance sales, and increase customer satisfaction. Interviews will be conducted with executives from digital marketing companies and traditional brick and mortar companies that are embracing digital marketing. Survey will be used in these companies to capture data from digital marketing and sales personnel.

Studying the impact of AI and machine learning on digital marketing and customer behavior is of great significance to the marketing and sales industry. The results from this research will provide both academics and practitioners a deeper understanding of the use and impact of AI and machine learning in digital marketing.

References


