Chapter 4

Assessing the Intersection of Artificial Intelligence and Digital Advertising

Fatih Pinarbasi

iD https://orcid.org/0000-0001-9005-0324
Istanbul Medipol Universitesi, Turkey

ABSTRACT

The advancements in artificial intelligence are among the factors influencing the components of various topics within the marketing and advertising industry. The usability of artificial intelligence and related technologies in sub-contexts within the scope of digital advertising generates the opportunity for various research questions. This study aims to conclude the future of the subjects based on assessing intersections between digital advertising and artificial intelligence. Following the purpose of the study, a literature review has been used, and three main intersection points in the field of AI and digital advertising are included. Three main section points concluded in the study refer to AI's contribution to analytics and decision making, advertising content production with the help of AI, and implementation of digital advertising with the help of AI, advertising measurement and optimization. Solutions and recommendations, and future research directions are also presented in the study.

INTRODUCTION

The advertising and marketing environment has undergone many changes in the last decades due to developments in the business world, both in internal structures, levels of competition in the sector, and actors in the marketplace. While factors such as media tools and globalization were mentioned in the previous years, the critical concept mentioned in the last decade has been the digital world and the changes that come with it. Especially in recent years, following the use of artificial intelligence and related technologies by broader masses, significant changes in advertising are expected in todays and future years. Technological advances, which have been in the business world with the role of decision support systems until the last decade, have reached quite comprehensive dimensions, especially in recent years, with the ability to generate new ideas in a specific field, make faster decisions, learn by themselves and predict results. In the past, businesses used decision support systems to detect patterns in particular data, relations between data, correlation, and causality. Today, however, businesses can use artificial intelligence-supported systems with differences, such as producing certain types of content, creating systems that respond to questions, and systems with faster decision-making power.

Artificial intelligence-supported systems have become popular in the business world in recent years. According to Fishbowl (2023), marketing and advertising industry has the highest adoption percentage (37%) at generative AI usage for assisting work tasks. According to Bain & Company AI Survey (Katzin et., 2023) which surveyed nearly 600 companies in 11 industries, top domains of generative AI exploration are; generative AI embedded in products/software (49%), customer engagement and service application (47%), code completion, generation, copiloting (46%), knowledge assistants (for sales support and internal operations) (42%), Automation of IT administration (help desk, etc.) (42%), marketing content generation and localization (39%), and product design and simulations (35%). Artificial intelligence-supported systems have a broad scope in terms of content. Artificial intelligence can benefit businesses in various topics, such as producing new content, supporting decision-making and consumers with question-answer systems, and making business decisions more effectively. In this respect, it will be beneficial to evaluate the subject in terms of today and the future i) to understand the subject better, ii) to be prepared for possible opportunities and threats.

Another critical issue related to artificial intelligence and advertising is the possible benefits of considering the subject in an academic context outside of the sectoral context. Examining the competitive advantage that will occur with the increase in the use of artificial intelligence-supported systems or the competition risks that will arise in the opposite direction, in the light of the theories in the academic literature to date, may be helpful for business decision-making. While businesses

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/assessing-the-intersection-of-artificial-intelligence-and-digital-advertising/333959

Related Content

A Hybrid System Based on FMM and MLP to Diagnose Heart Disease

Swati Aggarwaland Venu Azad (2017). *Fuzzy Systems: Concepts, Methodologies, Tools, and Applications (pp. 682-714).*

www.irma-international.org/chapter/a-hybrid-system-based-on-fmm-and-mlp-to-diagnose-heart-disease/178418

Intelligence Augmentation via Human-AI Symbiosis: Formulating Wise Systems for a Metasociety

Nikolaos Stylos (2023). *Philosophy of Artificial Intelligence and Its Place in Society (pp. 301-314).*

www.irma-international.org/chapter/intelligence-augmentation-via-human-ai-symbiosis/332610

On Ambient Information Systems: Challenges of Design and Evaluation

William R. Hazlewoodand Lorcan Coyle (2009). *International Journal of Ambient Computing and Intelligence (pp. 1-12).*

www.irma-international.org/article/ambient-information-systems/3873

Fuzzy Critical Path Method Based on a New Approach of Ranking Fuzzy Numbers using Centroid of Centroids

N. Ravi Shankar, B. Pardha Saradhiand S. Suresh Babu (2013). *International Journal of Fuzzy System Applications (pp. 16-31).*

www.irma-international.org/article/fuzzy-critical-path-method-based/77860

Impact of Learning on the Inventory Model of Deteriorating Imperfect Quality Items With Inflation and Credit Financing Under Fuzzy Environment

Mahesh Kumar Jayaswaland Mandeep Mittal (2022). *International Journal of Fuzzy System Applications (pp. 1-36).*

www.irma-international.org/article/impact-of-learning-on-the-inventory-model-of-deteriorating-imperfect-quality-items-with-inflation-and-credit-financing-under-fuzzy-environment/302125