International Academy of Science,
Engineering and Technology
Connecting Researchers; Nurturing Innovations
IASET

ADVANCED DATA ANALYTICS IN REAL TIME BIDDING PLATFORMS FOR DISPLAY ADVERTISING

Rajas Paresh Kshirsagar[1], Pramod Kumar Voola[2], Amit Mangal[3], Aayush Jain[4], Prof.(Dr) Punit Goel[5] & Dr S P Singh[6]

[1]Independent Researcher, N.Y. University, Malad (W), Mumbai, Maharashtra, India

[2]Independent Researcher, Osmania University, Hyderabad, India

[3]Independent Researcher, University of Phoenix, Tempe, Bangalore North Bangalore Karnataka, India

[4]Independent Researcher, Vivekananda Institute of Professional Studies -Pitampura, Delhi, India

[5]Research Supervisor, Maharaja Agrasen Himalayan Garhwal University, Uttarakhand, India

[6]Independent Researcher, Ex-Dean, Gurukul Kangri University, Haridwwar, Uttarakhand, India

ABSTRACT

The emergence of real-time bidding (RTB) platforms has revolutionized the landscape of display advertising, enabling advertisers to optimize their ad spend and target audiences with unprecedented precision. This paper explores the role of advanced data analytics in enhancing the efficiency and effectiveness of RTB systems. By leveraging vast datasets, including user behavior, demographics, and contextual information, advertisers can make informed decisions in milliseconds, significantly improving campaign performance.

The integration of machine learning algorithms facilitates predictive analytics, allowing advertisers to anticipate user responses and adjust bidding strategies dynamically. Moreover, the application of natural language processing enables better understanding of consumer sentiment, enhancing ad relevance. This study also discusses the challenges associated with data privacy and ethical considerations in RTB environments, emphasizing the need for transparent practices to build consumer trust.

Additionally, the research highlights case studies where advanced analytics have successfully increased ROI for advertisers while providing insights into emerging trends, such as programmatic advertising and cross-channel integration. Ultimately, this paper underscores the transformative impact of data analytics in RTB platforms, paving the way for more targeted, efficient, and user-centric advertising strategies that align with the evolving digital landscape. By harnessing the power of data, advertisers can not only improve their competitive edge but also contribute to a more personalized advertising experience for consumers.

KEYWORDS: *Real-Time Bidding, Display Advertising, Advanced Data Analytics, Machine Learning, Predictive Analytics, Consumer Behavior, Programmatic Advertising, Data Privacy, Ad Targeting, Advertising Strategies*