

Guest Editorial Preface

Special Issue on Changing Paradigm of Artificial Intelligence in E-Commerce Firms

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Artificial Intelligence (AI) and Machine Learning (ML) have changed the face of e-business in recent times. While AI develops a robot's ability to complete tasks that would typically require a human by following a set of rules (called an algorithm) to make decisions, ML develops the robot's ability to make its own rules and improve upon an algorithm to offer better results. This makes ML a subset of AI. In a recent report published by TechPublic, more than 60 percent of businesses used AI tools in some form in 2017. It is also known that 77 percent say they use AI to improve their marketing and sales processes out of those businesses. This makes AI technology directly linked with its profits, which boosts the players and competitors to invest more in AI technology.

The recent advancements in AI research have also made this technology more affordable and reliable for even e-commerce startups (Ng, 2016). Studies have also investigated the dark side of AI. They have explored issues related to ethics in AI, the occurrence of biases in AI, training from and testing on incorrect databases, etc. Therefore, it becomes difficult to choose sides between the positive and negative output of AI by firms and makes it further challenging to counter-argue the degree of adoption and adaptation (Anderson et al., 2018). The marketing standard has been improved by integrating AI in the e-commerce industry. AI-based mobile and web applications range from identifying patterns, data sets and creating a personalized experience. This also creates a unique approach that is more effective than any human being (Haenlein and Kaplan, 2019). AI has empowered users with many high-tech experiences ranging from websites to stores and voice assistants to chatbots. Such development has made consumers contact brand services at any time, in any form. Right from the start, AI disrupted the e-commerce industry with smart solutions (Vanneschi et al., 2018; Howard, 2019).

THE NEED FOR NEW KNOWLEDGE IN TECHNOLOGY FOR E-COMMERCE

The Special Issue discusses six papers that contribute to the literature of artificial intelligence, machine learning, and its allied applications in business. Each of the six papers contributes uniquely to either theory building or theory extension. Additionally, a second classification of the papers contributed to the practical aspects of AI and ML. The special issue paints a canvas of advanced technological and analytical learning applications in different management and social sciences disciplines.

The first paper studied the literature on various aspects of Employer Branding (EB) explored different aspects of prospective and existing employees' perceptions. The related literature and qualitative research divulged dimensions associated with EB. It propelled the re-examination of

the perception of job seekers. The ever-evolving technological developments, the fourth industrial revolution, and globalization have set differential contemplation of information in prospective employees' psyche. It augments knowledge of factors impacting EB on prospective employees' application intent and identifies essential aspects that potential employees feel are necessary while applying for jobs. The study included students of the Engineering and Management field; and employees in the job market. The findings allowed comparison of application intent of variable groups. Qualification and experience moderates the application intent of prospective employees was evident.

The second paper aims to gain insights from the online product reviews of E-commerce sites such as Flipkart and Amazon and analyze its impact on Third Party Sellers. To judge a product's authenticity, reviews are more useful than ratings since ratings do not give a complete picture. Natural Processing methods are used to gain insights by considering online reviews of a product. Methods such as Sentiment Analysis, Bag of Words Model help understand the impact of online product reviews on the seller's ratings and performance over time. The reviews are categorized into positive, negative, and neutral using sentiment analysis. The seller reviews for a specific product after analysis are compared with the overall seller reviews to judge the authenticity. The results of this paper would be beneficial to both the consumers and sellers.

The third paper initiates a discussion about Robo-advisory services (RAs). There has been a remarkable growth in RAs' assets under management (AUM) due to their ability to provide a better-expected return by being competitive on pricing, transparency, and services. The research paper is designed to explore the various experts in the financial industry (which includes VP and AVPs of an investment bank, Managers and Senior executive at Bank, IT professionals and executives, and Fintech entrepreneurs and CEOs); perceive the digital disruption is going to affect the traditional financial services industry. Secondly is to explore the various strategies adopted by the financial service to withstand competition from the disruption caused by Fintech challengers. Moreover, this research paper aims to understand the extent and effect of the disruption and the strategies adopted by financial industry players to face these disruptions from fintech.

The fourth paper discusses a data analytics study for Adverse Reactions of Blood Donors by Age, Gender, and Donation Type. The blood donation process is usually very safe, and blood donors are comfortable during the blood donation procedure; however, blood donors occasionally experience various types of adverse reactions during or at the end of blood donation. This study aims to analyze the various types of adverse reactions experienced by blood donors. The study conducts a detailed analysis of a significant amount of real data collected through a blood organization in the United States' southern part. It provides the frequency and types of adverse reactions based on multiple attributes such as age, gender, and donation type.

The fifth paper examines the challenges that small, medium and large businesses in the financial services industry face concerning data security and providing relevant tools and strategies to protect the same. A qualitative research-based approach is used where one-on-one interviews are conducted with ten (10) CIO's (Chief Information Officers) and CISO's (Chief Information Security Officers). This data was compared with secondary data sources to validate the findings. This paper presents an in-depth analysis of security technologies and their efficacy to protect data assets and sensitive information. Existing research is restricted to either addressing small and medium businesses (SMB's) or large businesses. This paper attempts a comprehensive review of all sizes of businesses.

The sixth paper aims to establish how consumer data in the retail industry can be leveraged and analyzed to enhance the shopping experience. Popular machine learning algorithms related to Text Mining aid in parsing the natural language and help understand the brand image and what the brand currently lacks. The rise of omnichannel retailing and data-driven decision-making shifts retailers' focus to providing an enhanced in-store customer experience. Retailers are trying to find ways to stand out in a highly competitive environment. The solution to this problem is providing retailtainment. This study helps to understand how the available customer

data is analyzed to create unique experiences and enable experience-based stores. This study will help a retail company understand how omni channel plays a vital role in creating customer engagement strategies.

We hope this Special Issue is an inspiration to our readers.

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Guest Editors

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