Chapter 20 Conceptual Review of Technology Enabled Marketing

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ABSTRACT

Technology is changing rapidly, which is constantly changing the status quo in people's lives. It is difficult for marketers to understand these accelerating changes and act on them. In this work, the author explores how the marketing discipline has evolved due to changing technologies over the years. The work first uncovers the major changes in technology and ponder the foundational concepts which have led to these technology changes. Then it reflects on these changes from a marketing lens and understand how the new concepts have emerged in the discipline. Further, the author dives into how the changes in marketing discipline have impacted consumer behavior and subsequently predict the directions in which the marketing discipline would evolve due to changes in technology. The contribution of this paper is a comprehensive literature review and development of a framework that links the changes in technology and resultant changes in consumer behavior which throws up new research agenda in technology-enabled marketing for academicians and Ph.D. scholars working in this area.

INTRODUCTION

Technology is touching human life unprecedentedly, providing hitherto impossible opportunities, like assisted driving, mobile ticketing, environmental monitoring, augmented maps, domotics, etc. (Atzori, Iera, and Morabito, 2010). We are in a world of ubiquitous digital platforms with amplified networks, cloud computing, billions of intelligent end-user devices, and an abundance of data, information, and knowledge (Bharadwaj et al., 2013). This is being further augmented by the growth of the Internet of Things (IoT) (OECD 2012). IoT is a promising paradigm where many of the objects that surround us shall have a pervasive presence, and they will be on the network in one form or another (Gubbi et al., 2013). The internet has changed drastically the way we live, moving interactions between people to a virtual

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level (Pew Research Center, 2018). The COVID-19 pandemic has accelerated the uptake of digital and cloud technology in every business function.

According to the Oxford dictionary, digital means data involving or relating to the use of computer technology. Digital is any technology that connects people and machines or with information (King, 2013). But when we say everyone is 'going digital', there is a transformation of structures caused by digital technologies. Traces of modification of systems can be witnessed in changing social media landscape. Word of mouth has gained significance like never before with increasing social networking websites (Wardynski, 2019). Mobile devices offer ubiquitous connectivity and access to information which allowed consumers to create content and amplify their voices (Labreque et al., 2013).

Technologies have driven out latency as consumers know product availability and prices through smartphones and mobile apps (Hendrix 2014). Armed with digital technologies such as Fitbit, individuals capture, track, and use data about themselves to improve their health in a better way (Kelly, 2011). Big data is a new axiom, as capturing and using digital traces has led to explosive data which companies can harness to survive and gain an edge (Huang, 2018). This acceleration of technology change has influenced the marketing paradigm also.

Marketers have always been keen early adopters of any new tech trend to map the changes– from big data analytics to social media and artificial intelligence (AI). Marketing, as a domain, deals with changing behavior. Hence to appreciate the marketing discipline, one needs to understand the behavioral changes due to digitization, create more consumer value and explore new marketing avenues. Sheth and Solomon (2014, p.123) proposed that "*in today's digital world, the environment adapts to the self, as much, if not more, than the self-adapts to the environment.*" This paper aims to find how these technological changes have affected the marketing discipline and thus changed consumer behavior. And what are the future trends in technology that can affect the marketing discipline.

Thus in the first section, we map the significant technological changes which have enabled the marketing-related changes. The second section understands how marketing concepts have evolved due to technological change. In the third section, we map the behavioral changes in consumers enabled by technology. In the fourth section, we map future trends, and finally, we conclude with a research agenda that needs to be reckoned with.

SECTION 1: MAPPING THE CHANGES IN DIGITAL TECHNOLOGY

Brian Winston (1995, pg.,55), in his book, distinguishes between 'change' due to technology determinism and cultural determinism. Technology determinism is where technology is dominant, determining factor that can be isolated and traced as the driver behind the change (Winston, 1995). In cultural determinism, social and economic factors either support or block technology innovation in the course of events; technology is clearly just part of a solution and not a driver of change (Winston, 1995). Thus, keeping this perspective in mind, it is essential to map the trends to identify the role of technology as a driver or enabler in evolving and reshaping the environment.

The advent of the technology change can be dated back to the dawn of the industrial revolution when the mechanics of the hand-operated Gutenberg style press were changed with the introduction of the first industrial printing press by 'The Times' in London in 1814 (Branson, 2012). This led to the starting point for nearly two centuries of relentless progress and innovation in communications media. There are some critical milestones in the interim period where new technologies can be seen to fundamentally

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