

## Chapter 2

# Towards Using Artificial Intelligence in Neuromarketing

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### ABSTRACT

*AI, when applied to the domain of neuromarketing, can help to model consumers' preferences, which can be leveraged by marketers in creating products or brand strategies that yield a good market value. Unlike focus groups and surveys where there is a possibility of masking the actual opinions and feelings of people to certain products and stimuli, AI can help to effectively capture data regarding impact of brain signals in response to certain stimuli. This study will be largely focused on connecting the dots between/forming linking/developing a connection between artificial intelligence and neuromarketing. Using artificial intelligence (AI) can help to bring personalization instead of standardization, which when combined with neuromarketing, can help to build effective advertising campaigns and influence customers' buying decisions. The content posted by consumers on social media, browsing behavior, and online shopping provides valuable personal information. This data when mined and processed using AI technologies can help to recognise patterns in consumer behavior.*

### INTRODUCTION

With the continuous improvements in the arena of AI (Winston, 1984), its integration with Neuromarketing (Lee, 2007) tools and techniques, can assist marketers in measuring consumer's emotions accurately and reliably in order to better comprehend his/her decision making process. Though AI in marketing is complex, its rapid evolution is proving its usefulness in the marketing domain. With roughly 2.55 percent of the overall industry invested in AI, marketing is now the 4th largest use case in terms of resources spent and the 6th largest industrial adopter of AI technology.

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## ***Towards Using Artificial Intelligence in Neuromarketing***

**Neuromarketing:** Neuromarketing is a multidisciplinary field that lies at the intersection of psychology, neuroscience and economics. Marketers are now able to speak directly to consumers' emotions and thoughts because of neuromarketing. Neuromarketing research attempts to detect which parts of the brain are actively involved in making decisions. A corporation can learn how its brand affects customers and whether it has achieved the desired results by doing research. While customers are making decisions and/or watching commercials, neuroimaging techniques can access information in their brains. As a result, this information can aid in the promotion of the relevant product. From the standpoint of marketing researchers, these imaging technologies assist in achieving an efficient trade-off between study costs and benefits.

**Artificial Intelligence:** Artificial Intelligence(AI) is a technology to simulate human intelligence in machines. It aims to make computers solve real-world problems with human's formal reasoning and decision-making capabilities. It has touched almost every aspect of human life, encompassing industries, business, education, healthcare, and consumer goods. Artificial intelligence(AI) has touched every nook and corner of human life spanning over almost every topic. There is hardly any domain where AI has not been integrated to provide smart solutions. AI has the potential to revolutionize marketing strategies.

**AI in Marketing:** In a marketing context, there are numerous problems and questions that necessitate a certain level of intelligence and judgment in order to assess these problems with a high degree of certainty. Recent research, however, shows that AI (Cannella, 2018) is a real exploitable opportunity to empower analytical methods for a wide range of marketing issues. Indeed, the incorporation of AI into marketing studies (Bruyn, 2020) has enabled better Mass Data Analysis, a better understanding of consumer behavior before, during, and after the purchasing moment, and has improved the user experience to a large extent. AI has the potential to enable marketers to predict consumers' expectations with greater accuracy, allowing them to make pricing decisions with less hesitation.

**Role of emotions in marketing:** Emotions are significant in the context of marketing because they affect how we process information, how we react to persuasive messages, and how we gauge the impact of marketing stimuli. As a result, emotions play a significant influence in decision-making. The consumer is suffocated by the numerous offers available at his or her fingertips, which frequently leads to impulsive and irrational purchases. Marketing professionals must incorporate the consumer's emotions into their communication plans and product designs in order to achieve a high conversion rate. This will benefit the business in terms of profit and customer relations as well as the customer's experience and best use.

**Role of emotions in decision making:** Emotions have a significant impact on the daily activities of people as these influence their dressing and eating habits to their voting choices. A research study shows that damage to some parts of the brain can affect how people experience emotions which has a direct influence on their decision making. Though it might make complete and logical sense when making certain decisions, those are unknowingly affected by our emotions either directly or indirectly. For instance, anger of happiness drives people to take actions whereas fear prevents them from taking risks and disgust drives them to abandon their possessions.

**Role of emotions in making purchase decisions:** Making decisions about purchases is heavily influenced by emotions. Most people believe that their purchasing preferences are based on reasonable analysis. In truth, people's decisions when making purchases are heavily influenced by their emotions. Personal feelings and consumer experiences are included in emotions. Consumers predominantly employ emotions when evaluating brands instead of brand-related information such brand qualities, features, facts, etc.

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