# Chapter 5: Artificial Intelligence and Business Ethics in Consumer Behaviour

Md. Uzir Hossain Uzir

Machine learning is one of the branches of artificial intelligence, which deals with comprehension of the behavior pattern of social media users through the content shared herein [1]. As we know that people use social media for sharing their current status, location, likings-disliking, feeling (positive or negative), putting their comments in favor or disfavor of an event or person and mentioning their plans with their friends and family members. Sometimes they don't even think of the consequence of their post, comments or shares [2].

The analytical capabilities of AI submerge the insight generation, opportunity identification, sense-making, and decision making in customer buying cycle [3]. Miller [4] mentioned that these social interactions through social media are traced by AI or applied artificial intelligence (AAI) for the diagnosis of customer (people or users) profile and behavior. Supporting this argument, Capatina et al. [5] mentioned that AI can track the affinities and interest of members or groups. This involvement and coverage of AAI not only facilitates the marketers to understand the customers, but also converts a customer into an object of experiment and Guinea pig in many cases. This experiment and observation about humans are right and ethical until and less their privacy, secrecy, and ethics are maintained. This current manuscript focuses on the extent to which a customer to be experimented and used.

### Ethics and ethical standard

Ethics is, in brief, what is 'right' or 'wrong, 'what should be' or 'should not be'. In business, ethics is to what level a customer analyzed and experimented with so that they should not feel uncomfortable, insecure, and maintain a continuous relationship with a particular company. This standard is set by the business community, business scholars, consumer association, legal framework, pressure groups, religion view, social workers, etc. Even this standard varies from community to community, state to state and country to country. Nowadays when we are submerged in digitalization, social media, The advancement of artificial intelligence and its usage in business and marketing to understand the customer creates a wide concern of business ethics.

# AAI: Various Views of Business Ethics

One ethical view is that marketing organizations are over-thinking or over analyzing the consumers and their behavior through AI or AAI such image analysis, photo analysis, content analysis, movement analysis, face expression analysis. Thus, consumers are becoming an object of analysis in digital labs (AI or AAI). In this similar way, Cao et al. [6] found on sentiment analysis. They illustrated that sentiment analysis is a branch of AI, which encompasses the three levels analysis: document level [7], sentence level [8], and entity level. This machine learning-based sentiment analysis concentrates on experiments on unigrams, bigrams, part-of-speech tags, emoticons etc. of a consumer (users) shared in social media, mainly Facebook and Twitter [9]. Again, a consumer or user becomes an object of a machine. Here, human judgment and their consideration is ignored. AI works on the advancement of valuable and automated solutions to a problem [10]. However, in marketing context, some problems require human judgment to be solved for success guarantee [11].

Another aspect of artificial intelligence voice recognition, which is used from human voice recognition to driverless car driving. Through this technological intervention, marketing companies keep signature in changing consumers' lives, influencing their behaviour. More prevalently, marketers use consumers' data to target the consumer through advertisements and build a robust profile and influence them [12]. Again, voice recognition tool always cannot recognise the feeling of the particular person. However, this voice is analysed to predict or diagnose the human behaviour. The more artificial intelligence is being used in marketing the more it faces the ethical risk therein [12]. Davenport et al. [13] emphasized AIs to grapple with ethics. According to them two significant issues: a. data privacy choice and b. specifying the use of AI. A responsible firm should have data privacy in its business strategy and in business ethics; and it also should mention the actual purpose of using the AI to solve the problem.

Data privacy and proper use is becoming a threat to the consumers. In a purchase a consumer needs to provide some vital information and are assured of confidential. But it is observed that the company or firm does not maintain the data confidentiality. Consumers are receiving various message, mail, etc. from different but unexpected companies which they never expect. This is sharply a violation of data privacy. The California Consumer Privacy Act which is in force in 2018, imposes on consumer rights, privacy, and data confidentiality. This law specially rules on the right to use (access, deletion, modification, sharing) personal information collected earlier for business purpose. This law also governs that any employee related to data privacy violation should be fired from the job. Many large and responsible firms maintain customer data privacy and confidentiality. However, mid-level, small firms and irresponsible organizations do not follow the rules and regulations. In many contexts, consumers need to buy or deal with those irresponsible firms and share their information.

Unfortunately, data privacy is not maintained. This data or information leakage occurs for not only the ill-intention of the management, but also for the ill-intended officials. In Bangladesh a mobile operator faced this crisis. One dishonest official (customer service) shared the secret information to the third party. The third used those information to blackmail the deceased person [14].

# AAI: Ethical Consideration of Business Ethics

Artificial intelligence is a program-based (algorithm) software and hardware which is deemed to be impartial and unbiased. Actually, the AI developers are real persons who write the codes and program to be installed in the machine. If those persons have racial issue or bias (colour, race, gender, religion, or transgender) AI can reinforce social and racial biases [12]. This is also sharply a violation of ethical standard. Biased artificial intelligence (biased coded or programmed) may prefer white people to black people or female to male or American to African. This machine bias is unethical. Thus, program design should have proper checking system with which can detect the cultural or moral issues.

Another ethical consideration might be found in fake news and misinformation. Automated social media can spread fake, mutilated and untrue messages favoring or disfavoring a person, institute, organization or even government. Bots can harass, defame, and humiliate online users or groups or family members. Fake news causes an influential effect on the person or organization. AAG-IT.com reported that by creating fake reviews, cyber criminals can artificially inflate the ranking of their apps and disguise poor reviews that highlight issues. Unsuspecting users then download the app, where they are then asked to log in using Facebook. The hacker can see any details entered [15]. A study published in the American Journal of Tropical Medicine and Hygiene also estimates that about 5,800 people were admitted to hospital as a result of false

information on social media [16]. UNESCO's World Trends in Freedom of Expression Report 2021/2022 highlights these challenges, pointing to the weaponization of defamation laws, cyber laws, and anti "fake news" legislation, which is sometimes applied as a means of limiting freedom of speech, all of which create a toxic environment for journalists to operate in [17].

False news stories are not just a problem in the United States but afflict other countries around the world. For example, India has been plagued by fake news concerning cyclones, public health, and child abuse. When intertwined with religious or caste issues, the combination can be explosive and lead to violence. People have been killed when false rumors have spread through digital media about child abductions [18, 19]

Not all consumers have the same level of understanding whether to share personal information or not. Here transparency is a very vital issue for the consumers, in case of marketing organization or process whether personal data should or should not be disclosed. Ethically marketing firms cannot disclose personal data. These firms should practice ethical standards to maintain consumer trust and business image and reputation. If necessary, business firms should solicit consumers' consent before divulging their personal data. Consumers may give positive feedback in sharing data at a certain level or certain amount of data from which artificial can exploit some benefits. Consumer feedback can be used for insightful recommendations once they permit the use of their data within the limit of violation of privacy.

## AAI: Ethics and Consumer Decision-Making

It is obvious that artificial intelligence will shape future marketing confirming the improved product quality and service quality, content recommendations, better social engagement, higher customer service, and improved productservice search. These benefits will be successful and useful once ethical standards are maintained properly and at every stage. Their transparency in marketing is becoming a priority globally. Actual product quality and service quality must be reported, not superficial quality or exaggeration of information about quality. It is found that many marketing firms hide actual quality and disclose only better-quality products, which misguide the customers and users. In the case of product or service review it is found that customers or service-takers their experience and feedback. Many organizations filter those feedback and reviews and publish only positive ones. Or the company fabricates the information and alters the negative ones to positive ones. This kind of behavior is completely unethical. This hiding or altering information causes customers suffering and loss.

Jones [20] illustrated dual role of AI in marketing: it lures the business and same time it causes fear to the consumers. As consumers are getting informed that their behavior and life-pattern are analyzed and contextualized, the average consumers are getting increasingly educated that what they will share and how the companies will utilize their information. Here the harsh thing is that companies will use consumer information without their consent or acknowledgement. This is surely unethical. Jones [20] mentioned that though AI offers some inherent benefits for its peaceful advancement due to massive data analysis and contextualization of information, it incurs some vulnerabilities caused to an individual and group (society). This is the ethical vulnerability.

As AI investigates social media information of users, AI secretly recorded users' conversation and played into a big fear about smart speaker. As a result, educated people are aware of using social media and sharing information. Now the question is what level of education makes aware of consumers and which country people are more aware. Developed country people are aware of data

privacy or data vulnerability, but what about developing and least developing country people? As they are not much more educated, they will be suffering from data privacy and data vulnerability?

Morey et al. [21] revealed the consumer awareness of their personal data shared to any company while they go online. The conscious online users are uninformed about what type of data they are providing to the company. According to their findings, only 27 percent of the people are aware that they share their social media friends' list; only 25 percent know the sharing about their location; only 23 percent are conscious about their web searches; only 18 percent are aware of their communication history such as chat log; only 17 percent are aware of sharing Internet Protocol (IP) address and 14 percent are concerned about their web-surfing history.

## AAI in Business Ethics and Research

The findings of the Harvard Business Review article explain that the more a company can collect data from the users, the more revenue it will earn from this data by using in advertisement. Every organization is more focused on understanding the intent and motivation of purchasing products or receiving service. As a result, the demand for data regarding contextualization to trace customers' intent has increased to these companies. This very intensive data analysis at an individual customer level is required to develop an effective communication or campaign for more customer response. This scrutiny of an individual customer is to some extent is good, but on the other hand, influence human behavior which is not always a read demand for a human being or social being. As per human behavior this marketing step instigate an undesired need in a particular person who wants to get rid of the use of the particular product or service. From my point of view, it is not an agreement of business ethics.

An ethical view of data warehouse and its custody was in the view of Neeraj Sabharwal, also a former big data architect/engineer with Horton Works. He illustrated that a customer should be conscious about inputting data in their device and should bear responsibility to share data. He further limits the responsibility of the company or firm and suggests the customers or users in maintaining data privacy. His suggestion is also applicable for those who are literate, conscious, and agile; but in general cases, many unconcerned, low literate and low involved customers the suggestion will not be applicable. If general customers do not become concerned and companies use their information claiming that the customers share data, this event will be also unethical aspect of business (or different name, lack of marketing ethics).

Volha Litvinets, a scholar at Sorbonne University in Paris concentrates on paradox of privacy. According to her observation in the research, two extreme poles are surfaced in the civil society and a welfare country: i) privacy protection for humanity and ethical aspects of human being (maintaining privacy and secrecy of human being as a primary right in a civil society) and ii) government concern about social and community disorders in a country (by intrusion to personal privacy for protection of society and people from the invasion). Thus, ethical paradox in society expands to consumer behavior and their product usage and dispose. AI or AAI' continuous observation and tracking information regarding an individual creates another kind of ethical crisis such cultural difference, taxonomy, and syntax. As we know, AAI is based on algorithm, text, syntax, phrases, and idioms; these words and algorithms are designed by the program developers. It is a concern whether these developers are using discriminating and offensive words: gorillas and completed texts with anti-Semitic and sexist phrases, racist tweets; religious nagging words or phrase. Ethically these words are to be avoided in consumer behavior literature.

Several AAI applications and devices rate the customers based on their credit history, buying power, and transaction history. These rating information and categories are published in social media, which is not deliberately welcomed by the customers.

#### AAI in Business Ethics and Remedies

- Staying marketing and consumer behavior has economical perspective of a business. However, considering the human right and civil stability AAI should be used in consumer behavior wisely.
- 2. Consumer privacy must be protected considering a consumer as a human being and a social part.
- 3. Considering a consumer as a element of AAI lab and experimenting them as an object must be avoided. Consumer can be studied with some specification; not general.
- 4. AAI processes a huge chunk of data, thus, it should have data transparency.
- 5. AAI processes a huge chunk of data from different media, sources, and origins, thus, data accuracy for the customer should be maintained.
- 6. The more data the less reliability in decision making. Thus, data reliability should be protected and practiced.
- 7. Data frequency and changeability are important features of AAI device or tool. Thus, data should be in real-time.
- 8. AAI algorithm and design should be free from cultural offensive words,
- 9. The government may control data with limited edition where customer privacy and secrecy is properly maintained.

10. Customer rating and categorization must be properly done with a view to protecting customer image, not tarnishing their goodwill.

# Conclusion(s)

Technological advancement is obvious, understanding consumer and their satisfaction is also significant; privacy and secrecy cannot be ignored. Thus, these various issues are to be brought into consideration while policy is developed. From the business side, a consumer's safety-security, data privacy, personal life event sharing are expected to be secret and confidential. Business organizations are expected to maintain the trust a customer has on the company. Similarly, from the consumer side, they should be careful about their involvement in social media, they maintain their own privacy in sharing information.

# References

- [1] Cambria, E., et al., *Sentic computing for social media marketing.*Multimedia Tools and Applications, 2012. **59**(2): p. 557-577.
- [2] Peters, K., et al., Social media metrics-A framework and guidelines for managing social media. Journal of Interactive Marketing, 2013. **27**(4): p. 281-298.
- [3] Holsapple, C.W., S.-H. Hsiao, and R. Pakath, *Business social media* analytics: Characterization and conceptual framework. Decision Support Systems, 2018. **110**: p. 32-45.
- [4] Miller, T., Explanation in artificial intelligence: Insights from the social sciences. Artificial Intelligence, 2019. **267**: p. 1-38.
- [5] Capatina, A., et al., *Matching the future capabilities of an artificial intelligence-based software for social media marketing with potential users 'expectations.* Technological Forecasting and Social Change, 2020.

  151: p. 119794.
- [6] Cao, D., et al., *A cross-media public sentiment analysis system for microblog.* Multimedia Systems, 2016. **22**(4): p. 479-486.
- [7] Pang, B., L. Lee, and S. Vaithyanathan. *Thumbs up? Sentiment classification using machine learning techniques.* in *Proceedings of the ACL-02 Conference on Empirical Methods in Natural Language Processing.* 2002. Association for Computational Linguistics.
- [8] Wilson, T., J. Wiebe, and R. Hwa. *Just how mad are you? Finding strong and weak opinion clauses.* in *AAAI*. 2004.

- [9] Habernal, I., T. Ptáček, and J. Steinberger. Sentiment analysis in czech social media using supervised machine learning. in Proceedings of the 4th Workshop on Computational Approaches to Subjectivity, Sentiment and Social Media Analysis. 2013.
- [10] Negnevitsky, M., Artificial Intelligence: A guide to Intelligent Systems. 2 ed.2005, Harlow, UK: Addison Wesley: Pearson Education.
- [11] Martínez-López, F.J. and J. Casillas, *Artificial intelligence-based systems* applied in industrial marketing: An historical overview, current and future insights. Industrial Marketing Management, 2013. **42**(4): p. 489-495.
- [12] LegalLead, Ethical Concerns of AI in Marketing, in Lawyers Blog. 2020.
- [13] Davenport, T., et al., *How artificial intelligence will change the future of marketing.* Journal of the Academy of Marketing Science, 2020. **48**(1): p. 24-42.
- [14] Reporter, S., *GP sued over 'leaking customers' info to blackmailing racket*, in *New Age*. 2020: Dhaka.
- [15] AAG-IT. *The Latest 2024 Cyber Crime Statistics (updated February 2024)*. 2024 [cited 2024 February 20, 2024]; s an experienced provider of IT Support Services, we have created this essential guide. See how cyber security has adapted to an ever-changing threat landscape with the latest cyber crime statistics, updated for February 2024.]. Available from: <a href="https://aag-it.com/the-latest-cyber-crime-statistics/">https://aag-it.com/the-latest-cyber-crime-statistics/</a>.
- [16] Alistair, C. 'Hundreds dead' because of Covid-19 misinformation. BBC. 2020 [cited February 2024]; Available from: https://www.bbc.com/news/world-53755067.

- [17] UNESCO, UNESCO: Killings of journalists up 50% in 2022, half targeted off duty. 2023.
- [18] Doshi, V., India's Millions of New Internet Users are Falling for Fake News
   Sometimes with Deadly Consequences, in Washington Post. 2017:
  Washington, USA.
- [19] West, D.M. *How to combat fake news and disinformation*. 2017 [cited 2024 20 February 2024]; Available from: <a href="https://www.brookings.edu/articles/how-to-combat-fake-news-and-disinformation/">https://www.brookings.edu/articles/how-to-combat-fake-news-and-disinformation/</a>.
- [20] Jones, H. *The Ethics of Artificial Intelligence: What Kind of Society Do We Want to Have?* 2018 [cited 2021 Nov 23]; Available from: <a href="https://marketinginsidergroup.com/strategy/ethics-artificial-intelligence-kind-society-want/">https://marketinginsidergroup.com/strategy/ethics-artificial-intelligence-kind-society-want/</a>.
- [21] Morey, T., T. Forbath, and A. Schoop, *Customer Data: Designing for Transparency and Trust: Don't sacrifice long-term goodwill for short-term benefits*, in *Harvard Bsuiness Review*. May 2015, Harvard Business Publishing.