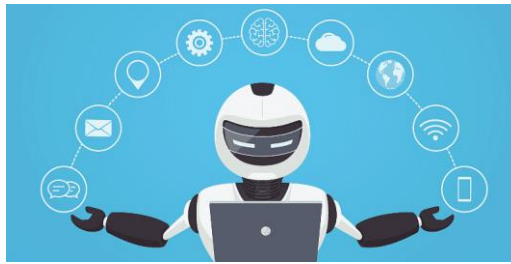


# ETHICS AND LAW FOR DATA SCIENCE

## Ethical A.I framework in Marketing

By

Shrey Patel, Student Number 101541370



In today's world, everything we see is a product of technology. The remarkable advancement we made in the past decade and moving forward in the future with daily innovation in every domain, whether in technology, agriculture, space, etc. Artificial intelligence (AI) is a hot topic; new tools, software, machine-integrated AI, and robots are being developed daily. AI also spreads its wings into marketing. AI-driven marketing is used in the industry for several reasons. It helps in advanced data analysis, creative marketing campaigns, predicting customers' preferences, understanding consumer segment

AI systems become more advanced and general in marketing strategies, and concerns like data privacy breaches, biases in algorithmic, transparency, psychological, and consumer manipulation, such as the Twitter and Facebook data breach algorithms, have come to our attention. Companies like Open-AI went from open source to highly profit-making companies. However, the rapid adoption of AI marketing has also raised significant ethical concerns that demand serious attention.

In the world of public relations (PR), a marketing component refers to online reputation management (ORM). Companies and brands use it to maintain their social image in the digital world. There are often cases where Twitter registers bot accounts, where the account is based on a completely anonymous person, which is a clear case of identity theft, but most organizations do this malicious practice.

An unethical and moral dooming world is possible without a proper ethical framework and structure. This highlights the need for well-organized frameworks that maintain AI use and are deployed responsibly. Utilizing AI's potential and holding ethical standards is essential for keeping customers' trust and ensuring the long-term sustainability of AI in marketing practices. (Communications, 7/7/2024)

To address these ethical concerns in marketing, I propose five criteria for an ethical framework that focuses on transparency, privacy, robustness, fairness, and human oversight, all the requirements drawing from the best practice outlined by the following bodies:

- European Union trustworthy AI assessment
- Montreal declaration: responsible AI ten principles
- Canadian federal responsible AI guidelines in government

### **1. Transparency and Explainability:**

**Principle:** transparency refers to transparent disclosure of AI usage and the ability to explain how AI systems arrive at a decision.

In the market, It is essential to communicate when AI is used in campaigns or other customer interactions. Give a general explanation of how AI is used in algorithms that process consumer problems. Develop human-centric policies highlighting how creators use AI in different areas of marketing and document all the resources and theoretical concepts of the model that explains AI's use in marketing. (IN, 2024-10-15)

### **2. Privacy and Data Protection:**

**Principle:** This determines that protecting public privacy and ensuring the responsible use of consumer data are vital in AI-driven marketing.

AI systems depend on vast amounts of personal data to predict consumers' choices and shopping behavior. This raises questions on privacy concerns, as people may not know how, why, and what kind of data is collected, stored, and used. Instagram stores information about our search history and emails and shows relevant ads. Data breaches or unauthorized data use can raise questions about brand reputation and trust. Conducting regular privacy impact assessments for marketing models and implementing data methods and strong encryption for storing data in secure facilities. Develop knowledge and coherent privacy policies, guidelines, and consent structures for the public. (UNION, 8 March 2021)

### **3. Technical Robustness and safety:**

**Principle:** This ensures the AI system's reliability, security, and resilience. Ensuring AI models are secure against external threats and manipulation.

In e-commerce, this principle would involve protecting customers' data from cyber threats, preventing hacking attempts, and ensuring that data is safe and sound—implementing heretical security, making robust plans for AI-related issues, and conducting regular audits that ensure no adverse practices are used. Models should be continuously tested and updated, and advancements should increase and evolve their functionality as per new threats to maintain public safety in the digital world. (UNION, 8 March 2021)

#### 4. Fairness and Bias Mitigation:

**Principle:** This addresses algorithmic bias and makes sure fair treatment of all consumer groups is essential. We saw examples of algorithmic bias and unfair treatment in weapons of mass destruction.

The above example demonstrates the lack of fairness as algorithms have biases. Implementing a fairness checker in the lifecycle is vital, from data acquisition to creating models and development. Ensure the concerned team is accounted for when training the model on diverse datasets and an expansive range of customers worldwide; the EU focuses on a non-biased model. As a result, this will help reduce biased results that could separate customers or result in unethical practices. Documenting the workings of algorithm mathematics provides an understandable context, so later auditing would be easy. (DECLARATION)

#### 5. Human Agency and Oversight:

**Principle:** Maintaining human control and accountability in AI-powered marketing decision-making is essential.

It is crucial that humans retain control over critical decisions, particularly those that impact consumer's well-being. In marketing, AI systems should consider human inputs rather than replacing them entirely. For instance, after the model is created, its performance and behavior should be examined; the output that is being generated cannot be implemented, and it is ultimately the responsibility of humans to review it and make end decisions.

Develop clear guidelines for human oversight of AI technologies. Implement a structure that keeps humans in the loop for making critical decisions. Providing proper training to marketing teams on effectively collaborating with AI systems and understanding their use cases and importance helps us humans to be more productive and helps us make decisions rather than putting technology in a position to make decisions for humans. (UNION, 8 March 2021)

#### Conclusion:

The Ethical framework mentioned above provides a comprehensive approach to addressing the key challenges of using AI in marketing. By giving importance to transparency and explainability, privacy and data protection, technical robustness and safety, fairness and bias mitigation, and human agency and oversight, we can ensure the domain can harness the power of AI. At the same time, it maintains its ethical standards and public trust in the technology for a better tomorrow.

**External Citation:**

- <https://quasa.io/media/artificial-intelligence-digital-marketing-s-benefits>
- [Responsible use of artificial intelligence in government - Canada.ca](#)
- [Assessment List for Trustworthy Artificial Intelligence \(ALTAI\) for self-assessment | Shaping Europe's digital future \(europa.eu\)](#)
- [The Declaration - Déclaration de Montréal IA responsable \(montrealdeclaration-responsibleai.com\)](#)
- <https://www.ana.net/content/show/id/pr-2024-07-ethics>
- <https://www.forbes.com/sites/sunshinefarzan/2023/09/29/ethics-first-the-imperative-of-responsible-ai-adoption-in-marketing/>
- [https://www.youtube.com/watch?v=1QIlbed\\_Hwg](https://www.youtube.com/watch?v=1QIlbed_Hwg)