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Evolution of Generative AI

Legal, Regulatory and Ethical Frontiers

July 2024

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Generative AI & Disruption

Emerging Legal and Ethical Challenges

Please also see our previously published paper on this topic, in which we examined some of the key use cases of GAI from a legal and regulatory perspective.

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Introduction

As a result of the fast-paced advancement in technology, Artificial Intelligence (“AI”) has emerged as a powerful tool for content creation in the last few decades. AI is essentially the method of making machines mimic human intelligence, and Generative AI (“GAI”) is its branch that uses machine learning technology for the generation of new content.¹

GAI uses unsupervised learning algorithms to create new audio, visual, and textual media based on user prompts.² There are supervised learning algorithms as well that are used to train models on labeled data. Such machine-learning techniques can be used to pre-train generative models to grasp underlying structures and relationships within the data, for fine-tuning models, and conditional generation.³ One of the key advantages of GAI is its autonomous functioning, which allows it to process large quantities of data quickly and efficiently, enabling faster content creation.⁴ Several major industries like healthcare, finance, media and entertainment, automotive, and education have adopted GAI, leveraging its capabilities for various applications. These include marketing and sales, manufacturing and industrial operations, software engineering, healthcare and life sciences, and education.⁵ With its ability to generate novel content from user prompts, GAI has become an attractive option for businesses seeking to produce unique and engaging content.

Unlike other AI models that primarily classify, analyze, or act on existing data, GAI goes beyond and creates new content every time it is prompted.⁶ This makes GAI a valuable tool for content creators, as it can provide them with an endless stream of fresh ideas and material. Additionally, with the increase in computing power and the development of more efficient deep learning networks, GAI models can now generate novel content in every new trial even from the same prompts.⁷

There is a myriad of legal issues to consider before businesses adopt GAI. While India has emerged as one of the nations with the highest adoption rate of GAI tools,⁸ a spectrum of legal implications on the usage of GAI across sectors have also arisen, requiring immediate consideration. Given the booming start-up sector in India and the increased enthusiasm of businesses to develop in-house GAI tools, the issue of ownership of intellectual property in content generated by such tools, allocation of authorship, and potential of infringement and liability for the same also need to be studied. There are also concerns about decision-making, bias, prejudice, and stereotyping arising out of the usage of such tools. Further, the liability for unlawful content generated by AI tools is an imperative issue in India, given its diversity and representation of various cultural groups. There have been many instances of content generated by AI tools in the absence of sufficient guard rails to moderate against offensive, discriminatory, or politically charged content resulting in public outrage.⁹

1 See: <https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-generative-ai>, last accessed June 24, 2024.

2 See: <https://www.leewayhertz.com/generative-ai-use-cases-and-applications>, last accessed June 24, 2024.

3 See: https://www.geeksforgeeks.org/can-i-use-unsupervised-learning-followed-by-supervised-learning/?ref=ml_lbp, last accessed June 24, 2024.

4 See: <https://www.thedigitalspeaker.com/what-is-generative-ai-how-disrupt-society>, last accessed June 24, 2024.

5 See: <https://www.suntecindia.com/blog/generative-ai-adoption-by-industries-trends-and-statistics>, last accessed June 12, 2024; <https://www.snaplogic.com/blog/adopting-generative-ai-industry-function-landscape>, last accessed June 24, 2024.

6 See: <https://arxiv.org/pdf/2301.04655.pdf>, last accessed June 24, 2024.

7 See: <https://arxiv.org/pdf/2301.04655.pdf>, last accessed June 24, 2024.

8 See: <https://www.businesstoday.in/technology/news/story/india-leads-asia-pacific-region-in-generative-ai-adoption-report-429976-2024-05-17>, last accessed June 24, 2024.

9 See: <https://www.dnaindia.com/analysis/report-dna-special-why-artificial-intelligence-tech-chat-gpt-has-been-labeled-as-anti-hindu-3017614>, last accessed June 24, 2024.

Introduction

Further, as India moves towards a culture of data protection, with the milestone enactment of the DPDPA (discussed below), the collection and processing of archives of personal data which form part of the training data of AI models also raises many legal and operational issues. In this paper, we discuss such issues in detail and bring out the key concerns from a legal perspective. We have systematically analyzed the types of content generated through GAI, its use cases and benefits along with the key legal concerns this technology brings with its advancement. We have also discussed the way forward to accommodate GAI keeping in mind the legal and ethical considerations attached to it.

To access the complete paper, please reach out to us at artificialintelligence.nda@nishithdesai.com, and our team will share a copy with you.



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