

The Impact of AI-Driven Narrative Generation, Exemplified by ChatGPT, on the Preservation of Human Creative Originality and Uniqueness

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Abstract: The appearance of Artificial Intelligence (AI) systems have become more adept at generating original texts, becoming the realm of storytelling, as exemplified by ChatGPT and similar language models. This has sparked a growing debate about its impact on the originality and uniqueness of human creativity and thinking. Bringing up the question of whether AI-driven narrative generation is a benefit or a detriment to humanity, this paper delves into the evolution of AI storytelling, examines the capabilities and limitations of large language models like ChatGPT, even under their impressive fluency, and further explores the implications for human creativity and intellectual diversity. While AI storytelling tools have undoubtedly revolutionised content generation, this paper argues that they do not inherently erode human originality and uniqueness and more so cannot authentically replicate the distinctiveness of human thinking. Instead, with conscientious implementation, AI writing technologies may serve as powerful complementary tools that can enhance human creativity, expand the diversity of voices and perspectives, provide more widespread access to the means of storytelling and personal expression, and optimise our human literary activities in a manner that elevates rather than erodes the uniqueness of human literary work when used thoughtfully and ethically.

Keywords: artificial intelligence, ChatGPT, limitations, originality, uniqueness

1. Introduction

AI-powered storytelling generators have brought about significant changes in the realms of content creation and consumption. This technology can now generate coherent stories, poems, code, and more at the prompt of a user. While this opens new creative possibilities, some argue that reliance on AI takes away the originality and uniqueness of human-generated narratives and ideas. This paper will examine the impact of AI storytelling tools and chatbots on the novelty and ingenuity of human thinking and expression and present current perspectives on both sides of this issue - those who believe AI threatens creativity and those who see it as enhancing human imagination. This paper will draw evidence from existing research on computational creativity and the psychology of creativity. Additionally, this paper will assess the literary and artistic merit of AI-generated fiction and artworks compared to human creations. Overall, this paper aims to provide a balanced view on whether emerging AI represents a loss of innovative thinking and expression that makes us

essentially human or if it can be used synergistically to augment human creativity in new ways. The paper will conclude with my own stance on whether reliance on AI chatbots like GPT poses a true threat to originality and uniqueness in how we think and communicate meaningfully. To comprehend the multifaceted implications of AI in storytelling, it is essential to trace the trajectory of its evolution and to address this question, we will first discuss the evolution of AI in storytelling.

2. Analysis

The development of AI storytelling can be traced back to rule-based systems that generated narrative sequences. [1] Rule-based systems are the simplest form of artificial intelligence that uses a set of predefined rules typically through encoding human knowledge and expertise into IF-THEN formats that the system follows. The core components are the knowledge base, which contains all the rules, and the inference engine, which applies the rules to data to reason and reach conclusions. The rule-based systems are transparent, with the ability to explain the reasoning behind a decision, and have proven effective for tasks like diagnosis, recommendations, control and classification in many domains. [2] However, they also have some limitations including the difficulty of handling uncertainty and the time consuming effort for knowledge acquisition from experts. These early attempts lacked sophistication but paved the way for more advanced models like recurrent neural networks (RNNs) and transformers. The recurrent neural networks (RNNs) are types of neural networks well-suited for processing sequential data like text, speech, and time series data. [3] This neural network have an internal memory that allows it to learn contextual information and dependencies across sequences and operate on sequence data by recursively applying a function to their internal hidden state to capture information about previous time steps, making RNNs excel at language modelling, speech recognition, and time series forecasting. [4] On the other hand, Transformer architectures have revolutionised sequence modelling in AI systems. Introduced in 2017, transformers rely solely on self-attention mechanisms to model dependencies in sequences. Unlike recurrent neural networks (RNNs), transformers can capture long-range dependencies without depending on recurrence. This allows more parallelisation and reduced compute requirements. [5] As a result, transformers have enabled breakthrough advances in language translation and question answering. Unlocking transformative new AI applications like ChatGPT, built upon the GPT (Generative Pre-trained Transformer) architecture, represents a notable milestone in AI storytelling. The release of ChatGPT by Anthropic in late 2022 represents a significant milestone in the evolution of AI storytelling capabilities. Different from prior systems that relied on simple recurrent neural networks (RNNs), ChatGPT uses a transformer-based architecture. Transformers can model longer-term dependencies in text, which helps ChatGPT generate more coherent narratives. Likewise, ChatGPT can fluidly continue conversations and adjust its responses based on new input. Looking at the scale of ChatGPT, it was trained on vastly more data compared to earlier models. This massive dataset enables it to produce more human-like responses, and demonstrates its large access to corpus of text, giving it the ability to incorporate real-world knowledge into its narratives. Furthermore, rather than relying on fixated datasets, ChatGPT was trained using reinforcement learning from human feedback to improve its outputs which earlier AIs were limited to. [6]

When this conversational AI system was first unveiled, it demonstrated an unprecedented ability to generate coherent, nuanced narratives in response to natural language prompts and has further challenged assumptions about what is possible in algorithmically-generated narrative. Assessing the capabilities of ChatGPT, it demonstrates impressive natural language generation abilities. It can craft multi-paragraph stories, poems, dialogues, and other forms of creative writing on various topics. When prompted with a topic, ChatGPT is capable of providing detailed explanations and synthesising information into coherent and contextually relevant summaries. Its controversial

abilities allow it to engage in intelligent discussions, answering follow-up questions and admitting knowledge gaps if needed. [7] Overall, ChatGPT exhibits strong language modelling, showcasing contextual awareness to generate relevant, nuanced text. While it still has limitations in reasoning and grounding outputs in factual knowledge, ChatGPT points to a future of AI systems capable of incredibly human-like communication abilities. Its launch represents a landmark achievement in building dialogue agents that can keep up their end of a conversation. Despite ChatGPT's impressive language skills, it has notable limitations. As a large language model trained on internet data, ChatGPT can exhibit biases, inaccuracies, and generate toxic or nonsensical text. It lacks true understanding, ChatGPT has no internal representation of meaning. Rather, it generates text based on patterns it has learned from vast datasets. This means ChatGPT can be inconsistent, contradicting itself, and can be manipulated into making false statements. Its lack of grounding in the real world and inability to reason make ChatGPT vulnerable to generating misinformation. [8] Additionally, ChatGPT lacks a sense of self and cannot experience empathy or consciousness. While its conversational abilities are advanced, ChatGPT has no inner mental life or creativity of its own. Moving forward, addressing these limitations through improved reasoning, memory, and grounding in knowledge will be key areas for AI safety research. Though impressive, systems like ChatGPT still differ fundamentally from human intelligence.

The use of AI storytelling tools like ChatGPT has raised concerns about their impact on human creativity. Some argue that overreliance on ChatGPT and similar AIs could stifle original thinking and lead to formulaic, homogenised content as people lean too heavily on the predictable output of AI. However, others contend that AI storytelling assistants free human creators from repetitive, low-level tasks. This enables people to focus their efforts on higher-level conceptualisation and creative expression. [9] Just as other technologies like calculators augment but don't replace human capabilities, AI could act as a productivity tool to amplify human creativity. Responsibly integrating AI storytelling alongside human creative direction offers the opportunity to combine the strengths of humans and machines. Developing social norms and best practices around responsible AI use will be important for fostering human-AI collaboration and upholding creative integrity. To harness the benefits of AI in storytelling while preserving human originality, it is essential to establish ethical guidelines and a creative partnership between humans and machines. This entails responsible data usage, transparency in AI-generated content, and acknowledging AI's limitations. Starting with responsible sourcing and curation of training data to mitigate biases. When publishing content involving AI, being transparent about the technology's role is crucial for trust and accountability. Humans should retain directing and editing oversight in AI creative partnerships to guide coherent narrative development and catch nonsensical or unethical output. It is also vital to acknowledge the limitations of current AI - while skilled at synthesising and extrapolating patterns in text, ChatGPT lacks deeper reasoning, emotional intelligence and real-world grounding. Keeping humans firmly in the creative loop will uphold artistic integrity and ethical ideals. With transparency, responsible data practices and human creative direction, the strengths of human conceptualisation and AI generative power can complement one another, leading to new frontiers in storytelling. This hybrid model, with ethical guardrails, charts a path to innovative and responsible AI-assisted art. [10]

3. Conclusion

AI storytelling, as pioneered by systems like ChatGPT, represents a monumental advancement in automated content creation. While valid concerns about its impact on human originality and uniqueness surfaces, AI is best framed as a collaborative tool for augmenting human potential rather than replacing it. The ethical and creative partnership between humans and AI is crucial to ensuring that AI components substitute for human thinking. We must remain vigilant that these technologies

are crafted first and foremost in service of human originality rather than in place of it. As AI capabilities continue to progress, future AI storytelling systems should aim to deepen understanding of originality, imagination, and ethics while also advancing technical capabilities. With responsible implementation and a balanced human-AI workflow, this technology promises to catalyze new frontiers in narrative innovation. AI storytelling does not inherently undermine human creativity but calls on us to thoughtfully direct it towards heightening, not diminishing, the originality and artistry that only the human mind can achieve. By complementing imagination with computation, we can usher in an era of vibrant and diverse storytelling.

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