Review Article

The Impact of Generative AI on Content Marketing

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Abstract

In the contemporary marketing landscape, visually engaging content has become indispensable. With the proliferation of communication devices and advancements in visual technology, companies are increasingly prioritizing visual materials. Simultaneously, artificial intelligence (AI) is emerging as a transformative force. Fusing visual content with AI is crucial for attracting and retaining customers; neglecting this integration in marketing strategies can lead to reduced market share.
Keywords: Artificial Intelligence, Computational Creativity, Computational Art, AI Art, Generative Media, Generative Design, Generative Art, Computer Art, Creative AI, Visual Communication, Visual Advertising, Visual Content Marketing, AI-generated Designs, Digital Creativity.

INTRODUCTION

In today's marketing world, it is essential to have visually appealing content. Visual material has become an essential area of focus for every company due to the widespread availability of gadgets for mass communication and advancements in visual technology. Similarly, artificial intelligence is also gaining ground and it is proving to be the most revolutionary technological advancement thus far. The integration of visual content with artificial intelligence is the key to acquiring and retaining loyal customers; its absence from the overarching marketing strategy of any production raises a red flag that could ultimately result in a smaller market share for that company.

The world has rapidly transformed how we perceive and interact with information. Language, while rich, often falls short in capturing the complexity of visual experiences. Humans are inherently drawn to visual stimuli, and as aesthetic standards rise, brands are leveraging AI to produce high-quality visual content.

AI, often associated with both promise and fear, has become a focal point in discussions about technological progress. While some fear scenarios like those depicted in science fiction, others see AI as a tool for innovation. In 2014, a computer program named Eugene Goostman passed the Turing Test, marking a significant milestone in AI development. This achievement sparked debates about the potential of AI and its implications for human employment.

Despite concerns, AI offers numerous benefits, particularly in marketing. As AI continues to evolve, marketers must explore its integration with visual content, a cornerstone of modern marketing strategies.

In a short time, the world has revolutionized how we look at things. Languages have a fixed quantity of words – and we strive to describe the world around us using the regularly used words and phrases that we know. What we see often cannot be simply explained in words as the mind is primarily visual and sensory-driven.

People are innately lured to the highly visual stuff. In addition, the quality of life has improved tremendously, and with it has come to an improvement in aesthetic standards [Xue, 2020]. Brands have realized this and the problem for brands to maximize the amount of quality visual material is one that may be handled using artificial intelligence (AI).

The concept of artificial intelligence, together with the expectations and apprehensions that are linked with its development, is rather prominent in the mind of the average person. Whether we see Judgement Day brought about by Skynet or egalitarian totalitarianism brought about by V.I.K.I and her army of robots, the end effect is the same: the replacement of humans as the preeminent form of life on the planet.

Others would call it a self-fulfilling prophecy, but some people might term it the anxieties of a technophobic mind. If the 2014 research from the University of Reading in the United Kingdom is any indication, we may have already started carrying out the aforementioned prophecy. A computer program allegedly passed the age-old Turing test at the beginning of June 2014, making it the first time in history that this feat had been accomplished. The computer program known as Eugene Goostman is a name that will forever be ingrained in history. It received praise and criticism from people all over the world, depending on whether they believed it to be the beginning of artificial intelligence or merely a cunning trickster-bot that only demonstrated technical skill.

Vladimir Veselov, who was from Russia, and Eugene Demchenko, who was from Ukraine, came up with the idea for the program in 2001 [University of Reading, 2014]. Since that time, it was modified to mimic the personality and conversational patterns of a boy of 13 years of age, and it was up against four other programs in an effort to emerge victorious. The Turing Exam is widely regarded as the competition that has ever had the most complete test design, and it was staged in London's illustrious Royal Society. For a computer program to pass the Turing Test, it must have the ability to fool a human into believing that the entity with which they are having a conversation is another human being at least thirty percent of the time. This condition is both straightforward and challenging.

As a result of the experiment in London, Eugene received a success rating of 33 percent, making it the first program to successfully complete the Turing Test [University of Reading, 2014]. The test was more difficult overall because it involved simultaneous conversations between human subjects and five different computer programs. There was a total of 300 conversations, with 30 human judges or subjects, and five other computer programs [University of Reading, 2014]. These conversations took place throughout five parallel tests. Only Eugene was successful in persuading 33 percent of the human judges that the youngster in question was actually a human being across all of the tests [University of Reading, 2014]. Built with algorithms that allow "conversational logic" and open-ended themes, Eugene opened up an entirely new realm of intelligent machines capable of tricking human beings.

For many people, the success of this test implied the onset of artificial intelligence, a technological advancement that came with a lot of mixed feelings over the potential threat of gradually but eventually completely eroding human employment. Whereas this still remains a threat, it is also worth considering the positive impact that artificial intelligence will have on certain aspects of our life. One of those is marketing. Today, we have interacted with a fair share of marketing technology that is laced with artificial intelligence, whether knowingly or unknowingly. Most of this has happened on social media through our interactions with various platforms. As it keeps becoming apparent that artificial intelligence is the future of technology, marketers and marketing organizations now need to start thinking about artificial intelligence and how it intertwines with visual marketing, which is the modern-day principle of effective marketing.

The Use of Visual Content in Online Marketing
Visual content can be categorized into three main types: illustrations, comics, and videos. Illustrations include static designs like paintings, photographs, and memes, where the image is central. Comics combine images and text to tell a story, while infographics present information graphically. Videos, including short films and clips, are dynamic and effective in conveying messages.

Visual marketing can generate three times more leads and ROI compared to traditional methods. It relies on images rather than words, making it more impactful. Studies show that the brain processes visual information 60,000 times faster than text, and people remember 80% of what they see compared to 20% of what they read.

Visual content is also more engaging on social media. Tweets with images are 150% more likely to be retweeted, and 63% of social media content includes images. Additionally, 54% of internet users have shared original photos or videos.

Artificial Intelligence and Art
Defining AI
AI is a transformative technology reshaping industries by enhancing productivity and decision-making. Despite its growing influence, many remain unfamiliar with AI. A 2017 survey found that only 17% of corporate leaders had a clear understanding of AI.

AI refers to machines that mimic human cognitive functions, such as judgment and intention.

These systems assist in problem-solving and decision-making, often surpassing human capabilities.

Defining Art

Art has been a subject of philosophical debate for centuries. It is a medium for expressing emotions, ideas, and perspectives that words cannot capture. Various theories define art, ranging from Croce's view of art as superior intuition to Danto's concept of art as an intangible element.

Combination of AI and Art

AI has made significant strides in art and design. Generative Adversarial Networks (GANs), introduced in 2014, have revolutionized image synthesis and design. Platforms like Xiang Ding, developed by Zhejiang University, use AI to create personalized designs and support cultural industries.

AI is also transforming the creative process in design. It enables designers to explore new ideas, optimize workflows, and produce innovative designs. AI tools can generate multiple design variants, saving time and enhancing creativity.

Generative Art

Generative art involves creating art through algorithms. Artists set parameters, and the computer generates unique works. This approach balances control and unpredictability, allowing artists to explore new creative possibilities.

Generative art has applications in various fields, including music, literature, and architecture. It democratizes creativity, enabling individuals without traditional artistic skills to produce art.

Generative Media

Generative media refers to AI-generated content, including images, videos, and music. It is expected to play a significant role in marketing, offering personalized and engaging experiences. By 2025, the global generative design market is projected to reach $397.49 million.

Generative media enhances user engagement by providing immersive experiences. It allows marketers to create high-quality, personalized content efficiently.

Computational Creativity

Computational creativity explores the intersection of AI and human creativity. While machines lack human emotions, they can produce original and valuable artifacts. Researchers are investigating how AI can augment human creativity, leading to new forms of artistic expression.

Can Machines Become Artists?

AI has demonstrated the ability to create art that rivals human creations. Works like those produced by the Obvious collective have garnered significant attention and value in the art market. However, the role of AI in art raises questions about creativity and authorship.

Is AI Art Real Art?

The legal and artistic status of AI-generated art remains ambiguous. While AI can produce works that resemble art, the creative process is driven by algorithms rather than human intent. This challenges traditional notions of art and creativity.

Do Humans Prefer AI Art Over Human Art?

Studies suggest that people often prefer AI-generated art, finding it novel and inspiring. In some cases, participants could not distinguish between AI and human-created art, highlighting the sophistication of AI-generated works.

Will AI Replace Designers?

While AI can automate repetitive tasks, it lacks the empathy and contextual understanding required for design. AI is more likely to serve as a creative partner, enhancing designers' capabilities rather than replacing them.

The Use of Visual Content in Online Marketing

There are three primary categories of visual content – illustrations, comics, and videos. Illustrations can be any message that is communicated through a static design element; this can include paintings, photographs, and memes, which are more recent developments. The picture is the most important component in all of these, and it is accompanied by one or more bits of text. Comics are essentially collections of images and text that are organized in a specific order and have a linear narrative. Infographics are a unique and contemporary type of graphic that conveys vast amounts of information in a graphic manner, often with a visual "narrative" from beginning to end. Lastly, videos refer to moving images in the form of clips, and short films that are able to either tell a story or express a certain message, and ideally both. Important subcategories include vines, which are looping films that are no longer than six seconds in length, and gifs, which are looping slideshows of images that are compressed into a single file.

When done correctly, marketing with visual content may generate three times as many leads and provide three times the return on investment for your business as sponsored search [Dayal, 2022]. It is a kind of communication that does not involve the use of words and is more successful when used with humans. In visual marketing, the primary focus is on the image or item that conveys the message, rather than the words themselves [Manic, 2015]. Images and other visual elements are becoming increasingly significant in the realm of digital marketing because they make a strong and immediate impression, stick with people for longer periods of time, and are easier to digest than other forms of material such as words [Dayal, 2022]. In addition, people are more

likely to remember images and other visual elements than they are to remember words.

Studies have shown that our brains are able to process visual information up to 60,000 times faster than they can text and words, making it significantly more effective in the process [Sibley, 2017; Sadler, 2022]. When we read anything, we only remember about 20 percent of it, but when we see something, we recall up to 80 percent of it [Sadler, 2022]. Recent studies conducted at MIT have shown that the human brain is capable of processing and recognizing images in as little as 13 milliseconds [Sadler, 2022]. On the other hand, written material is processed in a way that is far slower and more linear. People living in today's world are said to be overloaded with information and have short attention spans as a result. As a consequence of this, a picture that is pleasing to the eye draws people into the subject matter and increases engagement.

Why does this hold true? In an ideal world, ninety percent of the information that your brain receives is visual, and around sixty-five percent of people are visual learners [Read, 2021; Sadler, 2022]. When compared to content that does not include a picture, the number of times that online content that includes relevant photos is viewed is nearly twice as high (94 percent higher) [Sadler, 2022]. In a similar vein, tweets that include images have a chance of being retweeted which is 150 percent higher than tweets that do not include images. Images account for 63 percent of all content shared on social media, and 54 percent of all Internet users have submitted an original photo or video at some point [Sadler, 2022].

Further, people are only likely to remember 10 percent of the information they are presented with three days after first hearing it [Medina, 2012]. They are able to remember 65 percent of the information three days later when it is presented to them in the form of a relevant image in addition to the same knowledge [Medina, 2012]. In addition, 46.1 percent of individuals believe that the design of a company's website is the most important factor to consider when determining the legitimacy of the business [Sibley, 2017]. This suggests that the utilization of photos is the single most important factor in producing useful material for social media. Because Google, the search engine giant, is aware of the huge power that can be derived from visual material, it is progressively incorporating graphics into the presentation of search results.

Within the realm of marketing, visual material holds the position of king. Visual marketing has many benefits, one of which is the immediate rise in brand recognition it provides. Studies have shown that it takes approximately fifty milliseconds to form an initial opinion of someone [Guest Author, 2021]. Marketers have, at long last, come to the understanding that it is no longer sufficient to merely focus on the content of one's communication; rather, they must also pay attention to how the content is communicated.

Seventy percent of companies' marketing budgets are currently allocated to content marketing, which may also incorporate graphic marketing tactics [Hubspot, 2022]. The toughest difficulties for 23.7 percent of content marketers are design and visual content [Enfroy, 2022]. While 49 percent and 22 percent of marketers regard visual marketing to be highly important and important, respectively, 19 percent of marketers confess that their strategy is meaningless without visual material (Mawhinney, 2022). Forty percent of marketers are certain that visual content will be heavily utilized by 51 percent to 80 percent of companies in the not-too-distant future [Khoja, 2022].

The Future of Visual Marketing

Your message cannot be adequately communicated through the use of words alone, nor can it be done with the use of an image alone. When you are able to connect a particular image to a certain message, you have the ability to really get into the heads of your audience and leave an imprint that will remain [Taylor, 2022]. One of the primary reasons why the world of marketing is ready for visual strategies is due to the fact that consumer technology places a strong emphasis on aesthetically pleasing components [Taylor, 2022]. Whenever we are looking at information, regardless of whether or not we are aware of it, our eyes are going to be drawn to the visual picture first. The longer we stare at something, the greater the likelihood that we will click over to the next page. As a consequence of this, the images you create need to be designed with a goal in mind and need to be made to stand out.

The future of marketing will require greater levels of personalization, the ability to operate in real-time, an increased reliance on technical applications, and the use of data to back up decisions. Marketers can no longer rely solely on the traditional marketing mix and marketing that is supported by data. When you include art, design, science, and technology into your marketing techniques, you can maximize the effectiveness of those strategies, such as attracting awareness, while also maintaining a fashionable and up-to-date image and making use of the technologies in a practical way [Lau, 2022].

Artificial intelligence, with the assistance of GANs (Generative adversarial networks), may effortlessly transform human thoughts into visual representations [Hughes, Zhu, & Bednarz, 2021]. Not only are AI-generated images causing a revolution in the art market, but they are also providing spectators with a more personalized experience [Lau, 2022]. The media of today is more complicated than it has ever been, and it advances at a rate that is quicker than it has ever been. No longer can marketing be done in isolation from technological advancements [Lau, 2022]. The time has

come for marketers to fully embrace emerging technologies and close the gap that separates them from more traditional forms of marketing.

CONCLUSION

Both art and technology are, to varying degrees, reflections of who we are as individuals. On the one hand, the creation of art is a meta-language that allows us to express things that we are unable to articulate in any other way. It is a means by which we can make sense not only of the world that is all around us but also of ourselves as a species. In a similar vein, technology enables us to better understand how things work. It provides another lens through which to study human nature. In point of fact, the very concept of artificial intelligence is likely the most humanized form of technological advancement. Utilizing the power of artificial intelligence to build interfaces and systems that add to the creative toolkit of design practitioners is still in its infancy stage. However, there is a lot of potential for growth in this area. Even though work in this field is just getting started, several really useful tools are already beginning to take shape. In terms of the areas that researchers are concentrating their efforts on, trends are beginning to emerge. These areas include sketch-based interfaces, in situ design, and end-user–driven interface design.

Artificial intelligence will be a revolutionary tool in the design and marketing industry. It will help in the generation of user-based content and the automation of processes. It will also be a major driver in the creation of design tools and software, a move that will see the industry transform into a fast, efficient, and effective delivery service field. Looking at the already promising future of generative media and generative art, the future is only bound to get better. Visual marketing is about to become even more effective with the integration of artificial intelligence, helping convert a significantly higher larger of potential customers into loyal customers. However, this will happen if and only when artificial intelligence is viewed as a complement to human resources as opposed to a replacement.

The artificial intelligence models of today are still highly dependent on the input of humans, and the myth of complete creative autonomy does not appear to be imminent, at least according to certain experts in artificial intelligence. Creativity and imagination are defining features of our species, and we believe it is essential for artists to continue investigating technology tools such as artificial intelligence for the benefit of both the scientific community and the artistic community. However, if we want to automate creativity, expressivity, and imagination, we need to exercise extra caution and have a conversation that includes both the sciences and the humanities. The complexity of this subject ought to expand beyond the technological community and reach into the bigger fields of business, philosophy, neurology, and the arts.

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