Effect of Artificial Intelligence in Social Media Content Creation

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Abstract

The main purpose of this thesis is to develop a deeper understanding and to gain deeper knowledge about the role of artificial intelligence in social media content creation. In order to make it precise, we have formulated two underlying questions: How much creativity does artificial intelligence really possess? And what is the role of artificial intelligence in content creation? For these questions we have chosen online questionnaire for data collection. Data were gathered from respondents from different countries between November 9, 2022, and October 3, 2023. We have used descriptive and inferential statistics. The research's results support that artificial intelligence (AI) has a statistically significant influence on the creation of social media content. The choices made by the participants showed that they overwhelmingly preferred AI-generated content over human-generated content. Based on the preferences and perceptions of the study participants, it is concluded that AI is more creative than humans or social media content creators. These results have implication on how AI may impact and even completely change the social media content creation industry.

Keywords: Artificial intelligence; content creation; social media; machine learning; human.

INTRODUCTION Human-like machines will read and write. I'm worried about the neglect of this development. AI is making waves on social media. Many content creators use AI for video and graphic design. The emergence of AI has generated concerns about its implications on humans. Our online content? Will AI impact that? Content is created using AI. Sometimes used to develop websites. But AI affects social media. Many services post on social media using AI. Many areas of life use AI. Doctors diagnose, financial advisors invest, and social media content producers generate engaging content.

Norving/Russell (2020) define AI lets computers imitate human behavior and make better decisions than humans. AI is transforming social media and digital content usage globally. From Computer Science, Cognitive Science, and Mathematics emerges AI.

Social media companies must generate engaging, creative content as AI advances. In addition to realistic photos, AI can build films and websites. Artificial intelligence-based content creators may struggle to keep up with technology's fast advancement. AI-generated content may be erroneous. Artificial intelligence-generated videos may include inaccurate data or distorted images. Thus, content creators employing AI must understand its risks.

Social media is transforming with AI. Content creators may concentrate on creativity by automating boring tasks using AI. Lifelike photographs and videos may boost social media. AI can find trends and patterns in massive datasets. This information may be utilized to generate consumer-friendly content. AI will increasingly impact social media content creation and consumption.

AI-generated content is more professional than handcrafted (Jimpei et al., 2023). AI creates content faster than traditional methods, saving time and money. AI may generate false or harmful information, yet it has improved social media content development (Basri, 2020). Helps content providers improve (Persson, 2023).

Artificial intelligence lets computers learn, comprehend, and judge without programming. AI will considerably improve social media content producers' jobs.

AI has changed social media (Karnouskos, 2020). Facebook and Instagram filter material using AI, and some firms build social media campaigns with it. AI is affecting social media content producers most.

As AI progresses, content makers use AI-powered ideation and execution tools. Material manufacturers may now develop new concepts and optimize existing material using AI.

Social media providers that create a lot of content benefit from this. Content creators on tight budgets and schedules might save time by using AI to create custom graphics and video.

Importance of the Research:

In order to create more engaging social media content, AI is becoming more vital. AI can streamline operations, develop ideas, and produce material for artists. AI aids social media content developers in customer engagement. Remember that content makers must leverage AI to accomplish their goals. AI may revolutionize how social media artists connect with consumers.

Social media developers worry. They must produce compelling material, reply fast to comments, track trends and news, and publish consistently. Imagine an AI doing this. It would enable creativity and fan involvement. This study shows that AI helps social media content suppliers.

Fully developed AI may replace humans (Cellan-Jones, 2014). People know social media is bot-run. Lifelike AI-enabled bots are hard to differentiate from people. Social media content creators struggle to vet and fight bots. According to Liu (2019), 60% of Twitter accounts are bots, and AI will raise that figure.

Content creation and distribution must adapt to social media. AI helps marketers create and distribute content. Businesses are embracing AI-generated content for its speed, scalability, and quality. Know the hazards of AI-generated material before utilizing it. AI may streamline social media content generation. Statistics and constructive criticism improve articles. AI creates more interesting material.

AI is increasing quickly across several areas, including social media. AI emerges as researchers construct clever robots. AI creates movies, music, and art. As technology progresses, AI will create increasingly complex content, driving social media companies to improve.

Though AI may affect employment, its expansion presents new possibilities, notably for social media content creators. AI is already affecting social media content generation and will expand. As AI gets more user-friendly, content creators may employ it.

AI automates high-quality content creation, saving organizations time and money. Are AIs

more creative than humans? The study predicts AI will transform social media. Being ahead in a competitive market is crucial. Along with machine learning and AI, social media boosts company competitiveness. As AI improves, content providers will increase quantity and quality.AI may choose research subjects, schedule postings, and handle client inquiries. Authors may utilize AI to interview sources and write well. AI may be used by multidisciplinary content makers. Wikimedia, Reedit, and Medium host them.

Bloggers, journalists, and communicators may use AI to manage workflow. AI systems can quickly analyze and execute enormous data sets to produce engaging content. This assesses customer requirements and tailors content. AI content makers program AI machines to generate text, photos, and videos. Journalism, blogging, and other communication fields benefit. AI social media sentiment analysis may benefit marketers and content creators.

Artificial intelligence may boost material production at an unprecedented pace. To work quicker, better, and easier, these pros must master AI software. AI will affect many. Global relations will change. Good stuff. Not just Silicon Valley worries. The media and entertainment industries worry. As content creation robots improve, they may replace creatives in many professions, says Mark Zuckerberg. This may damage society and the economy "(Wall Street Journal, Oct. 2016).

In certain cases, AI algorithms may outperform humans (Osoba et al., 2017). Automatic algorithms that look more authoritative than people may produce fake news.

AI adoption is rising rapidly, benefiting businesses. How this impacts our content is unknown. Social media sites create material differently. Content creation sounds artsy. Music composition has so many styles, genres, sounds, and genres that it might be hard to start or concentrate on.

AI is said to be more inventive than humans. Human cognitive biases and constraints are absent in AI. AI systems may explore additional problem-solving options, resulting in new solutions.

AI solutions for complicated issues must be imaginative and successful. AI systems' ingenuity lets them keep solving complex problems and providing useful insights. I wish to answer our research question and help content creators.

Every social media user follows creative AI content. AI is widespread and will soon rule social media. Most businesses get money from clients, and social media is excellent for that.

Company influence and following impact earnings. To seem involved, corporations should deploy AI with social media users.

AI creativity: how much? This question has long plagued philosophers, computer scientists, and laypeople. Some say AI is creative, others not. Truth may be anywhere in between. AI creativity is the question. This is contested. Some think AI creates derivatives, while others think it creates new concepts. This is unclear. AI creativity is questionable.

Literature Review

Computers mimic human intellect in AI. Natural language processing, speech recognition, machine vision, and expert systems are major AI applications. AI systems use several pre-trained models to find data patterns. The system predicts events and trends. Object recognition software can classify photos after millions of instances. Text chat may teach chabots human interaction. AI programming emphasizes learning, reasoning, and self-correction. In AI programming, data-driven rules build knowledge. A computer follows algorithms. AI-powered marketing tools organize huge data like humans.New technologies affect sales. AI helps us swiftly analyze informed customer signals with conventional data for strategic solutions.

Cloud, mobile, and analytics allow social media collaboration. VR, AR, and AI will change social media. More individuals and organizations are utilizing these platforms to develop and share information as technology progresses. Organizational KM potential of social media develops with age. Email, ride-sharing, and networking are easier with AI. Humans should actively promote the bioethics of beneficence to maintain values, clarity, and responsibility when AI is omnipresent (2020). AI bioethics must address its non-empathy and soullessness. AI lacks compassion and comprehension to assess morality. Researchers and companies are studying AI's role in social media's thriving economy. The majority of 132 social media and networking publications used social exchange, network, and organizational theory. Popular networks included Facebook, forums, and Twitter (Acar, 2014). User-generated content was unique in online co-creation.

Kapoor et al. (2018) reported publishers pushed Facebook, MySpace, and YouTube social commerce in 2015–2016. ICT literacy was statistically linked to social capital and good AI

sentiments by Inaba and Togawa (2020). Workplace SC and group PA may indirectly improve AI perception by increasing ICT literacy. Social capital impacts AI's perspective beyond this immediate consequence. Cognitive SC enhances AI awareness, but structural SC diminishes it. SC boosts AI's image yet protects it, which helps societal acceptability. Enhancing AI perception requires SC. AI has greatly improved social media and information processing (Stalidis et al., 2015; Gołąb-Andrzejak, 2022). Many academics have shown that social media uses AI (Sadiku, 2021; Nunavath and Goodwin, 2018; Krönke, 2020; Bechmann and Bowker, 2019). Academics worried about human behavior evolution, AI's widespread use, and social media's impact discovered that mobile and internet technologies have boosted social media use over the previous decade. The paper advised AI and social media constraints. The study surveyed companies and social media marketers.

Redouane and Chouaib (2020) discovered that time restrictions, not campaign design skills, are the major social media challenges. Many consumer data collection techniques make automated marketing strategies for each customer tough. AI-powered marketing using consumer data and machine learning can solve this. AI may help companies profile prospects, research their behavior, habits, and ambitions to match customer expectations. Traffic is personalized by social media. Despite worries, "artificial intelligence" improves marketing campaign targeting and intelligence, pushing cutting-edge enterprises. Industrial media may explain social media, say Saravanakumar and Lakshmi (2012). Web technology makes tweeping and content creation easier. Explains why social media marketing requires shareable content. The spontaneous spread of word among users creates earned media. Brands and organizations are less influential than trusted third parties.

According to Kim and Ko (2010), 36% of respondents appreciated companies with blogs and commented on brands and goods. DEI Worldwide (2008) claimed 60% social media consumer contributions. Mishra (2022) defined AI as "any human-like cognition demonstrated by a computer, robot, or other machine," and he utilized secondary data to prove that early AI adoption benefits enterprises, indicating marketers need AI to compete. The document stresses stakeholders' data quality and cleaning duties. Increased client trust and loyalty. AI helps marketers find leads, consumers, and content. Advanced analytics, deep learning network algorithms, and machine learning models may improve social media AI.

Cognitive computing, AI-powered marketing solutions, and other technologies should be employed more by marketers as AI has expanded dramatically in the past decade and is used in almost every industry.

Theodoridis and Gkikas (2019) suggest that marketing companies using artificial intelligence may be able to extract hidden client data from keyword searches, social media profiles, and other sources to improve their products and services. The author claims that “the evolution of artificial intelligence in social media marketing has streamlined and expanded business operations”. AI makes selling easier, improving efficiency. After robotics, application-oriented learning research focused on 'deep learning' as a general-purpose innovation tool in 2009. Cockburn et al. (2018) said that “artificial intelligence harbors the potential to markedly improve operational efficiency, of the existing economy”.

AI-assisted content development, 24/7 online presence, automated bidding, and more exact audience targeting are Fast and Horvitz (2017) social media marketing recommendations. Kotler et al. (2021) say AI will outperform traditional marketing tactics in competitive situations, enabling and strengthening social media marketing firms. Dimitrieska et al. (2018) describe "big data" as marketers' ability to acquire and manage huge data sets to improve customer experiences. Shrestha et al. (2021) say deep learning (machine learning) helps marketers predict consumer trends, client transactions, and behavior from huge data.

Marketers want AI to recognize ideas and patterns across contexts, evaluate human interactions and emotions to predict consumer behavior and decisions, and solve future problems. AI is transforming corporate technology with vast data, machine learning, and optimum solutions, according to Dwivedi et al. (2021). Smartphones' targeting and contextual capabilities will change how customers engage with businesses, information, and services. As customer engagement technologies elevate consumer expectations, companies may employ AI to tailor advertising and reach billions on YouTube, Facebook, and Google Search. AI and social media analytics will enable nearly endless commercial money management approaches, whether they anticipate stock prices or maximize earnings, according to Chartier et al. (2021).

Accounting and management aid stock price predictions. Artificial intelligence and machine learning have increased manufacturing and production efficiency, and acquiring moral and ethical judgments will raise revenue. After years of struggle, AI's advanced learning will help organizations grow. AI develops and leverages personal data in campaigns better than smart marketers and analysts. The technology simplifies social media and marketing data processing. Traditional methods of personalized customer communication fail due to social media congestion. Forward-thinking firms adopt "artificial intelligence," despite its stigma. Commercial AI solutions employ image, text, decision-making, speech, and autonomous robots and vehicles, according to Jarek & Mazurek (2019). Amazon, Google, Apple, and Microsoft employ speech recognition sometimes in marketing but not in significant applications. Due to Industry 4.0, robots and self-driving automobiles are rarer than marketing mix innovation. AI marketing is now one-time. Since this is the first significant AI installation, enterprises may be cautious while installing and testing new technology. High costs and unclear consequences may deter innovative initiatives.

According to Appel et al. (2019), “the social media ecosystem and its trajectory within the context of consumers and marketing practice, the landscape remains dynamic, underscoring the uncertain yet promising future of social media in marketing”. Social media must be understood due to its geopolitical significance, corporate advertising and marketing, and domination as a medium of speech. Zeng et al. (2010) predicted that AI will dominate retail, airplanes, hotels, and services, rendering humans reliant.

According to Erdoğmuş and Cicek (2012), social media positively impacts individuals, businesses, and society. AI has strengthened Facebook, Twitter, Instagram, and LinkedIn. He changed our perception of technology's role in creativity with his theoretical and empirical approach in "The Language of New Media" (Manovich, 2001). Manovich examines how software has affected society and our creative and aesthetic sensibilities in "Software Takes Command" (2013). He believes meta-medium software encourages digital innovation by enabling new expression and interaction. Manovich claims that AI in digital media degrades authorship and creativity by changing creative production and distribution. This thesis compares AI's creativity to human content creators on social media and uses Manovich's

approach to study how viewers perceive AI-created digital media objects to highlight cultural and technological processes.

Methodology

Research Question:

In our thesis we have addressed the following research question

When compared to humans, how creatively capable is artificial intelligence when it comes to creating content for social media, and how can these findings advance our knowledge of how artificial intelligence is evolving in the creative process?"

The purpose of this research question is to examine how creatively humans and artificial intelligence can produce content for social media. In order to contribute to the academic understanding of the evolving dynamics between human and artificial intelligence creativity in the field of social media content creation, the goal is to investigate and evaluate each individual's level of creativity. The insights gained from this process is presented in a thesis.

Research Objective:

The main purpose of this research is to examine the continuing growth and advancement of artificial intelligence tools, and to explore the role they play in creating content for social media. The main objectives of this research are as follows:

- Know who is more creative- Humans or Artificial Intelligence in content creates?
- The findings of the research will be presented in a thesis that will be presented to the academic community.

The concept of artificial intelligence has always been shrouded in controversy. Some people believe that AI is a threat to humanity, while others see it as a powerful tool that can be used to enhance our lives. One area where there is particularly heated debate is the question of AI's creativity. David (2023) argue that AI is capable of generating original ideas and should therefore be viewed as creative. Mika and Grassini (2023) contend that AI is limited to remixing existing ideas and cannot truly be considered creative

Research Hypothesis:

On the basis of above-mentioned literature, we have developed the following hypothesis:

H0: Artificial Intelligence is not perceived more creative than social media content creators.

H1: Artificial Intelligence is perceived more creative than social media content creators.

Research Strategy:

The research strategy might be deductive or inductive. Collis and Hussey (2014) and Bryman et al. (2011) say the deductive method uses theories to construct a conceptual framework. The conceptual framework that illustrates variable interactions is then tested using actual data employing assumptions (Collis & Hussey, 2014; Bryman et al., 2011). After analysis, the hypotheses must be accepted or rejected (Collis & Hussey, 2014). Deductivism collects varied data. Collis and Hussey (2014) define deductivism as a general-to-specific method. In contrast to deductivism, inductivism flows from the particular to the universal. Thus, inductivism begins with actual fact and generalizes.

We adopted a deductive research strategy to explore the claim that AI is more creative than humans at producing content since it can handle massive volumes of data rapidly and correctly. Public dread about AI's potential and users' expectations for social media content generation contaminate our knowledge of AI.

According to Collis & Hussey (2014), "we have chosen reliable sources for the thesis that include books, scientific articles, databases, reports, and professional journals." Scopus, Google Scholar, and Elsevier found most of these sources. The bulk of books were online". We collected data from a questionnaire survey to analyze empirical observations.

Research design

Quantitative method:

The two main data gathering methods are quantitative and qualitative. Qualitative research considers context (Collis and Hussey, 2014). Qualitative research using the interpretivist paradigm gives reliable findings. Validity is how well study results describe the phenomena. However, quantitative research is precise and may be done anywhere (Collis and Hussey, 2014). Quantitative methods, related to positivism, provide very dependable results (Collis

and Hussey, 2014). Study reliability is the lack of variance under replication. Testing hypotheses and handling bigger samples is possible with quantitative research. Data is analyzed statistically in this study. Comprehensive, rich, and reliable data is our objective. Find the findings using statistical approaches. We used a quantitative method for the thesis. Our study works best using quantitative methods.

Two quantitative design categories exist (Ali, 2016). One is descriptive and correlational, the other experimental and quasi-experimental. Descriptive and correlational designs assess variables and understand their connections, whereas experimental and quasi-experimental designs examine cause-and-effect linkages. Descriptive and correlational designs assess variables without altering them. This lets you observe real-world traits, trends, and connections. In this study, we used descriptive and correlation research designs since descriptive designs simply measure variables.

Data collection in Quantitative Method:

The most common method used in most of the research is Survey (Ponto, 2015). It allows to collect data about behaviors, opinions, experiences, and demographic characteristics by asking people directly. In quantitative research, the questionnaire is more commonly used. They usually include closed questions with multiple-choice answers or rating scales. This allows us to collect consistent data from many people and analyze the responses statistically. For the study, we have chosen an online questionnaire for data collection. As online data collection is more feasible and easily accessible. Data were gathered from respondents from different countries between November 9, 2022, and October 3, 2023. 447 respondents answered the questionnaire. Responses that were inconsistent or lacking were not accepted. Every individual's data was kept private. SPSS software was used for the analysis of the results.

Sample Selection

We decided to use an online questionnaire to gather data to respond to our research question and evaluate the validity of our theoretical framework. To begin with, we had to ascertain which population was highly relevant to our research and whether or not a sample would need to be chosen. Saunders et al. (1997) assert that as soon as it becomes impractical to gather data from every member of the population that is relevant to the research question, a

sample must be chosen. Since everyone who creates content is included in our study's population, choosing a sample seemed urgently necessary.

Probability and non-probability are the two categories of sampling techniques (Saunders et al, 1997). Since there hasn't been much research done on the topic of AI and human creativity, we used non-probability sampling techniques. It means that the sample is selected in a nonrandom way. The sampling method used, affects how confidently one can generalize results to the population

Using respondents who are "convenient" for us, we choose a sample based on the most convenient and accessible members of the population. So, we have selected the convenience sampling technique. There is no pattern in the way these respondents were obtained. This is relevant to our study because we wanted to reach as many people as we were seeking information about the application of AI in content creation. To obtain a variety of results, it was important to us that the individuals in our sample be active users of social media across various platforms, including Instagram, Facebook, TikTok, YouTube, and Twitter.

Instrument:

Data collection was done by way of using online questionnaires distributed to various social media users. The questionnaire was created using Google Forms. The first part of the questionnaire deals with demographic information of the respondent, their gender, age, country, education, and the social media platform they use. Then the 2nd part consists of 6 questions, each with two sections. One section contains two pictures and the respondents were asked to choose the more creative one. In the 2nd section, respondents were asked to rate the difference between the creativity of AI-created pictures and human-created pictures from 1 to 10, where 1 is a small difference and 10 is a big difference. The survey took approximately 3 minutes to complete.

Data analysis

Before analysis, the data set was checked for missing and outliners. For this, the outliner labeling rule was used. According to Hoaglin and Lglewicz (1987), all values outside the calculated range were considered outliners. The data was then analyzed using the statistical

software SPSS. In quantitative research, the statistical method and test are used to analyze the data.

Both descriptive and inferential statistics have been used in our data analysis. In descriptive statistics, we calculated the frequencies of image choices in section 1 and then computed the mean and standard deviation of the ratings in section 2. Then in inferential statistics, a statistical test (Chi-square- test) was applied.

Ethical consideration

Ethics are moral concepts that govern behavior, according Collis and Hussey (2014). Research ethics encompass study methods, data collection, and publication. Academic researchers must respect the rights of all study participants. The eleven ethical problems are participant injury, dignity, informed consent, privacy, secrecy, anonymity, deception, connection, honesty, reciprocity, and misrepresentation. Researchers should follow these scholar-established research guidelines.

Saunders et al. (1997) categorize ethical issues into three research stages. Research design and data gathering come under the first ethical area. The questionnaire emphasizes that participants may withdraw at any time, that their privacy will be maintained, and that no data usage information would be withheld from them to respect their right to privacy and offer informed permission without coercion. The questionnaire includes an email for participants to contact researchers with privacy concerns.

Data gathering is ethical problem #2. We carefully gathered and transmitted all surveys to minimize bias. This facilitated fair data analysis. Saunders et al. (1997) classified data analysis and reporting difficulties as the third ethical category. We presented our findings honestly to prevent bias. We secured participants' names and privacy in this study.

Limitations

Our research has limitations. The first is sample bias since respondents may not reflect all social media content creators. Quantitative analysis may not capture creativity's complexity and subjectivity. When comparing human with artificial intelligence creativity, qualitative methodologies may provide more depth and richness. The data gathering form does not properly capture the intricacy of creativity and AI perspectives. Given the diversity of social

media content makers, it may be unfair to generalize. The study may not account for platform, industry, and skill differences.

RESULTS

Descriptive Statistics

Before testing the hypothesis, the descriptive statistics were analyzed by using the IBM SPSS 29.0.10. The results revealed that most of the participants selected AI over human-generated content. The mean, median, and standard deviation show that AI-generated pictures is perceived more creative than social media content creators.

Table 1

Descriptive statistics

		Which of the following pictures do you think is more creative	Which of the following pictures do you think is more creative	Which of the following pictures do you think is more creative	Which of the following pictures do you think is more creative
N	Valid	447	447	447	447
	Missing	0	0	0	0
Mean		1.43	1.61	1.27	1.34
Median		1.00	2.00	1.00	1.00
Mode		1	2	1	1
Std. Deviation		.496	.489	.445	.475
Skewness		.276	-.446	1.036	.667
Std. Error of Skewness		.115	.115	.115	.115
Kurtosis		-1.932	-1.809	-.932	-1.562
Std. Error of Kurtosis		.230	.230	.230	.230
Minimum		1	1	1	1
Maximum		2	2	2	2

Statistics			
		Which of the following pictures do you think is	Which of the following pictures do you think is

		more creative	more creative
N	Valid	447	447
	Missing	0	0
Mean		1.45	1.83
Median		1.00	2.00
Mode		1	2
Std. Deviation		.498	.376
Skewness		.212	-1.763
Std. Error of Skewness		.115	.115
Kurtosis		-1.964	1.112
Std. Error of Kurtosis		.230	.230
Minimum		1	1
Maximum		2	2

Chi-Square test

To test theories, the Pearson chi-square test has been used. The null hypothesis and the alternative hypothesis are the two sub-hypotheses proposed for the hypothesis. According to the null hypothesis, Artificial Intelligence is not perceived more creative than social media content creators. The alternative hypothesis assumes Artificial Intelligence is perceived more creative than social media content creators. The data analysis software, the Statistical Package for Social Sciences (SPSS) was used to test these hypotheses under 0.05 asymptotic significance values. The null hypothesis cannot be rejected if the p-value exceeds the significance level (0.05). The null hypothesis may be rejected if the p-value is less than the significance level.

Chi-square for question 1 and its ratings:

Ho: Artificial Intelligence is not perceived more creative than social media content creators.

H1: Artificial Intelligence is perceived more creative than social media content creators.

To test the null and alternative hypothesis Chi-square test was applied for each question and it's rating separately.

The chi-square test of images produced by artificial intelligence and images created by humans is displayed in table 2. With nine degrees of freedom, the Pearson Chi-Square yields a value of 41.963. The extremely low p-value of 0.000, less than the traditional significance level of 0.05, suggests a significant correlation between the variables. The likelihood ratio Chi-Square value with nine degrees of freedom is 33.919, and the p-value is extremely low again, at.000. This result, like the Pearson Chi-Square, shows a significant correlation between the variables. Linear-by-Linear Relationship: The value of 17.558 with 1 degree of freedom and a p-value of.000 suggests a significant linear association. The null hypothesis can be rejected because the p-value is less than 0.05. Therefore, it can be concluded that artificial intelligence has a statistically significant effect on social media content creators, supporting hypothesis H1. Thus, Artificial Intelligence is perceived more creative than social media content creators.

Table 2

Chi-Square for Q1 and R1

Q1. Which of the following pictures do you think is more creative * R1. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10? Crosstabulation

		R1. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10?				
		1	**2**	**3**	**4**	**5**
Q1. Which of the following pictures do you think is more creative	A	5	2	7	8	12
	B	0	4	10	22	42
Total		5	6	17	30	54

		6	**7**	**8**	**9**	**10**
Q1. Which of the following pictures do you think is more creative	A	5	10	10	6	11
	B	48	66	72	24	83
Total		53	76	82	30	94

(A) (B)

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	41.963[a]	9	<0.001
Likelihood Ratio	33.919	9	<0.001
Linear-by-Linear Association	17.558	1	<0.001
N of Valid Cases	447		

a. 5 cells (25.0%) have an expected count of less than 5. The minimum expected count is 0.85.

Chi-Square on question 2 and its ratings:

To analyze the chi-square test we hypothesize that

Ho: Artificial Intelligence is not perceived more creative than social media content creators..

H1: Artificial Intelligence is perceived more creative than social media content creators.

The table presents the results of the chi-square test between social media content creators and artificial intelligence. The Pearson chi-square indicates that the result is deemed highly significant as the p-value is less than 0.05. Similar to the Pearson test, the likelihood ratio demonstrates that there is a highly significant association as the p-value is less than 0.05.

Table 3

Chi-Square for Q2 and R2

Q2. Which of the following pictures do you think is more creative * R2. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10? Crosstabulation						
		R2. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10?				
		1	2	3	4	5
Q2. Which of the following pictures do you think is more creative	A	4	8	16	21	46
	B	8	6	9	14	27
Total		12	14	25	35	73

		6	7	8	9	10
Q2. Which of the following pictures do you think is more creative	A	33	29	36	24	30
	B	20	30	35	16	35
Total		53	59	71	40	65

(A) (B)

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	34.301[a]	9	0.000
Likelihood Ratio	38.342	9	0.000
Linear-by-Linear Association	15.558	1	0.000
N of Valid Cases	447		

a. 2 cells (13.0%) have an expected count of less than 5. The minimum expected count is 0.77.

The null hypothesis is rejected because the p-value is less than 0.05. Artificial intelligence greatly influences those who create content for social media, as it is more creative than humans. As H1 is accepted we can say that AI is more creative than humans.

Chi-Square on question 3 and its ratings:

In order to evaluate the chi-square test, our hypothesis is

Ho, Artificial Intelligence is not perceived more creative than social media content creators.

H1: Artificial Intelligence is perceived more creative than social media content creators.

The Pearson Chi-Square provides a value of 32.605 with 9 degrees of freedom. The p-value, which is less than the conventional significance level of 0.05 and extremely low at 0.000, indicates that the variables are significantly correlated. With 9 degrees of freedom, the likelihood ratio Chi-Square value is 37.661, and the p-value is once more extremely low at 0.000. This result indicates a significant correlation between the variables, much like the Pearson Chi-Square. Linear-by-Linear Association: A significant linear association is indicated by the value of 21.178 with 1 degree of freedom and a p-value of 0.000.

Table 4

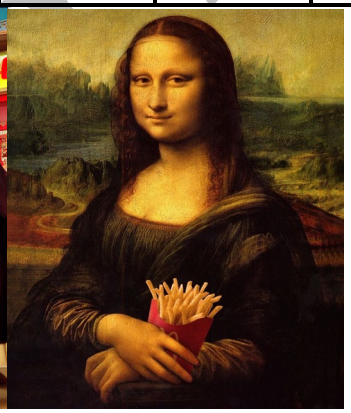
Chi-Square for Q3 and R3

Q3. Which of the following pictures do you think is more creative * R3. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10? Crosstabulation

		R3. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10?				
		1	2	3	4	5
Q3. Which of the following pictures do you think is more creative	A	10	12	17	27	50
	B	4	5	5	11	29
Total		14	17	22	38	79

		6	7	8	9	10
Q3. Which of the following pictures do you think is more creative	A	35	33	48	21	41
	B	24	23	20	16	16
Total		59	56	68	37	57

(A)



(B)

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	32.605[a]	9	0.000
Likelihood Ratio	37.661	9	0.000
Linear-by-Linear Association	21.178	1	0.000

N of Valid Cases	447		

a. 1 cells (5.0%) have an expected count less than 5. The minimum expected count is 4.79.

Considering that the p-value is less than 0.05, the null hypothesis is declared invalid.

Given that it is more creative than humans, artificial intelligence has a big influence on social media content creators. After H1 is approved, we can conclude that AI is more creative than people.

Chi-Square on Question 4 and its ratings:

In order to examine the results of the chi-square test, we propose the following hypothesis:

Ho: Artificial Intelligence is not perceived more creative than social media content creators.

H1: Artificial Intelligence is perceived more creative than social media content creators.

The Pearson Chi-square test determines whether categorical variables significantly correlate with one another. There is a statistically significant result (p-value =.001) with the Pearson Chi-Square value of 35.535 with 9 degrees of freedom. Similar to the Pearson Chi-Square test, the likelihood ratio (p-value =.000) indicates a significant association.

Table 5

Chi-Square for Q4 and R4

Q4. Which of the following pictures do you think is more creative * R4. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10? Crosstabulation

		R4. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10?				
		1	2	3	4	5
Q4. Which of the following pictures do you think is more creative	A	5	3	16	14	33
	B	3	5	8	11	16
Total		8	8	24	25	49

		6	7	8	9	10
Q4. Which of the following pictures do you think is more creative	A	34	48	67	41	65
	B	16	11	22	11	18
Total		50	59	89	52	83

(A)

(B)

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	35.535[a]	9	0.001
Likelihood Ratio	36.667	9	0.000
Linear-by-Linear Association	13.651	1	0.000
N of Valid Cases	447		

a. 2 cells (10.0%) have expected count less than 5. The minimum expected count is 2.17.

Since the p-value is less than 0.05, the null hypothesis is rejected. As artificial intelligence is more creative than humans, it has a big influence on social media content creators. We can conclude that AI is more creative than humans now that H1 has been accepted.

Chi-Square on Question 5 and its ratings:

To investigate the chi-square test results, we put forth the following hypothesis:

Ho: Artificial Intelligence is not perceived more creative than social media content creators.

H1: Artificial Intelligence is perceived more creative than social media content creators.

The results of the Pearson chi-square test show a strong correlation. With nine degrees of freedom, the test statistic is 36.259, and the p-value is extremely low ($p < 0.05$). There is also a significant correlation revealed by the Likelihood Ratio chi-square test. With 9 degrees of freedom and a test statistic of 29.519, the p-value is once more extremely low ($p < 0.05$). A significant linear association is also revealed by the Linear-by-Linear Association test, which is applied to ordered categorical data. With one degree of freedom, the test statistic is 11.420, and the p-value is extremely low ($p < 0.05$).

Table 6

Chi-Square for Q5 and R5

Q5. Which of the following pictures do you think is more creative * R5. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10? Crosstabulation

		R5. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10?				
		1	2	3	4	5
Q5. Which of the following pictures do you think is more creative	A	15	12	19	29	55
	B	10	13	16	19	22
Total		25	25	35	48	77

		6	7	8	9	10
Q5. Which of the following pictures do you think is more creative	A	30	26	30	17	21
	B	34	23	25	12	19
Total		64	49	55	29	40

(A) (B)

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.259[a]	9	0.000
Likelihood Ratio	29.519	9	0.000
Linear-by-Linear Association	11.420	1	0.000
N of Valid Cases	447		

a. 6 cells (12.0%) have expected count less than 5. The minimum expected count is 0.84.

The null hypothesis is considered to be false because the p-value is less than 0.05. Artificial intelligence plays a major role in the lives of social media content creators because it is more creative than humans. We may draw the conclusion that AI is more creative than people once H1 is approved.

Chi-Square on Question 6 and its ratings:

Ho: Artificial Intelligence is not perceived more creative than social media content creators.

H1: Artificial Intelligence is perceived more creative than social media content creators.

A significant relationship between the categorical variables under study is revealed by the chi-square analysis results. The test statistic of 34.992 with 9 degrees of freedom, which is sensitive to cell counts, was obtained using the asymptotic significance of.000 for the

Pearson Chi-Square test. With 9 degrees of freedom and a test statistic of 37.968, the Likelihood Ratio Chi-Square test—an alternative method to chi-square testing also yielded a significant result. Another indication that a significant association exists is the p-value of 0.000. The test statistic for the Linear-by-Linear Association test was 19.572, df = 1, p = 0.000, indicating significant results.

Table 7

Chi-Square for Q6 and R6

Q6. Which of the following pictures do you think is more creative * R6. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10? Crosstabulation

		R6. How do you rate the difference in creativity between the two pictures on a scale of 1 to 10?				
		1	2	3	4	5
Q6. Which of the following pictures do you think is more creative	A	7	8	12	22	35
	B	7	15	14	23	52
Total		14	23	26	45	87

		6	7	8	9	10
Q6. Which of the following pictures do you think is more creative	A	26	23	15	13	14
	B	45	36	24	26	30
Total		71	59	39	39	44

(A)

(B)

Chi-Square Tests

	Value	Df	Asymptotic Significance (2-sided)

Pearson Chi-Square	34.992[a]	9	0.000
Likelihood Ratio	37.968	9	0.000
Linear-by-Linear Association	19.572	1	0.000
N of Valid Cases	447		

a. 5 cells (13.0%) have an expected count of less than 5. The minimum expected count is 0.91.

DISCUSSION:

We learned from our quantitative study. We found that AI is more creative than humans. AI is more efficient and creative in finding patterns, interpreting data, and handling large numbers. The findings supports H1 that AI is more creative than social media content creators. Most participants preferred AI-generated content. The mean, median, and standard deviation studies suggest AI-generated drawings were more creative.

Human and AI-generated photographs exhibit a significant correlation in chi-square testing. Probability ratio Chi-Square value of 33.919 with 0.000 p-value and Pearson Chi-Square value of 41.963 with exceptionally low 0.000 p-value indicate a substantial association. A 0.000 p-value, degree of freedom, and 17.558 linear-by-linear relationship analysis value suggest a strong linear association.

With all p-values < 0.05, the null hypothesis may be rejected. Participants' preferences reveal that AI is more creative than social media content creators. These results show AI may change social media content creation. Jarrahi (2018) and Parry et al. (2016) found similar results.

Expert systems, robotics, computer vision, natural language processing, and other technologies are named "artificial intelligence." Many firms realize AI improves operations best. AI will impact social media platforms as it progresses. Everything is possible with social media AI.Kane (2017) anticipated social media will incorporate AR, VR, and AI.Jarek & Mazurek (2019) identified AI in numerous marketing fields. Our findings show firms benefit from social media and AI integration. Organizations that utilize AI have a bright future. AI will affect media markets.

AI has several advantages over humans since it uses algorithms and robotics. Computers allow AI to store and analyze more data than human brains, boosting analysis. Access to real-time data eliminates storage concerns. AI creates more creative stuff. AI can find patterns, assess data, and handle massive volumes of data more creatively than humans, which enhances our research.Jarrahi (2018) and Parry et al. (2016) found comparable results.

Technologies driven by AI can produce text, pictures, and audio. Use AI algorithms to generate engaging captions, visuals, and music so content authors can concentrate on harder tasks. AI systems may target groups by analyzing user data and preferences. This makes the content more engaging by making it relevant and relatable. Past data helps AI forecast content preferences and trends. material makers may follow trends and create more popular material.

After-production video and photo editing is improved by AI. For better photos, they may suggest creative adjustments, automatically modify colors, and sharpen. Based on past performance, user preferences, and popular subjects, AI algorithms may recommend new content. This may prompt contemplation. Social media enables creative narrative and interaction. AI can examine social media comments and arguments for mood and language. Information about audience interests and attitudes might help content creators. Content creators may communicate, modify, and discuss with AI. Creative and AI work together to produce innovative content. AI may improve creativity, but unique and valuable content need human intuition, emotion, and subjective understanding. Working together, AI and human creativity frequently produce successful projects.

CONCLUSION

This thesis seeks to examine how artificial intelligence affects social media content generation. Our opening asks: "Who is more creative—human or artificial intelligence in content creation?" We defined two questions to improve precision: AI creativity: how much? Second, how does AI affect content creation?

AI may boost creativity, but human intuition and subjective knowledge are still essential to creating original and relevant material. Best innovative ventures result from AI and human ingenuity coexisting.

The study compares AI's inventiveness to human social media content makers using

quantitative and empirical methods. Examining how artificial intelligence is affecting creativity promotes creativity theories. Studying technology in artistic disciplines may help theories. To understand how social media content producers utilize AI, technological adoption models may be improved. The theory may suggest how AI and humans might develop new things. The research provides a theoretical explanation of human-AI creative collaboration by analyzing how AI influences social media content production. The findings provide a quantitative investigation of AI-era content generation, which may improve media studies theories. Be conscious of audience preferences for AI-generated content. Knowing how audiences respond to AI-produced material vs humans might enhance digital consumer behavior understanding.

Research provides best practices for AI-integrated social media content creation. The thesis results may assist industry experts enhance their approaches and stay competitive. The findings may be utilized by AI content production tool makers to enhance existing tools or construct new ones that better meet social media content producers' needs. AI technology may improve as a result. The findings may also help educational institutions develop curriculum and training programs to prepare content producers for AI-driven changes. Finally, the thesis helps professionals design social media marketing and branding strategies to better their content based on AI-generated material's perceived inventiveness.

Our thesis has contributed to society by presenting insights that may help the community. Comparing AI and human content producers' originality and assessing AI's impact on social media content production expands society's understanding of technology's impact on creativity. These findings may inform the public about the ethical, cultural, and economic impacts of AI on creative processes. The research may also inform the public, educators, and politicians about potential changes in creative sector skills and employment demands, supporting proactive problem-solving and AI's social benefits.

Based on results showing AI is more creative than humans at creating social media material, future research might explore this relationship. A qualitative research might examine which creative fields AI excels in and which human creativity excels in. As AI technology advance, longitudinal research may track social media content providers' evolving views. The ethical and sociological ramifications of social media's expanding use of AI-generated content should also be examined. Researchers and businesspeople may benefit from studying how

creative activities in social media content development teams affect roles, talents, and interaction. Finally, comparative research in different cultures and social media platforms may help explain AI's creative potential in content production.

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