Creationscape of Gen AI: landscape of Ai generated Ads

CAN AI GENERATED IMAGES BE USED FOR MARKETING ?

This topic explores whether AI-generated images(logos or posters) are equivalently perceived as human-created.

If so then, who are my targeted audience(in relation to age)?

PRESENTATION

Creation-scape ?

❑ captures the evolving landscape of content creation, particularly in marketing and advertising, as it incorporates new technologies like AI.

❑ It conveys the idea of a dynamic, expansive environment where AI-generated ads, posters, and creative designs are reshaping traditional processes.

❑ **"Creationscape"** suggests a broader view of how innovation, especially through AI, transforms how visual content is created, scaled, and adopted across industries.

❑ Lastly, it's a blend of "creation" (the act of making) and "landscape" (a broad, changing environment), making it ideal for discussing AI's adoption on the creative world.

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Motivation:

❑ A 2019 study found that **40% of respondents could not distinguish AI-generated art from human-created works**, with many attributing deep emotional connections to AI-generated images, suggesting that AI can tap into emotional responses typically associated with human creativity.

❑ Literature highlights AI's ability to synthesize cultural elements from different regions, producing visual content that resonates with diverse, global audiences. This **cross-cultural adaptability** is something human designers find challenging on a large scale.

❑ In 2020, a landmark study revealed that many consumers are **skeptical of the originality** of AI-generated content, leading to debates about whether AI truly creates or merely replicates.

❑ From an operational standpoint, AI-generated content has been found to **cut design costs by 70%** and reduce time to market by over **50%**.

❑ In 2018, an AI-generated painting sold at auction for over $432,500, showing that even in domains where human creativity is deeply valued, AI has the potential to be seen as a legitimate creative force.

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BACKGROUND

❖ **Role of images and ads in marketing :**Visuals create emotional connections, improve brand popularity , and boost consumer engagement, making them vital tools in marketing.

❖ **Usual ways:** Traditionally, visuals are created by designers using tools like Photoshop, ensuring originality and human touch.

❖ **If AI then what's the benefits :**AI creates visuals faster, reduces costs, personalizes content for audiences, and allows large-scale campaigns with innovative styles.

❖ **Why authenticity is important :** Authentic visuals build trust, enhance consumer loyalty, and avoid skepticism about impersonal or misleading content.

Applications in Advertising and Media

1. Future-Proofing Brand Communication:
As technology evolves, businesses need to stay relevant. Our research can help brands understand how different generations are adopting AI. By keeping up with these changes, companies can modernize their visual content to match trends. This ensures they stay connected to their audience not just today, but in the future as well.

2. Strategic Content Development:
The study can guide brands in creating content that appeals to specific age groups. For instance, younger people might prefer AI-generated visuals because they feel modern and innovative. On the other hand, older audiences might value human-made designs for their authenticity and emotional appeal. . By making logo on this preferences, brands can make their messaging more importantly.

Applications in Advertising and Media

3.Ehical and Brand Trust Policies:
If we see that older people trust human-made content more than AI-generated content, brands need to be transparent. They can let customers know when they use AI in their creative work. This builds trust and reduces fear that AI might replace human creativity. For example, if a brand targets older audiences, they might want to show how AI helps rather than replaces the human touch.

4. Audience Segmentation and Personalization:
It can help brands understand how people of different age groups react to AI vs. human-made content. For instance, younger audiences might prefer AI visuals because they look modern, while older audiences might prefer something that feels more authentic. Brands can use this information to create targeted, personalized campaigns that feel just right for each group.

Here are some AI-Generated Ads :-

The Best AI-Generated Movie

Data Collection Procedures

Introduction to Data Gathering Process

To judge the value and credibility of AI-generated graphics, users will
be asked to participate in a user-interactive survey,
audience engagement, and social media observation.

Blind Preference Surveys:

Show two images, one AI-generated and the other created by human hands, without any identification tags. Determine preferences, ratings, age, profession, and experience with AI applications before.

Rating Exercise Audiences

Provide the audience with only pre-curated sets of AI and human-made visuals to rate their creativity, realism, and preference.
Capture demographic information in addition to their prior exposure to AI.

Social Media Analysis

Create a Facebook page reporting paired images, AI with human-made.
Post Analysis: Do some analyses of likes and engagement for each post.
The demographic analysis is conducted through public profiles of participants.

Here's an example dataset that helps illustrate how preferences for AI-generated images vs. human-made images can be analyzed. The data is collected through blind surveys and social media engagement that describe the choices and demographics of participants

Example Dataset

Participant ID	Image Preference	Rating (1-5)	Age	Occupation	Used AI Before (Y/N)	Survey Type
001	Human	4	25	Graphic Designer	Y	Blind Survey
002	AI	5	34	Engineer	N	Blind Survey
003	Human	3	22	Student	Y	Social Media Feedback
004	AI	4	40	Teacher	N	Blind Survey
005	AI	5	29	Marketing Manager	Y	Social Media Feedback
006	Human	2	19	Student	N	Blind Survey

Social Media Data Example

Post ID	Image Type	Likes	Shares	Age Group Most Engaged	Top Occupation Engaged
001	Human-Made	120	35	25-34	Teachers
002	AI-Generated	200	50	18-24	Students
003	Human-Made	140	45	35-44	Professionals
004	AI-Generated	180	60	25-34	Engineers

Our target audience (e.g., general public, art enthusiasts, designers).-
Gather a diverse sample of participants to ensure representative data.

Hypothesis for AI vs. Human–Created media

Quantitative & Qualitative Data:

Proportion of participants preferring AI-generated images versus human-created images.

Hypothesis Testing

Null Hypothesis (H0)

There is no significant difference between the proportion of people who choose AI-generated and human-created images.

Alternative Hypothesis (H1)

There is a significant difference between the proportion of people who choose AI-generated and human-created images.

Test of proportions:

Once we collect the data then we can test whether AI generated images are adopted more or less than the human generated images by using t test of proportion.

1.Collect Data:

Survey participants to choose between AI and human images. Record their preferences along with demographic details.

2.Calculate Proportions

$:p_1$: Proportion of people who preferred AI-generated images.
p_2 : Proportion of peoples who preferred human-created images.

3.Statistical Test

Use a two-proportion t-test (if comparing two independent groups) or one-sample test (if comparing against a standard like 50% preference).

4.Decision Rule

If p-value < 0.05, reject H_0 . This indicates a significant difference in preferences between AI-generated and human-created images.

Regression Analysis

Purpose: To assess the relationship between independent variables (e.g., age, occupation, prior AI usage) and adoption .

▪**The Dependent Variable**:
▪Which image they preferred the most
▪For Social Media Data: *Likes*.

▪**Independent Variables**:
▪Age.
▪Occupation.
▪Whether they've used AI before (binary: Yes = 1, No = 0)

Logistic Regression Use Case:

Logistic Regression
Use Case: When the dependent variable is binary, such as **preferred image type (AI = 1, Human = 0)**.
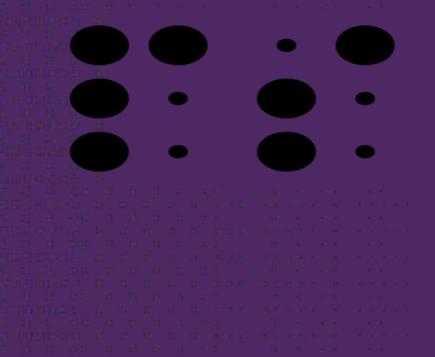**Model:**

$$P(Y = 1) = \frac{e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2}}{1 + e^{\beta_0 + \beta_1 X_1 + \beta_2 X_2}}$$

Where
:**P(Y=1):** Probability of preferring AI-generated images
Xi: Independent variables (e.g., age, occupation)
βi: Coefficients for predictors

Thank you ..... 😇