

# Impact of AI-generated Synthetic Media on Users' Emotion

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## ABSTRACT

AI-generated images and videos are a growing trend on social media, but they come with some drawbacks that can impact how users experience the platform. Some key challenges are Misinformation and Deepfakes, Lack of Authenticity, Attribution and Copyright Issues and Training on biased data. This survey analyses how the emotions are impacted due to synthetic media. The survey was conducted for engineering students across various domains and the questionnaire with its result is discussed in the paper. AI-generated media have the potential to be a powerful tool for social media content creation, but it's important to be aware of the challenges they present. As this technology continues to develop, addressing these issues will be crucial for maintaining a healthy and trustworthy online environment.

## Keywords

Social Media, AI, Impact of AI

## 1. INTRODUCTION

AI is expanding quickly in the tech sector, with applications seen in the food and supply chain industries, chatbots, and content and picture development.[1] When critics said AI art systems, like OpenAI's Dall-E, were stealing people's intellectual property on huge models, AI-generated images grabbed headlines.

Users input the required text format, a topic, and keywords to generate content. After that, the AI technology scrapes content from the internet to create a copy that fits the required format. To add material based on web searches and editing tools, some programs also rewrite an organization's current content. [4] These technologies may take material that already exists and modify it to fit several communication formats. For example, they can convert a blog post into an email draft or a social media post.

## 2. SURVEY CONDUCTED

To understand the impact of synthetic media on users' emotional health, a survey was conducted in a college where 427 students participated from B.Tech, M.Tech and Ph. D.

The questions are framed as follows:

- 1) How familiar are you with AI-generated media (e.g., AI-created music, art, literature, videos)?
- 2) Are you a content creator?
- 3) Do you believe the content is true on social media all the time?
- 4) Is AI-generated media helping you in decision-making?
- 5) Is the trust factor towards AI-generated media is challenge?
- 6) Do you believe AI-generated media has the potential to deepen or alter emotional experiences compared to traditional media?

- 7) Which emotions do you typically feel when consuming AI-generated media? (Select all that apply: joy, sadness, excitement, curiosity, hope, fear, nostalgia, etc.)
- 8) Have you ever felt empathy or a connection with AI-generated characters or narratives?
- 9) How does knowing that media is AI-generated affect your emotional response to it? (e.g., curiosity, scepticism, indifference)
- 10) In your opinion, should there be ethical guidelines or regulations in place regarding the emotional impact of AI-generated media on consumers?

The questions are designed to understand the emotional dependency on Synthetic media and to understand strengths, weaknesses, opportunities and threats.

## 3. RESULTS AND DISCUSSION

The results are shown in the graph for each question: 1) How familiar are you with AI-generated media (e.g., AI-created music, art, literature, videos)?

This pie chart in Fig 1 illustrates the familiarity of respondents with AI-generated media.

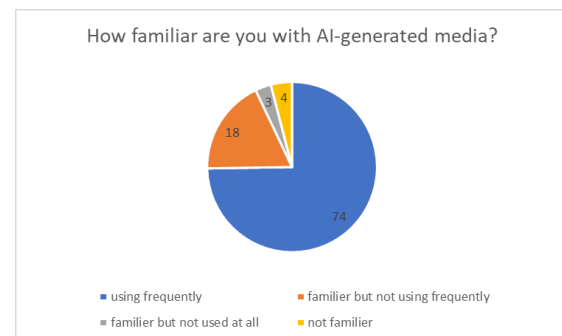


Fig 1: Result of "How familiar are you with AI-generated media?"

Here's a summary of the results:

- a. Using frequently: The largest segment at 74% of respondents. This indicates that a significant majority of the surveyed population are not only familiar with AI-generated media but also use it on a regular basis.
- b. Familiar but not using frequently: 18% of respondents fall into this category. These individuals are aware of AI-generated media but don't engage with it often.
- c. Not familiar: 4% of respondents are not familiar with AI-generated media at all.

- d. Familiar but not used at all: The smallest segment at 3%. These respondents know about AI-generated media but have never used it.

Overall, this chart shows that AI-generated media is well-known and widely used among the surveyed group, with 95% of respondents being at least familiar with it. The high percentage of frequent users (74%) suggests that AI-generated media has become a common part of many people's media consumption or creation habits.

2) The majority of students are content creators, and very few are not. This helps in the understanding of their social media connection.

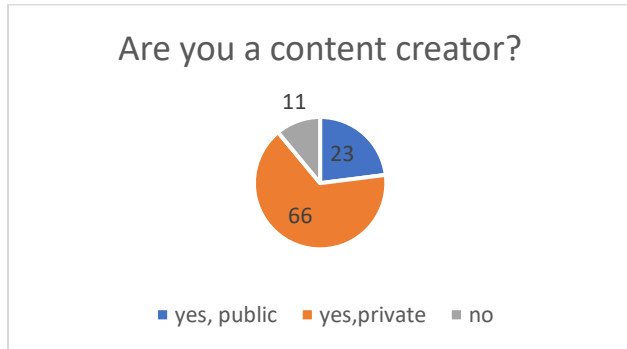


Fig 2: Result of “Are you a content Creator?”

- 3) The question was based on the belief of the content of social media. The result shows almost half of the students don't believe in authenticity of the content and around 17% students believe all the content of the media.

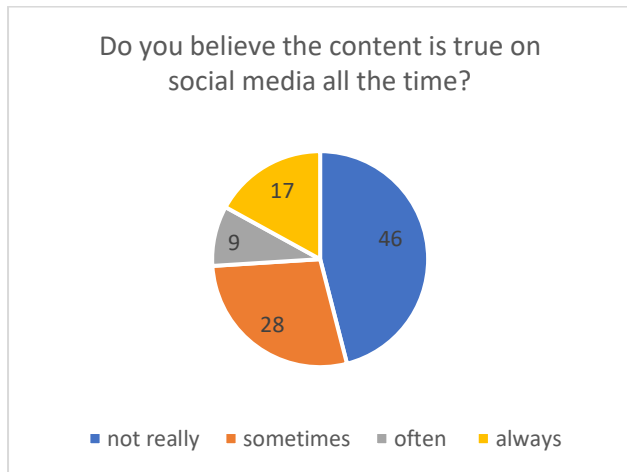


Fig 3: Result of “Do you Believe the content is true on social media?”

- 4) The question is if AI generated content is helping you in decision making. Here, 65% students agreed upon influence of AI- content in decision making and rest were not sure or denied.

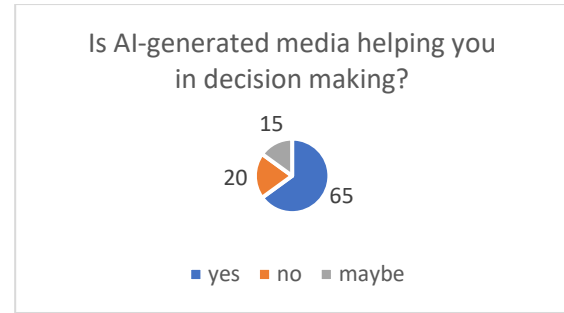


Fig 4: Result of “Is AI-generated media helping you in decision making?”

- 5) The pie-chart following shows the Trust is a challenge when the media is AI-generated which is supported by 77% of them. Whereas, marginal 3% believe trust is not an issue.

Here's a summary of the results:

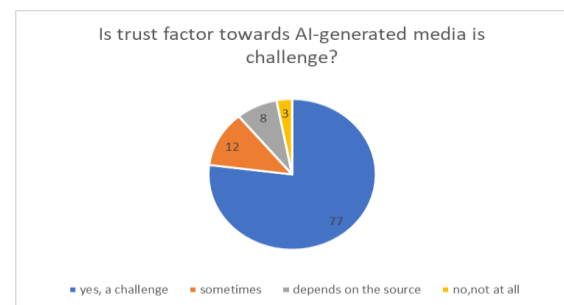


Fig 5: Result of “Is trust factor towards AI-generated media is challenge?”

1. Yes, a challenge: 77% of respondents believe that trust is indeed a challenge when it comes to AI-generated media. This represents a significant majority.
2. Sometimes: 12% of respondents feel that trust can be a challenge in some instances, but not always.
3. Depends on the source: 8% of respondents believe that the trustworthiness of AI-generated media is contingent on its source.
4. No, not at all: Only 3% of respondents do not see trust as a challenge with AI-generated media.

- 6) Here majority of the participants believed in not affecting by the synthetic media.

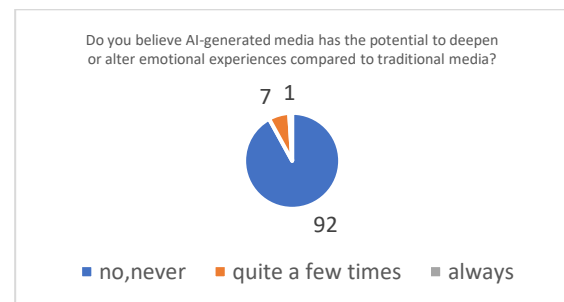
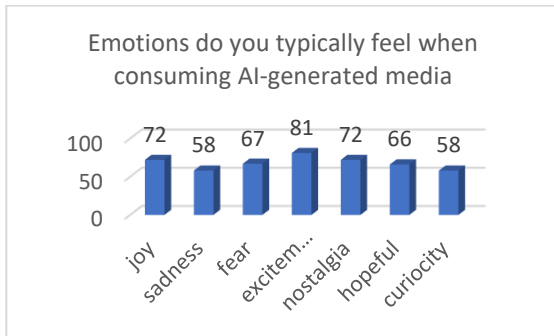


Fig 6: Result of “Do you believe AI-generated media has the potential to deepen or alter emotional experiences compared to traditional media?”

7) A summary of the results:

1. Excitement: The most common emotion, with 81 respondents.
2. Joy and Nostalgia: Tied for second place, both with 72 respondents.
3. Fear: 67 respondents reported feeling this emotion.
4. Hopeful: 66 respondents felt hopeful.
5. Sadness and Curiosity: Tied for the least common emotions, both with 58 respondents.

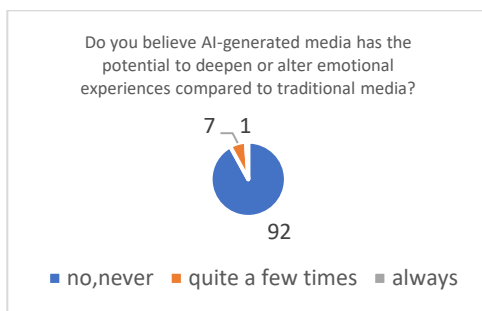


**Fig 7: Result of All Emotions felt**

Interestingly, the graph shows a mix of both positive and negative emotions. Excitement, joy, and nostalgia (all generally positive emotions) are among the most commonly reported. However, fear also ranks relatively high, indicating that AI-generated media can evoke a range of emotional responses, from enthusiasm to apprehension.

8) The results show:

- 92% of respondents answered "no, never."
- 7% answered "quite a few times"
- 1% answered "always"

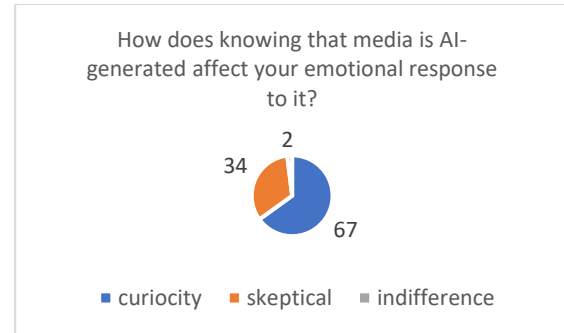


**Fig 8: Result of "Potential to deepen emotion"**

The overwhelming majority of respondents do not believe AI-generated media can deepen or alter emotional experiences compared to traditional media. Only a small fraction think it can do so occasionally, and an even smaller percentage believe it can always have this effect.

This suggests most people surveyed are skeptical about AI-generated media's ability to impact emotions in ways that differ from or surpass traditional media. The data indicates a strong bias against attributing enhanced emotional capabilities to AI-generated content.

9) The result shows that majority of them are curious to know more about synthetic media without doubting it.



**Fig 9: Result of "How does knowing the media is AI-generated affect your emotional response to it?"**

10) Majority of the students are suggesting strong ethical guidelines must be there to control the misuse of AI.



**Fig 10: Result of "Should there be ethical guidelines?"**

Based on the three graphs provided, here's a summary of the key findings regarding AI-generated media:

1. Emotional Impact:

The vast majority (92%) of respondents do not believe AI-generated media has the potential to deepen or alter emotional experiences compared to traditional media. Only 7% think it can do so occasionally, and a mere 1% believe it always can.

2. Emotional Responses:

When consuming AI-generated media, people experience a range of emotions. Excitement is the most common (81 respondents), followed by joy and nostalgia (72 each). Fear is also relatively high (67), while sadness and curiosity are the least reported (58 each).

3. Familiarity and Usage:

There's a high level of familiarity and engagement with AI-generated media:

- 74% use it frequently
- 18% are familiar but don't use it often
- 4% are not familiar at all
- 3% are familiar but have never used it.

#### **4. CONCLUSION**

In conclusion, while most people are familiar with and frequently use AI-generated media, they generally don't believe it has a greater emotional impact than traditional media. However, when consuming AI content, users report experiencing a wide range of emotions, both positive and negative. This suggests a complex relationship between users and AI-generated media, characterized by high engagement but some scepticism about its emotional depth.

#### **5. REFERENCE**

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