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### Title

Analyzing public reactions to AI Copyright: Key issues surrounding GenAI content (1398 words).

# 1 Introduction

The rapid rise of generative-AI systems like DALL-E, Midjourney, etc have revolutionized content creation but also sparking a debate over copyright protections. As these tools have become popular for generating images and other creative content, questions about legal rights and intellectual property have become urgent [1]. In response to growing concern from content creators, the U.S. Copyright Office has taken an initiative and as a part of this, they issued a request for Notice of Inquiry (NOI) on August 30, 2023 to gather public input [2]. This move reflects the complex challenges posed by AI to traditional copyright frameworks, as highlighted in the analysis of the disruptive impact of generative AI on copyright law [3].

While the Office analyses around 10,000 replies from professionals, organizations, legal experts, the broader public sentiment remains largely unexplored. This study intends to capture diverse opinions and sentiments expressed on X(Twitter), providing an insight into public opinion on this evolving issue and to understand the overall themes through which public is expressing their support or objection. The approach aligns with the growing need to understand the complexity of this issue, as highlighted by recent discussions in the World Economic Forum [4].

## 2 Research question

How does public sentiment manifest regarding AI copyright and what are the major themes/topics emerge as reasons for support or opposition regarding GenAI content?

### 3 Method

### 3.1 Data

Data for this study was collected from X (Twitter) due to its global reach and real-time discussions, making it an ideal platform for capturing public sentiment on AI copyright. The platform's diverse user base provided a range of opinions not reflected in formal submissions to the U.S. Copyright Office. A total of 50 data points were manually collected using X's advanced search function, focusing on relevant hashtags(#AIcopyright) and keyword combinations like "GenerativeAI copyright", "GenAI copyright", "U.S. copyright AI", "AIart copyright", "AIart infringement."

The data collection period spanned from July 30 to September 30,2023, allowing for sentiment analysis before and after the August 30,2023 Notice of Inquiry from the U.S. Copyright Office. This strategic window maximized the number of data points.

Data Inclusion criteria:

- Comments must be in English.
- Consider only one comment per account.
- Exclude comments from 'News/Media accounts'.
- Exclude private comments.

### 3.2 Analysis

The collected data underwent a qualitative content analysis to identify category, sentiments, and stakeholder perspectives regarding AI copyright issues. This analysis will employ a custom codebook developed to capture the following categories for each comment:

#### 1. Date

# 2. Category

Category	Description	Example
Ownership	Comments about who holds the	Prompts aren't enough to claim
	rights to AI-generated works.	ownership of AI art. Just as some-
		one who commissions an artist
		does not own the copyright to the
		pieces they verbally or textually
		requested the artist to do.
Legal Implication	Comments discussing laws sur-	"Author George R.R. Martin is
	rounding AI generated or AI as-	suing OpenAI for copyright in-
	sisted content and about court	fringement. In his statement he
	cases.	claims "Their AI chatbot has been
		churning out bland and pointless
		stories."
Ethical Concern		Generative AI is built on the origi-
	of copyrighted material for train-	nal work of creatives without com-
	ing AI models.	pensation or consent. Pass it on.
		And don't use it. Any of it.
Economic Impact	Comments about job loss con-	But a reminder to artists, Gener-
	cerns.	ative AI is replacement tech that
		exploits your work and the work
		of your peers. It also puts you and
		your clients at risk too. Avoid at
		all costs.

# 3. In favor of GenAI?

In favor of GenAI?	Description	Example
Yes	Overall sentiment of comment	I don't need the author's permis-
	leaning towards supporting	sion to learn from their books or
	GenAI content.	to teach anyone from their books.
		Why is it different with AI?
No	Overall sentiment of comment	Generative AI is built on the origi-
	leaning towards opposition of	nal work of creatives without com-
	GenAI content.	pensation or consent. Pass it on.
		And don't use it. Any of it.
Neutral	No stance provided regarding	I honestly believe in AI training
	GenAI content.	only when content artists consent
		to the use of their works for train-
		ing. Otherwise, we risk turning
		our progress dreams into night-
		mares.

4. Stakeholder - An individual or group with a specific perspective, interest, or concern regarding AI-generated content and copyright issues.

Stakeholder	Example
Artist	This is what baffles me. Artists by creation of the
	art have full copyright. Having full copyright means
	artists are the only ones that can: use, distribute, or
	alter the artwork. Ai is in direct copyright violation
	by using and altering our artwork.
Author	Furious - these are just some of my books that have
	been used to train AI to replace authors.
Creator	This. we are not saying that an AI broke the law
	by "being inspired" or "learning". That would be
	silly. We are saying that the developers broke the
	law by making copies of our work for commercial
	purposes, without proper licenses.
General Public	"It's their unlicensed use of copyrighted text and
	images as "training data," masquerading as "learn-
	ing" – which leaves human writers and artists com-
	peting against computers using their own words and
	ideas to put them out of business." These are cur-
	rent harms AI is causing.
Legal Analyst	Excellent thread from an IP lawyer. The US copy-
	right office has again refused to allow copyright reg-
	istration to that AI generated painting that won
	an art competition. AI advocates keep saying how
	artists are losing the battle, adapt or die, yet here
	we are with another win.

If there is no mention of author, artist or legal analyst they are categorized as General Public. If they are creative professionals but not specifically mentioned as author or artist, they are categorized as Creator.

The development of the codebook was an iterative process involving continuous refinement as data were collected and analyzed. The codebook was finalized after reaching saturation, where no new themes emerged while considering a larger sample without timeframe constraints.

### 4 Results

Based on the qualitative content analysis of the provided data, here are the key findings:

Category Analysis The analysis reveals that ethical concerns are the most prominent issue.

- Ethical concern(21)-42%
- Ownership(14)-28%
- Economic Impact(8)-16%
- Legal implication(7)-14%

The primary theme under this category was the unauthorized use of content for training AI models, with users expressing fears about exploitation and lack of consent from creators.

 $Stakeholder\ Analysis$  The general public and creators are the most vocal stakeholders.

- Creator(15)-30%
- Artist(13)-26%
- General Public(11)-22%
- Author(8)-16%
- Legal analyst(3)-6%

This suggests widespread interest and concern from those directly affected by AI's impact on creative works. Most comments from content-creating professionals (creators, artists, authors) indicate their deep involvement in this issue. Meanwhile, the general public, as interested observers, have significant presence and there are few instances where Legal analysts have shown their interest.

**Sentiment Analysis** The sentiment analysis on 'In favor of GenAI?' shows a predominantly negative view towards AI in copyright contexts.

- No(29)-58%
- $\ \ Neutral (11) \text{--} 22\%$
- Yes(10)-20%

## $Comparative \ analysis$

- Ethical concerns dominate discussions (48%) among comments opposing GenAI..
- Ownership is the most discussed theme(60%) in comments supporting GenAI.
- Legal implications are frequently mentioned(57%) by neutral commenters, highlighting uncertainties in current copyright laws.

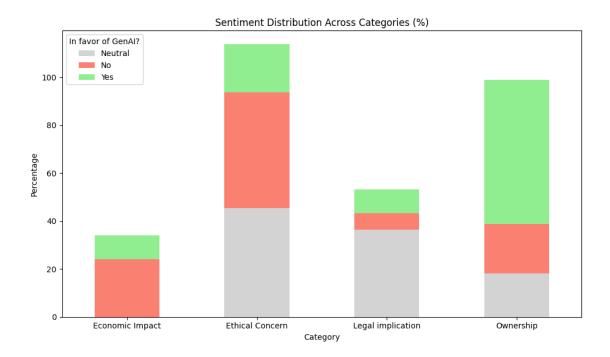


Fig. 1. The sentiment distribution chart revealing a predominantly negative stance towards AI, especially in ethical and ownership contexts.

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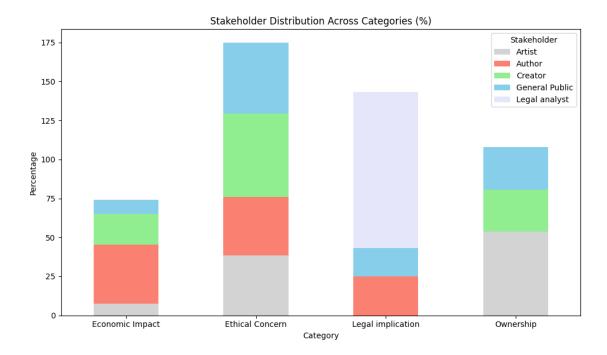


Fig. 2. Illustration of how different stakeholders engage with various categories of AI-related issues, highlighting the prominence of ethical concerns.

### 5 Conclusion and Limitations

Conclusion The analysis revealed key insights into public sentiment on AI copyright. Ethical concerns, especially about unauthorized content use for AI training, emerged as the dominant issue. This aligns with the study's goal of understanding public sentiment and the reasons for support or opposition to AI copyright. Creators, artists, and authors voiced strong opposition, focusing on exploitation and consent. On the other hand, those in favor of GenAI primarily focused on the ownership aspect, suggesting a belief that the technology offers new opportunities for content creation and management.

Stakeholder engagement showed active involvement from creators and the general public, with creators being more concerned about ethical and legal issues. Sentiment analysis confirmed that opposition to GenAI, mainly due to ethical concerns, was the prevailing viewpoint.

**Limitations** While the intent was also to analyze temporal shifts in public sentiment following the NOI, the limited sample was insufficient to draw conclusive insights. Hashtags alone were inadequate for tracking relevant conversations, as many users did not consistently use them. Instead, keyword-based searches were employed, but finding the right combination of terms required additional effort.

### References

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