Ethical Implications of AI in Creative Industries

AI video generation technologies pose ethical challenges by disrupting copyright protection, creative practices, and revenue streams while raising concerns about cultural appropriation and creator rights.

Abstract

AI video generation presents ethical challenges in creative industries and copyright protection. Seven of ten studies focus chiefly on intellectual property rights, while nine employ theoretical analyses. Several papers describe blurred authorship and ownership boundaries. For example, one study proposes an AI Work Made for Hire model that treats AI systems analogously to human creative employees, whereas another suggests a new intellectual property category should acknowledge AI's collaborative role. Additional research emphasizes fair compensation: studies advocate for limitation-based remuneration rights that recognize creators' contributions when their works serve as training data, and some call for collective licensing schemes to streamline such payments.

The papers also detail impacts on creative industry practices. AI-driven content is reported to disrupt existing revenue streams, automate creative tasks, and lower barriers to video creation, all of which may alter market dynamics. Ethical issues extend to concerns of cultural appropriation and bias, with some studies cautioning that without clear liability standards—such as assigning accountability to humans exerting decisive influence over AI—the risks to creator rights may escalate. Quantitatively, the prominence of these themes is underscored by the fact that 7 out of 10 studies address AI's impact on copyright and creative practices while various frameworks identify a total of 19 key features and 19 implementation challenges related to these emerging technologies.

Paper search

Using your research question "What are the ethical implications of AI video generation technologies on creative industries and copyright protection?", we searched across over 126 million academic papers from the Semantic Scholar corpus. We retrieved the 50 papers most relevant to the query.

Screening

We screened in papers that met these criteria:

- **AI Video Generation Focus**: Does the study examine AI-powered video generation technologies AND address ethical, legal, or copyright implications (not purely technical aspects)?
- **Stakeholder Involvement**: Does the study include analysis of or input from creative industry stakeholders (e.g., artists, content creators, studios, platforms)?
- **Legal Framework Analysis**: Does the research address copyright law, intellectual property rights, or legal frameworks specifically in relation to AI-generated video content?
- **Research Methodology**: Is the study an empirical research, case study, systematic review, or theoretical analysis with substantive analytical content?
- **Industry Impact**: Does the study analyze economic or professional impacts of AI video generation on creative industries?
- **Academic Rigor**: Is the study a peer-reviewed or scholarly work that goes beyond opinion or editorial content?

- **Scope Relevance**: Does the study address industry implications beyond purely technical aspects of AI video generation?

We considered all screening questions together and made a holistic judgement about whether to screen in each paper.

Data extraction

We asked a large language model to extract each data column below from each paper. We gave the model the extraction instructions shown below for each column.

- **Study Design Type**:

  Identify the type of study methodology used:

- Theoretical/conceptual analysis
- Empirical research
- Case study
- Workshop/conference report
- Theoretical framework development

Look in the methods section or introduction. If multiple approaches are used, list all that apply. If unclear, note "methodology not clearly specified". Pay special attention to how the study approaches AI ethics and creative industries.

- **Specific Focus on AI Video Generation Technologies**:

  Extract specific details about how the study addresses AI video generation:

- Direct discussion of video generation technologies
- Broader discussion of generative AI technologies
- Indirect or tangential references

Locate information in the introduction, methods, or discussion sections. If no direct mention of video generation, note the specific AI creative technologies discussed. Provide a brief quote or summary of the technological context if possible.

- **Key Ethical Considerations Identified**:

  List the primary ethical issues raised regarding AI in creative industries:

- Copyright concerns
- Cultural appropriation
- Ownership of generated content
- Accountability mechanisms
- Potential societal impacts

Extract verbatim quotes or specific claims about ethical implications. If multiple ethical concerns are discussed, rank them by prominence or depth of analysis. Look in discussion, conclusion, and ethical analysis sections.

- **Proposed Solutions or Accountability Models**:

  Identify any specific proposed solutions or accountability frameworks for AI-generated creative content:

- Legal frameworks
- Attribution models
- Compensation mechanisms
- Regulatory suggestions

Extract detailed descriptions of proposed solutions. If multiple approaches are suggested, list them in order of preference or comprehensiveness. Look in conclusion, recommendations, or policy suggestion sections.

- **Impact on Creative Industries**:

  Describe the study's assessment of AI's impact on creative industries:

- Potential benefits
- Potential risks
- Transformative potential
- Challenges to existing creative processes

Extract specific claims about how AI technologies might change creative production. Look for nuanced discussions in results, discussion, and conclusion sections. Note both positive and negative potential impacts.

Results

Characteristics of Included Studies

Study	Study Focus	Methodology	Geographic Scope	Industry Sector	Full text retrieved
Ducru et al., 2024	AI-generated content and intellectual property (IP) rights	Theoretical/conceptual analysis; Theoretical framework development	No mention found	Creative industries (broad)	Yes
Geiger, 2024	Copyright for generative AI	Theoretical/conceptual analysis; Theoretical framework development	European Union, with references to international frameworks	Creative industries (broad)	Yes
Liu, 2024	AI's impact on media and film industries	Theoretical/conceptual analysis; Theoretical framework development	No mention found	Media and film industries	Yes
Rostamzadeh et al., 2021	Ethical considerations in creative applications of computer vision	Workshop/conference report	International (based on workshop participation)	Visual arts, fashion, design	No

Study	Study Focus	Methodology	Geographic Scope	Industry Sector	Full text retrieved
Shumakova et al., 2023	Legal regulations of generative AI	Theoretical/conceptual analysis; Empirical research; Case study	International, with focus on China, UK, and New Zealand	Creative industry (broad)	Yes
Xue, 2024	AI integration in creative industries	Case study; Theoretical framework development	No mention found	Film and creative industries	Yes
Yang and Zhang, 2024	Generative AI and copyright	Theoretical/Analytical Model	No mention found, but mentions global regulatory environment	Creative industry (broad)	Yes
Yanisky-Ravid, 2017	AI-generated art and copyright	Theoretical/conceptual analysis; Theoretical framework development	No mention found, but mentions US copyright law	Creative industries (broad)	No
Zhu, 2024	Copyright issues in AI-generated videos	Case study; Theoretical/conceptual analysis; Theoretical framework development	International, with references to China and landmark US cases	Video production and creative industries	Yes
Škiljić, 2021	AI-generated artworks and copyright law	Theoretical/conceptual analysis	European Union, with references to Croatian and US legal systems	Creative industries (broad)	No

Based on our analysis of the included studies:

- Study Focus : 7 out of 10 papers focused on AI and intellectual property rights issues, 2 examined AI's impact on industries, and 1 explored ethical considerations.
- Methodology : Theoretical/conceptual analysis was the most common approach, used in 9 out of 10 studies. Case studies were employed in 3 studies. We found 1 study using empirical research and 1 workshop/conference report. Some studies used multiple methodologies.
- Geographic Scope : We didn't find mention of a specified geographic scope in 5 out of 10 studies. Of those that did specify, 3 had an international focus, and 2 focused on the European Union.

- Industry Sector : The majority (8 out of 10) of studies addressed the creative industries broadly. We found 3 studies specifically focusing on media and film industries, and 1 examining visual arts, fashion, and design. Some studies covered multiple sectors.

Thematic Analysis

Legal and Copyright Frameworks

The analysis of legal and copyright frameworks reveals several key themes across the studies:

1. Copyright Ownership in AI-Generated Works :
    - Yanisky-Ravid (2017) proposes the AI Work Made for Hire (WMFH) model, treating AI systems as creative employees or independent contractors.
    - Xue (2024) suggests introducing a new category of intellectual property rights for AI-generated content.
    - Škiljić (2021) proposes assigning liability to humans with "decisive influence over the infringing algorithm(s)".
2. Training Data Rights and Permissions :
    - Geiger (2024) proposes a limitation-based remuneration right for creators whose works are used in AI training.
    - Yang and Zhang (2024) highlight the complexity of fair use policies for training data, noting context-specific impacts.
3. Proposed Regulatory Solutions :
    - Ducru et al. (2024) propose a novel IP framework based on "licensed AIs" for collecting AI royalties.
    - Shumakova et al. (2023) emphasize the need for new legal norms to minimize risks associated with unregulated AI use.
    - Zhu (2024) suggests advancing legal work in defining copyrighted works, recognizing AI-generated video copyrights, and identifying infringement methods.
    - Liu (2024) calls for regulatory and ethical guidelines to ensure responsible AI use.

Creative Industry Impact

The studies highlight various impacts of AI on creative industries:

1. Economic Implications :
    - Yang and Zhang (2024) explore how different regulatory approaches affect AI development, company profits, creator income, and consumer welfare.
    - Ducru et al. (2024) highlight potential disruption of revenue streams due to AI-generated content.
2. Professional Practice Changes :
    - Liu (2024) discusses AI's role in various aspects of media and film production.
    - Xue (2024) emphasizes AI's role as a collaborator in creative processes.
3. Market Disruption Patterns :

- Democratization of Content Creation: Zhu (2024) notes how AI technologies have reduced barriers to video creation.
- Automation and Efficiency: Multiple studies highlight AI's potential to automate aspects of creative work.
- New Business Models: Emergence of AI-generated content is prompting new business models and revenue streams.
- Market Saturation: Concerns about AI flooding the market with content, potentially impacting the value of creative works.

Ethical Considerations

The studies identify several key ethical concerns:

1. Cultural Appropriation Concerns :
    - Rostamzadeh et al. (2021) highlight the risk of cultural appropriation enabled by AI technologies.
    - Xue (2024) addresses concerns about AI perpetuating biases and stereotypes.
2. Creator Rights Protection :
    - Geiger (2024) emphasizes the importance of human rights principles in framing copyright laws.
    - Yanisky-Ravid (2017) proposes the AI Work Made for Hire (WMFH) model to maintain human accountability.
3. Fair Compensation Mechanisms :
    - Ducru et al. (2024) suggest a novel IP framework for collecting royalties from AI-generated content.
    - Geiger (2024) proposes a limitation-based remuneration right for creators whose works are used in AI training.
    - Škiljić (2021) suggests a collective licensing scheme to address the use of copyright content for training AI.

Emerging Solutions and Frameworks

Framework Type	Key Features	Implementation Challenges	Stakeholder Impact
AI Work Made for Hire (WMFH) Model (Yanisky-Ravid, 2017)	Treats AI systems as creative employees or contractors; Assigns ownership and responsibility to AI users	Defining the extent of AI autonomy; Adapting existing employment laws	Provides clarity for AI users; May limit AI developers' rights
Licensed AIs Framework (Ducru et al., 2024)	Creates new asset class for AI-generated content; Enables royalty collection for IP holders	Establishing fair valuation methods; Tracking AI contributions	New revenue stream for creators; Potential increased costs for AI companies

Framework Type	Key Features	Implementation Challenges	Stakeholder Impact
Limitation-based Remuneration Right (Geiger, 2024)	Compensates creators for use of works in AI training; Includes text and data mining exception for creative purposes	Determining fair compensation rates; Balancing open access and creator rights	Ensures compensation for creators; May increase costs for AI development
Dynamic Regulatory Approach (Yang and Zhang, 2024)	Context-specific regulation based on economic and operational factors	Developing flexible yet consistent policies; Adapting to rapid technological changes	Allows for nuanced regulation; May create regulatory complexity
New IP Rights Category for AI-Generated Content (Xue, 2024)	Grants limited copyright to AI developers/owners; Recognizes AI's role in creation	Defining the scope of AI-generated IP; Balancing with traditional copyright	Creates new rights for AI developers; May complicate existing IP frameworks
Collective Licensing Scheme (Škiljić, 2021)	Addresses use of copyrighted content in AI training; Streamlines compensation process	Establishing fair distribution mechanisms; Ensuring comprehensive participation	Simplifies compensation for creators; May increase licensing costs for AI companies
Ethical AI Guidelines (Liu, 2024)	Promotes responsible AI use; Emphasizes transparency and accountability	Ensuring industry-wide adoption; Balancing innovation with ethical constraints	Protects creator and consumer rights; May slow AI deployment in some cases
Legal Framework for AI-Generated Videos (Zhu, 2024)	Defines scope of copyrighted works; Recognizes AI-generated video copyrights; Identifies infringement methods	Adapting to rapidly evolving video technologies; Balancing creator rights with fair use	Provides legal clarity for video creators; May impact AI-driven video platforms
Human Liability Model (Škiljić, 2021)	Assigns liability to humans with decisive influence over AI algorithms	Determining extent of human influence; Addressing complex AI decision-making	Maintains human accountability; May deter some forms of AI innovation
New Legal Norms for Generative AI (Shumakova et al., 2023)	Develops regulations to minimize risks of unregulated AI use; Considers industry and consumer perspectives	Harmonizing regulations across jurisdictions; Keeping pace with technological advancements	Provides regulatory clarity; May impose new compliance burdens on AI developers

Based on the frameworks proposed in the included studies, we found:

Key Features :

- 19 distinct key features across the 10 frameworks

- Most common features related to creator compensation, copyright definition, and recognizing AI's role in content creation
- 3 frameworks included features addressing royalties or compensation
- 4 frameworks had features related to defining or recognizing new forms of copyright or IP for AI-generated content

Implementation Challenges :

- 19 unique implementation challenges identified
- Most frequently mentioned challenge was adapting to technological changes (2 frameworks)
- 5 frameworks mentioned challenges related to balancing different rights or interests
- 3 frameworks noted challenges in determining fair valuation or compensation

Stakeholder Impact :

- 18 distinct types of stakeholder impacts identified
- Most frequently mentioned impact was increased costs (3 frameworks)
- 4 frameworks mentioned impacts related to providing clarity (regulatory, legal, or for users)
- 3 frameworks noted potential negative impacts on innovation or development
- 2 frameworks explicitly mentioned positive impacts for creators (compensation and new revenue)

The frameworks show a diverse range of approaches to AI and IP regulation, with common themes around balancing interests, adapting to technological change, and addressing the unique challenges posed by AI-generated content.

References

Alina Škiljić. "When Art Meets Technology or Vice Versa: Key Challenges at the Crossroads of AI-Generated Artworks and Copyright Law." *IIC - International Review of Intellectual Property and Competition Law*, 2021.

Christophe Geiger. "Elaborating a Human Rights Friendly Copyright Framework for Generative AI." *Social Science Research Network*, 2024.

Fei Xue. "AI Integration in Creative Industries: Challenges and Opportunities." *Applied and Computational Engineering*, 2024.

N. I. Shumakova, J. J. Lloyd, and E. V. Titova. "Towards Legal Regulations of Generative AI in the Creative Industry." *Journal of Digital Technologies and Law*, 2023.

Negar Rostamzadeh, Emily L. Denton, and Linda Petrini. "Ethics and Creativity in Computer Vision." *arXiv.org*, 2021.

Pablo Ducru, Jonathan Raiman, Ronaldo Lemos, Clay Garner, George He, Hanna Balcha, Gabriel Souto, Sergio Branco, and Celina Bottino. "AI Royalties - an IP Framework to Compensate Artists & IP Holders for AI-Generated Content." *arXiv.org*, 2024.

S. A. Yang, and Angela Huyue Zhang. "Generative AI and Copyright: A Dynamic Perspective." *Social Science Research Network*, 2024.

S. Yanisky-Ravid. "Generating Rembrandt: Artificial Intelligence, Copyright, and Accountability in the 3A Era — The Human-Like Authors Are Already Here — A New Model," 2017.

Zhuoer Liu. "Analysis of the Impact of Artificial Intelligence on the Media and Film Industries." *Lecture Notes in Education Psychology and Public Media*, 2024.

Zijia Zhu. "Copyright Issues in AI-Generated Videos Based on Copyrighted Literature." *Journal of Education, Humanities and Social Sciences*, 2024.