

Disclaimer:

This primer is intended solely for informational purposes. The content reflects the current discussion on copyright issues as of [Month/Year] and does not constitute legal advice or a legally binding opinion. Due to its general nature, the information provided cannot address the specifics of individual cases. For advice tailored to a particular situation, readers should consult qualified legal experts.

PRIMER 2 — AI OUTPUT & COPYRIGHT**1. Introduction**

The proliferation of generative AI systems has created profound uncertainty regarding the copyright status of AI-generated outputs. As AI models increasingly produce text, images, music, video, and software code at scale, questions arise regarding:

1. Whether AI-generated outputs can be protected by copyright,
2. Who qualifies as the author,
3. When AI outputs infringe existing rights, and
4. Who bears liability for unlawful outputs.

The EU's legal framework remains grounded in human authorship, and this principle shapes all analysis of AI output (Lucchi, 2025a). At the same time, courts around the world are seeing an increasing number of disputes involving AI-generated content, with significant implications for developers and deployers.

This Primer provides a structured analysis of the EU rules relevant to AI outputs, examines referential case law, outlines risks, and provides guidance for compliance.

2. Copyright Protection and Human Authorship2.1 EU Standard of Originality

EU copyright law protects only works that are the *author's own intellectual creation* (Peukert, 2024). This standard, established by the Court of Justice of the European Union (CJEU)¹, emphasises that:

- A work must reflect free and creative choices made by a human creator.
- A work must bear the personal stamp of its author.

2.2 Consequences for AI-generated content

AI-generated content without human creative input is not protected.

¹ Two landmark CJEU cases are core to this interpretation:

1. *Infopaq International A/S v. Danske Dagblades Forening* (C-5/08, 2009)
The Court held that even short extracts may be protected if they reflect the author's creative expression. Key principle: originality requires identifiable human choices.
2. *Painer v. Standard VerlagsGmbH* (C-145/10, 2011)
The Court confirmed that creative control exercised in the process of creating a portrait photograph constituted originality, despite the use of technological tools. Key principle: copyright protection attaches to human creativity, not to the mere operation of tools.

If an AI system autonomously generates content without human decision-making shaping the expression, the result cannot meet the EU originality standard.

Legal outcome:

→ The work falls into the public domain.

→ No copyright arises in favour of the developer, deployer, or user.

AI-assisted content may be protectable.

Where a human meaningfully contributes to the expressive aspects—e.g., through:

- iterative prompting with creative decisions,
- curating outputs,
- editing or transforming generated material,
- combining AI-generated elements with human-created components,
- selecting from multiple outputs based on creative judgment,

the final result may qualify as a human-authored work.

Legal outcome:

→ Copyright may arise in favour of the human creator.

→ Protection depends on the degree and nature of human creative choices.

2.3 Prompts and authorship

- A simple prompt does *not* qualify as a creative contribution. This may even be the case if a prompt is complex (Lucchi, 2025b). Hence persons prompting do not the authorship regarding the output of a generative AI system.
- A complex, creative, iterative prompting process *may* constitute a sufficiently original human contribution, depending on the circumstances.

Prompts are instructions, not expressions; they support creativity but do not themselves guarantee authorship.

3. Infringement Risks in AI Outputs

Even if an AI output is not itself protected by copyright, it may infringe existing copyrighted works (Quintais, 2025); (Rosati, 2025). This occurs when an output:

- reproduces protected expression from training data,
- imitates characters, imagery, or distinctive styles too closely,
- generates content derivative of specific works,
- mirrors structure, plot, composition, or melody,
- contains memorised fragments of copyrighted material.

Three categories of infringement risk are particularly relevant:

3.1 Memorisation and Verbatim Output

Generative AI models may reproduce portions of copyrighted texts, code, music, or images, especially where:

- training data included duplicated content,
- models were trained on unfiltered datasets,
- prompts elicit recall “repeat the first paragraph of...” (Ahmed et al., 2026).

Such reproductions constitute acts of unauthorised copying unless an exception applies (which, in practice, is extremely rare in output scenarios).

3.2 Reproduction of Copyrighted Characters or Artistic Styles

Outputs may:

- visually reproduce well-known fictional or cinematic characters,
- replicate the unique appearance of animated characters,
- imitate artistic styles in ways that approach protected expression,
- generate scenes strongly resembling copyrighted works.

While “style” as an abstract concept is generally not protected, specific expression of a style—including recurring motifs, character design, composition, or colour schemes—may be protected.

3.3 Synthetic Outputs Based on Protected Audiovisual Works

AI-generated videos or animations may unintentionally reproduce:

- trademarked or copyrighted elements of films,
- choreographies,
- scenes,
- character likenesses.

In such cases, the AI output may effectively constitute an unauthorised derivative work.

4. Liability for Copyright-Infringing AI Outputs

Liability may fall on multiple actors depending on the factual situation.

4.1 Users

Users may be liable – especially if output is published or used for commercial purposes - if they intentionally:

- generate content mimicking protected works,
- distribute infringing outputs,
- circumvent safety mechanisms.

In many commercial contracts, AI providers warn users that they are responsible for ensuring that outputs are lawful. However, users are not the only potentially liable parties.

4.2 Deployers

Deployers (organisations integrating AI systems into their products or workflows) may be liable if they:

- fail to implement reasonable output-filtering mechanisms,
- allow automated generation of infringing content at scale,
- distribute synthetic content without verifying legality.

Deployers may also have obligations arising from:

- consumer law,
- platform liability rules,
- contractual obligations with licensors,
- the AI Act (i.e. if deploying high-risk systems).

4.3 Developers / Model Providers

Model providers may be liable where:

- outputs consistently reproduce copyrighted works,
- the model has been trained on unlicensed material,
- safety filters fail to prevent foreseeable infringement,
- disclaimers attempt to shift liability in ways inconsistent with mandatory copyright law.

Several high-profile global lawsuits have targeted model developers based on the behaviour of output systems, asserting that infringing outputs reflect underlying unlawful training practices. The legal situation in this regard has yet to be clarified.

5. Interaction with the AI Act

While copyright law governs the protectability and infringement of outputs, the AI Act imposes complementary obligations on developers and deployers of general-purpose AI systems (Guadamuz, 2024).

5.1 Transparency Requirements

Developers and deployers must in general disclose when content:

- is artificially generated,
- constitutes a deepfake,
- may influence the public in contexts such as political communication (Art 50 AI-Act).

These requirements seek to prevent public confusion and enhance accountability.

5.2 Output Risk Mitigation

Under the AI Act respectively the General-Purpose AI (GPAI) Code of Practice, developers must implement:

- measures to prevent generation of infringing content,
- filtering and similarity detection systems,
- mechanisms to reduce memorisation,

- processes for receiving and responding to copyright complaints,
- model editing or “unlearning” where necessary.

These obligations serve as a regulatory complement to copyright law.

6. Practical Guidance for AI Developers and Deployers

The following recommendations support compliance and reduce legal exposure.

6.1 Determining when an AI-assisted output is protectable

A human-authored work requires:

- creative control
- personal judgment
- free and creative choices
- substantive human influence over the final expression

Developers should document:

- prompt evolution,
- selection processes,
- human editing decisions,
- integration of AI-generated content into broader creative works.

6.2 Preventing copyright-infringing outputs

Implement:

- similarity-checking models,
- filters blocking prompts that request reproduction of protected content,
- output watermarking and provenance tools,
- regular audits for memorisation,
- strong content-safety policies.

6.3 Documentation and traceability

Maintain:

- logs of model versions,
- records of safety mitigations,
- documentation of output-testing protocols,
- structured processes for reviewing and approving outputs for publication.

6.4 Advising end users

Provide clear guidance on:

- permissible uses of AI-generated content,

- obligations to verify legality before publishing outputs and necessary steps to do so,
- situations where legal review (internally or externally) may be required.

7. Conclusion

EU copyright law protects human-authored works but not autonomously generated AI outputs. However, AI outputs can still infringe pre-existing rights. Developers, deployers, and users must therefore carefully manage risks, implement technical safeguards, and document the role of human creative contribution where copyright protection is sought.

As litigation expands globally, and as EU regulatory obligations tighten under the AI Act, adopting robust governance and compliance practices is essential for building trustworthy, legally safe AI systems.

8. References

EU Legislation

- Directive 2001/29/EC (InfoSoc Directive)
- Directive 2019/790/EU (CDSM Directive)
- Regulation (EU) 2024/1689 (AI Act)

Case Law

- CJEU, *Infopaq International A/S v. Danske Dagblades Forening*, C-5/08
- CJEU, *Painer v. Standard VerlagsGmbH*, C-145/10

Academic Works

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PRIMER 2 — AI OUTPUT & COPYRIGHT (practicable version)

1. What This Primer Covers

This primer explains how copyright applies to **AI-generated outputs**—text, images, music, code, or video—and provides **practical tools** for AI developers and deployers to navigate authorship, infringement risks, and liability.

It addresses:

- When AI-assisted outputs qualify for copyright protection
 - When AI-generated outputs infringe copyrighted works
 - How to structure workflows to reduce legal risk
 - What EU law (including the AI Act) requires for transparency and mitigation
 - What developers, deployers, and users must do in practice
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2. Copyright and AI Outputs: The Legal Baseline

2.1 Only Humans Can Be Authors Under EU Law

EU copyright law protects works that result from **human intellectual creation**.² This requires:

- **Free and creative choices**
- **Personal judgment**
- A **human creative process** shaping the final expression

Even technologically mediated works (e.g., photographs) are protectable if the human author makes creative decisions.

What this means for AI

- AI systems **cannot** be authors.
 - AI-generated content **without** meaningful human creative intervention **is not protected**.
 - Such content **falls into the public domain** and can be reused by anyone - provided that the AI has not reproduced works that are already protected.
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² Two landmark CJEU cases are core to this interpretation:

3. Infopaq International A/S v. Danske Dagblades Forening (C-5/08, 2009)
The Court held that even short extracts may be protected if they reflect the author's creative expression. Key principle: originality requires identifiable human choices.
4. Painer v. Standard VerlagsGmbH (C-145/10, 2011)
The Court confirmed that creative control exercised in the process of creating a portrait photograph constituted originality, despite the use of technological tools. Key principle: copyright protection attaches to human creativity, not to the mere operation of tools.

2.2 AI-Assisted vs. AI-Generated Outputs

AI-Assisted Works (can be copyrighted)

These works include human involvement such as:

- prompting with creative intent,
- selecting among multiple generated variants,
- editing or refining outputs,
- integrating AI-generated elements into a larger human work.

Human inputs must shape the expressive result.

Pure AI-Generated Works (cannot be copyrighted)

If the AI system autonomously creates the content, and the human does not shape the final expression:

→ The output **cannot** acquire copyright protection.

2.3 Prompts Do Not Automatically Create Copyright

Even detailed prompts are usually **instructions**, not expressions.

Copyright may arise only where the prompt + human curation + editing create a sufficiently original expression.

3. Infringement Risks: How AI Outputs Can Violate Copyright

Even if an AI-generated output is not itself protected, it may **infringe existing copyrights**.

Understanding these risks is essential for compliance.

3.1 Risk Category 1 — Verbatim or Near-Verbatim Reproduction

Large models may occasionally reproduce:

- paragraphs of text,
- lyrics or poems,
- computer code,
- artworks or images,
- audiovisual frames.

This often happens when:

- training datasets include exact duplicates,
- prompts explicitly request verbatim recall,
- the model memorised frequently repeated content (e.g., famous works).

Legal risk:

→ The unauthorised reproduction could be a copyright infringement unless an exception is applicable (e.g. pursuant to the rules on citation, use of the output in scientific context etc – however this needs to be validated thoroughly).

3.2 Risk Category 2 — Reproduction of Protected Characters or Visual Elements

Outputs that replicate:

- iconic fictional characters,
- recognisable art styles linked to specific creators,
- protected visual motifs,
- scenes resembling cinematographic works

may constitute **derivative works** requiring permission from rightsholders.

Key principle: Copyright protects **expression**, not general “style”, but the line is thin.

3.3 Risk Category 3 — Inadvertent Derivative Works

Even without verbatim copying, an output may infringe if it:

- follows the structure of a copyrighted story,
- imitates the melody of a song,
- reproduces compositional features of an artwork,
- approximates protected choreography or performance.

This risk increases when training data includes **non-licensed** or **sensitive** copyrighted works.

4. Liability: Who Is Responsible for Infringing Outputs?

Responsibility depends on role, technical contribution, and contractual structure.

4.1 Users

Users may be liable if they:

- intentionally generate infringing content,
- publish or monetise infringing outputs or
- override or circumvent model safeguards.³

Most platform terms make users responsible for verifying lawful use. Therefore, users are generally unable to seek compensation from the providers/deployers of AI systems in case of claims.

³ Unless an exception permits such actions (e.g., statutory or royalty-free usage rights).

4.2 Deployers

Deployers integrate AI models into products and services. They may be liable when they:

- fail to implement filtering or moderation,
- allow large-scale generation or distribution of infringing content or
- do not provide appropriate user guidance or disclaimers.

Deployers often bear higher exposure because they release outputs **publicly**.

4.3 Developers (Model Providers)

Developers may incur liability when:

- models systematically reproduce training data,
 - filters fail to prevent foreseeable infringement,
 - training relied on unlicensed protected works or
 - disclaimers attempt to offload liability in ways that conflict with mandatory copyright rules.
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5. Interaction with the AI Act

EU copyright law governs what can be protected and what constitutes infringement. The **AI Act** adds **regulatory duties** for general-purpose AI systems.

5.1 Transparency Requirements (AI Act Article 50)

AI-generated content must be disclosed in contexts such as:

- public communication,
 - deepfakes,
 - synthetic video and audio.
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5.2 Output Risk Mitigation (AI Act Article 53 + GPAI Code of Practice)

Developers must implement:

- mechanisms for detecting and preventing infringing outputs,
- memorisation reduction techniques,
- similarity detection,
- provenance tracking,
- complaint-handling systems for rightsholders.

Deployers must ensure **responsible use** and apply appropriate safeguards.

6. Practical Playbook for Developers and Deployers

This section provides practical steps, workflows, and checklists.

6.1 Workflow: Determining Whether AI-Assisted Outputs Are Copyrightable

✓ Step 1 — Identify the human contribution

- Did a human shape the expression?
- Did the human make creative choices about the final form?

✓ Step 2 — Document the creative process

- Save prompt iterations
- Describe editorial decisions
- Show how human input shaped the output

✓ Step 3 — Evaluate originality

- Does the final expression reflect personal judgment?
- Does it differ from typical AI-generated content?

If YES → Copyright may arise for the human creator.

If NO → Output is public domain (provided that the AI has not reproduced works that are already protected).

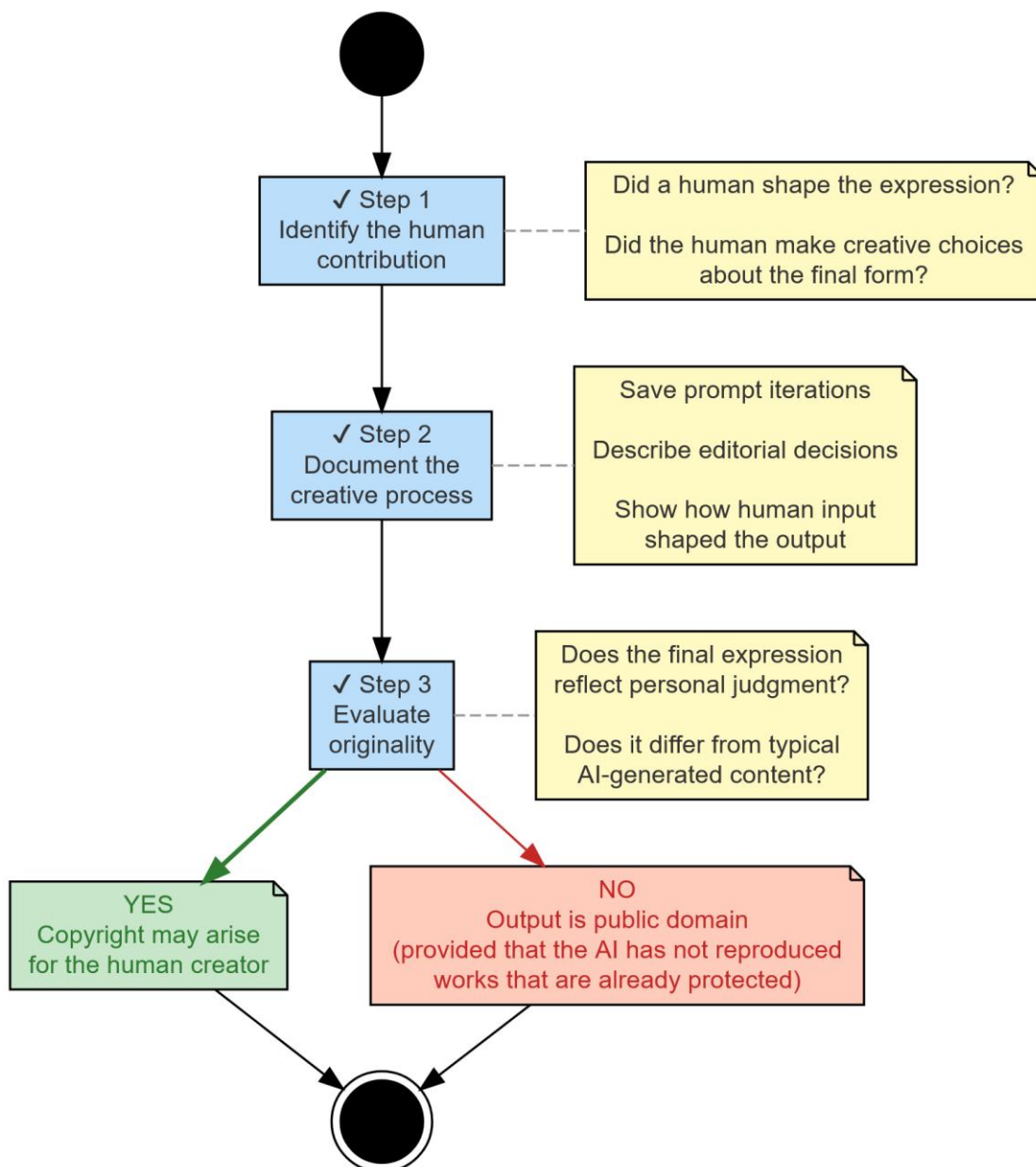


Figure 1: Workflow: Determining Whether AI-Assisted Outputs Are Copyrightable

6.2 Workflow: Preventing Infringing Outputs

✓ Before deployment

- Evaluate model behaviour for memorisation
- Train or configure filters for protected content
- Block prompts seeking to reproduce known copyrighted works

✓ During generation

- Apply similarity detection
- Prevent verbatim recall

- Conduct automated scanning for risky themes

✓ Before publication

- Review outputs containing identifiable characters, images, or distinctive plots
- Check for unintended reproduction of protected elements
- Apply watermarking or metadata indicating AI involvement

6.3 Risk Assessment Matrix

| Risk Type | Example | Severity | Mitigation |
|---------------------------|--|----------|---|
| Verbatim recall | Output includes lyrics or a paragraph from a novel | High | Increase deduplication; apply recall filters |
| Character reproduction | Output visually resembles a specific cartoon character | High | Block character prompts; use style generalisation |
| Close stylistic imitation | Output mimics identifiable expression | Medium | Train with style diversification; apply similarity thresholds |
| Structural reproduction | Output mimics storyline or melody | Medium | Manual review; automated pattern detection |

6.4 Developer Checklist

✓ Copyrightability

- Human creative input documented
- Human agency determinative of final output
- AI used as a tool, not as the author

✓ Infringement Avoidance

- Filters for verbatim recall
- Similarity detection
- Prompt blocking (e.g., “create an exact copy of...”)
- Regular testing for memorisation

✓ Transparency & Accountability

- AI-generated output labelled where required
- Complaint mechanism available
- Versioning and provenance systems in place

✓ User Guidance

- Clear policies on lawful use
- Warnings about copyrighted characters/works
- Best-practice instructions for posting, remixing, or commercialising outputs

7. Examples

Example 1 — Copyrightable AI-Assisted Work

A designer uses an AI tool to generate background textures, selects the most suitable variant, recolours it, overlays custom hand-drawn elements, and arranges a final layout.

Outcome: Human-authored work → copyrightable.

Example 2 — Non-Copyrightable Pure AI Output

A user types a prompt: “Generate a fantasy landscape,” accepts the unedited first result.

Outcome: No human authorship → public domain.

Example 3 — Infringing Output

A model generates a character visually indistinguishable from a well-known animated figure due to memorisation.

Outcome: Infringing derivative work → liability risk for user, deployer, and possibly the developer.

8. Conclusion

AI-generated outputs pose two central challenges:

1. **Authorship:**
Only humans can be authors. AI-assisted works may be protected if humans shape the expression.
2. **Infringement:**
AI outputs may unlawfully reproduce or approximate existing copyrighted works. Developers and deployers must implement robust safeguards, filtering and documentation.

In the EU, this area is governed jointly by **copyright law** and the **AI Act**, creating a comprehensive regime of rights, duties, and technical expectations.

Organisations that implement strong creative documentation, content filtering, output review, and transparency mechanisms will be best positioned to develop **trustworthy, lawful AI systems**.

9. References

EU Legislation

- Directive 2001/29/EC (InfoSoc Directive)

- Directive 2019/790/EU (CDSM Directive)
- Regulation (EU) 2024/1689 (AI Act)

Case Law

- CJEU, *Infopaq International A/S v. Danske Dagblades Forening*, C-5/08
- CJEU, *Painer v. Standard VerlagsGmbH*, C-145/10

Academic Works

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