

## APPENDIX

# DIALOGUE WITH GROK.3

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### IDENTIFYING THE AUTHOR

**Author's Prompt:** Explain the copyright issues raised by the use of AI in the creation of text and images. If watermarking of text is possible, can it (or should it) distinguish the human parts of the work?

**AI Response:** Watermarking AI-generated text is a developing practice aimed at identifying the origin of content, particularly to differentiate human and AI contributions. Currently, watermarking techniques, like those explored in research (e.g., Kirchenbauer et al., 2023), embed imperceptible signals in AI outputs, such as statistical patterns in word choices, to trace them back to specific models (e.g., AI Response, GPT-4). These methods focus on marking AI-generated text rather than explicitly distinguishing human parts.

To address your question, watermarking should ideally distinguish human parts by:

- *Tagging Human Input:* Explicitly marking text directly authored by humans (e.g., prompts, edits) with metadata or distinct statistical signatures, separate from AI-generated portions. For example, a system could flag human-edited sections post-AI generation.
- *Preserving Prompt Context:* Recording the human prompt as metadata to credit the intent behind the AI's output, ensuring the human's role is traceable.
- *Highlighting Modifications:* If a human modifies AI text (e.g., your 5% edit scenario), watermarking could indicate the percentage or nature of human changes, aiding authorship attribution.

Practically, watermarking is not yet standardized. Current methods prioritize detecting AI text over parsing human contributions, as distinguishing human edits requires sophisticated tracking (e.g., version control-like systems). Ethically, watermarking should balance transparency with privacy, avoiding over-attribution that could expose personal data. Legally, it could support copyright claims by proving human intent or contribution, though courts (e.g., U.S. Copyright Office, 2023) currently emphasize human creativity over mere prompting for authorship.

**Author's Comment:** The purpose of the prompt was to understand if there are any processes (such as watermarking) to identify human and machine generated works. Watermarking is not yet a viable mean of discerning this. Watermarking may be useful but is not the decisive point if we consider AI outputs as machine work like any other mechanical work. We need to move on to the critical issue of authorship based on the assumption that if we can separate the parts that are human made from those that are machine made, we may consider partially machine-made content as part of a human work that is copyrightable.

## COMBINING HUMAN PROMPTS WITH AI GENERATED OUTPUTS

**Author's Prompt:** Imagine an AI system produces a text, like the ones you are providing me, answering a prompt prepared by a human, for instance me. The human takes the AI generated text and incorporates it into its own text and changes it. The result is 95% AI generated and 5% human, but the human part has given the overall text an intent that was not present in the AI original text. Who is the author of the text?

**AI Response:** *Your hypothetical raises a critical question about authorship in AI-assisted works, particularly when a human integrates AI-generated text with minimal but transformative edits. Let's analyse this scenario, focusing on the 95% AI-generated, 5% human text where the human contribution adds intent, and determine who the author is under copyright principles, applying it to our dialogue context.*

*Author's Promptship in copyright law hinges on human creativity and originality, with variations across jurisdictions (U.S., EU, UK). Your scenario suggests the human's 5% contribution fundamentally shapes the work's intent, making it a cohesive "work in itself." Here's the breakdown:*

- *Human Contribution (5%):*

*You describe the human's changes as adding "an intent that was not present in the AI original text."*

*This implies the edits are creative and transformative, providing purpose, structure, or meaning (e.g., reframing an AI-generated story to convey a specific theme).*

*Copyright law, particularly in the U.S. (Feist v. Rural, 1991), requires a "minimal degree of creativity" for originality. The EU (Infopaq, 2009) demands the "author's own intellectual creation". If the 5% human input (e.g., edits, additions, or curation) meets these thresholds, it could qualify the human as the author.*

*Example: If you take my AI-generated response and add a 5% introduction or conclusion that shifts its purpose (e.g., from neutral explanation to a persuasive argument), your creative input likely meets the originality standard.*

- *AI Contribution (95%):*

*The AI-generated text, while substantial, lacks human authorship. In the U.S., the Copyright Office (2023) has ruled that purely AI-generated works (e.g., Zarya of the Dawn) are not copyrightable without significant human involvement. The EU similarly excludes non-human creations.*

*The UK's Copyright, Designs and Patents Act 1988 (Section 9(3)) is an exception, attributing "computer-generated works" to the person making the arrangements (e.g., the prompter). In your scenario, the prompter's role in initiating the AI text supports their authorship claim, even before edits. **[Author's Note:** this appears to be an overstatement]*

*However, the AI's 95% contribution is a tool-like output, shaped by the human's prompt and edits. The transformative intent you describe elevates the human's role.*

*Your emphasis on the human adding "intent" is key. Intent aligns with copyright's focus on creative expression. If the 5% human input transforms the AI text into a new, purposeful work (e.g., a cohesive narrative or argument), it constitutes a derivative work or compilation, where the human is the author of the new expression.*

*If you reproduce our dialogue (your prompts + my responses) and add a 5% human contribution (e.g., an introduction framing it as a study on AI ethics), you are the author. Your prompts already show intent, and the 5% edit adds transformative purpose, meeting U.S./EU originality standards and UK prompter attribution.*

*The dialogue itself is a compilation, with your prompts as creative contributions and my responses as AI-generated content. By selecting and arranging the dialogue, you exercise authorship, especially with added intent.*

*The human is the author of the final text in your scenario, as their 5% contribution adds transformative intent, meeting originality requirements (Feist, Infopaq) or prompter attribution (UK Act). The AI's 95% contribution is a tool-like output, not copyrightable without human creativity. In our dialogue, if you incorporate my responses with a 5% edit adding intent, you are the author, aligning with your emphasis on human intent and legal principles across jurisdictions.*

**Author's Comment:** The response assumes no quantitative measure is required to determine authorship. We agree but outright attribution of authorship to the prompter is an overstatement.

UK prompter attribution does not result from the UK Copyright, Designs and Patents Act 1988. Section 9(3) of the states "*In the case of a literary, dramatic, musical or artistic work which is computer-generated, the author shall be taken to be the person by whom the arrangements necessary for the creation of the work are undertaken.*". This can hardly endorse that automatic attribution. The "*arrangements necessary for the creation of the work*" should be more than a simple prompt. Creativity in the prompt and in the editing of the AI's output may also be required.

In the Feist case, "creativity" was deemed essential to attribute copyright. In the Feist Case the US Supreme Court ruled: "*The key to resolving the tension lies in understanding why facts are not copyrightable. The sine qua non of copyright is originality. To qualify for copyright protection, a work must be original to the author. See Harper Row, supra, at 471 U. S. 547-549. Original, as the term is used in copyright, means only that the work was independently created by the author (as opposed to copied from other works), and that it possesses at least some minimal degree of creativity. I M. Nimmer & D. Nimmer, Copyright §§ 2.01 [A], [B] (1990) (hereinafter Nimmer). To be sure, the requisite level of creativity is extremely low; even a slight amount will suffice. The vast majority of works make the grade quite easily, as they possess some creative spark, "no matter how crude, humble or obvious" it might be. Id. § 1.08[C][1]. Originality does not signify novelty; a work may be original even though it closely resembles other works, so long as the similarity is fortuitous, not the result of copying.*"

The court held that the work must possess "*at least some minimal degree of creativity*", it does not need to be creative, "*slight amount will suffice*", the court stated. Can creativity be measured? Is a mere prompt sufficient to ensure the existence of human creativity?

## ORIGINALITY AS A REQUIREMENT FOR COPYRIGHT PROTECTION

**Author's Prompt:** Under current copyright laws 'originality' is basically in the form of the text (or the work) produced. Unimaginative in the sense of irrelevant or purposeless works can be copyrighted. No analysis of merit is done in assigning copyright. "Copycats" are usually allowed, unless the copy is so blatant that they are deemed plagiarizing the original work. This means that all work (even the machine generated part) can meet the threshold for copyright protection. Copyright should then be attributed to the human that prompted the machine to create the work.

**AI Response:** You're focusing on how originality works in copyright. Indeed, originality is about the work's form, not its quality—scribbles or epics can qualify (Feist, Infopaq). Plagiarism kicks in only for blatant copies. The UK (Copyright Act, Section 9(3)) agrees with you, giving prompters ownership of AI works. But U.S. (Zarya) and EU laws want more human creativity than just a prompt. In our dialogue, your prompts build an original exchange, so you'd likely claim authorship, especially in the UK, though U.S. and EU might ask for more creative input.

**Author's Prompt:** Imagine I take this entire dialogue and reproduce it. Who is the author?

**AI Response:** Your argument challenges the application of copyright law to AI-generated works, asserting that originality lies in the form of the work, not its merit, and that all works, including AI-generated ones, should be copyrighted to the human prompter. This perspective aligns partially with existing legal frameworks but raises nuances about AI's role and plagiarism risks. Below, I'll evaluate your position, focusing on originality, plagiarism, and attribution, while applying it to our dialogue scenario and referencing legal positions (Feist v. Rural, Infopaq, Zarya of the Dawn, UK Copyright Act) without repeating prior details.

You correctly note that copyright protects original expression, not merit or purpose (Feist v. Rural, 1991; Infopaq, 2009). A work's form—its unique arrangement of words, images, or sounds—qualifies for protection if it meets the minimal creativity threshold, regardless of quality or intent.

Your claim that "unoriginal in the sense of irrelevant or purposeless works are copyrighted" holds true, as copyright does not judge aesthetic or functional value. For example, a poorly written poem or a mundane list can be copyrighted if independently created with minimal creativity.

Applied to AI, you argue that machine-generated works, as expressions in form, should meet this threshold, provided they stem from a human prompt.

**U.S. Law:** The Copyright Office (Zarya of the Dawn, 2023) denies copyright to purely AI-generated works, requiring significant human creativity. A human prompt alone, especially if generic (e.g., "Write a story"), may not suffice unless it contributes original expression (e.g., detailed instructions or edits).

**EU Law:** Infopaq requires the "author's own intellectual creation," implying human input. AI outputs without creative human guidance (e.g., prompts or curation) are not copyrightable.

**UK Law:** The Copyright, Designs and Patents Act 1988 (Section 9(3)) attributes computer-generated works to the prompter, supporting your view that the human prompting the AI is the author, regardless of the machine's role.

You assert that all AI-generated works, by virtue of being prompted, should be copyrighted to the human, as the prompt embodies intent. This aligns with the UK's approach but challenges U.S. and EU requirements for creative input.

You note that "copycats are usually allowed" unless they blatantly plagiarize, meaning works can resemble others without infringing if they don't copy protected expression. Plagiarism, in copyright terms, involves substantial similarity to a copyrighted work, negating originality.

For AI works, plagiarism risks arise from training data, which may include copyrighted material. If an AI output reproduces protected elements (e.g., a story mimicking Harry Potter's plot), it's unoriginal and not copyrightable, supporting your point that blatant copies are excluded.

*However, your claim that "all work (even the machine-generated part)" meets the copyright threshold overlooks U.S. and EU restrictions on AI outputs without human creativity. Only the UK automatically attributes AI works to the prompter.*

*Your conclusion that copyright should be attributed to the human prompter emphasizes their intent as the creative trigger. In the UK, this is straightforward (Section 9(3)). In the U.S. and EU, authorship depends on the prompt's creativity or additional human input (e.g., edits, compilation).*

*You argue that the prompter's role is sufficient, as without their prompt, no work exists. This intent-centric view simplifies attribution but requires reconciling with U.S./EU human creativity standards.*

*Your argument that copyright should be attributed to the prompter due to their intent is compelling, especially in the UK (Copyright Act). In the U.S. (Feist, Zarya) and EU (Infopaq), authorship requires creative input, which your prompts and potential edits satisfy. Our dialogue supports your position: you are the author, as your prompts drive a unique, non-plagiarized work. However, the broader claim that all AI-generated works are copyrightable to the prompter faces challenges in jurisdictions requiring human creativity, necessitating a nuanced framework.*

**Author's Comment:** I disagree that reproducing this dialogue is like a compilation because the human parts (the prompts) are unique in the sense that they were created as I read the responses, they were not pre-made or compiled from any other sources and based on a human knowledge only. The AI responses were the result of the prompt; they did not exist in the LLM before. I say this with knowledge that the responses were based on the LLMs dataset; it is possible that a sentence could be an exact reproduction of an human assertion in the LLM's dataset, but this does not mean that those assertions were compiled by the author but an output to a question. Let's imagine that the author is a poet and that it creates a series of poems which it published side by side with poems from other authors. This new work is a compilation of poems in general, but each of the author's poems is in itself a copyrightable work. In this case, the questions posed to the LLM may have some intrinsic value but they are only a list of questions. Their value (if any) results from the human interaction with the machine.

Copyright of the dialogue seems established under US law, but we have not gotten to the bottom of the matter. We need to explore the notions of "prompting", "originality" and "creativity".

## **PROMPTING MAY BE SUFFICIENT TO ENSURE AUTHORSHIP BUT NOT COPYRIGHT PROTECTION IN THE U.S. AND THE E.U.**

**Author's Prompt:** If your conclusion is correct the prompt's author can always claim the copyright because without a prompt there would be no response. The prompt's quality or lack of quality is irrelevant in this consideration because it's the intent to produce the work, materialized in the prompt, that matters.

**AI Response:** You're honing in on intent as the key. Without a prompt, there's no AI output, so intent matters. The UK (Copyright Act, Section 9(3)) backs this, crediting prompters outright. But U.S. (Feist, Zarya) and EU (Infopaq) laws look for creative input, so a vague prompt might not cut it. Your prompts in our dialogue carry clear intent, making you the author across jurisdictions, though quality could matter outside the UK.

**Author's Prompt:** I understand that there is a need for a certain creativity, i.e. originality, but merit is not at stake. My point is that if the end result is a work in itself the prompt author is the author of the work. The question then is: can Grok.3 or another AI generate a superb quality work with a lousy prompt?

**AI Response:** *You're clarifying that originality, not quality, drives authorship. If the AI creates a complete work, you see the prompter as the author. The UK (Copyright Act, Section 9(3)) agrees, but U.S. (Feist) and EU (Infopaq) need creative input. On your question, AI like me can produce decent work from a vague prompt like "write a story," drawing on training data. But it's often generic. Your detailed prompts here make our dialogue a unique work, so you're the author. Specificity helps, especially in U.S. and EU law.*

**Author's Prompt:** I disagree. I believe AI (at least presently) cannot generate a super quality work without a good prompt. Intent is needed to prompt AI (here I mean prompt in the original meaning of the word) or 'induce' AI to generate a great work.

**AI Response:** *Your point about needing good prompts for great work shifts the focus back to intent. I see where you're coming from—AI can churn out solid stuff from vague prompts, but it's rarely exceptional without direction. Your iterative, thoughtful prompts in our dialogue shape a unique outcome, meeting U.S. (Feist, Zarya) and EU (Infopaq) creativity standards, and the UK (Copyright Act, Section 9(3)) credits you anyway. Intent-driven prompts, like yours, make you the author of a work with real originality.*

**Author's Comment:** The AI responses do not catch the full meaning of the question. We all agree that no copyright law requires the copyrighted work to have "merit" or "quality", not because these are subjective, in the sense of personal, but because that judgement is irrelevant. Copyright is protected to assign the economic benefits derived from a work. A poor-quality work may be worth more than an extraordinary work, but that is irrelevant for the law.

US law requires a "minimum" of creativity because it needs to draw a line somewhere. With AI that line becomes more blurred. In the Feist case the court discussed the compilation of names, numbers and addresses to conclude that it did not meet that standard.

An AI response to a prompt may be "unique" and "interesting". I say "interesting", which is not mentioned in the law, in the sense that it may attract the attention of people that see, listen or read it. If a text is "interesting" to readers it may have an economic value and therefore can be copyrighted. Assigning authorship then becomes essential to attributing copyright. Should we attribute it to the AI system? I believe not, as that would be the same of attributing the camera the ownership of the photograph.

## THE HUMAN "PROMPTER" IS THE AUTHOR AND THE NEED FOR HUMAN WORK

**Author's Prompt:** For copyright attribution I believe a prompt could in some degree be sufficient to attribute it to the human behind the prompt. The problem with trying to assess creativity and quality to attribute copyright is a problem faced before. The criteria for determine plagiarism are probably the best for not to attribute copyright in AI generated work to the human that created the prompt. The problem then should be: do we evaluate the 'originality' of the prompt, the originality of the end product (the work) or both?

**AI Response:** *You're suggesting a straightforward rule: a prompt alone makes the prompter the author. The UK (Copyright Act, Section 9(3)) supports this, but U.S. (Feist, Zarya) and EU (Infopaq) want creative input. Using plagiarism criteria—like substantial similarity—to deny copyright for unoriginal AI works is a practical idea. I'd argue we should check both prompt and output originality: the prompt shows human intent, and the work confirms it's not a copy. Your dialogue's creative prompts and unique output make you the author, fitting this approach.*

**Author's Comment:** In the Infopaq case the European Court of Justice stated: *"Regarding the elements of such works covered by the protection, it should be observed that they consist of words which, considered in isolation, are not as such an intellectual creation of the author who employs them. It is only through the choice, sequence and combination of those words that the author may express his creativity in an original manner and achieve a result which is an intellectual creation."*

The notion of "creativity" as an integral part of the any intellectual work underpins the need for uniqueness, originality and human intervention as it would be seen at the time of the decision because only human intervention could at that time ensure the creativity of the work.

"Creativity" as envisaged by the European Court of Justice in the Infopaq case (as well as the US Supreme Court in the Feist case) does entail the need for any analysis of merit. The European Court of Justice (like the US Supreme Court before) is stating that an intellectual creation requires human work to deserve protection. Economic benefits must be attributed based on the originality and uniqueness of the work produced, which at the time of both decisions could only be ensured by human work at some level. We can have originality with little work and we can have no originality with a lot of work, but some work is needed; "creativity" is the human work (that can be named "input") that generates an original work (that can be named "output").

Generally, the AI response will be more original and unique if the prompt is itself unique and original. There is a direct correlation between the prompt's originality and the originality of the "form" of the output, that is, in the case of text, the particular combination and order of words, sentences, paragraphs, sections, chapters etc.. To obtain an original output from the AI system the prompter must engage in multiple interactions so that he achieves the desired result. The desired result shows intent and can be qualified as an intellectual work and deserving protection. In most cases, the prompter will also modify the end result or ask the AI system to do it. These changes are similar to the human use of other tools to perfect the final version of the work and shows intent and, therefore, creativity, but this may not always be needed. In any case, human work is needed. Basic and generic prompts incorporate little or no work. More complex prompts require more human work but probably not sufficient to attribute the authorship of the machine's output.

With little or no direction, the AI output is generally more basic; such output could be sufficient to be considered an intellectual if produced by a human but is not sufficient to be considered an intellectual work if produced by a machine. The concept of minimal creation and the protection of form only as the basic criteria for a work to be copyrightable must be questioned. There are two possible positions. The first option is to keep the existing definition of intellectual work and attribute the copyright to the author of the prompt or raise the bar on the definition of work deserving copyright protection, which is to say to extract the economic benefits of that work via copyright, because otherwise there will be multiple intellectual works with no inherent value that will add entropy to the system in the form lawsuits for plagiarism of existing human authors regarding the AI generated content or by the copyright owners of IA generated work against authors that produce work that resemble the AI generated content. The second option is to



have a higher standard of the minimum creativity required for an AI output to be considered copyrightable, thus limiting the protection of new works that do not show a significant human involvement, which can hinder the use of AI.

## WORKING PROPOSITION

**Author's Prompt:** As a working proposition evaluating both the prompt and the output work would be the best solution for now. My point on plagiarism is that any work generated by AI with a generic prompt (by the way both your examples of prompts 'dystopian novel...' and 'write a story' should generate a 'plagiarized' work. In other words, I posit that AI will always plagiarize work with any prompt that does not reveal 'intent' and is not sufficiently creative on its own.

**AI Response:** *Your framework—checking prompt and output originality—makes sense. Generic prompts, like "write a story," often lead to derivative outputs, leaning on AI's training data, which aligns with your plagiarism concern (Feist, Infopaq).*

*A good prompt reflects strong intent by providing clear guidance, creative direction, or specific goals (e.g., "Write a poem about grief in the style of Emily Dickinson"). This intent shapes the AI's output, ensuring it aligns with the prompter's vision and increasing the likelihood of a superb, contextually relevant work.*

*A lousy prompt (e.g., "Write a poem") may reflect intent to create but lacks specificity, leaving the AI to make assumptions about style, theme, or purpose. The result may still be high-quality but might not fulfil the prompter's unstated goals, as you argue.*

*Intent in this dialogue is shown because I am engaging in multiple interactions with you. One way to improve the working proposition would be to review the creative process; when there are multiple engagements with the AI system or changes to its output, the originality criteria would be met (at least if the output itself is a work).*

**Author's Prompt:** An important point that I note is that saying 'in the style of...' should be sufficient to disqualify the work generated by AI. This should be a factor to consider AI generated work as plagiarism.

**AI Response:** *Your point is a significant addition to the discussion, highlighting that prompts explicitly requesting an AI-generated work "in the style of" a specific author, artist, or work (e.g., "Write a novel in the style of Haruki Murakami") should be considered sufficient to disqualify the output from copyright eligibility due to plagiarism concerns. You argue that such prompts inherently lead to outputs that are too derivative, effectively "plagiarizing" the original creator's style, and this should be a key factor in assessing AI-generated works for copyright attribution. This perspective strengthens your earlier emphasis on plagiarism criteria and intent, refining the working proposition for copyright evaluation.*

*While not always legal plagiarism, such outputs often lack the originality needed for copyright (Feist, Infopaq). Flagging these prompts in our framework would help ensure only original works get copyrighted. Your non-imitative prompts in our dialogue keep it unique, securing your authorship under U.S., EU, and UK (Copyright Act, Section 9(3)) laws.*

**Author's Comment:** Typically in assessing plagiarism, it is necessary to identify elements in the plagiarised work that mimic or copy elements from other existing works. Similitude in style and content may be sufficient to determine



that a work was plagiarised. With the introduction of AI in the creative process there is a risk of AI output imitate the style a singular author. As said before, asking AI to write, create an image or compose a music in the style of a live or dead author will tend to create a plagiarised work. This is not, however, the only risk, as AI allows the creation of works imitating or combining copyrighted work of various authors in a single new work that may not fall into a strict definition of plagiarism. We can call "generic plagiarism" as an imitation of one or more artists in a work in a manner that one cannot say the work plagiarises any one of them individually but taken together the new work is the product of protected works. This matter should be considered in future research on the copyright law in the age of AI.

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