



Bill Study:



AI Labeling and Provenance

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What is AI Labeling and Provenance?

Provenance - The record of where AI data and models come from, how they were built, and how outputs were generated.

Labeling - The disclosure to users that content was created or modified by AI, often through tags, watermarks, or metadata.

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| AI Labeling | AI Provenance |
| <ul style="list-style-type: none">• Indicates if content is AI-generated or altered• Visible tags or watermarks | <ul style="list-style-type: none">• Tracks the origin of AI content• Historical metadata stored in files |

Key Concepts

Watermarks - Visible or invisible markers embedded in AI outputs that signal synthetic origin or modification.

Material Transformation - Occurs when AI alters authentically human-captured content substantially such that the result no longer represents the original capture but instead constitutes AI-generated content.

- ie: replacing, generating, or re-synthesizing core elements

Key Concepts

Portability - The ability for provenance and labeling information to travel with content across different platforms and formats.

Persistent - The requirement that provenance and labels remain intact through transformations like editing, compression, or sharing.

Tamper-evident - A system that shows when provenance or labels have been altered or removed, signaling possible manipulation.

Provenance and labeling systems are **fragmented**, **proprietary**, and often **non-interoperable**.

Existing consumer protection laws do not provide clear, proactive labeling requirements.

Policy Recommendations

- (1) Focus on **labeling authentic and trusted content** via flexible labeling approaches like authenticity markers and voluntary AI tags.
- (2) Do not require a specific provenance standard.
- (3) Require platforms to reasonably **carry forward provenance data** when content is uploaded or shared.

Additional Considerations

The limits of provenance

- Portability across platforms
- Persistence through editing and sharing

Meaningful labeling for the public

- Visibility and clarity of tags
- Differentiating tiers of AI-generation

Innovation and competition

- Avoiding one-size-fits-all standards
- Interoperability without lock-in

"claim_generator":
"make_test_images/0.16.1 c2pa-rs/0.16.1"

c2pa.color_adjustments →

c2pa.placed →

c2pa.opened →





c2pa.resized →

Process ▾



The app or device used to produce this content recorded the following info:

App or device used
make test images 0.16.1

Actions

-  **Color or exposure edits**
Adjusted properties like tone, saturation, curves, shadows, or highlights
-  **Imported**
Added pre-existing content to this file
-  **Opened**
Opened a pre-existing file
-  ☒ **Resizing edits**
Changed dimensions or file size

Ingredients

-  **CAI.jpg**
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-  **A.jpg**
No Content Credential

Thank You