Content Authenticity Initiative

The New York Times

Making Deepfakes Gets Cheaper and Easier Thanks to A.I.

Forbes

The Battle Against Fake News Enters The Age Of Deepfakes

CNN BUSINESS

Puffer coat Pope. Musk on a date with GM CEO. Fake AI 'news' images are fooling social media users

The Guardian

Elections in UK and US at risk from AI-driven disinformation, say experts

TIME

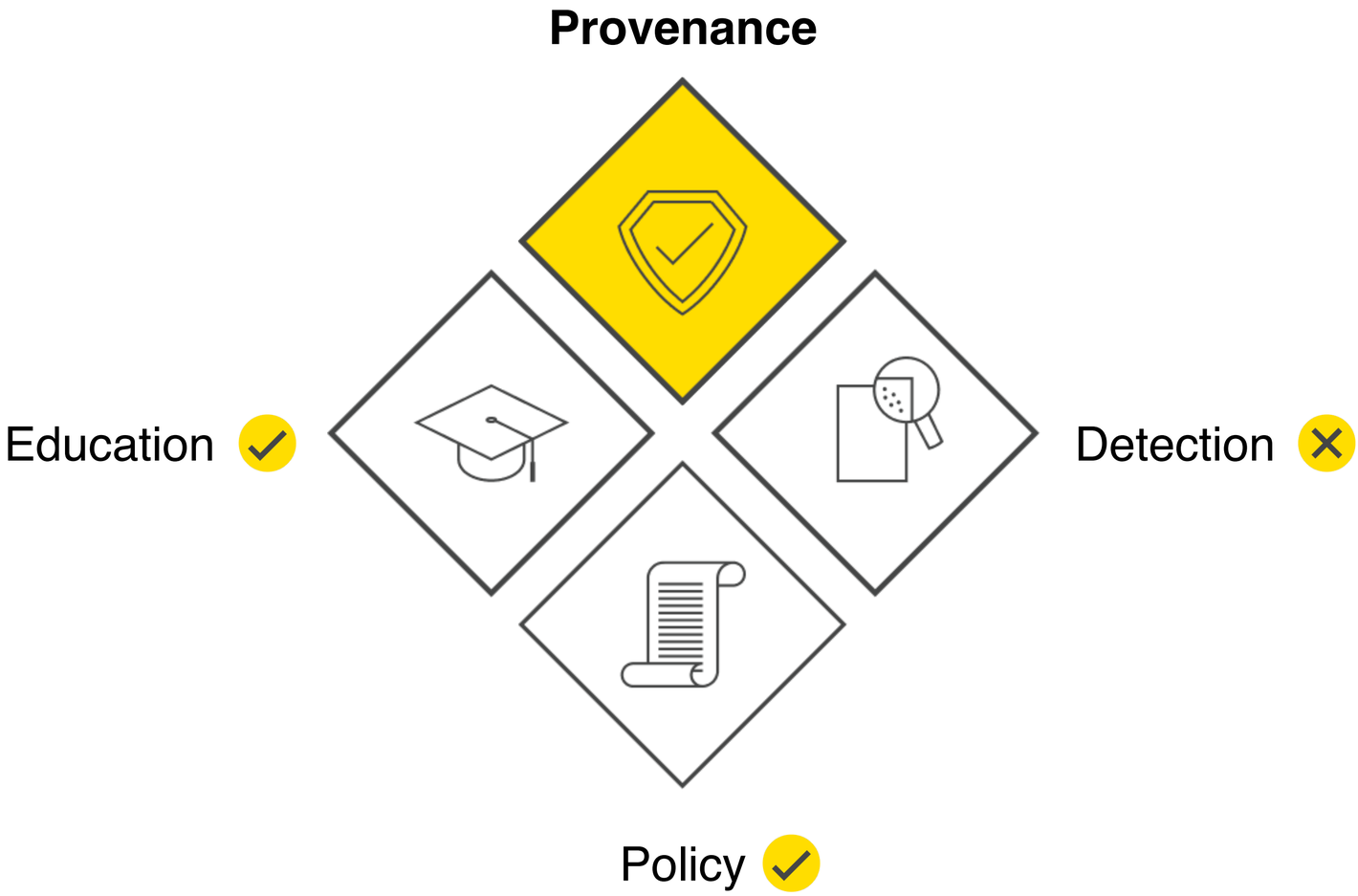
From Scams to Music, AI Voice Cloning Is on the Rise

CBC NEWS

With rise of AI-generated images, distinguishing real from fake is about to get a lot harder

Membership ~2500

Pillars of Transparency and Authenticity



Provenance

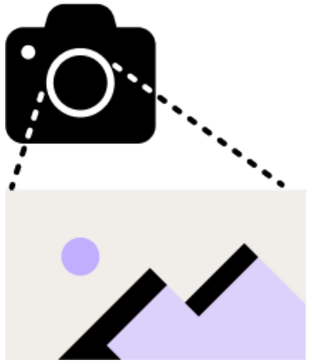
The basic trustworthy facts about the origins of a piece of digital content (image, video, audio recording, document)

Provenance

Proving what is real (as opposed to detecting what is false)

- Creators
- News media
- AI-generated content
- Brand reputation
- E-Commerce
- Insurance
- Auditing
- Law enforcement
- Medical/Scientific
- Satellite imagery
- Election Integrity

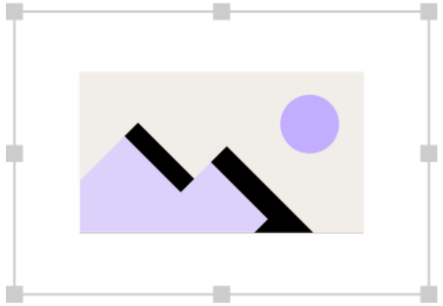
Content Credentials



1.

Capture

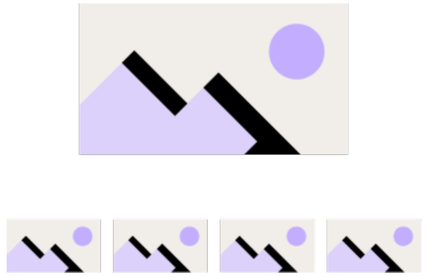
Work with manufacturers to integrate CAI into smartphones and cameras.



2.

Edit

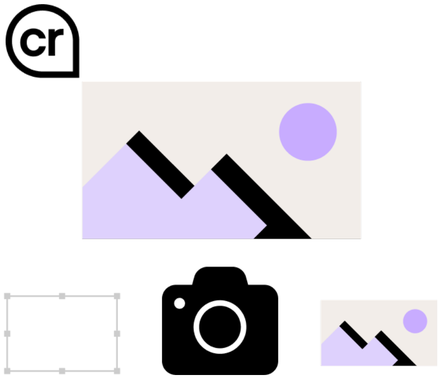
Integrate CAI into editing tools, both Adobe products and others.



3.

Publish

Publishing systems maintain CAI metadata throughout their platforms.

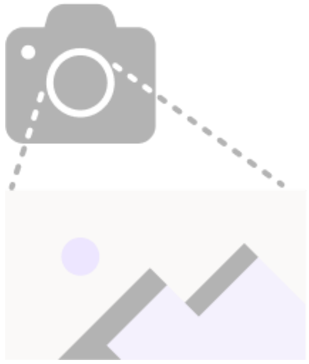


4.

Trust

Clear & universal user experience reveals provenance information.

Content Credentials



1.

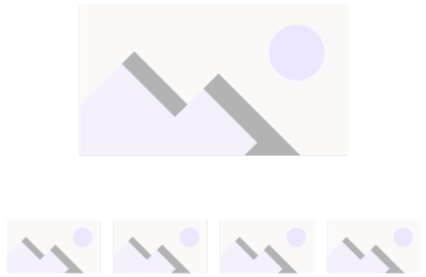
Capture

Work with manufacturers to integrate CAI into smartphones and cameras.

2.

Edit

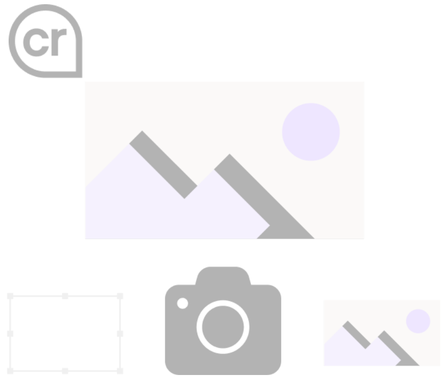
Integrate CAI into editing tools, both Adobe products and others.



3.

Publish

Publishing systems maintain CAI metadata throughout their platforms.



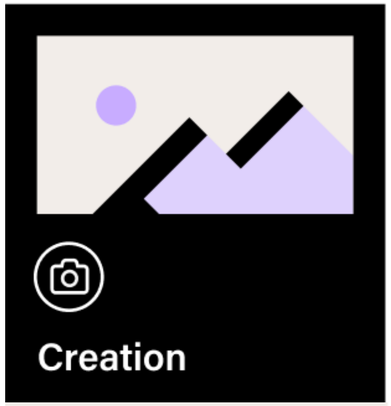
4.

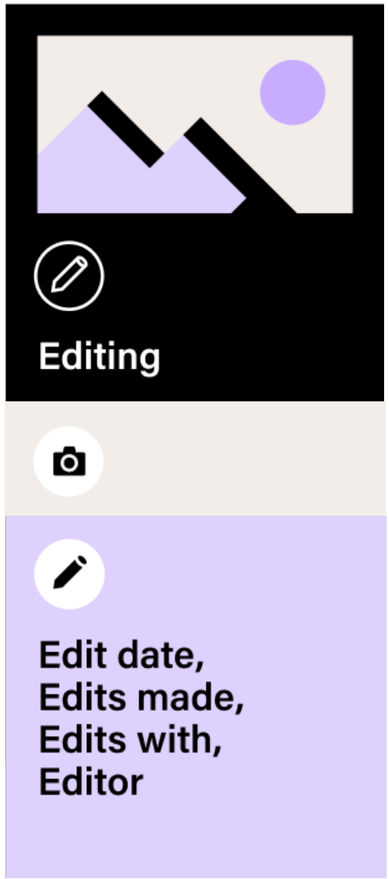
Trust

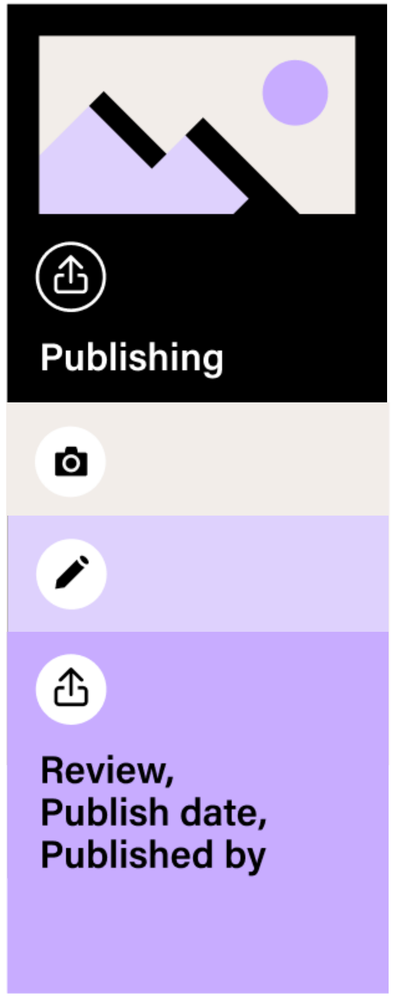
Clear & universal user experience reveals provenance information.

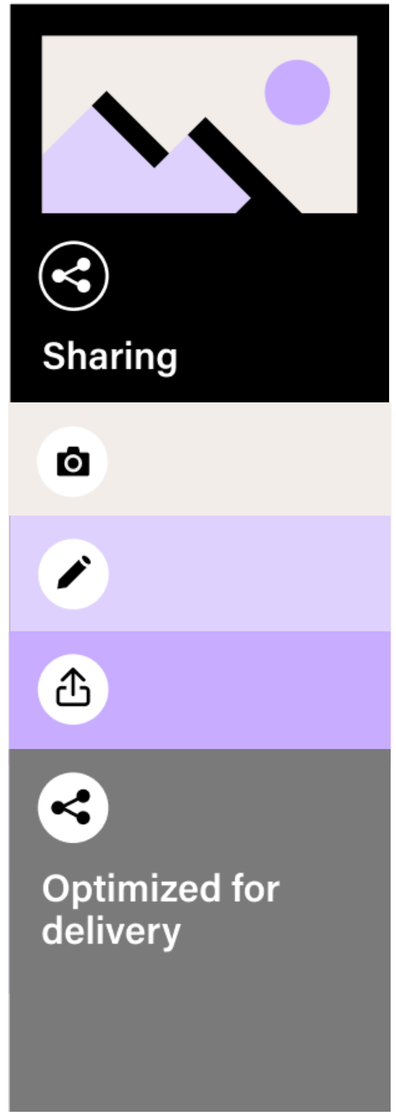
Viewing content credentials at any point in the content's journey shows what (if anything) was done to change the asset.

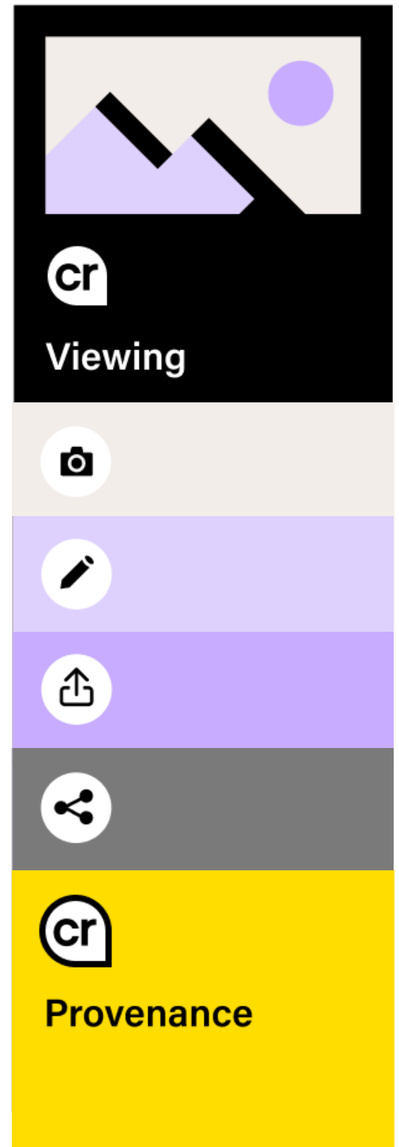
Content Credentials









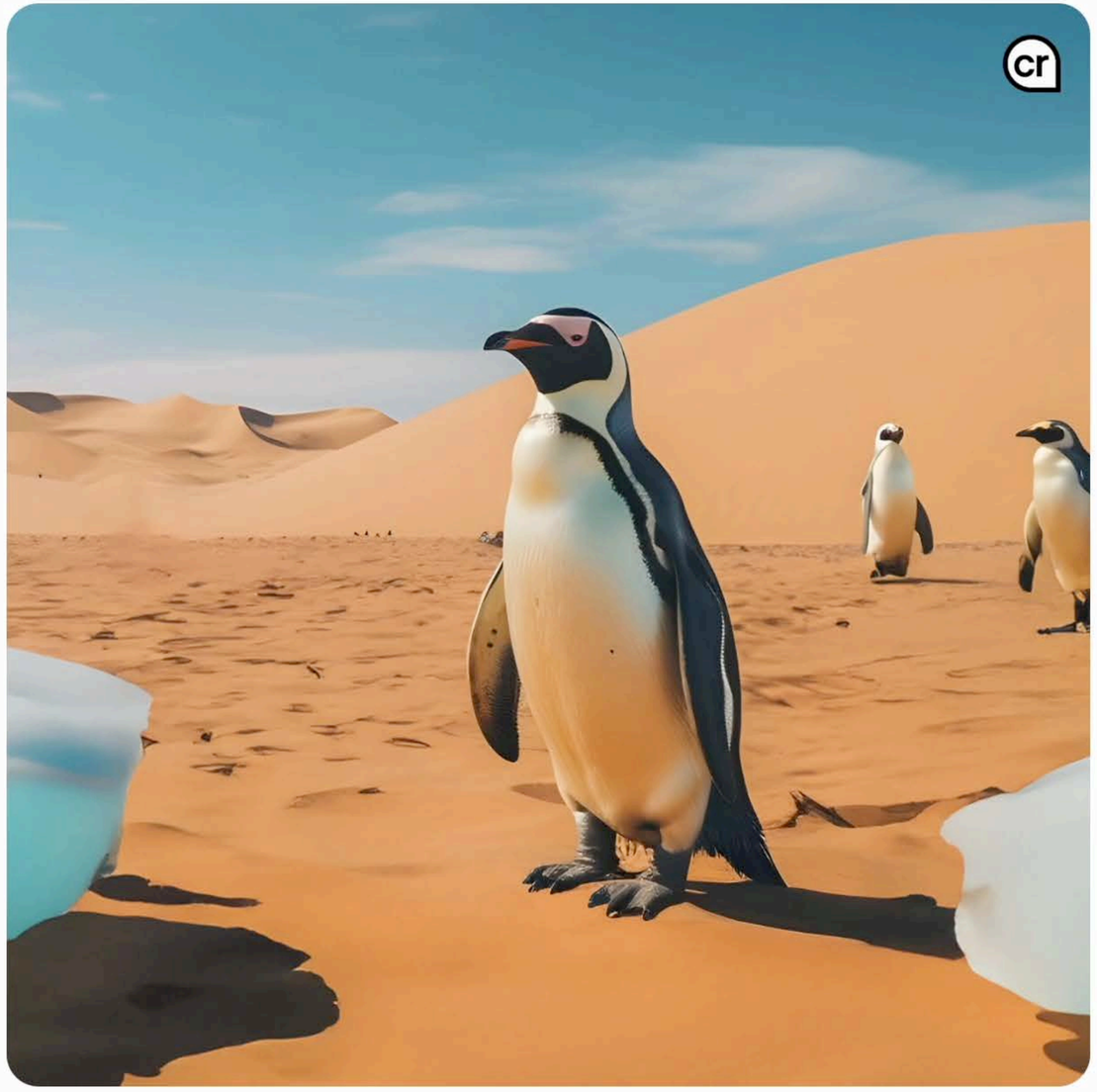


content credentials

What about AI?

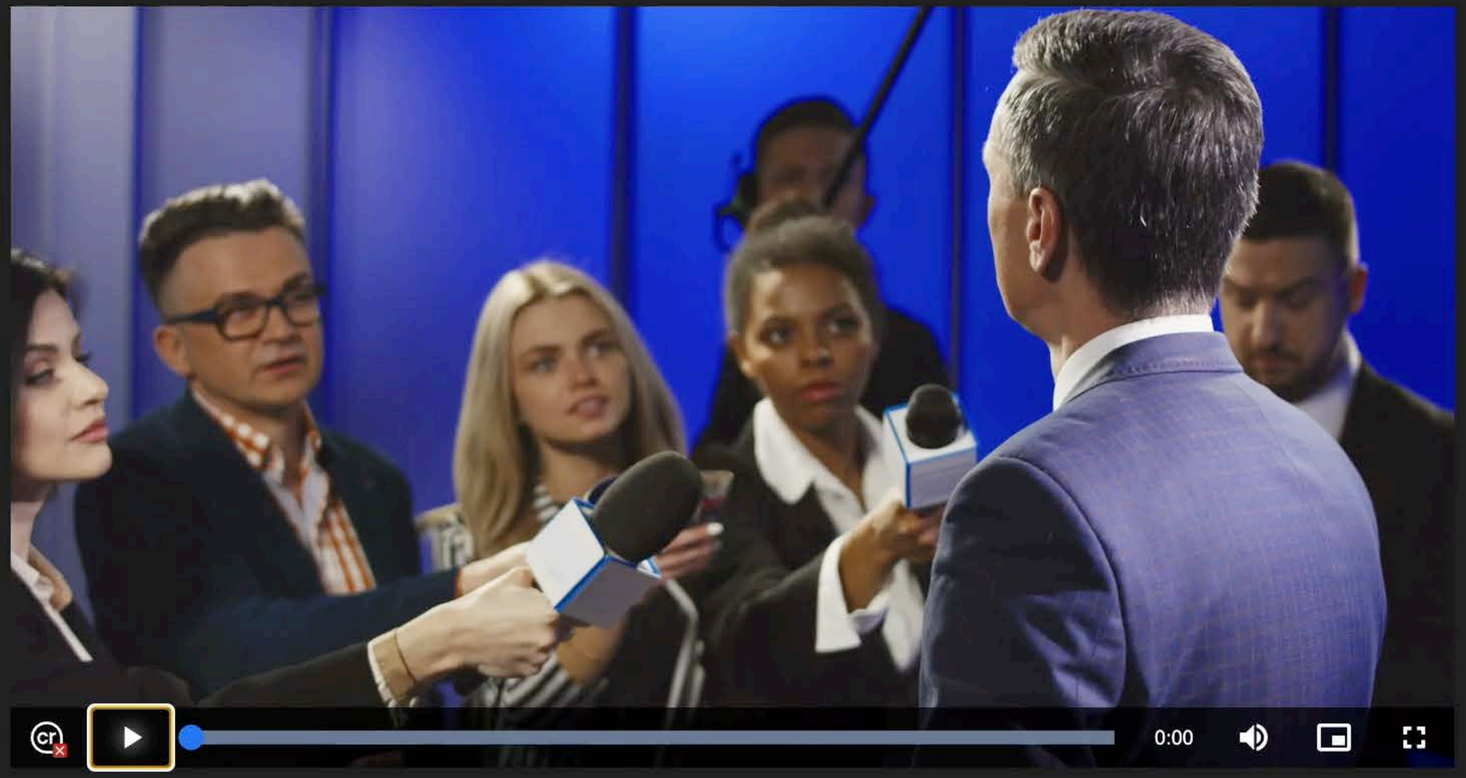
Wait, where did this image come from?

Deepfakes. Voice cloning. Synthetic media. It's hard to tell what's accurate and authentic these days.



2 Invalid video Content Credentials or assets

This sample shows how the Content Credentials player can surface important information to viewers when there are issues with a video's Content Credentials or segments within a video.



Secure Metadata

Assertions

What was done to an image, by whom, when etc.

Asset Hashes

Cryptographically bind assertions to image using unique codes

Content Credential

Bundle of assertions, asset hashes & digital signatures

Secure Metadata Location

File

Can be stored in the file

Cloud

Stored in the cloud - with pointer from file to cloud. Thumbnail of file stored for recovery of Content Credential

Blockchain

Distributed ledger

The Coalition for Content Provenance and Authenticity (C2PA)

- Standards organization
- Within Linux Foundation
- Adobe on Steering Committee & Chairs TWG
- V1.0 C2PA Specification Released on Jan 2022

Meta

OpenAI

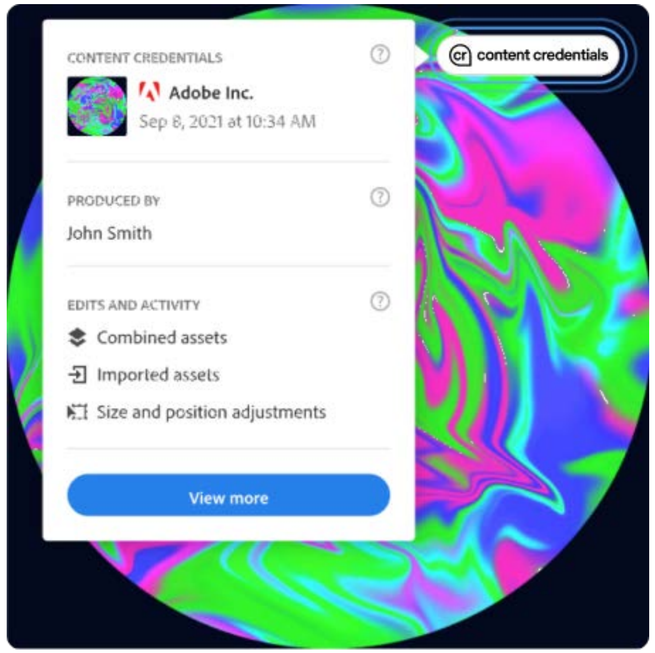
All have announced implementation

C2PA

C2
PA

Content
Authenticity
Initiative

Open-source tool 1: JavaScript UI Kit



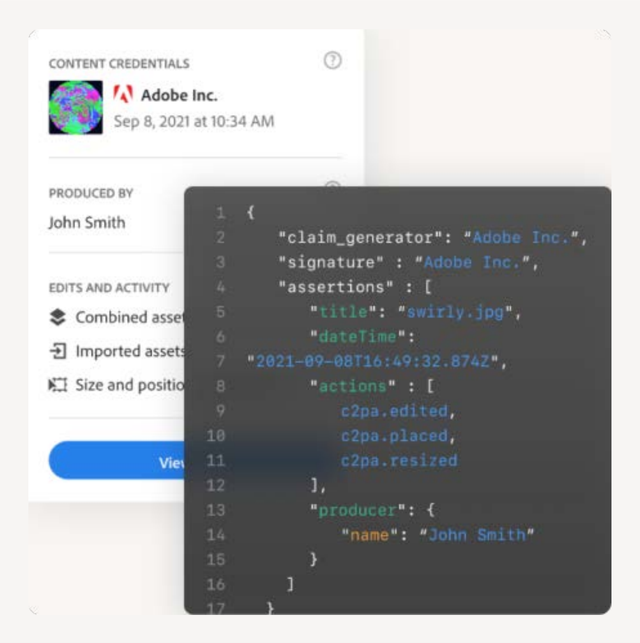
Install to create, verify and explore content credentials on your command line. Or wrap it into a service to quickly equip your processes to interact with content provenance.

Implementors will use to

Display Content Credentials on your site or app

Link Content Credentials displayed on your site or app to Verify

Open-source tool 2: C2PA Tool



Everything you need to develop rich, browser-based experiences with content credentials.

Implementors will use to

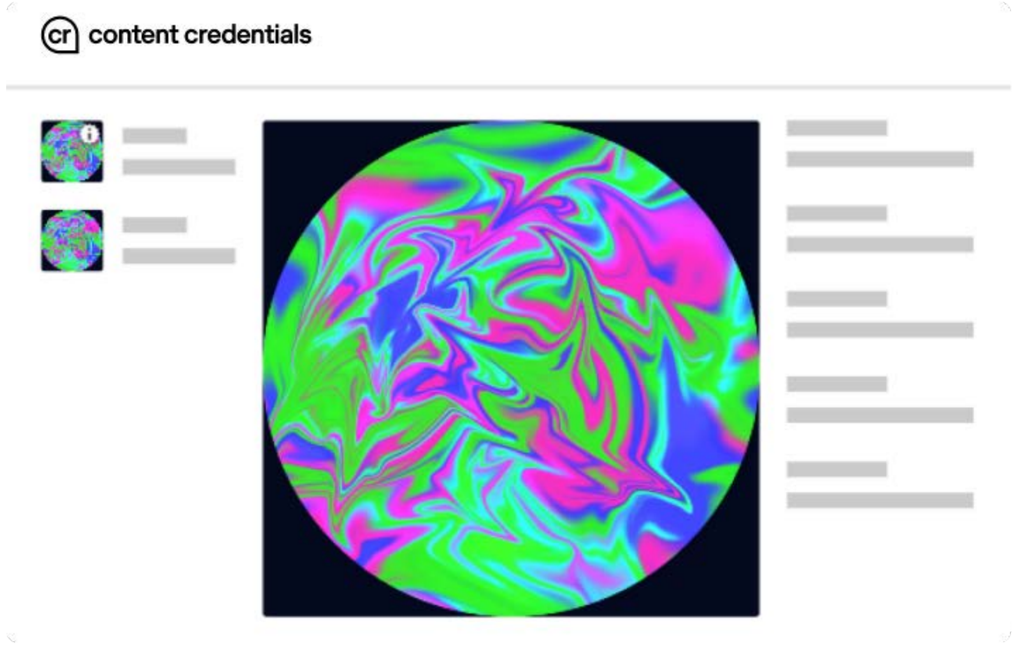
Display Content Credentials on your site or app

Link Content Credentials displayed on your site or app to Verify

Write Content Credentials data into files

Quickly create and inspect Content Credentials data

Open-source tool 3: Full SDK



Develop custom applications across desktop, mobile, and services that create, verify, and display content credentials via our powerful Rust library.

Implementors will use to

Display Content Credentials on your site or app

Link Content Credentials displayed on your site or app to Verify

Write Content Credentials data into files

Quickly create and inspect Content Credentials data

Customize displaying and creating Content Credentials data, with the full power of the specification

Deploy on Web, mobile, and desktop

Nikon

Leica

SONY

Content
Authenticity
Initiative

Content Credentials

contentcredentials.org/verify

Compare

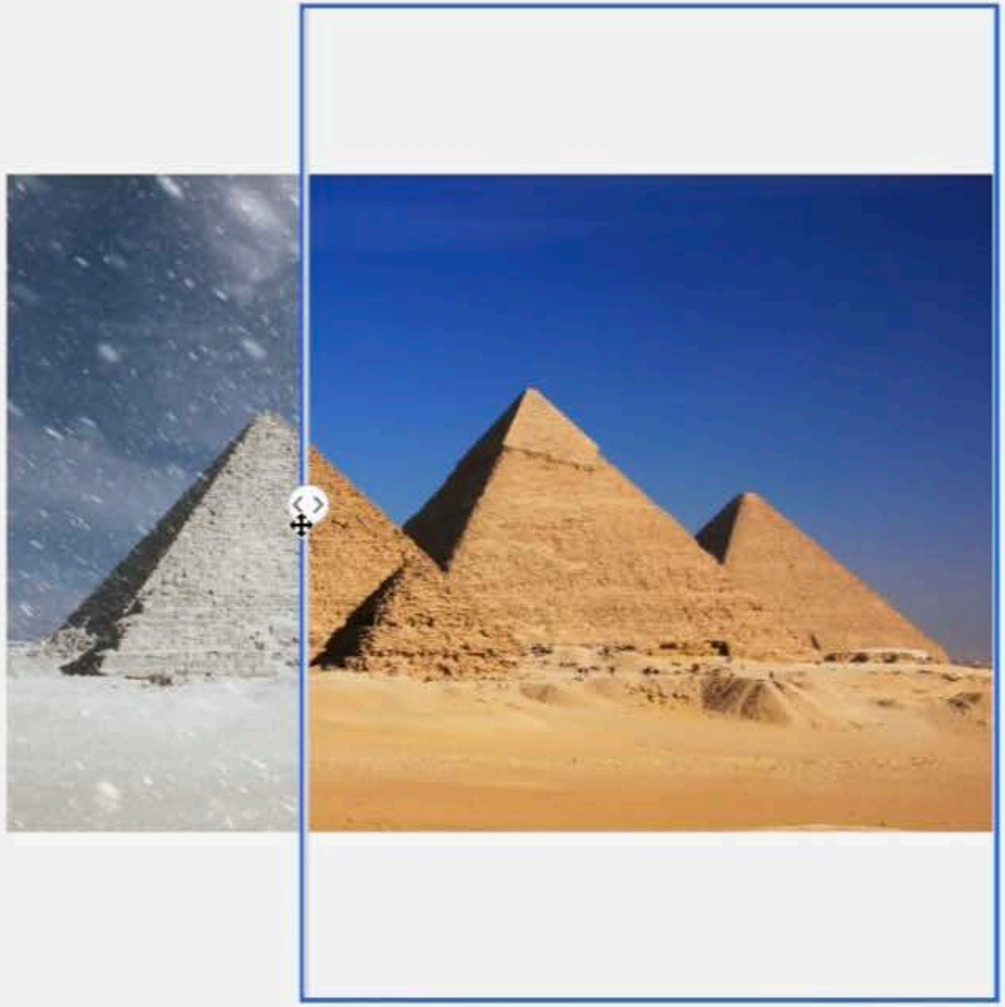
Compare view: Slider

AdobeStock_55134478.jpg
Nov 13, 2023

AdobeStock_55134478.jpeg
Oct 26, 2022

Untitled Image
No Content Credential

AdobeStock_250269283.jpeg
Oct 28, 2022



AdobeStock_55134478.jpeg
Oct 26, 2022

Credit and usage

The producer chose to share the following info:

Website

https://stock.adobe.com/55134478

Process

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

App or device used

Adobe Stock

Actions

Published image
Received and distributed image

About this Content Credential

Issued by

Adobe Inc.

Issued on

Oct 26, 2022 at 3:07 PM EDT

3 key areas of focus

1

Open Standards Specifications

2

Implementation & Member Collaboration

3

Advocacy & Education

C2PA

Content Authenticity Initiative

Join Us

Content
Authenticity
Initiative