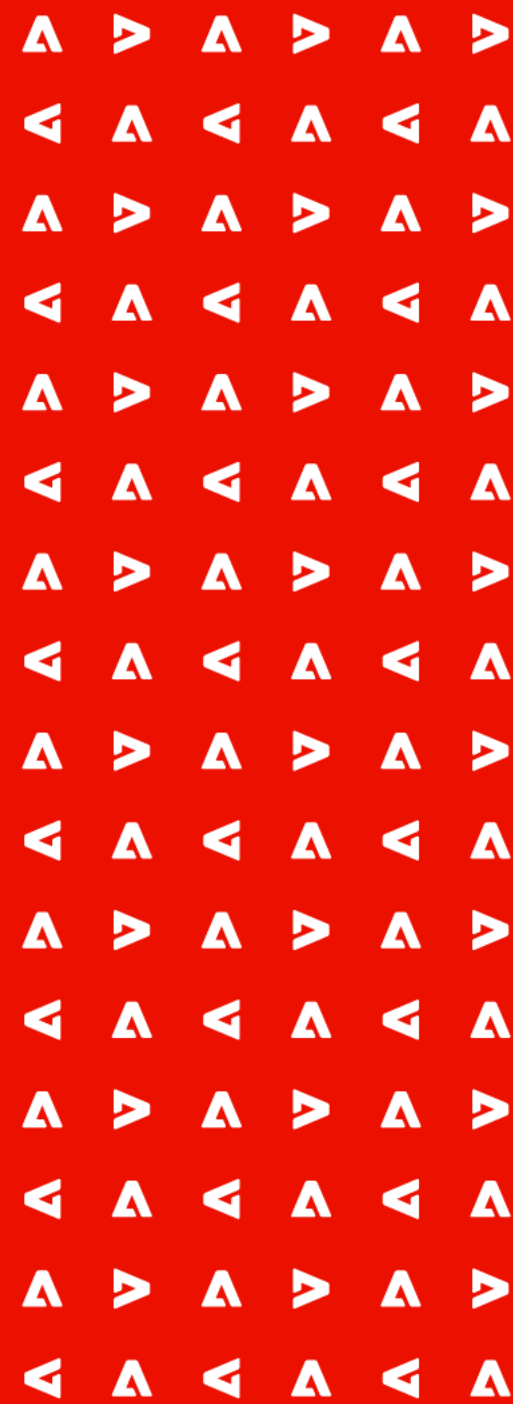




# Content Authenticity

Joint Commission on Technology and Science  
August 21, 2023

Julie Babayan, Head of Policy Development

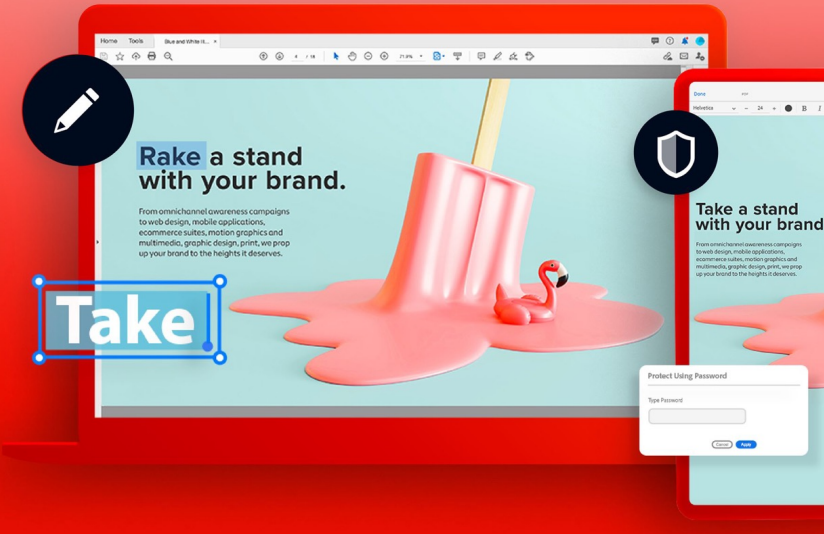




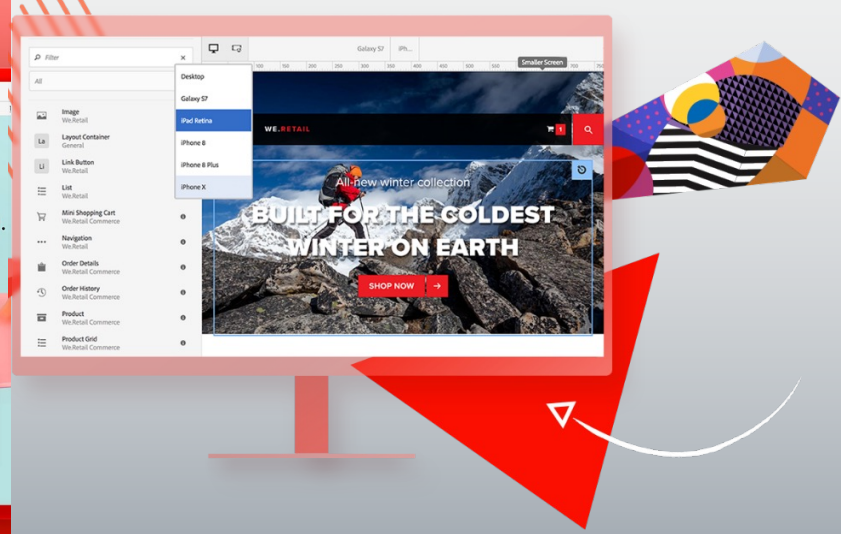
Adobe Creative Cloud



Adobe Document Cloud



Adobe Experience Cloud



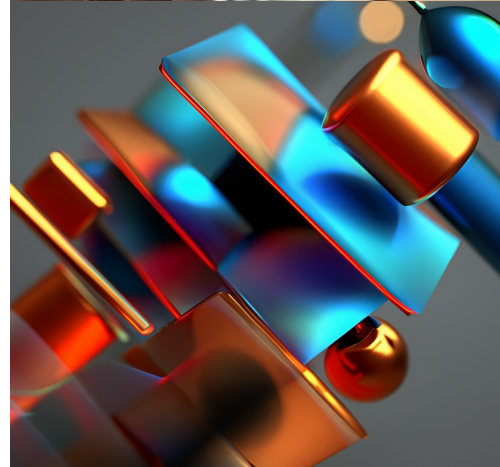
# Adobe's Presence in Virginia



# Adobe's Legacy of AI innovation

---

- More than a decade of AI innovation
- 100s of intelligent capabilities via our artificial intelligence services
- AI ethics principles: accountability, responsibility and transparency
- Generative AI: Next evolution of AI driven creativity and productivity



# Enter Adobe Firefly

—  
This year we announced  
our new text-to-image  
creative generative AI  
model.



# AI Implications

---

Harmful Bias/Discrimination

Copyright & Brand Infringement

Misinformation

Workforce

**AP** **FACT FOCUS: Fake image of Pentagon explosion briefly sends jitters through stock market**

*The  
New York  
Times*

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

**WSJ**

**AI Tech Enables Industrial-Scale Intellectual Property Theft, Say Critics**

**Forbes**

**The Battle Against Fake News Enters The Age Of Deepfakes**

**CNBC**

**U.S. regulators warn they already have the power to go after A.I. bias — and they're ready to use it**

**TheVerge**

**Getty Images sues AI art generator Stable Diffusion in US for copyright infringement**

# Restoring Trust & Transparency with Content Credentials

Overview Inspect



**Content Credentials**

Virginia Capitol Horizontal- Content Credentials.png

**SIGNED BY**  
Adobe Inc.  
Aug 17, 2023 at 2:22 PM PDT

**PRODUCED BY**  
Michelle McLean

**PRODUCED WITH**  
Adobe Photoshop 25.0.0

**EDITS AND ACTIVITY**


- Combined**  
Composited or reordered content, or edited with content-sampling tools
- Opened**  
Opened a pre-existing file
- Other edits**  
Made other changes

**ASSETS USED**

- **Content Credentials** let you prove what's true – images, audio, video, documents
- **Nutrition label for images:** can show name, date, location, edits made to content
- **Opt-in** technology, built on **open industry standard**
- CAI reached **1,500+ members**, including fellow gen AI developers Stability AI, Spawning AI, and companies like WSJ, AP, Reuters, NYT, WashPo, AFP, The Hindu, Nikon, Canon, Microsoft, Qualcomm, NVIDIA, ARM, and UMG


# Verify, then Trust

**Content Credentials** ▼

 Virginia Capitol Horizontal- Content Credentials.png

---

**SIGNED BY** ?

 Adobe Inc.  
Aug 17, 2023 at 2:38 PM PDT



---

**PRODUCED BY** ?

Michelle McLean


---

**SOCIAL MEDIA** ?

 @AdobePolicy  
 @Michelle McLean






**PRODUCED WITH** ?

 Adobe Photoshop 25.0.0


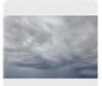
---

**EDITS AND ACTIVITY** ?

-  **Combined**  
Composited or reordered content, or edited with content-sampling tools
-  **Opened**  
Opened a pre-existing file
-  **Other edits**  
Made other changes

---

**ASSETS USED** ?

- 
- 

# Rolling Stone Magazine | Use Case with Content Credentials

- Rolling Stone published photos from Starling Lab – featuring photos from the Bosnian War.
- Starling Lab implemented the C2PA open source standard and applied it to archival photos to add content credentials to each photo (originally captured in 1992).
- They were able to show exactly where the images came from and know that they are authentic images.

**EXPLORE AUTHENTICATION DATA THROUGHOUT WITH THIS BUTTON**

**Rolling Stone**

**AUTHENTICATION CERTIFICATE**

**DESCRIPTION**  
Authenticated scan taken on April 27, 2022. Photograph originally taken by Ron Haviv on April 2, 1992. Color Corrected and Cropped / Registered (4 protocols) / Preserved (3 protocols) / Verified (1 attestation).

**ASSET CID**  
BfYBE1c2tGKSHmNCJEY6SS97AC3G2R25GEAEUBAT7VIMhYD3J6DNCSU

**CAPTION**  
Members of Arkan's Tigers in Bijeljina on April 2, 1992. (Ron Haviv/VII/Redux)

**CHAIN OF TRUST**

- ROLLING STONE
  - ROOT CERTIFICATE AUTHORITY: ROLLING STONE
  - SIGNING CERTIFICATE: ROLLING STONE
- STARLING LAB
  - ROOT CERTIFICATE AUTHORITY: STARLING LAB
  - INTERMEDIATE CERTIFICATE AUTHORITY: STARLING LAB
  - SIGNING CERTIFICATE: STARLING LAB

**ASSET DETAILS**

- DIMENSIONS: 1500 X 1000

**INSPECT ASSET** **FULL MANIFEST**

In common with Numbers Nid, can use the same Nid to query and verify the info on Numbers Protocol

“History is coming back,” Arkan said at a training camp. “But this time, the Serbs are going to fight back.” Arkan recruited young men to do his bidding. Some were “Ultras,” hardcore soccer supporters, pulled from Belgrade’s Red Star soccer fan club, which, according to a [top-secret CIA intelligence report](#),



# Government Can Foster Trust for Digital Content With Content Credentials

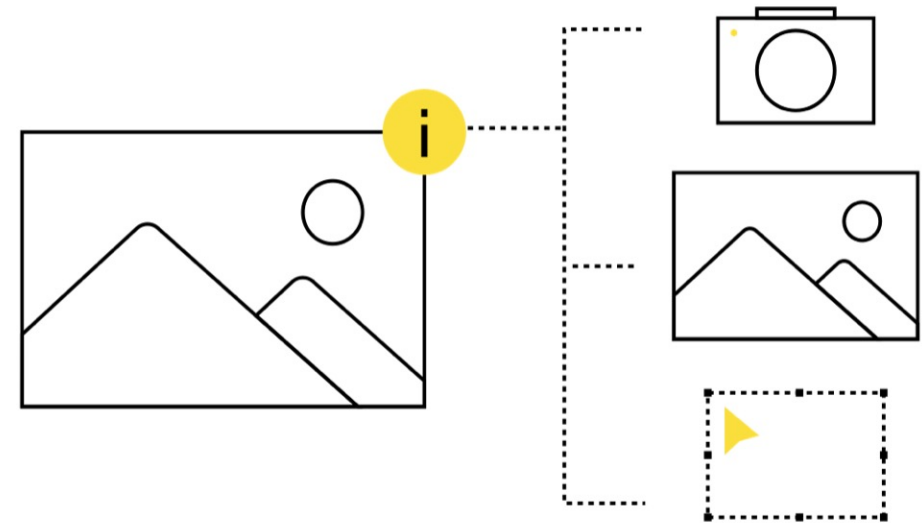
## What Can Governments Do?

### Build Consumer Literacy

Government has an important leadership role to play in educating the public about the dangers of misinformation and the tools that can be used to combat it.

### Implement Content Credentials

A Virginia state agency could become an early adopter of this technology as a pilot program.



This file has content credentials  
Credentials.png

