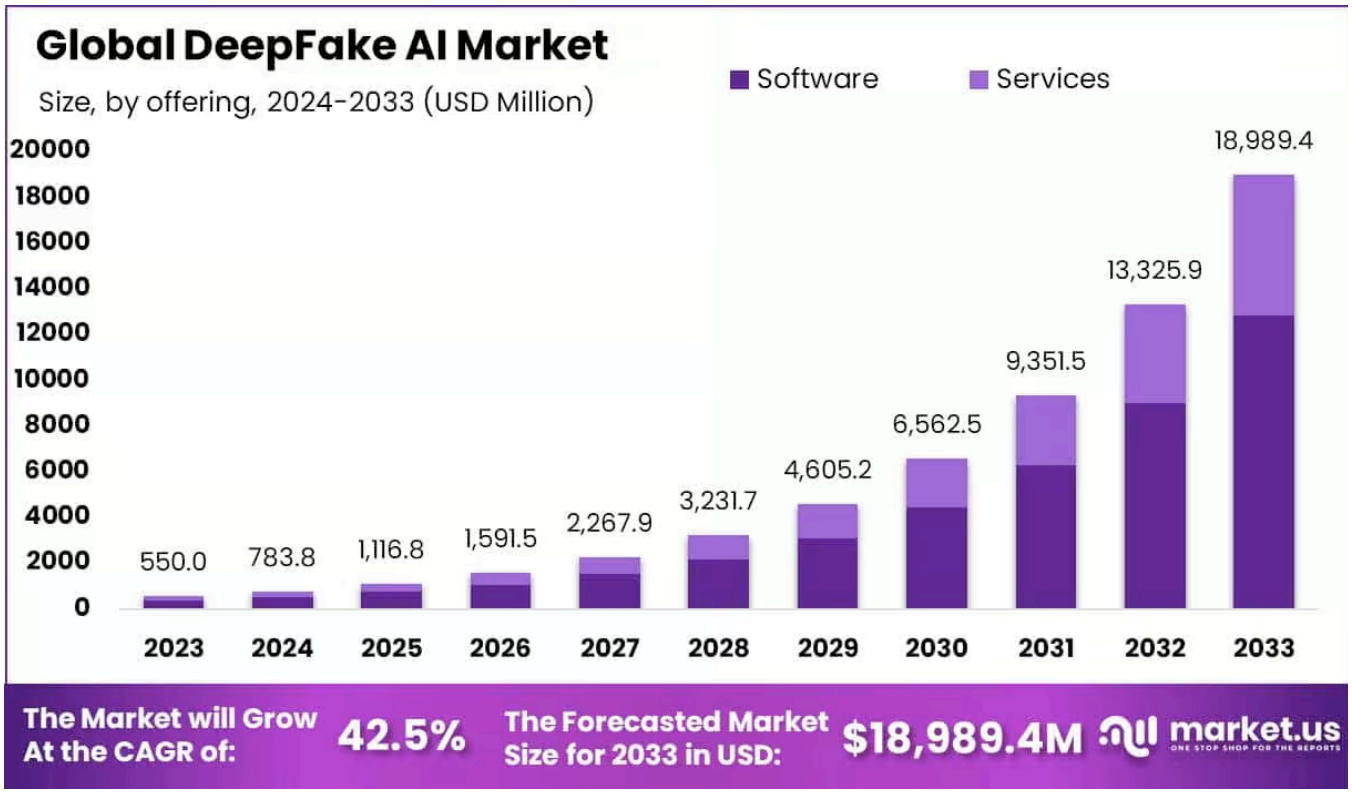
JUNE 19, 2025

AUTHENTI.MEDIA

DEEPFAKE PROTECTION WHITE PAPER

MEDIA INTEGRITY VERIFICATION FOR THE DEEPFAKE ERA

DEEPFAKE IS BIG BUSINESS



Source: https://market.us/report/deepfake-ai-market/

As AI-generated content becomes increasingly realistic and accessible, the threat of misinformation, fraud, and identity manipulation via synthetic media has escalated. While existing verification solutions depend on hardware-based provenance metadata (e.g., C2PA), cryptographic signatures, or proprietary AI detection algorithms, they are usually an algorithm arms race, and often leave individual content creators, independent journalists, and open platforms underserved. This paper introduces a simple, scalable, watermark-based authentication system designed for universal compatibility with existing video/image formats and hosting platforms. It requires only an open-source toolchain, standard media hosting, and a verification API.

COMPARISON OF EXISTING SOLUTIONS TO AUTHENTI MEDIA

Solution	Hardware Required	Metadata Dependent	Publicly Verifiable	Open Source Support
C2PA (Adobe/ Microsoft)	Yes	Yes	Partially	No
Truepic	Yes	Yes	No	No
Reality Defender	No	No	No	No
Deepware	No	No	No	No
InVID Plugin	No	No	No	Partial
Authenti Media	**No**	**No**	**Yes**	**Yes**

KEY OBSERVATIONS:

- Most solutions are designed for corporate, government, or enterprise workflows.
- Metadata-based or cryptographic approaches fail when media is stripped, recompressed, or reposted.
- AI Methods create “arms race” of who has the better algorithm, fakers or verifiers.
- Few systems empower home users or creators on platforms like TikTok, YouTube, or Instagram.

THE AUTHENTI MEDIA SOLUTION

- **Toolset**:
  - Open-source CLI/GUI to apply a visible watermark and generate JSON metadata
  - Server/API
  - Verification Portal
  - Platform Integration via our API
- How It Works
  - User Prepares Content, then uses our open-source tool to choose settings and watermark their image/video.
  - Upload Anywhere: The user uploads content to any public or private host (e.g., YouTube, Dropbox, IPFS).
  - User enters the URL(s) for sites where they uploaded the video, and send that and the metadata to the API.
  - Verification Issued: Our server stores a verification record and issues a short URL to check the verification of the video.
  - Verification by Anyone: Any user or platform can use our API or website to check if a video/image is registered and validated.
- Use Cases:
  - Citizen journalism: Authenticate footage from public events
  - Artists and creators: Prevent fake pieces in your name because of AI “Style stealing"
  - Corporate PR: Retain authenticity across media types and platforms
  - Disinformation researchers: Archive verified media in misinformation workflows
  - Politicians & celebrities: Watermark public messaging to protect against deepfake attacks
  - Tech Leaders: Protect your brand from misinformation and personal attacks on your character by competitors
  - Influencers: Prevent unauthorized use of your likeness for products you don’t endorse

POSSIBLE FUTURE FEATURES

While Authenti Media cannot confirm who originally created the content or whether the footage is genuine, it does verify who uploaded and registered it. If a verified media asset is altered—such as through cropping, mirroring, audio modification, or frame manipulation—and re-uploaded by another party, the system can detect duplication and flag it as a potential copy or tampered derivative.

To support creative collaboration and derivative use cases, creators can define reuse rules during registration. These may include:

- Percentage of content allowable in derivative works
- Required attribution or branding overlays
- Mandatory inclusion of specific visual or textual elements
- This feature helps balance creator rights, collaborative reuse, and content integrity in distributed environments.
- Verified Embedded Content, for verified content to be included in other verified content, with “Digital citations” to show where your research originated.
- Offline Checking using downloadable blockchain powered app.

CONCLUSION

Authenti Media offers a universally accessible layer of trust in the age of synthetic media. By simplifying watermarking and verification, it brings credible authentication to ordinary creators, high-profile individuals, and researchers alike. As deepfake proliferation grows, Authenti Media ensures authenticity doesn’t take a backseat.