# Perceptual Judgments of Video Authenticity: An Examination of Viewing Duration, Confidence, Content, and Strategies

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## Introduction

The proliferation of AI-generated videos shared on social media is causing confusion about what is happening in the world, raising concerns that AI-generated videos will be mistaken as real, and the inverse problem: that important authentic content can be dismissed as AI-generated [1, 2]. Consumers often have to fall back on their own perceptual and subjective judgments of video authenticity. Here we focus on state-of-the-art text-to-video content and report the results of an online study addressing some basic questions:

**How well can people reliably distinguish authentic from AI-generated visual content? How does their performance depend on the length of the video and the type of motion? How confident are people in their judgments and is their confidence warranted?**

## Methods

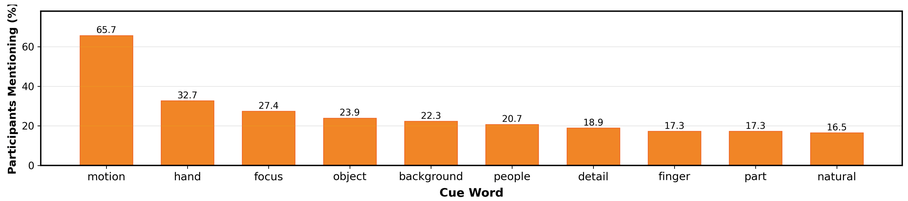
**Participants:** 376 online (US-based, English-speaking), 48 trials each (+ 4 catch trials).

**Stimuli:** 24 authentic videos were paired with content-matched synthetic videos generated by Veo 3.1, Sora 2, and Seedance Pro 1, yielding 480 total stimuli. Each video was presented at 5 durations: a static frame (0s), 2s, 4s, 6s, and 8s.

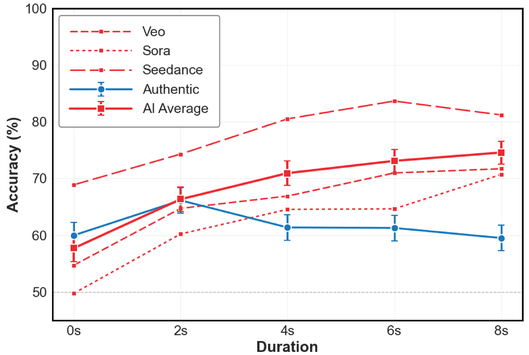
**Task:** On each trial, participants judged "Real or AI-generated?" and rated confidence (0–3). Each participant saw a 1:1 balance of authentic and AI-generated content, with each video seen at only one duration.

## Conclusions

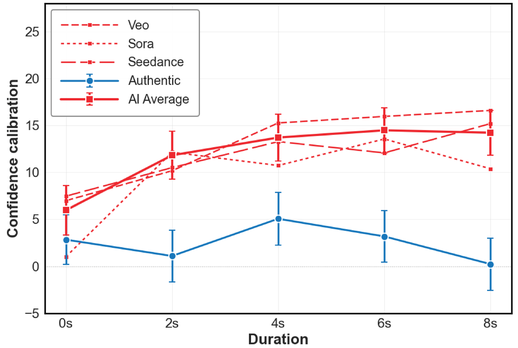
- Viewers appear to **search for violations rather than verify authenticity**. Fakes get caught when dynamics conflict with expectations, but real videos offer no features that uniquely certify "realness." Open-ended responses revealed that **participants relied primarily on motion** (mentioned by 66%), followed by hands and other body parts, and image quality cues.
- This means improving AI realism may not make fakes more believable so much as **erode trust in all video**, since the absence of detectable errors is not affirmative evidence.



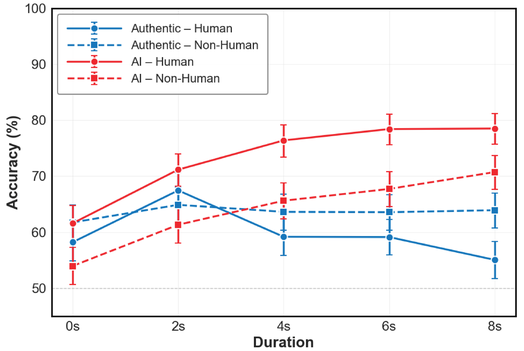

## Results



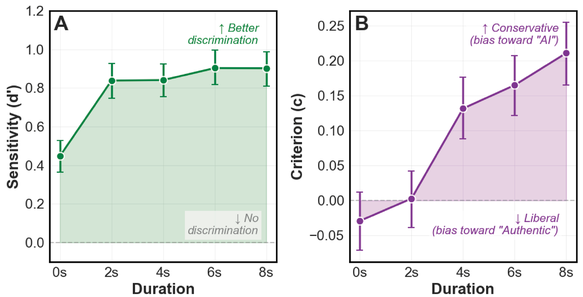

Viewing duration increased accuracy for AI-generated videos, but not for real ones.



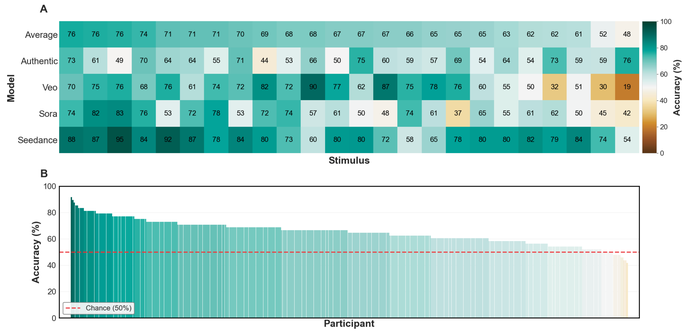

Viewing duration also increased confidence calibration for AI-generated videos, but not for real ones.




AI-generated videos depicting humans were easier to detect than those without, but no human advantage was seen for authentic videos




This pattern reflects both an increase in sensitivity and a shift in bias toward skepticism




Accuracy varied substantially across both stimuli and participants, with Seedance the most detectable and Sora the least.

## References

[1] Chesney, R., & Citron, D. K. (2019). Deep fakes: A looming challenge for privacy, democracy, and national security. California Law Review, 107, 1753–1819.

[2] Vaccari, C., & Chadwick, A. (2020). Deepfakes and disinformation: Exploring the impact of synthetic political video on deception, uncertainty, and trust in news. Social Media + Society, 6(1).

CVPR JUNE 3-7, 2026 DENVER COLORADO