

The Emerging Use of AI-Avatar Generated Videos

*Overview, Benefits, and
Cautions*

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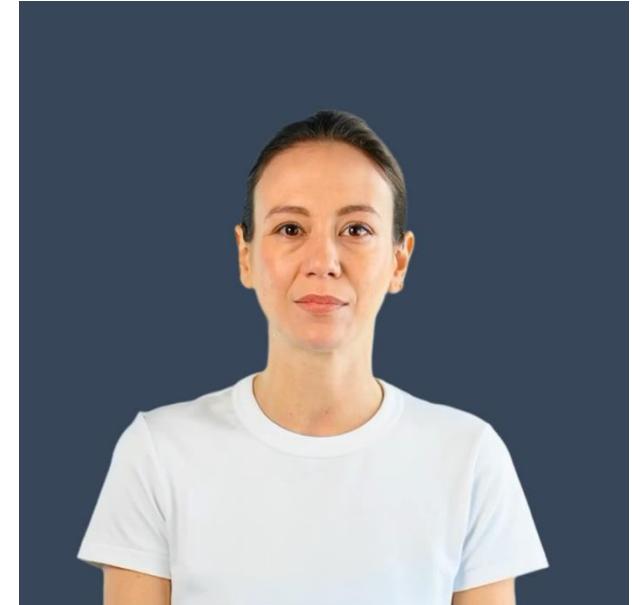
Which video was filmed with a human actor?



A



B



C

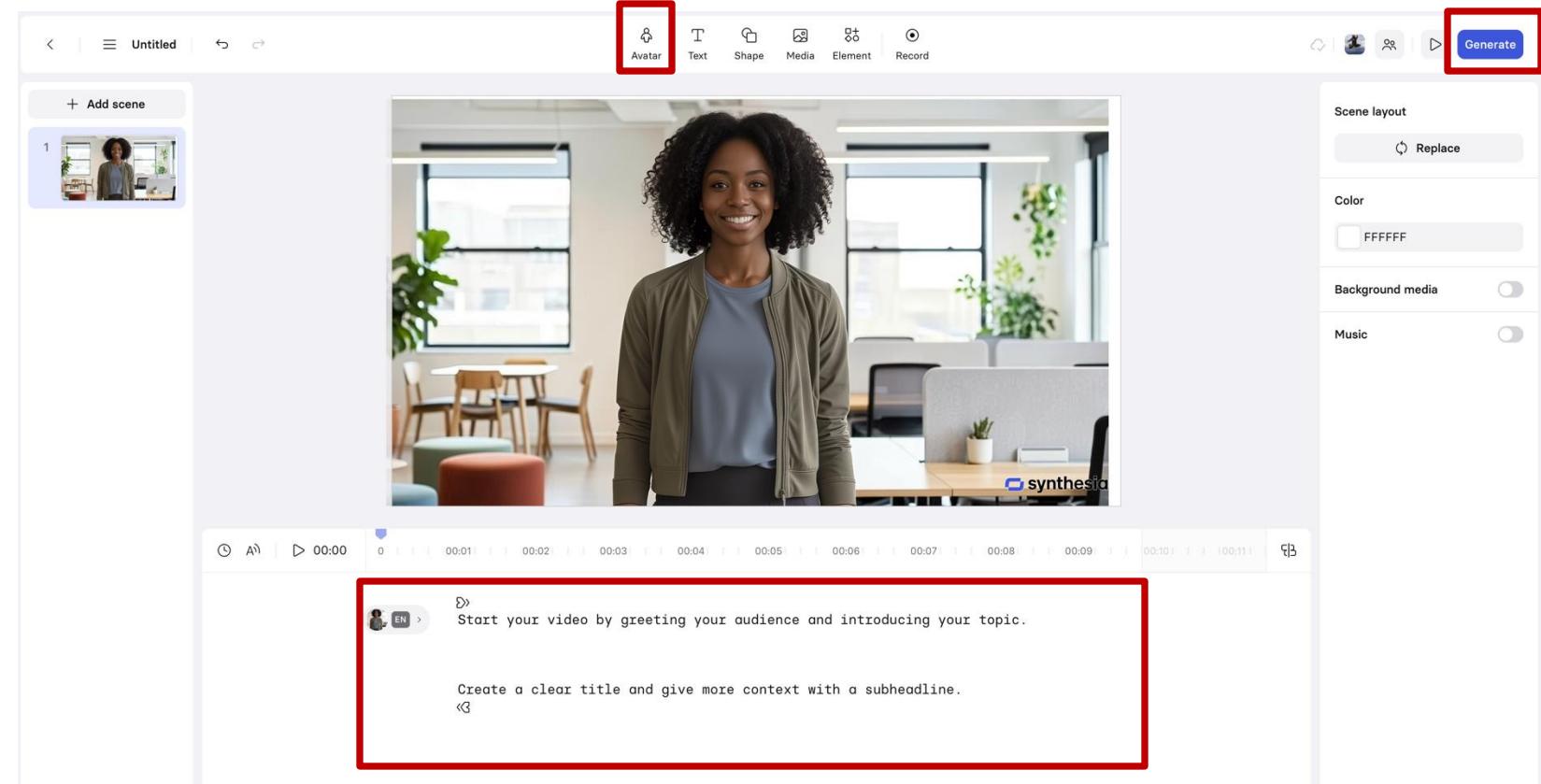
A 36%

B 18%

C 45%

Write Script – Select Avatar – Generate Video

- Computer-generated digital character that looks and acts like a real person
- Real actors reading scripts, and capturing different facial expressions, poses, and gestures with their permission.

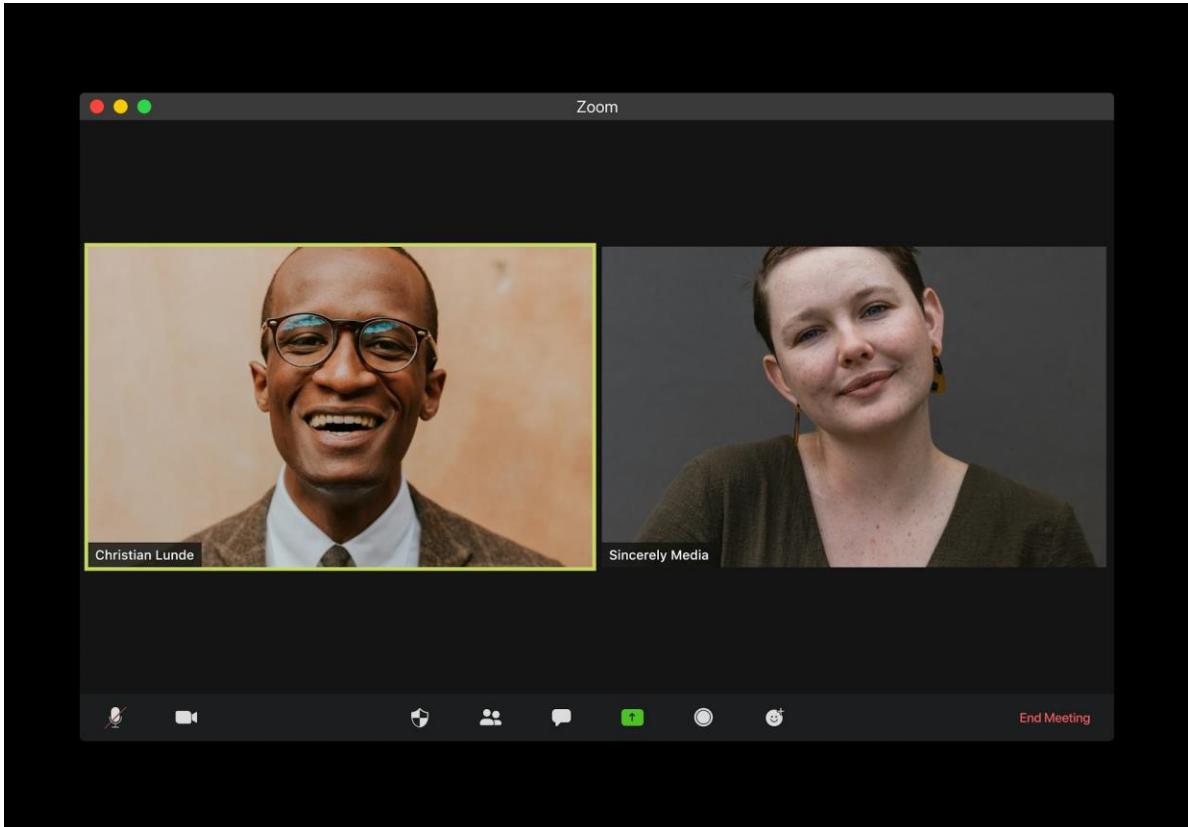


Reduce Production Time and Cost

- Studies and our experience suggest reduced development time of 60%
- Reduces the time spent searching for actors, camera operators, sound engineers
- Payment of studio fees and post production replaced by subscription fees
- If updates are required – update the script and generate the video



Increased Sense of Social Presence



- Studies indicate that a visible instructor increases the sense of social presence in environments where learners feel disconnected.

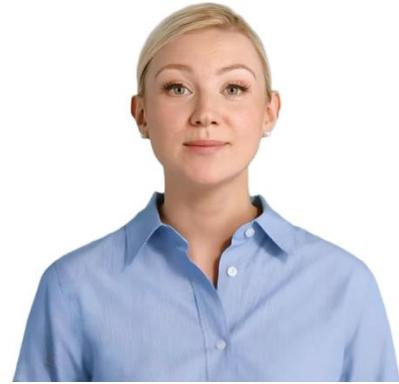
Multilingual Videos



French



German



Spanish



Swedish

- All were created in a matter of minutes

Which of the following are disadvantages of using AI to generate talking-head videos? Select all that apply.

- A. Distract learners from instructional graphics and charts 61%
- B. Increased sense of social presence does not increase learning 30%
- C. Trust and engagement could drop when learners are told they watched AI generated videos 74%
- D. Generating videos about weather forecasts can lead to companies banning an account 17%
- E. Present visuals and narration at the same time and close together on the screen 17%

Distract Learners from Instructional Graphics



- Eye-tracking study found that learners focused disproportionately on the avatar's face
- Less attention to information graphics and charts

Pair Narration with Instructional Visuals

- Align audio narration with instructional graphics
- Do not distract learners by placing AI avatars next to instructional graphics



Spatial and Temporal Contiguity

Stronger Perceived Learning ≠ Learning Gains



- Learners indicated “stronger learning” when videos have visible instructors (n=124)
- This subjective perception did not correlate with objective learning gains
- Design learning experiences with retrieval practice and not just passive viewing

Trust and Ethics



- When unaware, learners rate AI avatars and human actors equally (n=240)
- If told partway through, trust and engagement dropped significantly
- Avatars are becoming indistinguishable from real people
- Failing to disclose that risks violating learner trust and institutional credibility

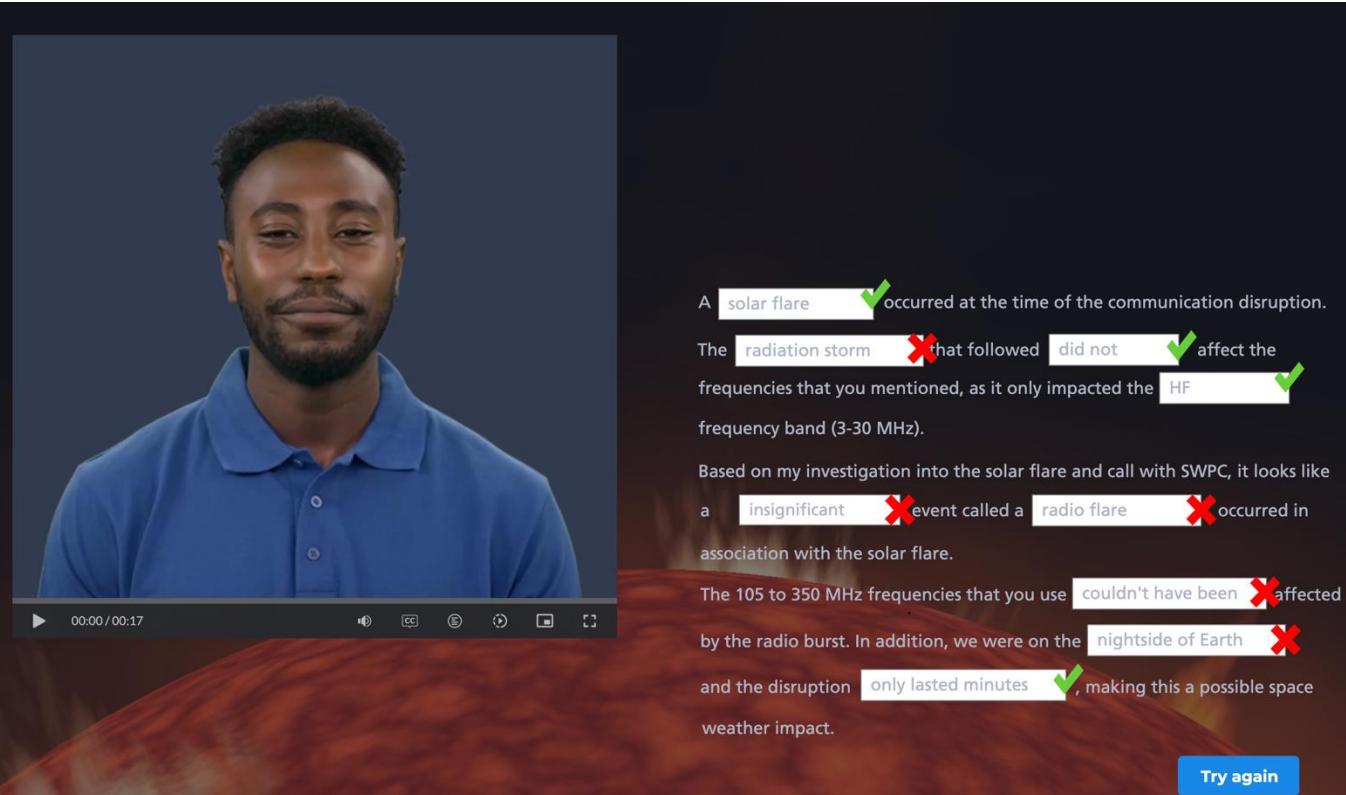
Banned Account

“Good morning and Happy New Year. Unfortunately, tonight’s celebrations have been marred by numerous accidents and confusion on the roads due to unexpected extreme fog.

As partygoers attempted to make their way home after the midnight celebrations, visibility dropped to near zero in some areas. The fog, which wasn’t properly forecasted, has led to several accidents across the region. Authorities have reported multiple road collisions, as drivers struggled with the sudden, severe weather conditions.”

- Synthesia banned our subscriber account without warning
- Months of appeals and 24 pages of emails did not reverse their decision
- Read their Acceptable use policy carefully; if in doubt contact their Review team
- Avoid mentioning actual institutions
- Create your own custom avatar

Use AI Avatars Strategically



A solar flare ✓ occurred at the time of the communication disruption. The radiation storm ✗ that followed ✓ did not ✓ affect the frequencies that you mentioned, as it only impacted the HF ✓ frequency band (3-30 MHz). Based on my investigation into the solar flare and call with SWPC, it looks like a ✓ insignificant ✗ event called a ✓ radio flare ✗ occurred in association with the solar flare. The 105 to 350 MHz frequencies that you use ✓ couldn't have been ✗ affected by the radio burst. In addition, we were on the ✓ nightside of Earth ✗ and the disruption ✓ only lasted minutes ✓, making this a possible space weather impact.

Try again

- Use avatars strategically for motivation, simulate conversations, reflection, introductions and summaries.
- Do NOT use avatars on every page.

Be Transparent

- Be transparent about the use of AI avatars in instructional materials
- “I am your AI learning assistant, designed to guide you through this topic.”
- **In Europe, this is a requirement under the EU AI Act.**



Overcoming the Illusion of Learning

- Humans struggle to determine how well we have learned something
- Design learning experiences with retrieval practice and not just passive viewing
- “Measure learning outcomes via:
 - Pre/post tests
 - Affective response [surveys]
 - Behavior data like completion rates, pause/play actions”
- Triangulate these metrics to determine whether AI avatars are “truly adding instructional value or simply aesthetic polish.” (Hardman)

Summary

- Design learning experiences with retrieval practice and not just passive viewing
- Be transparent about using AI avatar videos
- Use them strategically where human presence is likely to enhance motivation and connection
- Use multimedia principles like temporal and spatial contiguity
- Read Acceptable Use policies and ask questions before you generate videos
- Measure learning outcomes not just satisfaction

Use AI to Create Talking-Head Videos

- Access your script
- Log into Synthesia
- Make videos
- Use Synthesia documents to start, raise your hand for help
 - <https://docs.synthesia.io/docs/video-creation>
 - <https://www.synthesia.io/post/how-to-make-synthesia-videos>

References

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