CREOpoint unique intelligence shows politics is the fastest growing target of cheap & deep fake video threats







Barack Obama



Joe Biden



Kamala Harris



Mike Pence



Donald Trump



Boris Johnson



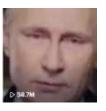
Mark Zuckerberg



Arnold Schwarzenegger



Jim Acosta



Vladimir Putin



Angela Merkel













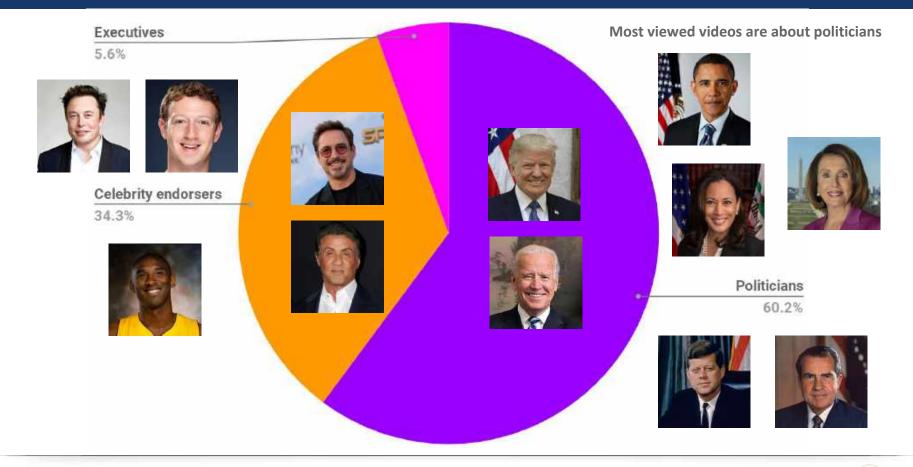
If the 2016 elections were about accusations of "Fake News", CREOpoint says we are on track to watch the first-ever "Fake-Video Election."

- **New insights:** CREOpoint intelligence reveals that deceptive and damaging shallow and deep fake videos is exploding in politics. It's far worse than you think.
- **Same old:** Given the threats, the current response from social media platforms is too little, too late.
- **Imperative:** Tech innovators must help drive the ability to anticipate fakes and quickly minimize damage.
- **New patented solution:** CREOpoint addresses the risks of damaging synthetic media by rapidly crowdsourcing from Al-identified experts a licensable content veracity score.
- 5. **Appendices**

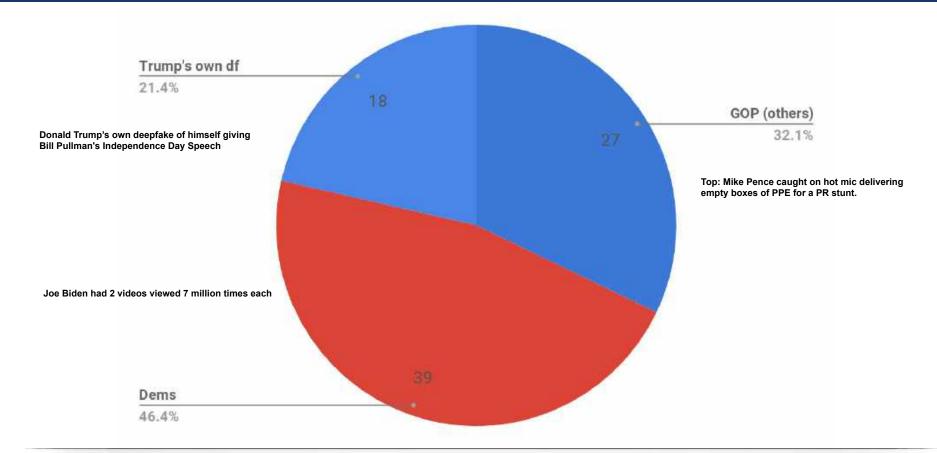
This is a draft report that will be finalized by embargoed time Tuesday September 8 at 9 A.M. PDT



New insights: 60% of the most damaging videos are now targeted to impact politics

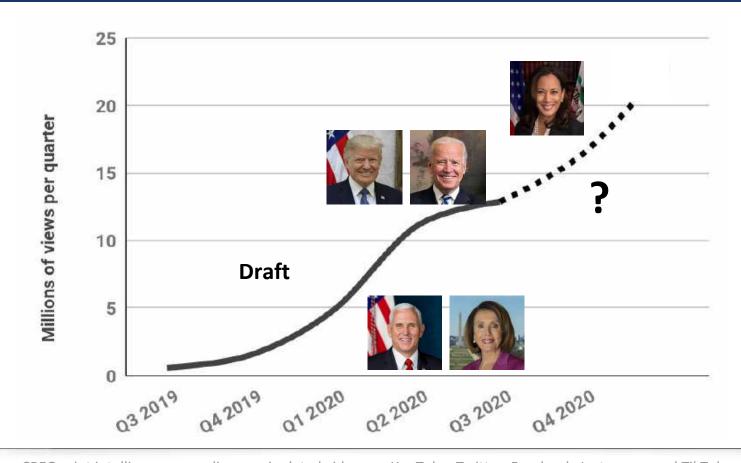


Manipulated videos are already weaponized by campaigns Donald Trump's fake "Declaration of Independence" was watched the most with 18+ million views





CREOpoint curation reveals videos manipulated to damage American political figures - Expect more through November





Trick or Treat? Prepare for misused Al

- 1. **Threats to democracy** through algorithmic amplification that can exacerbate divisions, mislead voters and swing elections
- 2. The potential to **slander** prominent individuals, resurrect deceased leaders, create new scandals **and ruin reputations**
- 3. **Market-moving events and manipulation** (e.g., "pump and dump" and "short and distort" stock scams)
- 4. **Falsification** of personal statements and evidence
- 5. **Fake voice authorizations** and phishing being used to commit fraud with financial loss to funds transfer
- 6. **Appropriating** personal data
- 7. Non consensual **pornography** and sextortion



Al currently can't reliably detect fake news or fact check fast enough. Social media platforms can't get it both quick and right

- Mark Zuckerberg repeatedly promises Congress: "Building AI tools is going to be the scalable way to identify and root out most of this harmful content. We're investing a lot in doing that." And about the doctored Nancy Pelosi video: "It took a while for our systems to flag that and for fact-checkers to rate it as false." FB COO Sheryl Sandberg added: "The fact checking process worked way too slowly."
 There are a lot of problems to fix.... They're real and I have a real responsibility to do it"
- Mike Schroepfer, Facebook CTO warned: "There's a bunch of advancing technology in making deepfakes, but not a lot of good technology in identifying them right now...This is a really hard problem. I don't think there is an easy solution out there but if we focus on it, I think we can do better than we have been doing."
- The best algorithm in the <u>Facebook</u>, <u>Microsoft and Amazon Deepfake detection challenge</u> could <u>only accurately determine</u> if a <u>video</u> was real or a <u>deepfake</u> just 65% of the time. It is "slightly better than a coin toss." Facebook AI leaders Jerome Pesenti and Yann LeCun commented: "The AI technologies that power tampered media are rapidly evolving, making <u>deepfakes so hard to detect</u>" and "The hardest problem to tackle: False news. AI is nowhere near being able to solve that problem." So they spread like digital wildfire and, sadly the harm is done without intervention...



CREOpoint insights not only shines a light on the risks of synthetic media, but proposes patented solutions



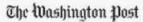
The Sunday Times: Deploying AI to tackle misinformation online

Mashable: Deepfakes are getting easier to make and the internet is just not ready

Le Point: « Deepfakes » : bienvenue dans le monde terrifiant du Photoshop animé

Cheddar

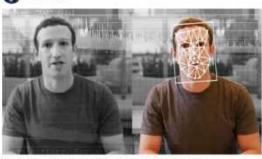
With Deepfake Tech, Startups See Profit Where Others See Peril



Dienocracu Dies in Ziarlinese

toron U.S. School Propose





A comparison of an original and English vision of Fundsock (III) their Environing, (From Inervally The Markagons Pref.)

Ctri + N

Pake videow doctored by artificial intelligence are not just a threat to politicians in 2020. Corporate brands should be on alert for "deepfakes" too, experts are warning.

Chief ossesulves including Apple's Erin Cuet, Vesta's Erin Mask and Fasoborik's Must Enack-berg have already been targeted in deepfakes published entine, according to an malysis frame CREOpolin, a firm that halps businesses filter and contain the ayread of disinformation, Many deepfakes also impersonate excluding a wind properties act as brand ambassadors for expositions and spread company messaging.

"The lines between fals or their are constantly being undersalood, resulting in an adoming dominillustion of emperate reputations and societal and political norms," said Jean-Claude Goldenstein, CREOperat founder and chief coordies.

CREOpoint is prepared for likely crises: Quickly leverage SWAT teams of hundreds of experts

Challenge:

Scaring enough unsuspecting voters into self quarantine and away from high stakes polling stations given a malicious large scale attack of COVID-19 contact tracing systems. See warning here.

Remember how young people on Tik Tok managed to register for Trump's Tulsa rally and then not show up? A bad actor without scruples could easily create a believable deepfake depicting a Big Tech CEO and a presidential candidate in fabricated private remarks conspiring to attack Apple & Google's new exposure notification system.

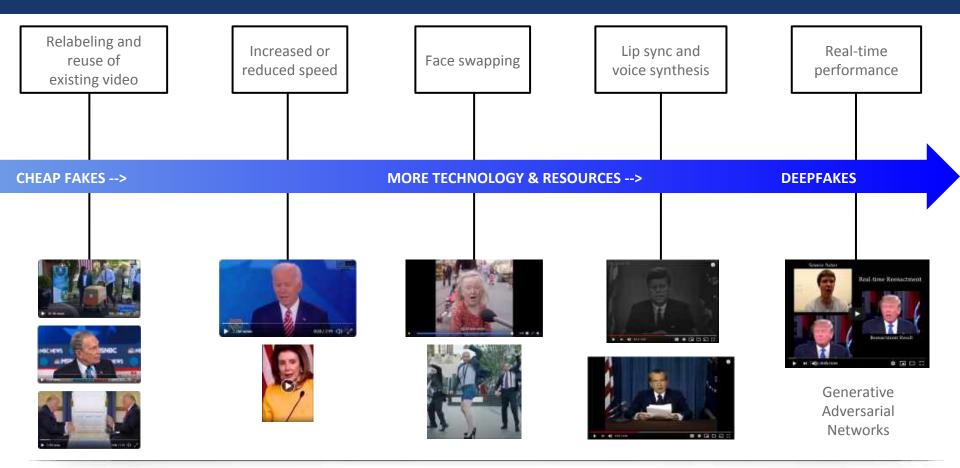
Intervention: crowdsource a veracity score based on the quick gut-check of:

Subject matter experts about anticipated topic domain(s), including exposure notifications and Facebook. CREOpoint is prepared, thanks to our proprietary text mining of tens of thousands or relevant articles in creo.pt/ContactTracingIntelligence and creo.pt/FBGovernance

Experts in disinformation and deepfakes, including deepfakers themselves (how valuable would it be to you to know and access experts in creo.pt/deepfakes?)



CREOpoint helps mitigate risks - With a new system that works from doctored videos to sophisticated deepfakes



Working with the solution ecosystem - Accelerated momentum addresses challenges for social media platforms

Protectors of brands and individuals	CREOpoint, FactMata, FakeNetAI, Graphika, Logically.ai, Yonder
Detectors and authenticators	Adobe, AI Foundation Reality Defender, BBC Project Origin, CREOpoint, Cyabra, Dessa, DistilNetworks, Fabula, Graphika, Logically, MetaCert, Microsoft Video Authenticator, Quantum Integrity, Serelay, Sensity, TruePic (+ social media monitors like Cision, Critical Mention, LinkFluence)
Content moderators	Accenture, Cognizant, Genpact, Pro Unlimited
Analyzers and fact checkers	Academics, AFP, AP, Baidu, Battelle, BBC, BOOM, CREOpoint, Factmata, FactCheck, FulFact, Google, Graphika, Health Feedback, IBM, IFCN, LeadStories, Le Monde, Logically, Microsoft, NewsGuard, NYT, Our.News, Politifact, Science Feedback, WAPO
PR/crisis "fixers"	Edelman, Publicis PR, W2O, WPP
Risk mitigators	AT Kearney, Deloitte, EY, KPMG, Kroll, PwC, Roland Berger
Bot detectors	Bot Sentinel, Botcheck.me, Botometer, Distil Networks, Hoaxy
Standards developers	Certified Content Coalition, IEEE ECPAIS, International Fact Checking Network, RSF Journalism Trust Initiative, The Trust Project Indicators
Source credibility scorers	Disinformation Index, FakerFact, MediaBias Ratings, Misinformation Detector, NewsCheck Trust Index, NewsGuard, Newstrition, OpenSources, Schema.org, The Factual

Proprietary solution – Al pioneer CREOpoint leverages first ever patent to contain the spread of doctored political videos

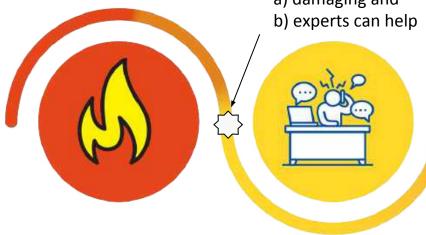
- Deep domain knowledge at the intersection of trust and social media
- Technology-enabled domain-expert network approach to combating doctored videos
- Addresses the risk of damaging deepfakes by rapidly crowdsourcing a content veracity score from Al-identified experts
- Already pre-identified hundreds of the most damaging deepfakes and monitoring new ones (click <u>creo.pt/deepfakes</u> to also identify relevant journalists)
- Maintains a proprietary database of thousands of subject matter experts and from the ethical "deepfakers", deepfake detection and disinformation solution communities.

CREOpoint content veracity scores protect trust SWAT team of experts, proactively identified with Al

Tech-enabled monitoring agents on alert 24/7 to find sparks

Triggers escalation to peer-review if a) damaging and

Clean stream of focused near real time intelligence







1 On Alert

Anticipated disinformation threats that would require a quick response

2 Expert Polling

Outreach to extended team and experts predetermined by AI/NLP

3 Dynamic veracity score

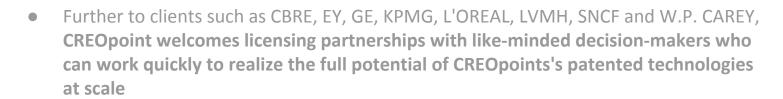
Rapid aggregation of expert gut check including supporting quotes

4 Crisis mitigation & resolution

Insights delivered when it matters most to victims, impacted brands, experts, journalists, platforms

Calling innovators - To help CREOpoint make the internet more trustworthy to save lives and our democracies

- With the exploding powers of weaponized private data on a darker web, we at CREOpoint are compelled to defend society's collective moral compass by listening to and gathering other concerned citizens and ethical technologists
- CREOpoint seeks to partner with aligned innovators who see the power of our **inventions and could scale them** to improve people's lives, mitigate reputational damage and brand safety risks







Appendices

- Warnings from leaders
- Doctored videos and corresponding articles Sept 1, 2019-August 31, 2020
- Two recent political cheap fakes
- CREOpoint patent charts and claims
- IP landscape
- Tools to create synthetic media tools
- **Positives**
- Top deepfakers

Leaders have warned us – From across industry, media, research institutions, NGOs and even Pope Francis







Pope Francis warns against deepfakes and tech 'barbarism'
Pope Francis warned against malicious Al and 'barbarism' and urged protection of the common good at a tech conference being held in ...



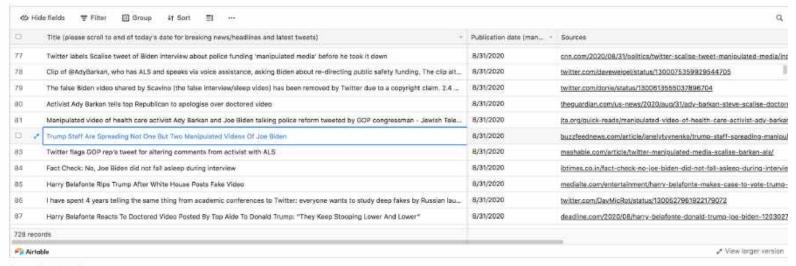
Doctored videos and corresponding articles Sept 1, 2019-August 31, 2020

CREOpont

Intelligence and experts you want. When and where you want it. And nothing more

This centralized repository of CREOpoint curated intelligence about synthetic media, including deep and shallow fakes, is curated daily from hundreds of major media and research sources in English. This holistic, balanced and coherent knowledge platform of influential resources is expected to grow to

- 1. Help accelerate global awareness, collaboration and research
- 2. Identify trends, opportunities and influential experts and journalists throughout the ecosystem
- Support the rapid development of robust solutions to damaging deepfakes and remedies to misuse of Al



Powered by CREGeoint

If you have additions or suggestions, or if you'd like to access the whole knowledge base, please email info@creopoint.ai. You could easily share this resource available at CREO.pt/Deeplakes.

"Cheap fakes" - A disabled activist was the subject of a doctored video accusing Joe Biden of wanting to defund the police





Pelosi, Biden slammed the House Minority Whip Republican Scalise for knowingly spreading a doctored video that altered the words of Ady Barkan, an activist Jewish lawyer who has A.L.S.

#BlackLivesMatter - George Floyd was also the subject of a deepfake video supporting a conspiracy theory



Click here for the amateur deepfake of George Floyd singing



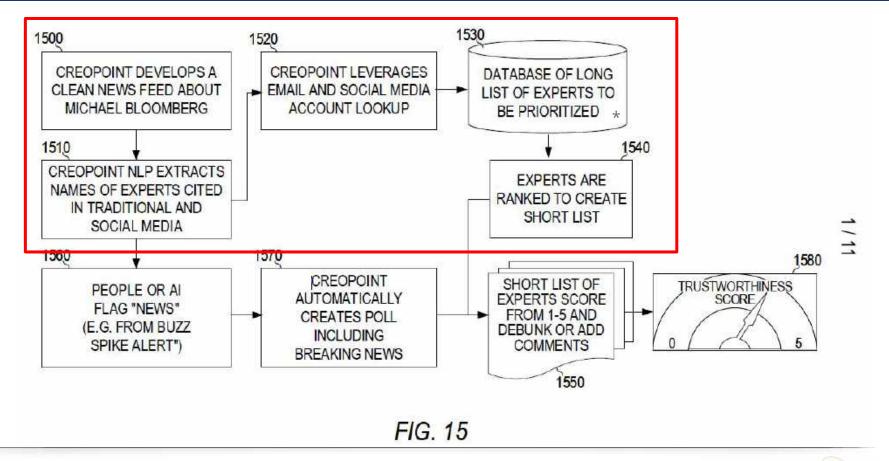


GOP House candidate publishes 23page report claiming George Floyd death was deepfake video

BY ZACK BUDRYK - 06/24/20 07:36 PM EDT



CREOpoint patent: From news curation about any personality to extracting relevant experts and polling them



Opportunity to empower users and offer peace of mind: Unique patented interface with personalizable user controls

2 challenges:

1. Finding out easily if "fake news" or not (or degree of veracity between)

2. Cutting through the noise to getting just what you need





2 patented solutions:

- Users improve understanding by electing to see credible vs. fake content thanks to veracity slider
- 2. Authentic, relevant and <u>clean news</u> <u>feed</u> when slider is to the right

High demand and low supply - Fewer than a dozen U.S. related patents granted and CREOpoint is the only private company







Filtering Content
of Social Media
Activity

<u>Customizing</u> <u>search results</u> <u>from user's</u> perspective



Efficient fact checking system



Automated local story generation and curation



<u>Customizable</u> <u>real time intelligence</u> channels (issued 3/2019)



Containing the spread of disinformation (issued 8/2020)

2012

Online Content

2013

2014

2015

2016

2017

2018

2019



1st Patent Application (now granted)



<u>Credibility</u> <u>enhancement</u> <u>for online</u> comments



7

Systems for demotion of content items in a feed (granted 3/2019)

<u>Black</u> = granted patent (clickable)



First mover advantage - "Containing the Spread of disinformation" US patent 10,747,837 issued August 18, 2020

"A technology-enabled method of rating the veracity of content, comprising:

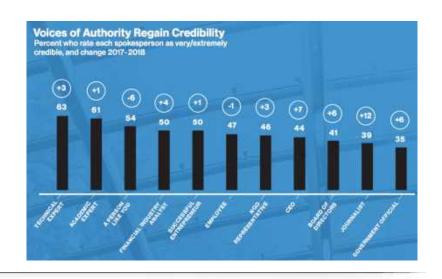
- Creating an ontology and selecting keywords for a topic of the content
- Creating a customizable intelligence channel for the topic
- Extracting from the customizable intelligence channel a first list of potential experts on the topic
- Mining trusted media sources to extract a second list of potential experts on the topic
- Providing the first and second lists of potential experts to a **database**
- Rating and ranking the potential experts based on a combination of factors selected from professionalism, reliability, proximity, experience, responsiveness, and lack of self-interest
- **Providing the content to the short list of experts** for evaluation
- Polling the short list of experts about the veracity of the content to create a veracity score
- Delivering the veracity score
- 10. Benchmarking the veracity scores to create a predictive fake news spread containment model and iterating to revise the model and overall performance of the model over time

CREOpoint command center: Ensures the best network of unbiased domain experts given predetermined situations

[00185] The CREOpoint system described herein also includes a rating mechanism to rate and rank experts based on how they are trusted. The CREOExpert Trust Rating is a function of Professionalism, Reliability, Proximity, Experience, Responsiveness and Lack of Self Interest, where:

- Professionalism = qualities that characterize an expert related to his
 or her mastery of specialized knowledge and competence, and deep
 personal commitment to develop and improve their skills and
 credentials;
- Reliability = degree of consistency of the expert's prediction versus what turns out to be the truth;
- 3. Proximity = closeness in space, time, or relationship;
- Experience = the process of getting knowledge or skill from practical contact with and observation of subject matter facts or events;
- Responsiveness = how quickly an expert reacts to question(s) posed by the CREOpoint system; and
- Lack of self-interest = focus on other people and problem at hand, rather than primarily on his or her own interests.

[00186] The weights assigned to each factor are adjusted over time based on the use case and CREOpoint system performance. For example, some experts



How is synthetic media created? 2017-2020 saw an explosion of ways anyone can make easy-to-generate, realistic fake videos

B2B

- 1. Al Foundation
- 2. Synthesia
- 3. Canny Al
- 4. Pinscreen
- 5. Hour One
- 6. Modulate.ai
- 7. Respeecher

B2C

- 1. DeepFace Lab
- 2. Deepfakes web β
- 3. Descript
- 4. FaceApp
- 5. FaceSwap
- 6. Face Swap Live
- 7. Humen
- 8. Morphin
- 9. Reface
- 10. Snapchat Cameos
- 11. TikTok Douyin
- 12. Zao





CREOpoint recommends <u>preparation</u> for malicious and sophisticated misuse of AI at the worst times. We support putting in place strict ethical and internal screening processes, including mindful contextualization and consent of any party whose image or voice is being used. Attributing liability to whoever harmed and providing damages are also safeguards to be considered.

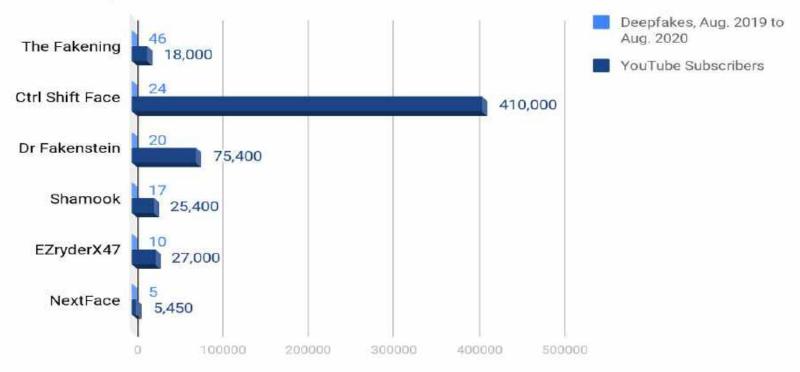
Trick or Treat? Tencent see positives for synthetic media

Beyond "special effects", <u>Tencent recently listed five examples of what it perceives as beneficial applications of deepfake technology</u> that already exist or could soon exist:

- 1. Enhance **TV and film production**: Deceased actors can appear in new movies. Create body doubles for stunts and other purposes. Automate voice-overs in different languages to increase global distribution of movies.
- 2. Create realistic **virtual avatars**: Three-dimensional digital humans to perform as virtual pop stars and TV anchors. Bring historical figures into virtual reality. Could also be combined with computer vision and natural-language understanding to create smart digital assistants capable of natural interactions.
- 3. Improve **e-commerce**: Virtual models of different body types and ethnicities. Let users digitally try on clothes for a more interactive online shopping experience.
- 4. Personalize **entertainment:** Face-swapping users into movies or video games could create a new genre of hyper-personalized entertainment.
- 5. Help people with **chronic disease**: allow people who have lost their voice to A.L.S. to communicate, and help patients with Alzheimer's disease interact with faces that they may remember.

Some star deepfake creators are not misusing AI - They are still entertaining

Star deepfaker/video creators



Thank you!

Jean-Claude Goldenstein

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CREOpoint

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