Image Manipulation, Deepfakes, and Media Literacy

PHOTOSHOP, 1988

RED BOOK
love your life.

the new SKINNY PILLS
yes, they work!
but read this first

the secrets couples keep about money, sex & more

look & feel YOUR HOTTEST
56 WAYS TO UNLEASH YOUR SEXY SIDE

Summer PARTY IDEAS
good food, good fun

faith & tim
see back cover
what's normal about them (and what's not)

Turn Xmas calories into muscle Get fitter not fatter!

Earn more **MONEY** BY WORKING 15 FEWER HOURS EVERY WEEK!

FIT FOR LIFE

January 2018

Men's Fitness

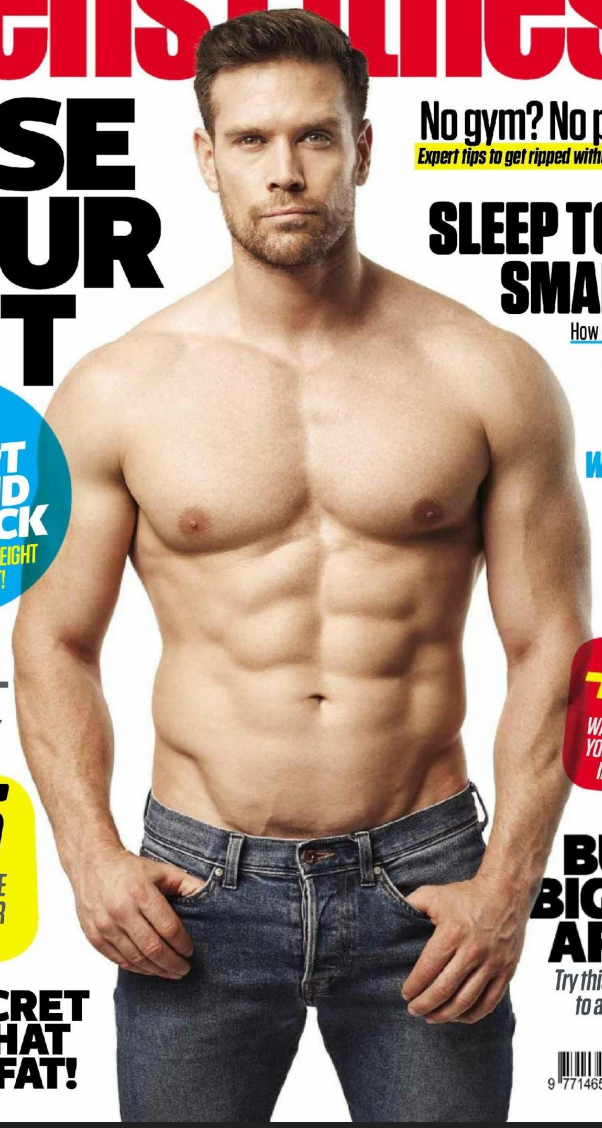
LOSE YOUR GUT

+ SCULPT A SOLID SIX-PACK WITH OUR BODYWEIGHT ABS CIRCUIT!

HOW TO...
MAKE HILL RUNNING FEEL EASY

+45 INSTANT STYLE UPGRADES FOR ACTIVE MEN

THE SECRET SUPP THAT BURNS FAT!



No gym? No problem!
Expert tips to get ripped without any training kit

SLEEP TO GET SMARTER
How a lie-in can boost your brain power

Torch fat with steak sarnies!
Why it's time to put bread back on the menu

+3 WAYS TO DOUBLE YOUR STRENGTH IN 28 DAYS

BUILD BIGGER ARMS!
Try this workout hack to add serious size

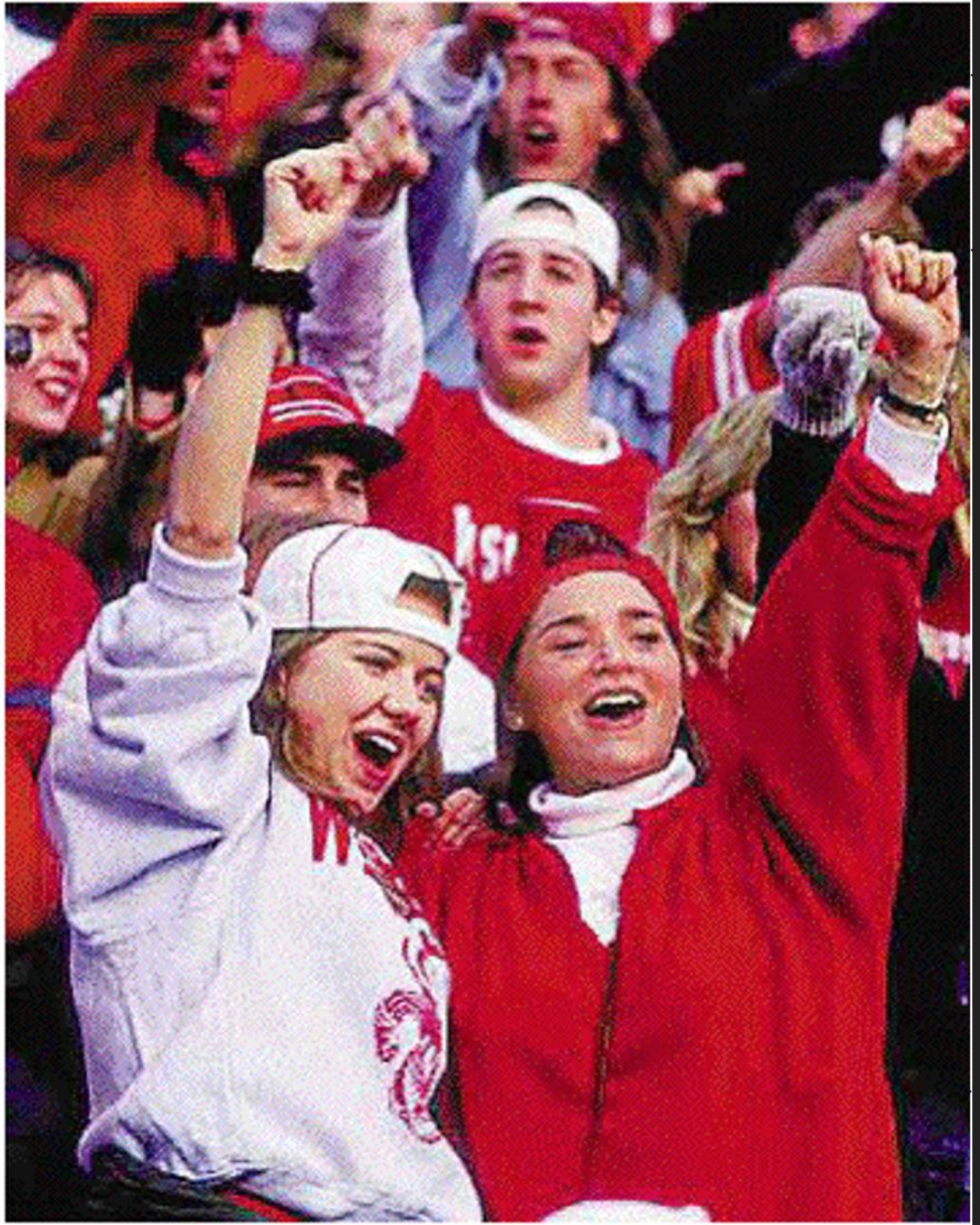
9 771465 643125 01> £4.20

www.ebook3000.com

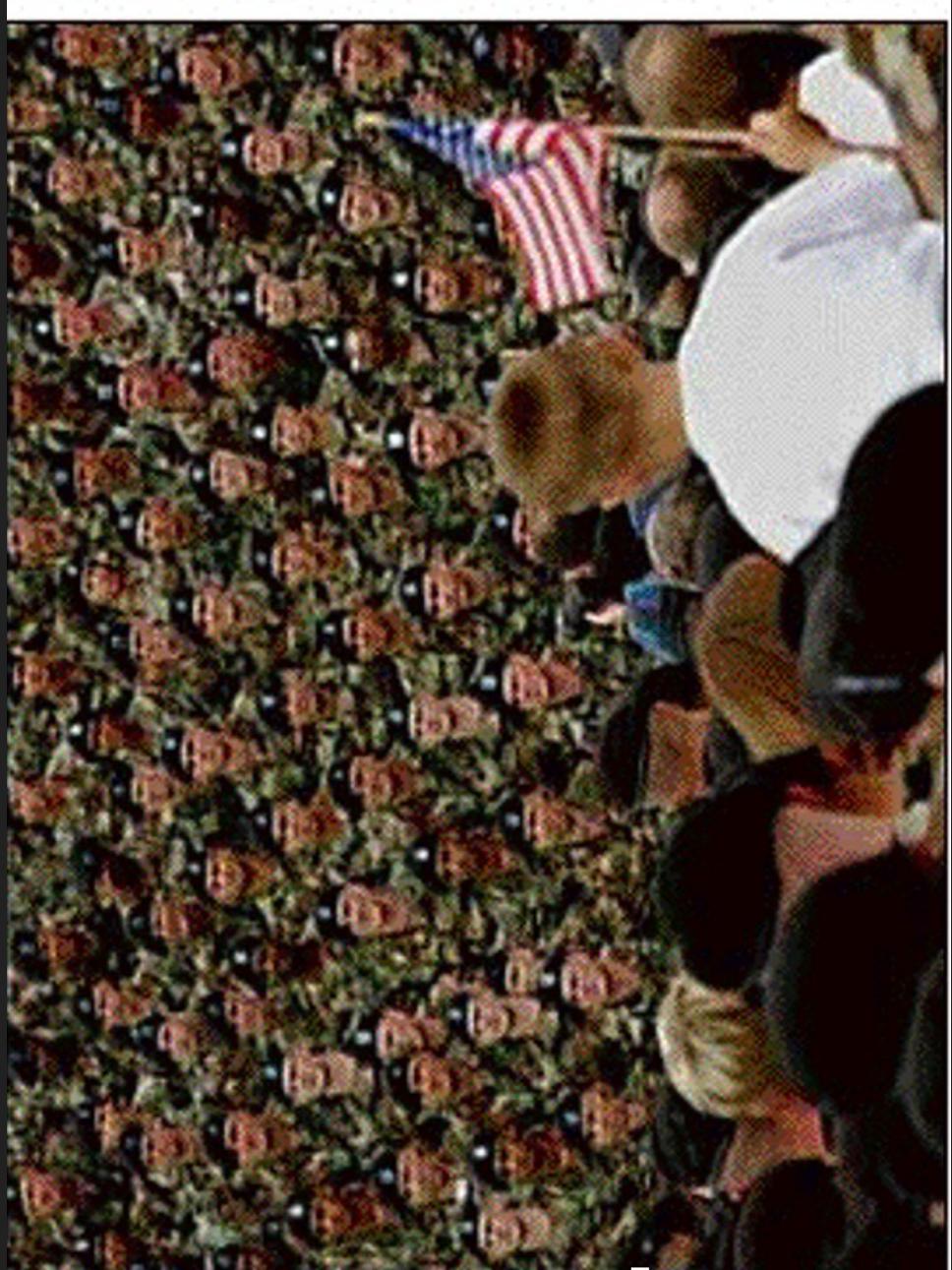
WISCONSIN

2001-2002
Undergraduate
Application

University of Wisconsin–Madison

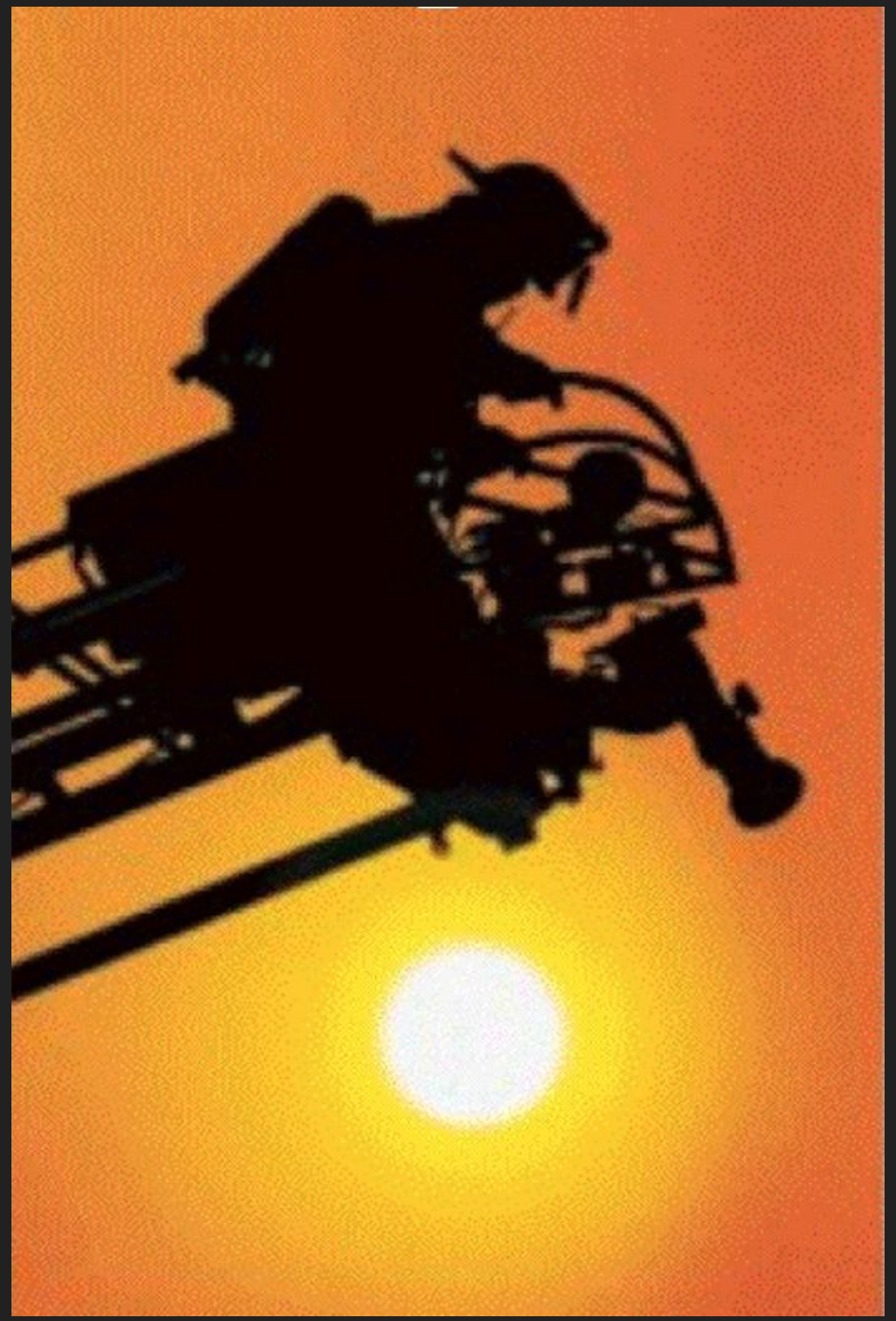


(WHITE HOUSE PHOTO/AP)



2003

TOLEDO



Canva

Instagram
Snapseed
TouchRetouch

HILARIOUS PHOTOSHOP FAILS

DEEPFAKES

DEEPFAKES= “deep learning” + “fake”

DEEPFAKES= “deep learning” + “fake”

SYNTHETIC VIDEO

FORTEPAN IOWA

9721 images

Search...

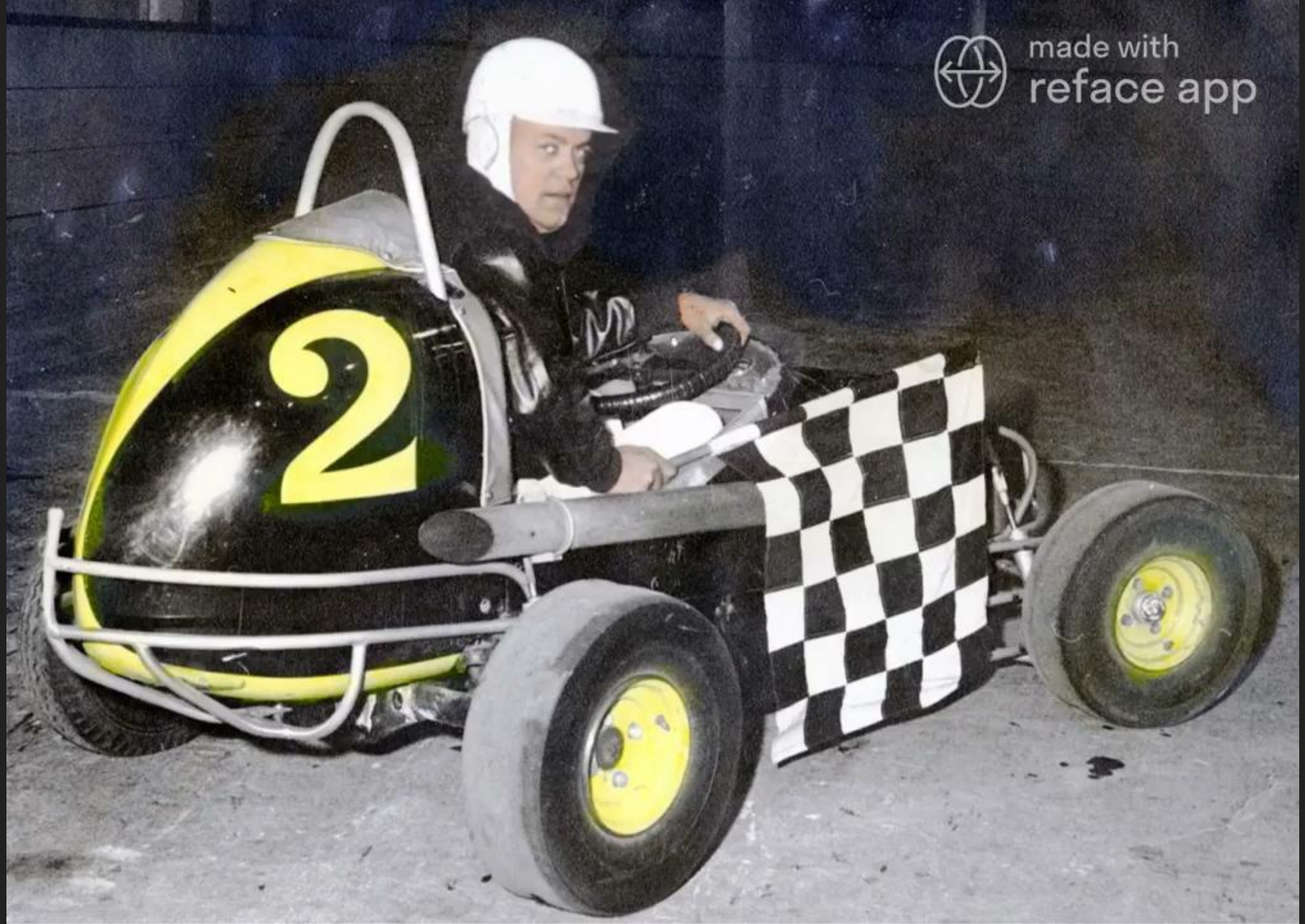
NEW

× termed with Portraits - Individual

1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1968 1980 1990 2000

Deep Nostalgia app

MyHeritage


2
made with
reface app

10
A "deepfake" to be precise,

IS THIS TOM CRUISE?
Page Six

TIKTOK: @deeptomcruise

DEEPFAKE audio:
voice cloning, or text-to-speech.

Ultra-realistic voice cloning

Overdub lets you create a text to speech model of your voice.

Get started for free →

RTVC
WITH ONLY 5 SECONDS OF AUDIO
Clone & Synthesize Any Voice

Generate speech from text

Generate voice clips up to 300 characters.
Login to generate voice clips up to 1000 characters.
Add text to generate.

Enter here the text you want to generate speech of

Choose the voice:

United States male voice

Choose Text or SSML (Read more on SSML):

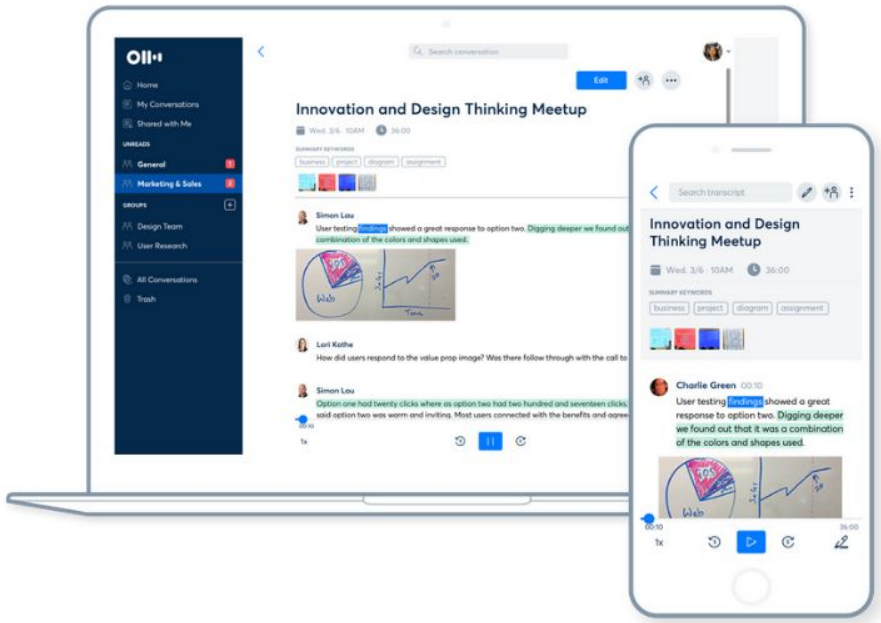
TEXT

Generate

Ad

Brought to you by Streams.live

Otter.ai Product Resources Company Log in Sign up



Otter is where conversations live

Generate rich notes for meetings, interviews, lectures, and other important voice conversations with Otter, your AI-powered assistant.

Get started

Zoom for you

Zoom is for you. We're here to help you connect, communicate, and express your ideas so you can get more done together. We're proud to be trusted by millions of enterprises, small businesses, and individuals, just like you.

DEEPFAKE EXPLOSION

1. cheap to make
2. easy to find
3. scalable

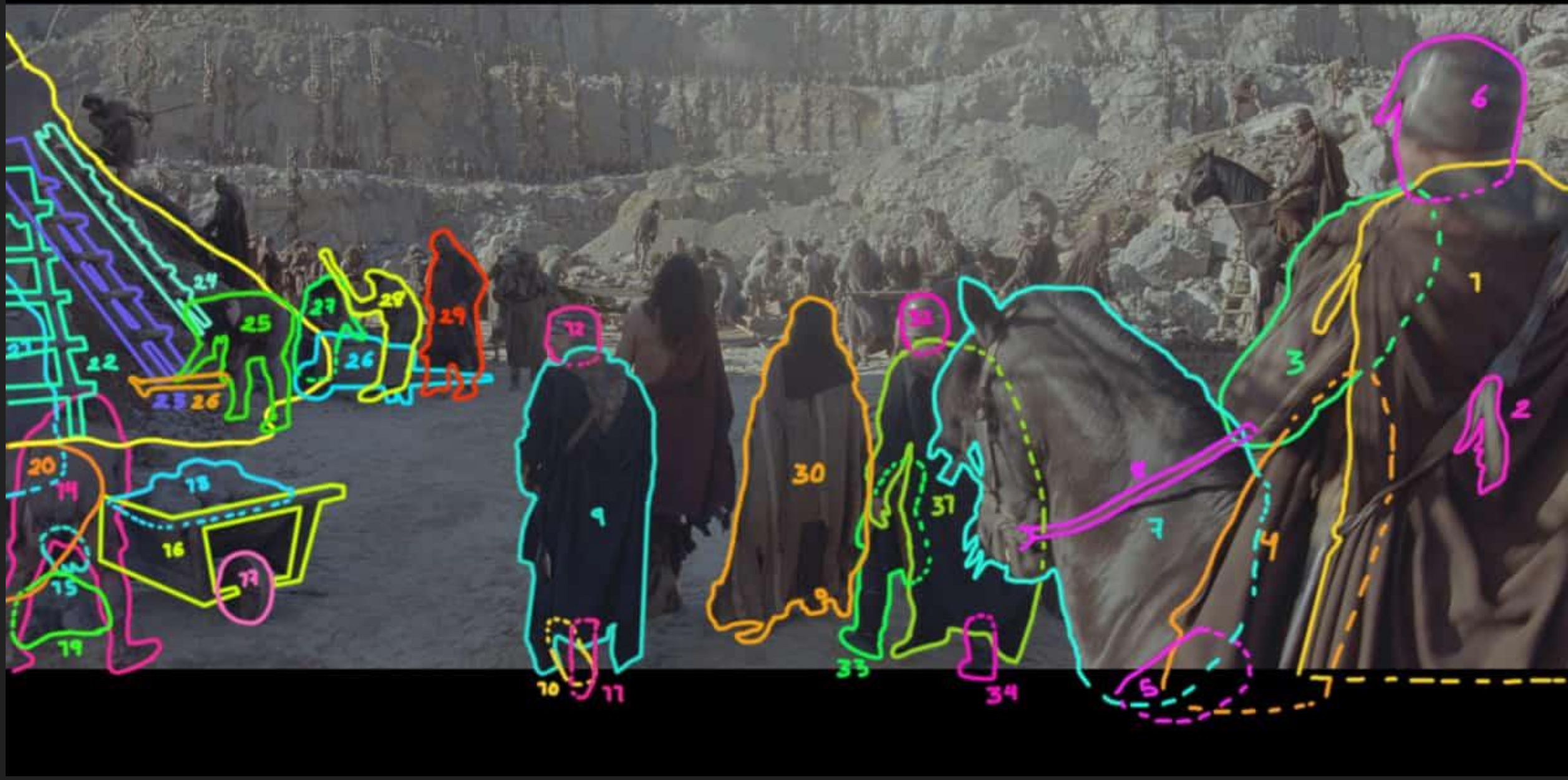
HOLLYWOOD DEEPFAKES

2016

HOLLYWOOD DEEPFAKES

Adobe After Effects: Rotoscoping

2016


1
2
3
4
5
6
7
9
10
11
12
13
14
15
16
17
19
20
22
23
24
25
26
27
28
29
30
31
33
34
37

2016

How Rogue One: A Star Wars Story Brought Back Princess Leia

Rogue One: A Star Wars Story famously brought back Princess Leia (Carrie Fisher) for a key scene. Here's how the CGI double was created.

BY PADRAIG COTTER
PUBLISHED FEB 25, 2019

Rogue One: A Star Wars Story brought back Princess Leia for a key ending scene - here's how this surprise cameo memorable scene was created. While *Star Wars: The Force Awakens*

Hollywood CGI visual effects, 2017

2017

2019

To create a Deepfake:

Amateur creators
Video: Open source code, basic coding skills
Gaming GPU (graphical gaming processor) (~$1500) or cloud compute ($200)
Fake profile pictures: unlimited creation.

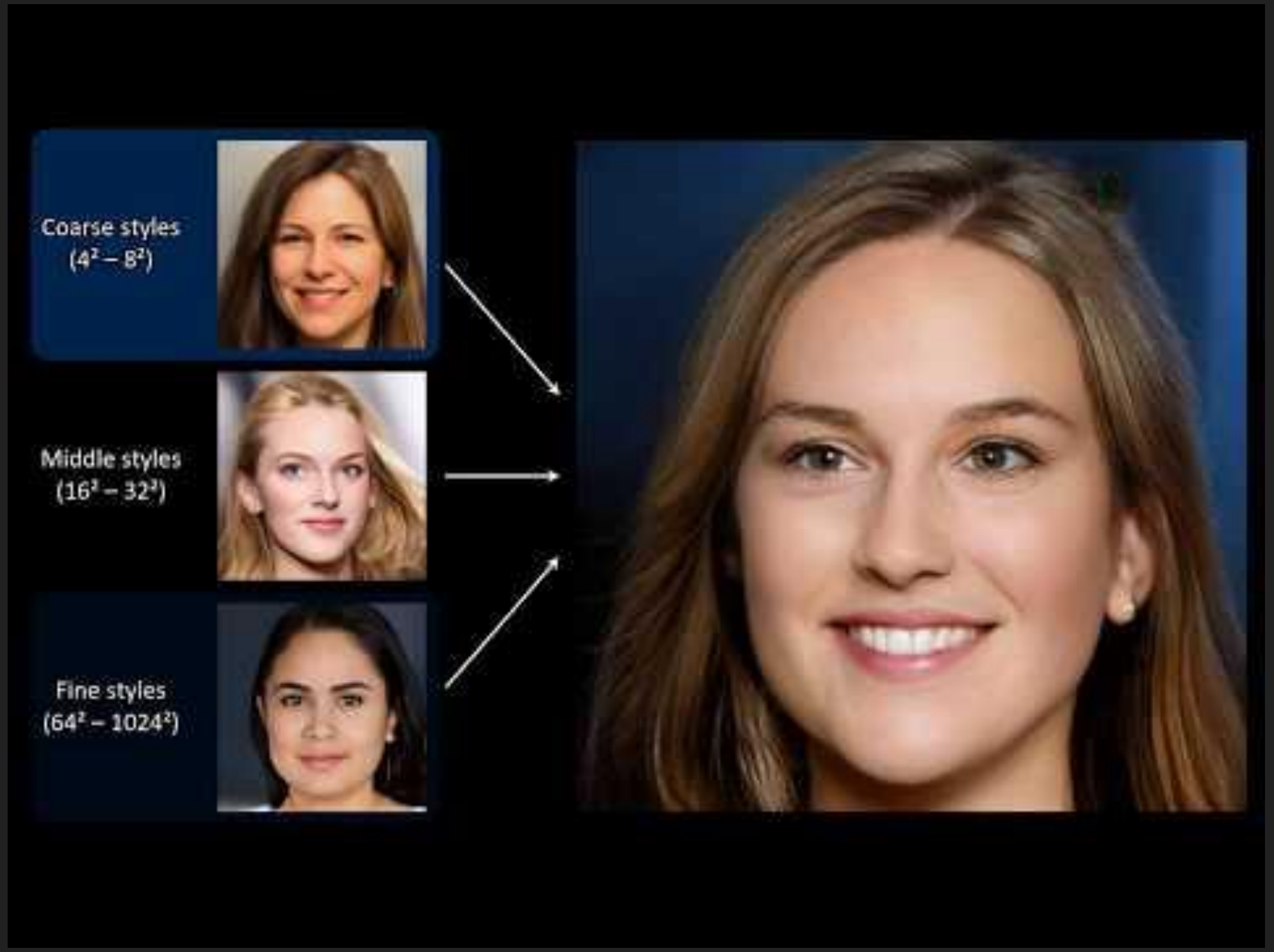
Professional creators
$10,000 for a very well-crafted deepfake video
Few weeks work

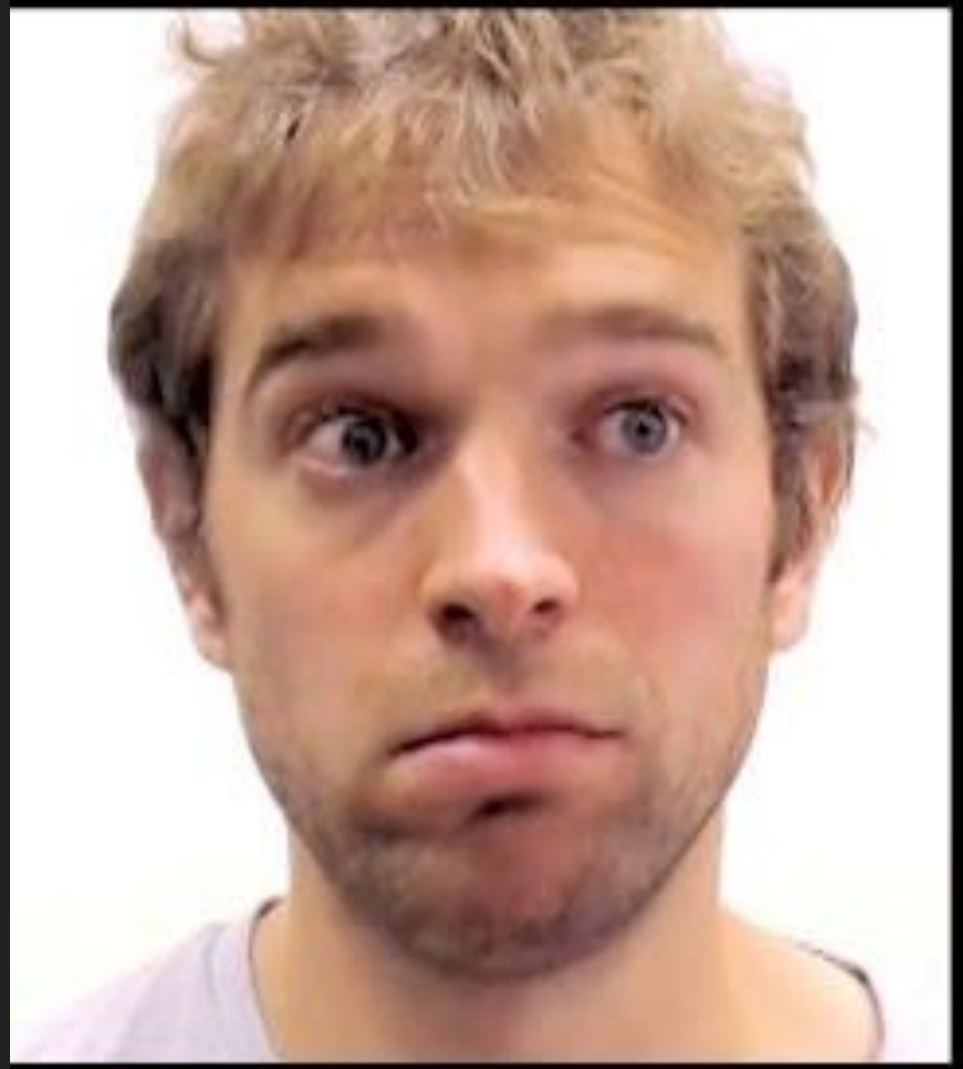
To create a Deepfake:

AI Investment worldwide

Google: Google AI
Facebook: Facebook AI
Microsoft: Microsfot AI; Face++
Amazon: AWS Machine Learning
Apple: Machine Learning Research
Alibaba: Alibaba Cloud Intelligence Brain
Tencent: Tencent AI lab
Baidu: (four different initiatives)

Yitu, Sensetime, MegVII, Synthesia


Coarse styles
(4² – 8²)
Middle styles
(16² – 32²)
Fine styles
(64² – 1024²)



How will deepfakes be used?

How will deepfakes be used?

PORN

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

What sort of threats to we envision?

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

What sort of threats to we envision?

Extortion or coercion against women

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

What sort of threats to we envision?

Extortion or coercion against women
Espionage

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

What sort of threats to we envision?

Extortion or coercion against women
Espionage
Political manipulation and deception

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

What sort of threats to we envision?

Extortion or coercion against women
Espionage
Political manipulation and deception
International manipulation

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

What sort of threats to we envision?

Extortion or coercion
Espionage
Political manipulation and deception
International deception
Personal deception

How will deepfakes be used?

PORN
TALENT AGENCIES/GAMING/FILM
EDUCATION
NEWS DELIVERY
CONVERSATIONS WITH DECEASED
POLITICS

What sort of threats to we envision?

Extortion or coercion
Espionage
Political manipulation and deception
International deception
Personal deception
The threat of a real video being fake