SEPARATING SUBSTANCE FROM HYPE:
A PRACTICAL APPROACH TO AI IN AEC

IDA CHEINMAN, SUBSTANCE151

@IdaCheinman @Substance151

" IF YOU THINK TECHNOLOGY WILL SOLVE YOUR PROBLEMS, YOU DON'T UNDERSTAND TECHNOLOGY — OR YOUR PROBLEMS.

LAURIE ANDERSON

Avant-garde artist, musician and filmmaker

TOP DISRUPTORS IN THE A/E/C SPACE

1 Generational hand-off

2 Rising customer expectations ("business consumer")

3 Digital transformation and Generative AI

"
EVERYONE TALKS ABOUT HOW DISRUPTIVE TECHNOLOGY IS BUT THE CUSTOMER IS THE DISRUPTIVE FORCE.

TIFFANI BOVA

Global Customer Growth & Innovation, Salesforce

AI REVOLUTION

"" **DON'T WAIT FOR THE WORLD TO GET SMARTER AROUND YOU.**

PAUL ROETZER

Founder, Marketing AI Institute

HOW AI CAN HELP MARKETERS

1 Research and Analysis

2 Testing and Optimization

3 Personalization

4 Search (SEO/SEM)

5 Content and Communications

HOW AI CAN HELP MARKETERS

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"

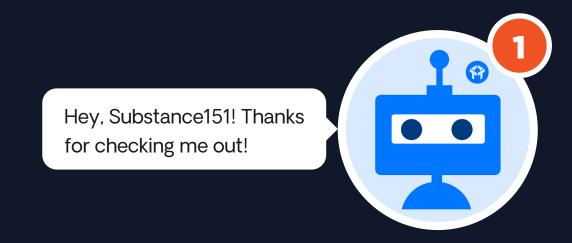# PERSONALIZATION IS A MUST-HAVE STRATEGY IN THE FUTURE OF B2B MARKETING.

JESSICA COLLIER

Web Conversion Strategist, Citrix

CONVERSATIONAL MARKETING

Hey, Substance151! Thanks for checking me out!

MAKE SURE YOUR FIRM CAN BE FOUND ONLINE

68%
CITE ONLINE SEARCH AS THEIR #1 SOURCE OF INFORMATION

75%
START WITH A GENERIC SEARCH TERM
(not your firm's name)

12+
SEARCHES BEFORE ENGAGING

MASTERING AI

YOU CAN'T USE 20TH-CENTURY TOOLS TO SOLVE 21ST-CENTURY PROBLEMS

INHERENT ISSUES

+ Data privacy and security

+ Misinformation

+ Hallucinations

+ Plagiarism

+ Copyright

+ Bias, ethics and trust

CONTENT AUTHENTICITY STATEMENT

XX% of this [e.g., article] was generated by human authors. Generative AI was used to [e.g., generate the images for the article].

Marketing Technology Landscape
The Martech 5000

chiefmartec.com April 2020

Total Solutions	8,000
Advertising & Promotion	922
Content & Experience	1,936
Social & Relationships	1,969
Commerce & Sales	1,314
Data	1,258
Management	601

Access all the data of this landscape & more at **martech5000.com**

2019 — 7,040 solutions
2018 — 6,829 solutions
2017 — 5,381 solutions
2016 — 3,874 solutions
2015 — 1,876 solutions
2014 — 947 solutions

Produced by Scott Brinker (@chiefmartec) and Blue Green Brands (@bluegreenbrands).

THE 2023 MAD (MACHINE LEARNING, ARTIFICIAL INTELLIGENT& DATA) LANDSCAPE

INFRASTRUCTURE

STORAGE · **MPP DBs** · **DATA LAKES / LAKEHOUSES** · **DATA WAREHOUSES** · **STREAMING / IN-MEMORY**

RDBMS · **NoSQL DATABASES** · **NewSQL DATABASES** · **REAL TIME DATABASES** · **GRAPH DBs** · **GPU DATABASES** · **DATABASE ABSTRACTION**

ETL / ELT / DATA TRANSFORMATION · **REVERSE ETL** · **DATA INTEGRATION** · **DATA GOVERNANCE & CATALOG**

ORCHESTRATION · **DATA QUALITY & OBSERVABILITY** · **FULLY MANAGED** · **MGMT / MONITORING** · **PRIVACY & SECURITY** · **COMPUTE**

ANALYTICS

BI PLATFORMS · **VISUALIZATION**

DATA ANALYST PLATFORMS · **CUSTOMER DATA PLATFORMS**

PRODUCT ANALYTICS · **LOG ANALYTICS** · **CRYPTO / WEB 3 ANALYTICS**

QUERY ENGINE · **ENTERPRISE SEARCH**

MACHINE LEARNING & ARTIFICIAL INTELLIGENCE

DATA SCIENCE NOTEBOOKS · **DATA SCIENCE PLATFORMS** · **ENTERPRISE ML PLATFORMS**

DATA GENERATION & LABELING · **MLOPS**

COMPUTER VISION · **SPEECH** · **NLP** · **HORIZONTAL AI / AGI**

AI HARDWARE · **GPU CLOUD** · **CLOSED SOURCE MODELS** · **EDGE AI**

APPLICATIONS – ENTERPRISE

SALES · **MARKETING** · **CUSTOMER EXPERIENCE** · **HUMAN CAPITAL** · **AUTOMATION & OPERATIONS** · **DECISION & OPTIMIZATION**

LEGAL · **PARTNERSHIPS** · **REGTECH & COMPLIANCE** · **FINANCE**

APPLICATIONS – HORIZONTAL

CODE & DOCUMENTATION · **TEXT** · **AUDIO & VOICE** · **IMAGE** · **VIDEO EDITING** · **ANIMATION & 3D** · **SEARCH**

VIDEO GENERATION

APPLICATIONS – INDUSTRY

FINANCE & INSURANCE · **HEALTHCARE** · **LIFE SCIENCES** · **TRANSPORTATION** · **AGRICULTURE** · **INDUSTRIAL & LOGISTICS** · **GOV'T & INTELLIGENCE**

CROSS-INDUSTRY

OPEN SOURCE INFRASTRUCTURE

FRAMEWORKS · **FORMAT** · **QUERY / DATA FLOW** · **DATA ACCESS** · **DATABASES** · **OLAP** · **ORCHESTRATION** · **INFRA-STRUCTURE** · **DATA OPS** · **STREAMING & MESSAGING** · **STAT TOOLS & LANGUAGES** · **MLOPS & AI INFRA** · **AI FRAMEWORKS & LIBRARIES** · **AI MODELS & ARCHITECTURES** · **SEARCH** · **LOGGING & MONITORING** · **VISUALIZATION** · **COLLABORATION**

DATA SOURCES & APIs

DATA MARKETPLACES & DISCOVERY · **FINANCIAL & MARKET DATA** · **AIR / SPACE / SEA** · **PEOPLE / ENTITIES** · **LOCATION INTELLIGENCE** · **ESG**

DATA & AI CONSULTING

A PRACTICAL APPROACH TO AI

THE RIGHT TOOLS FOR THE RIGHT NEEDS AT THE RIGHT TIME IN YOUR WORKFLOW

WHAT GEN AI CAN DO

+ Faster and better research

+ Data extraction and analysis

+ Translation and transcription

+ Idea generation and outlines

+ Copy editing and rewrites

+ Meeting notes and summaries

+ Image and video editing

+ Headlines and subject lines

+ Social media posts

+ Email communications

+ Presentations

+ SEO optimization and edits

WHAT GEN AI IS TERRIBLE AT

+ Original thinking

+ Unique point of view

+ Expertise

+ Customer empathy

TEXT

ChatGPT
Claude
Google Gemini
Writer
Copy.ai
Jasper

VISUALS

Midjourney
ClipDrop
Adobe Firefly
Secta Labs
(Headshots)
Beautiful.ai
(Presentations)

VIDEO

Descript
HeyGen
Runway
Synthesia
Vidyo
Loom
VEED

ADMIN

Grammarly
Otter
Krisp
Notion

+ AI FEATURES

Microsoft
Adobe Creative Suite
Salesforce
HubSpot
MailChimp
OpenAsset
Canva
iStock
And more!

CHAT.OPENAI.COM

FREE

GPT 3.5 / LIMITED 4

PLUS - $20/MO

GPT 4 / O1 PREVIEW

Far better quality of output
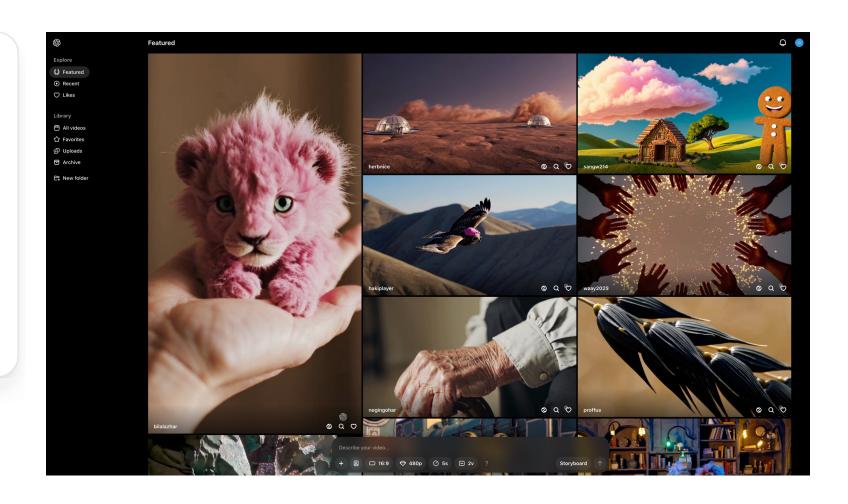
Extended capabilities

Access to beta features
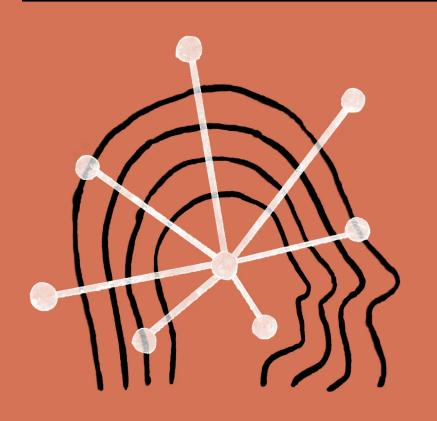
CLAUDE.AI/CHATS

FREE; CLAUDE PRO - $20/MO

Large volumes of text, faster.

Great for summaries (long transcripts, multiple source documents).

More intelligent and offers better performance on complex tasks.

Jasper WRITER copy.ai

+ Fit for larger content teams

+ More robust and sophisticated features

+ Connect to your firm's data

+ Brand style enforcement, trained on your brand guidelines

+ Content templates

MY SAMPLE WORKFLOW

TRANSCRIBE MY ORIGINAL VIDEO RECORDING

SUMMARIZE WITH 3-5 TAKEAWAYS

BRAINSTORM HEADLINES

EDIT (HUMAN)

USE AS A VIDEO DESCRIPTION

LINKEDIN POST

HOW TO MAKE A BETTER PROMPT
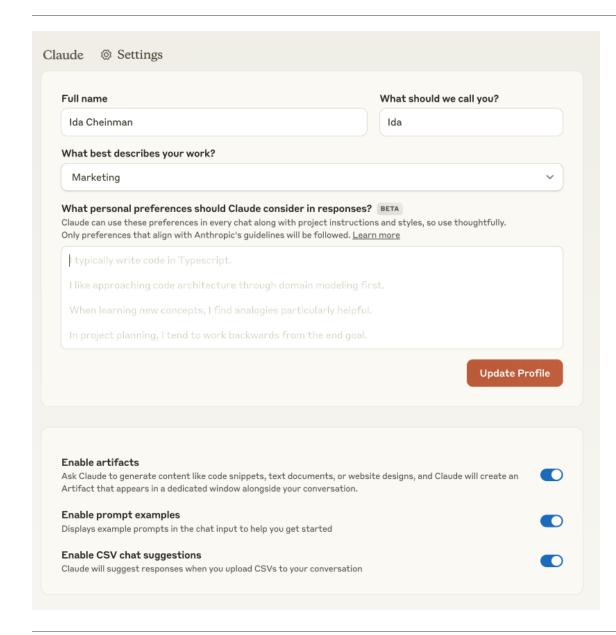
+ **Role:** You are/you will act as

+ **Audience:** Who this is for/persona

+ **Task:** What/format/goals/details

+ **Style:** Brand voice/writing example(s)
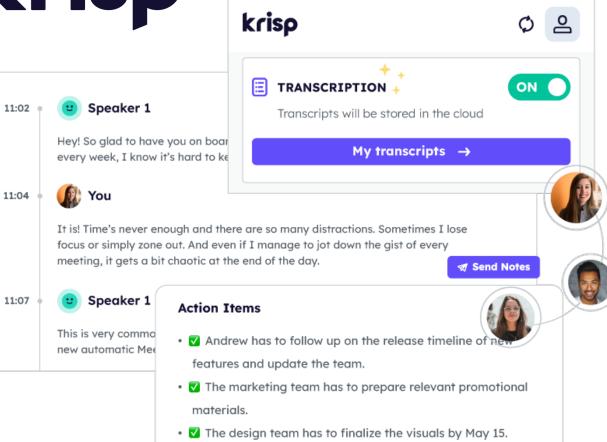
+ **Do/Don't:** What you want/don't want AI to do
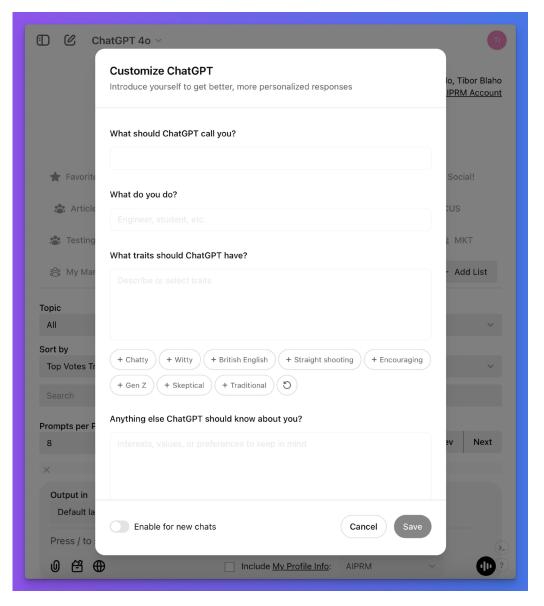
STYLE

+ Use a detailed description of the style within your prompts

+ Ban AI-sounding phrases

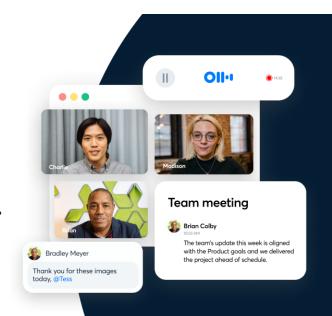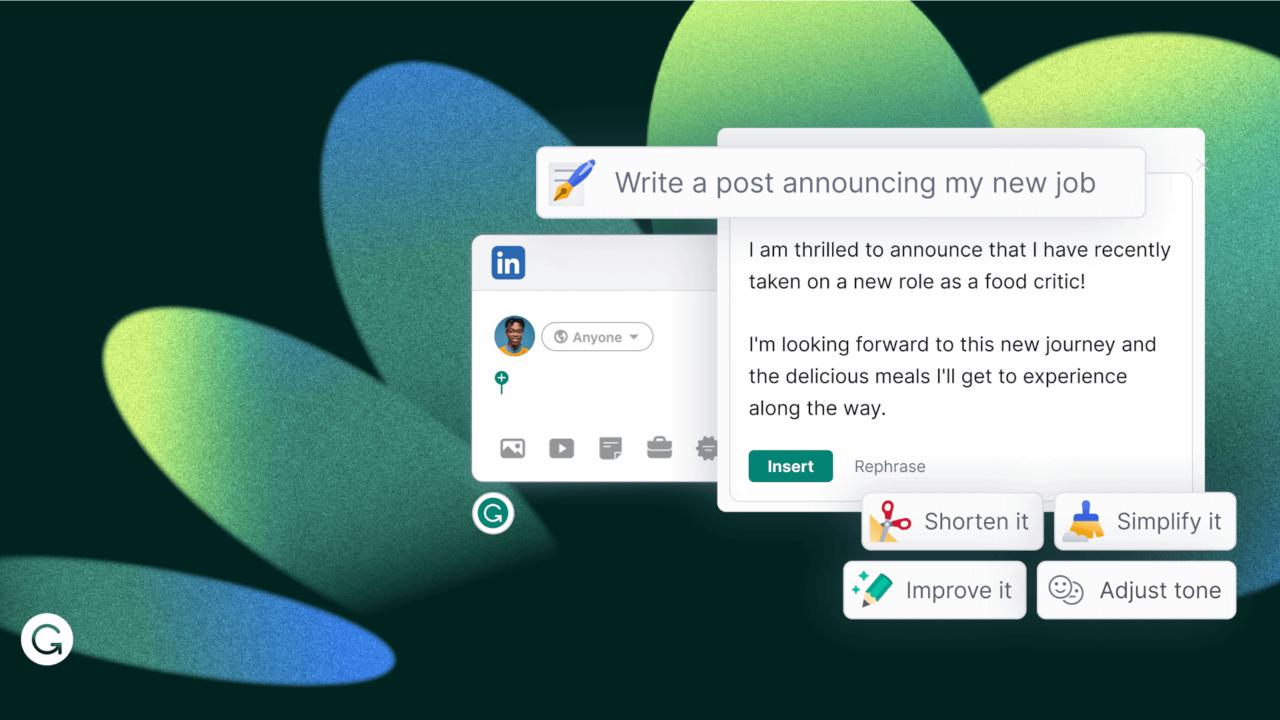+ Upload your brand style guide

+ Provide examples of your firm's writing

📝 Write a post announcing my new job

in

👤 🌐 Anyone ▾

➕

🖼️ ▶️ 🗒️ 💼 ⚙️

I am thrilled to announce that I have recently taken on a new role as a food critic!

I'm looking forward to this new journey and the delicious meals I'll get to experience along the way.

Insert   Rephrase

✂️ Shorten it   🧹 Simplify it

🖊️ Improve it   😊 Adjust tone

Unlock your imagination with Adobe Firefly

What will you make today?

Interior design living room with a lot of plants|

Generate

Adobe

Try these out
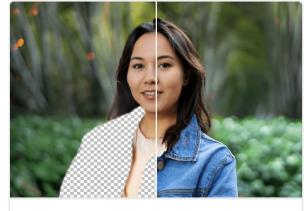
Experiment with the latest in generative AI and let us know what you think.

Text to image
Generate images from a detailed text description.

Generate

Generative fill
Use a brush to remove objects, or paint in new ones from text descriptions
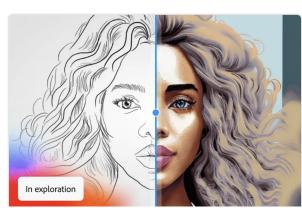
Generate

Text effects
Apply styles or textures to text with a text prompt.

Generate

In exploration

In exploration

MIDJOURNEY.COM

Midjourney
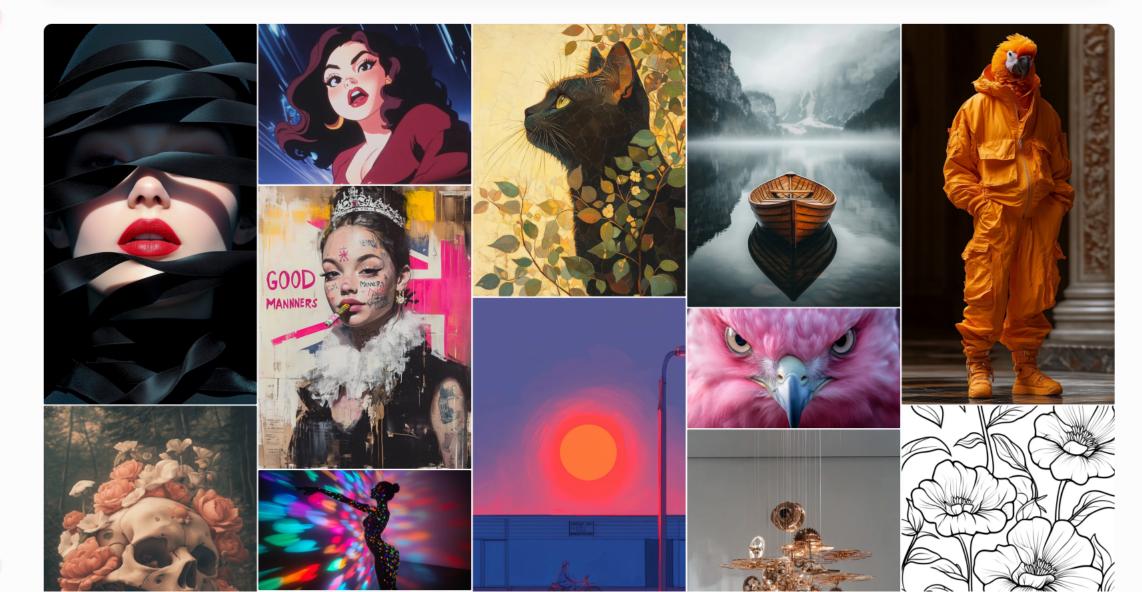
Subscribe to start creating...

TOOLS All Correction Generation Real-estate

EDIT

STABLE DIFFUSION XL
Generate high-resolution realistic images with AI

UNCROP
Uncrop your photos to any image format

REIMAGINE XL
Create multiple variants of an image with Stable Diffusion

RELIGHT
Relight your images with beautiful lights.

STABLE DOODLE
Transform your doodles into real images in seconds

CLEANUP
Remove objects, people, text and defects from your pictures automatically.

REMOVE BACKGROUND
Extract the main subject from a picture with incredible accuracy. It's like magic.

IMAGE UPSCALER
Upscale your images by 2x or 4x in seconds. It can also remove noise and recover beautiful...

REPLACE BACKGROUND
Teleport anything, anywhere with AI

TEXT REMOVER
Remove text from any image

Sky replacer
Replace gray sky with blue sky in a snap

Swap
Swap people in any image

TRY AN EXAMPLE

Remove compression | Denoise | Sharpen

ORIGINAL

EDITED

Represented as a small tool, Clipdrop Image upscaler can improve image quality from compressed images
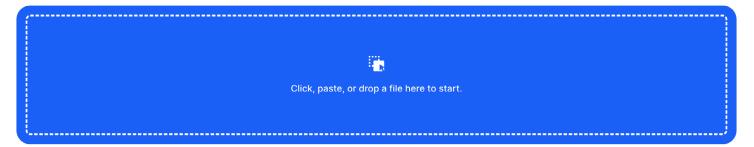
Try with this example

Clipdrop by Jasper

UNCROP

Uncrop your photos to any image format

Clipdrop by Jasper

REPLACE BACKGROUND

Teleport anything, anywhere with AI

Click, paste, or drop a file here to start.

< Back

Generate Videos

Generate videos using text, images or video clips.

Try Text to Video ↗   Try Video to Video ↗   Try Image to Video ↗

AI Magic Tools 🪄

Motion Brush

— Generate Videos

Generate Images

Infinitely Expand Images

Reimagine Any Image

Train Custom Models

Erase Things from Videos

Slow Mo Any Video

Make Images Move
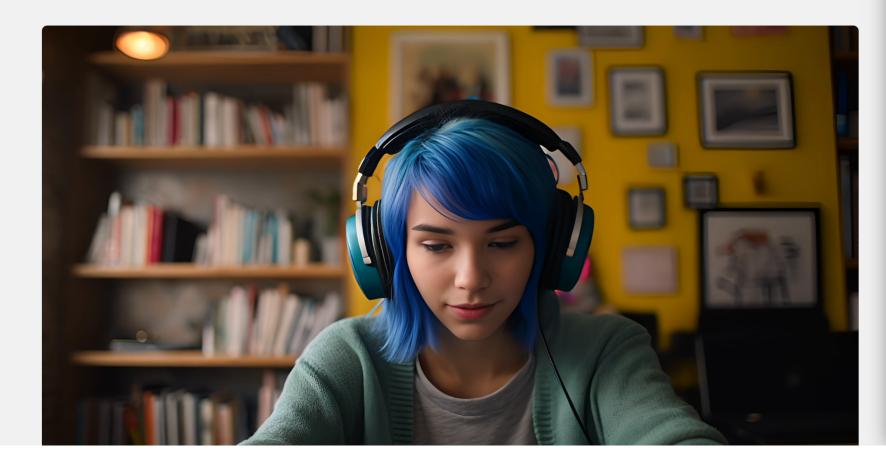
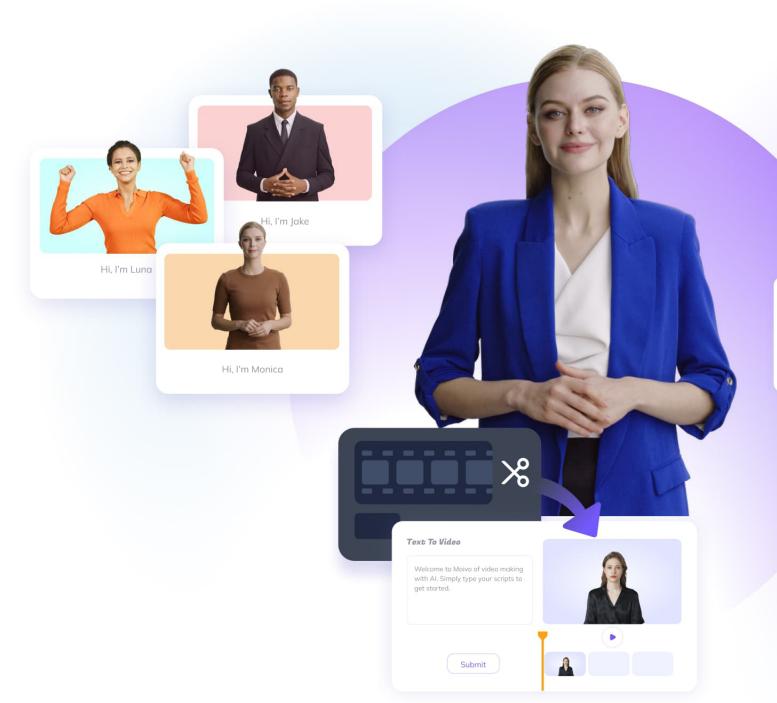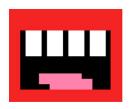Remove Any Background

Explore All AI Magic Tools ↗

A FEW RESOURCES FOR YOU

Ben's Bites

Daily AI Tools Digest

MARKETING
ARTIFICIAL
INTELLIGENCE
INSTITUTE®

The Neuron

theneuron.ai/top-tools

TRUST INSIGHTS

Christopher Penn

QUESTIONS?

SLIDES AND RESOURCES

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IDA@SUBSTANCE151.COM