

HICCUPS AND HALLUCINATIONS

Critically Engaging AI in
the Design Classroom

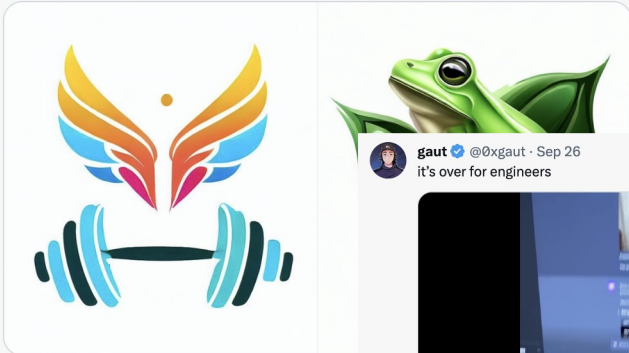
Drew Sisk



Paul Couvert @itsPaulAi · May 21
RIP graphic designers?

AI can create a logo in seconds.

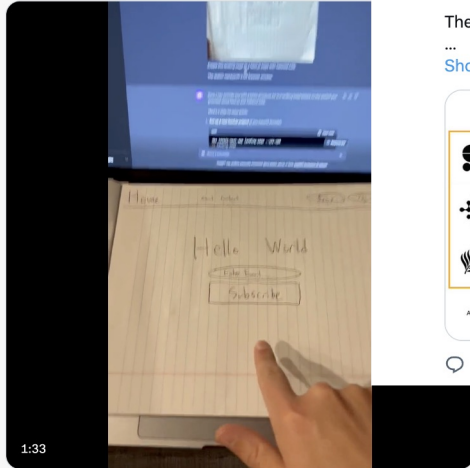
Here is how to create any logo for free using AI:



2,913 15.1K 45



gaut @0xgaut · Sep 26
it's over for engineers



From **Mckay Wrigley**

329 977 6,865 1.9M



Bruce
@bruceT73

An AI generated short film... RIP Hollywood writers and actors.



tiktok.com
TikTok · lokedavidjohnson
33.7K likes, 3193 comments. "Watch this AI Generated Short Film and tell me if I'm still wrong."



Linus @LinusEkenstam ·
Final blow for logo designers?

This is wild

"StyleDrop: Text-To-Image Generation

If you are a designer, 10x yourself by u: 8:54 PM · Aug 4, 2023 · 30 Views

Then just prompt "your-style" for anyt

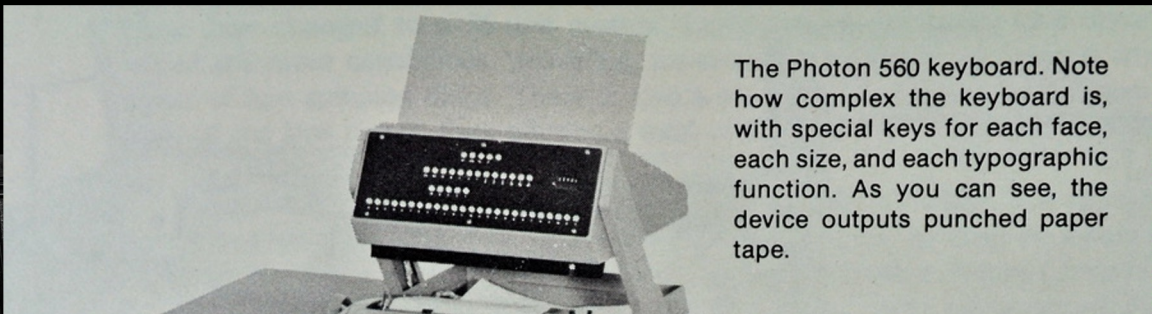
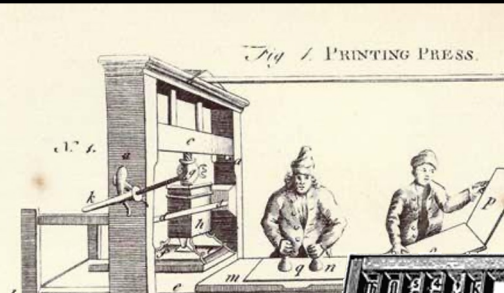
Show more



117 602 3,685 1M

David Loeb Weiss and Carl Schlesinger,
Farewell e-t-a-o-i-n s-h-r-d-l-u (1978)





The Photon 560 keyboard. Note how complex the keyboard is, with special keys for each face, each size, and each typographic function. As you can see, the device outputs punched paper tape.

Introducing Macintosh. For the rest of us.

In the olden days, before 1984, not very many people used computers, for a very good reason.

Not very many people knew how. And not very many people wanted to learn.

After all, in those days, it meant listening to your stomach growl through computer seminars. Falling asleep over computer manuals. And staying awake nights to memorize commands so complicated you'd have to be a computer to understand them.

Then, on a particularly bright day in Cupertino, California, some particularly bright engineers had a particularly bright idea: since computer make not about pet people all

so it was that those very engineers worked long days and nights, and a few legal holidays, teaching tiny silicon chips all about people. How they make mistakes and change their minds. How they refer to file folders and save old phone numbers. How they labor for their livelihoods, and doodle in their spare time.



And when the engineers were finally finished, they introduced us to a personal computer so personable it can practically shake hands.

And so easy to use most people already know how.

They didn't call it the QZ190, or the Zapchip 5000.

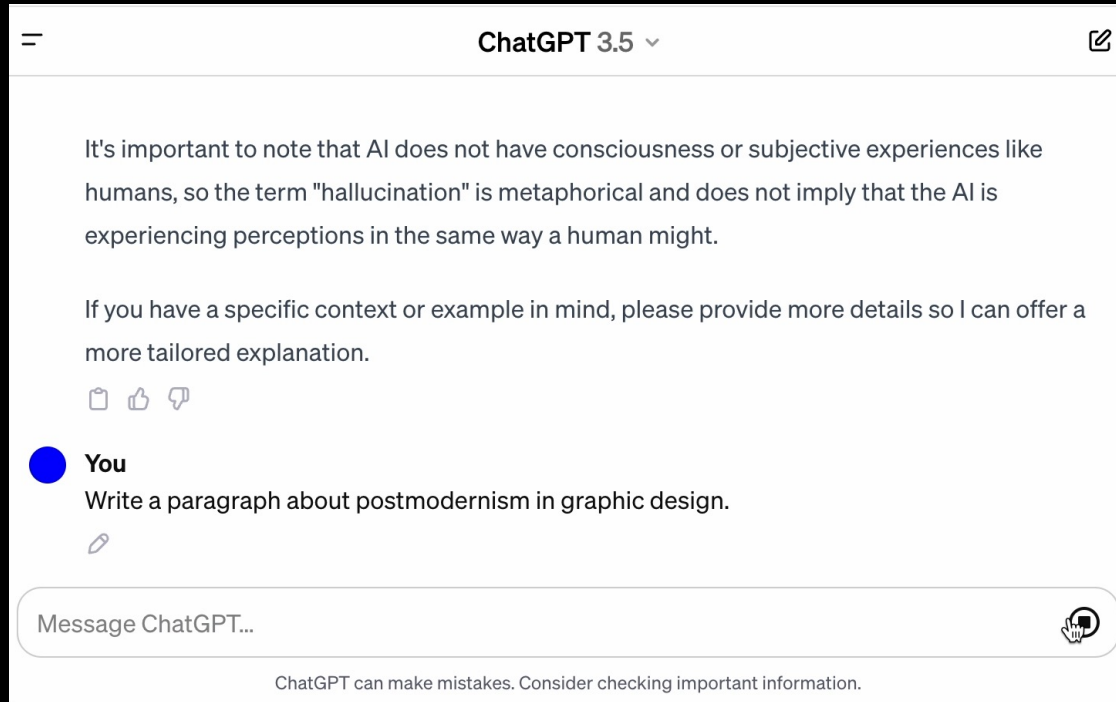
They called it Macintosh.[™] And now we'd like to introduce it to you.



MidJourney
(launched in 2022)



ChatGPT
(launched in 2022)



some medium.
 Therefore, they
 are comparatively
 closer together
 than they are.
 As we move
 on, I think that
 the way we do
 research and the
 results and the
 conclusions are
 very different.
 I don't know
 how long the
 computer has
 been around, but
 I think that it
 is important to
 understand the
 things that it
 does and to
 integrate it
 into our work.
 I think that
 it is important
 to understand
 the things that
 it does and to
 integrate it
 into our work.
 I think that
 it is important
 to understand
 the things that
 it does and to
 integrate it
 into our work.



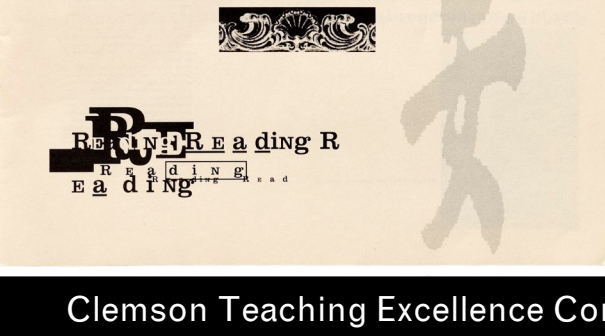
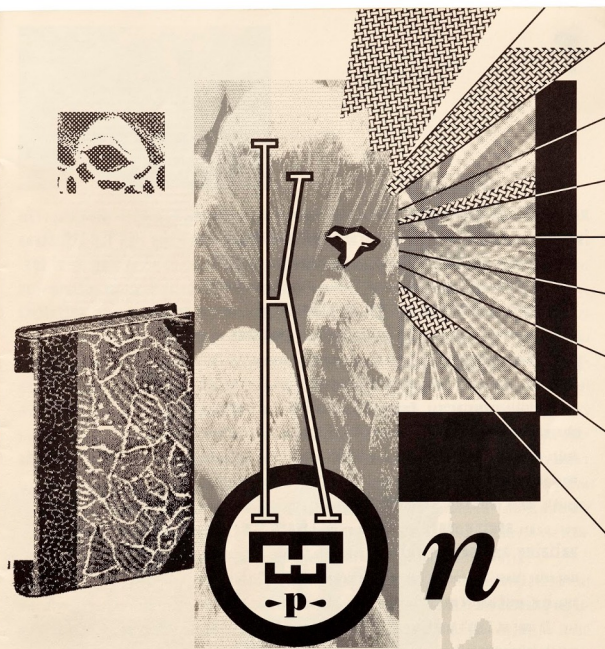
Jeffery Kneel
Announcement for Los Angeles
Competition Exhibition (LAC)

scanned, while at the same time you can beef up some of the more textual
 things that you might import from other tools. **Emigre:** Are there still things
 that you find are impossible to do on a computer, but that you would like to
 do? **April:** I have one problem with the graphic paintbox, and it's not the fault
 of the equipment. The problem is that **I can't afford**, either for
 efficient or even for myself, **to experiment enough** in order to get
 loose on it. A lot of the work on the paintbox is done with an operator. Now, I
 have one operator who just sets up the machine for me and lets me play on it,
 but mostly I have to give instructions like, "Oh, please a little more red,"
 "Eh... could you just move that slightly..." So the graphic paintbox lets me do
 things that are wonderful and that I need, and the Macintosh does some things

Jeffery Kneel
Announcement for Los Angeles
Competition Exhibition (LAC)



will contribute to a homogenization of design. They fear that the
 Macintosh has too strong a character and will therefore contribute to
 and restrict personal expression. This mentioned yourself that you enjoyed
 some of the Macintosh characteristics, such as funky spacing and low
 resolution.
 Rick: That's just a coding attached to the most basic functions of the app-
 letter. That's like a typewriter type. It tells you where it came from. Let's
 press type but this low resolution. It's like the difference be-
 tween my typewriter and other. I don't think you should demand it. I think
 of that. I think the Macintosh should be employed when it's necessary,
 because when it's employed it brings a meaning, like a "power" or brings
 to a meeting a certain meaning and a definition. Just as a metaphorical
 photograph brings meaning to a design. You don't choose a photograph
 or image because you can see that it was manipulated. I think that the
 aesthetic of the Macintosh will become a vernacular or be accepted as
 the typewriter.
 But to answer your question about homogenization, it will perhaps be no
 more drastic than the International Style was and its use of Helvetica
 and three or four column grids.
 Emigre: The reason why you see similar results now probably has to do
 with the success of the computer. Designers are in an experimental phase.
 Rick: That's right. We have not used the computer as a natural extension
 of the individual, but when that happens, and it is happening in Wolfgang
 Weinger's work for instance, it has to work as well as Andrej Grad
 Greenawald's work. It's very rich. The computer is just another hand on her
 body. (Smiles April.) I wouldn't resist that either preservative re-
 sistance in the most sense. Currently, the most significant contribution to the
 Macintosh design are young designers. These designers, while exploit-
 ing the Mac, were in the early stages of their careers. The traditions of
 design that they bring to their work are less experienced.
 As a result of the more experimental graphic designers tend to work and
 experiment with the Mac, the results will appear very different from
 what we see now, because they're bringing much more past experience to
 this new process. We have seen this happen before, in situations where
 the letter press typographer set type photolithographically. These experi-
 ments of the process were different. They typographic concerns surfaced.
 It's all a matter of time. I look forward to seeing what designers such as
 Ivan Chermayeff, Woody Perle, or Paulhorn Productions will bring to the
 ever-growing Mac catalog.
 Emigre: A lot of the early work that was produced on the Macintosh
 was low resolution, just with text. We see the emergence of quite a few low
 resolution typefaces that were mostly designed for screen display. Now
 we see these typefaces in print as well. How do you feel about that?
 Rick: Actually, I already see some of this low resolution. Mac created, di-
 signed type on public screen monitors. And nobody seems to want to print
 it off because it won't set in Garamond. However, the appetite for it re-
 mains silent.
 Emigre: Why do you think most people have no problems reading low resolu-
 tion type even on a screen but are bothered by its appearance in print?
 Rick: It may be that it becomes this little "design" device. Like typewriter
 type is a "design" device and people will only use it as a novelty, which
 will be all right with the high-resolution capabilities of the Mac, such as
 with the Adobe Postscript fonts, or even the Emigre type that you are
 reading right now, where it has its own character. There it's not about
 low resolution type on a TV screen. It's about new letterforms. And with
 Adobe, it's about the reproduction of existing letterforms in an excep-
 tional way.
 Emigre: How do you feel about Adobe and their effort to reproduce exist-
 ing type for use on Postscript Macs? Most of their typefaces were originally de-
 signed for lead and were later redesigned for photographic reproduction
 and now, again, they have been redesigned for digital reproduction.
 Rick: It doesn't matter where it came from. We will always have an ap-
 petence and a need for the letterforms that were rendered in the last
 half-century. And just as those letterforms represent a certain atti-
 tude, whether those attitudes are about stability or refinement, we'll use
 them for those messages. Today, when we see such fonts as Zanussi-Litali
 has designed, where the character of the letterforms speaks about a spirit
 of technology as well as about the machine that they were generated on,
 we will use those for their inherent meanings.
 Emigre: Where will we see the Macintosh appropriate to low resolution type
 or images, or high-resolution computer-generated type, such as Du-
 sans? Only in print work that is computer-generated.
 Rick: That's a great question. It requires a crystal ball to answer. The
 creative vision of our design community will provide visual answers for
 me. Give you an example. If we assume that any typography that reflects
 Macintosh technology carries with it the assumption of lower costs. That a
 nonprofit corporation or a healthcare facility will employ it in their annual



Emigre, 1989

Drew Sisk

Hiccups and Hallucinations

Clemson Teaching Excellence Conference 2024

NEW OF S

Image generated
with MidJourney
(2023)



Drew Sisk

ellence Conference 2024

John Berger, *Ways
of Seeing* (1972)



UNC

Video
generated with
RunwayML
(2023)

Drew Sisk



cellence Conference 2024

RESI

Steve Jobs
unveiling the first
iPhone. (2007)
Photo: Paul
Sakuma/AP



Drew Sisk

ence Conference 2024

KINO EYE

Dziga Vertov, *Kino
Eye* (1924)



“MEAN IMAGES”

“[AI renderings] converge to a median; hallucinated media become the norm by signalling their likeliness with likelihoods. ‘Mean images’ in terms of resolution and substance they are: mean.”

Hito Steyerl, “Mean Images,” New



WHAT ARE THE IMPLICATIONS OF AI ON GRAPHIC DESIGN?

1 ACCESS

The screenshot shows the Adobe Firefly website interface. At the top, there's a navigation bar with the Adobe logo and links for 'AI at Adobe', 'Sensei', 'Generative AI', and 'Firefly'. Below this, a headline reads 'You have to try it to believe it.' followed by a sub-headline: 'With simple text prompts in over 100 languages, you can generate images, add or remove objects, transform text, and so much more.'

Three main features are highlighted with images and text:

- Text to Image:** 'Generate images from a detailed text description.' An image shows a fantastical landscape with large purple mushrooms and a path. A 'Create with Firefly' button is below.
- Generative Fill:** 'Use a brush to remove objects or paint in new ones.' An image shows a woman's face with a brush over her mouth, and the text 'Denim jacket' is overlaid. A 'Create with Firefly' button is below.
- Text Effects:** 'Apply styles or textures to words and phrases.' An image shows the letters 'A' and 'O' with a green leafy texture. A 'Create with Firefly' button is below.

At the bottom, the Adobe Firefly logo is displayed with the tagline 'Use everyday language to create extraordinary results with generative AI.' and a 'Get Firefly free' button.

Drew Sisk

Hiccups and Hallucinations

The screenshot shows the Canva Magic Studio website. The header includes the Canva logo and navigation links for 'Design spotlight', 'Business', 'Education', 'Plans and pricing', and 'Learn'. There are 'Log in' and 'Sign up' buttons in the top right. The main heading is 'Magic Studio' in large white letters on a purple background. Below it, a sub-headline reads: 'All the power of AI, all in one place. Magic Studio™ brings together the best AI-powered'.

The screenshot shows a tweet from Chase Lean (@chaseleantj) dated Sep 30. The tweet text reads: 'You can start using DALL-E 3 with Bing right now! Free and available to everyone. It's very good at making photos of words:'. Below the text is a video player showing a billboard advertisement for DALL-E 3 on Bing. The billboard features a smartphone icon with a DALL-E logo and the text 'You start using DALL-E 3 with Bing.' in large white letters. Below the main text, there is smaller text in Japanese: 'AI画像生成サービス DALL-E 3 - Bing'. The video player shows a street scene with cars and buildings.

At the bottom of the tweet, there are engagement metrics: 29 replies, 41 retweets, 361 likes, and 70.8K views.

Clemson T

2 EFFICI



3 ETHICS

Photo: David
McNew/Getty
Images



Drew Sisk

Hiccups and Hallucinations

Clemson Teaching Excellence Conference 2024

complex environment, especially against issues that are not known to be issues⁴⁴ or the equally varied possibilities for adversarial interference.⁴⁵

2.4 DATA DRIFT

Even if an autonomous system were designed and tested to fully account for the complexity of the real world, environments change⁴⁶ in ways that will eventually subject systems to one-off cases or systematic discrepancies that did not previously exist.⁴⁷ This phenomenon is known as “data drift”.⁴⁸ Conflict environments are likely to drift constantly.

- › Wartime activities physically change the environment.⁴⁹
- › Groups engage in unpredictable behaviour to deceive or surprise the adversary⁵⁰ and continually adjust (and sometimes radically overhaul) their tactics and strategies to gain an edge.
- › Because drift can happen gradually (or, if adversarial, covertly), it may be difficult to detect.⁵¹
- › Conversely, sudden unanticipated tectonic shifts – for example, the emergence of a wholly novel military tactic for which an autonomous system was not developed or designed – can render whole classes of system ineffective.⁵²

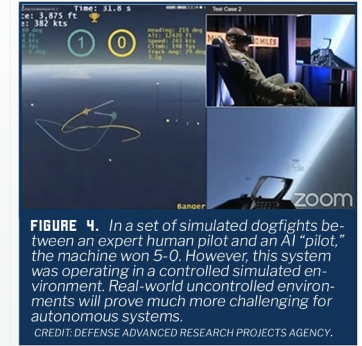
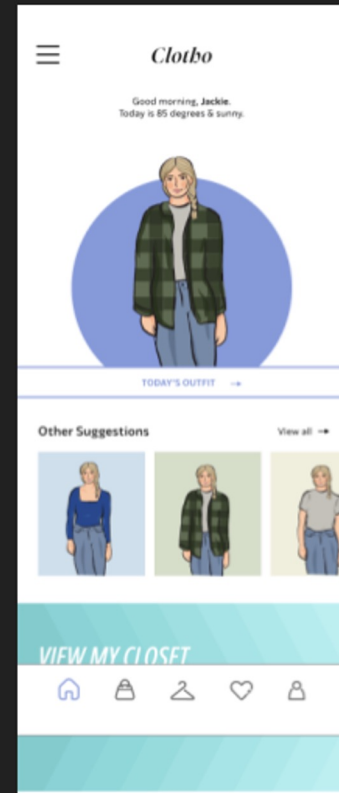
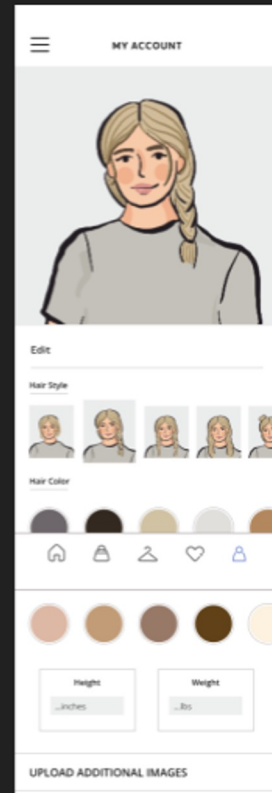
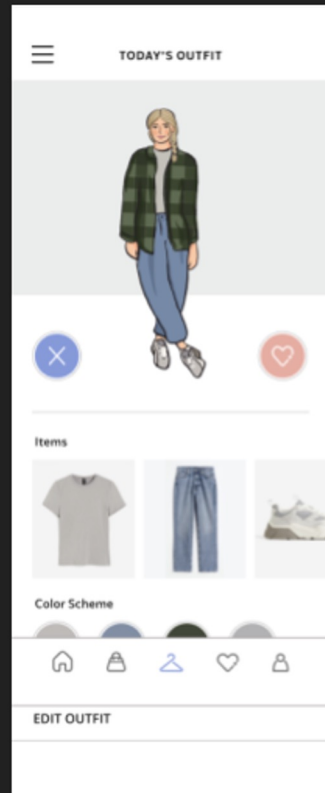
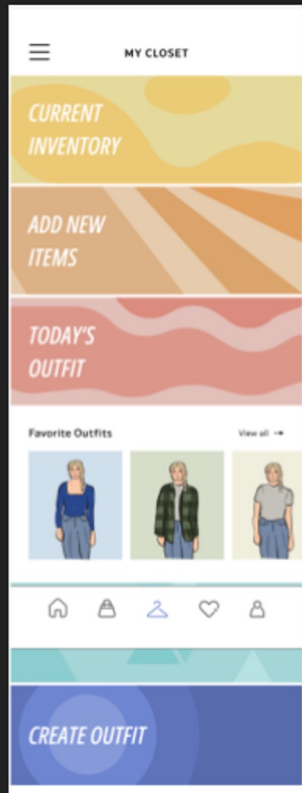


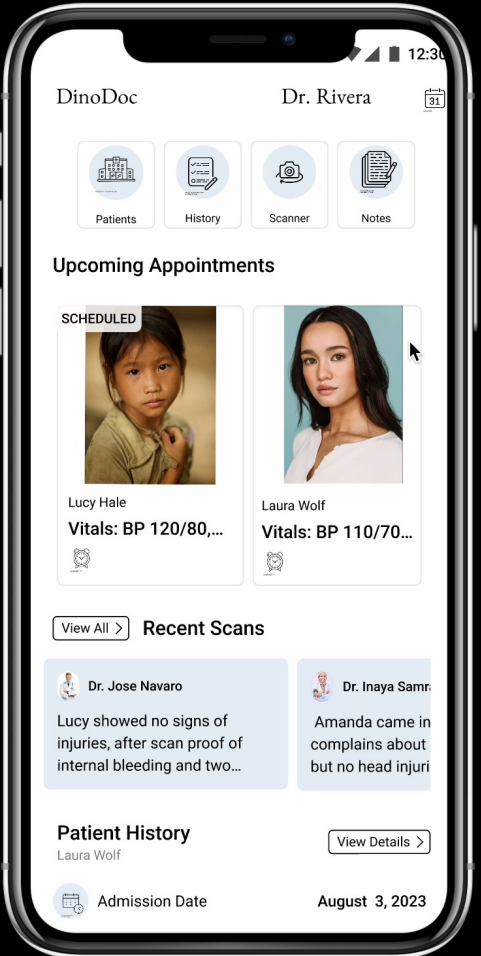
FIGURE 4. In a set of simulated dogfights between an expert human pilot and an AI “pilot,” the machine won 5-0. However, this system was operating in a controlled simulated environment. Real-world uncontrolled environments will prove much more challenging for autonomous systems.

CREDIT: DEFENSE ADVANCED RESEARCH PROJECTS AGENCY.

*Known Unknowns: Data
Issues and Military
Autonomous Systems,*
Arthur Holland Michel,
2021

HOW MY STUDENTS ARE USING AND THINKING ABOUT AI







AI IN FASHION

in a technological effort towards sustainability and diversity, how does one draw the boundaries between effective inclusion or unsavory omission?



"ANY GOOD TECHNOLOGIST,
INSTEAD OF COMPLAINING ABOUT
A PROBLEM, WILL BUILD A FUTURE
WHERE YOU COULD ACTUALLY HAVE
THIS REPRESENTATION"

A closer look at the ever-growing AI industry and what it means for the fashion industry, your shopping habits, and you.

The star of Levi's new campaign looks like any other model. Her tousled hair hangs over her shoulders as she gazes into the camera with that far-off high-fashion stare. But look closer, and something starts to seem a little off. The shadow between her chin and neck looks muddled, like a bad attempt at using FaceTune's eraser effect to hide a double chin. Her French-manicured fingernails appear scrubbed clean and uniform in a creepy real doll kind of way. The model is AI-generated, a digital rendering of a human being that will start appearing on Levi's e-commerce website later this year. The brand teamed with LaLaL.and.ai, a digital studio that makes customized AI models for fashion companies, to dream up this avatar. Amy Gershkoff Bolles, Levi's global head of digital and emerging technology strategy, announced the model's debut at a Business of Fashion event in March. AI models will not completely replace the humans, she said, but will serve as a "supplement" intended to aid in

AI-GENERATED MODELS CAN BE USED IN CONJUNCTION WITH HUMAN MODELS TO EXPAND THE NUMBER OF MODELS PER PRODUCT

the brand's representation of various sizes, skin tones and ages.

"When we say supplement, we mean the AI-generated models can be used in conjunction with human models to potentially expand the number of models per product," a Levi's spokesperson said. "We are

"ANY GOOD TECHNOLOGIST, INSTEAD OF COMPLAINING ABOUT A PROBLEM, WILL BUILD A FUTURE WHERE YOU COULD ACTUALLY HAVE THIS REPRESENTATION"

excited about a world where consumers can see more models on our site, potentially reflecting any combination of body type, age, size, race and ethnicity, enabling us to create a more personal and inclusive shopping experience."

Michael Musandu, the founder of LaLaL.and.ai, created the software in part because he struggled to find models who look like him. He was born in Zimbabwe, raised in South Africa, and moved to the Netherlands to study computer science. "Any good technologist, instead of complaining about a problem, will build a future where you could actually have this representation," Musandu said.

What about simply hiring a diverse cast of models? Musandu said that LaLaL.and.ai is not meant to "replace" models, but allow brands to afford showing off different clothes on as many bodies as possible.

"It is not feasible for brands to shoot nine models for every single product they sell, because they're not just hiring models, they're hiring photographers, hair stylists and makeup artists for those models."

AI-generated images don't need glam squads, so brands can cut costs they would spend on set by using fake avatars.

A spokesperson for Levi's added: "The models Levi's hires are already diverse and this will continue to be a priority for us. Over the past year, we've been focused on ensuring that those working on the content both in front and behind the camera are reflective of our broad consumer base."

Yet the diversity that AI can provide is always going to be virtual – a computer-generated sense of inclusivity. Are brands who generate, for example, black models for pieces where they only photographed a white human model engaging in a kind of digital blackface?

This is not a new question. There are already "digital influencers" like Lil Miquela and Shudu, fake avatars with millions of followers on social media. They model Prada, Dior and Gucci clothing with the idea that their (human) audience will purchase the pieces. Neither model

THESE MODELS NEVER AGE ... MAKING [THEM] A HOT COMMODITY IN A YOUTH-OBSSESSED INDUSTRY

is white, but both have at least one white creator (Shudu was created by British fashion photographer Cameron-James Wilson and Miquela by Trevor McFedries and Sara Decou).

Criticism of Levi's for casting AI models instead of real ones echoes the wave of response Lil Miquela got when she was first launched in 2016, or when Shudu made her debut two years later. The New Yorker's Lauren Michele Jackson called Shudu "a white man's digital projection of real Black womanhood".

Lil Miquela's creators also filled her fake life with "events" to try to give her personality. Calvin Klein apologized for a Prada ad that showed Lil Miquela kissing the real model Bella Hadid. A few months later, Lil Miquela came out with a story of experiencing sexual assault in the back of a ride-share, and followers accused her creators of making up a traumatic event for clout. Unlike their mortal counterparts, these models also never age. Miquela, a "19-year-old Robot living in LA", is forever 19 – making her a hot commodity in a youth-obsessed industry.

How long before these models are taking away jobs from real people? Sara Ziff, founder of the advocacy group The Model Alliance, is concerned, "capitalizing on someone else's identity to the exclusion of hiring people who are actually Black could be compared to Blackface," Ziff said. Ziff's New York office hosts a support line where models call in to discuss things that have made them uncomfortable on set. Lately, the

topic of conversation has been AI, and specifically body scans, which brands can use to create digital, 3D replicas of models' bodies.

"We've received an increasing number of calls from models who after receiving body scans found that the rights to their body were being assigned to a company, which meant that they were losing the rights to their own image," Ziff said. "We've particularly heard this from fit models, who are concerned over how their personal information would be used or capitalized on without their permission." Sinead Bovell has modeled for six years and wrote about the topic of AI models for Vogue in 2020. She frequently posts on social media about the ethical dilemma that comes with companies using models' bodies to create their images.

big ad campaign? "Who would own that data? Where would it live? I'm sure



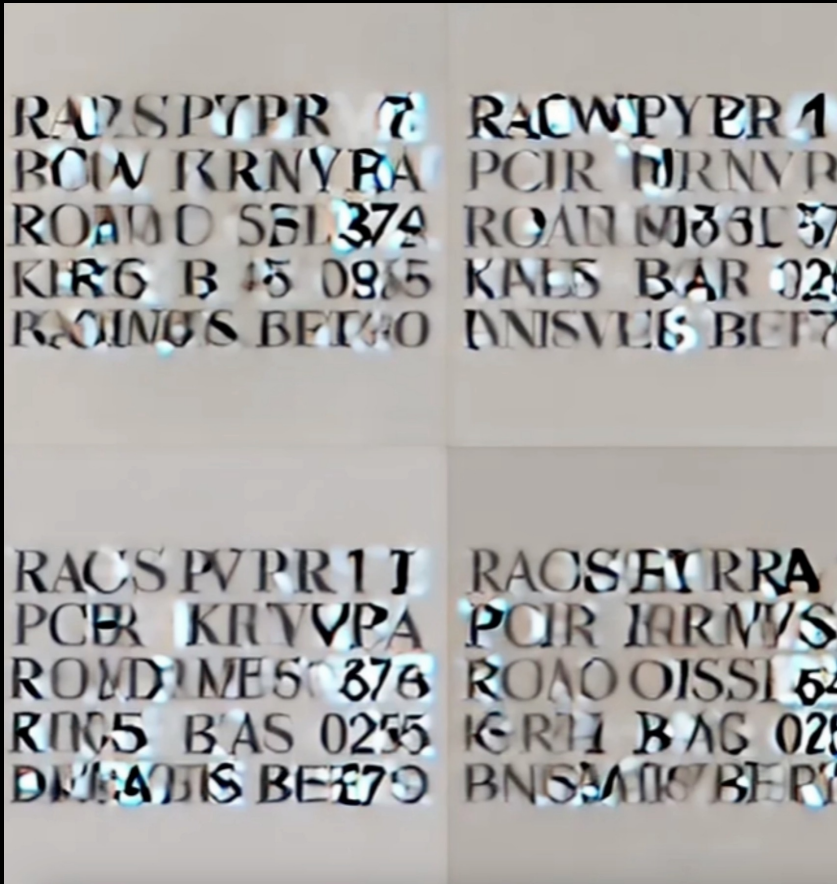
there are ways that you have full rights over it, but

as that area of tech is being ironed out, I'd rather not be the guinea pig," Bovell said.

Musandu, the LaLaL.and.ai founder, said that his algorithm only works off data that the company owns. But he agrees that companies should compensate models if they base images on their likeness. "I think if any algorithm has used you in the training set, you should have the rights for licensing those images," he said.

It's easy to remain pessimistic about the long-term affects this will have of fashion and body image. "I can see a future with AI where beauty standards become even more unrealistic because clothing is literally worn by people who aren't real," Bovell said. "If you look at the history of how tech has evolved – things like selfie and filters – it's not super positive."

- ALIYAH DEMOPOULOS



Hiccups and Hallucinations: Critically Engaging AI in the Design Classroom



Drew Sisk

Assistant Professor,
Graphic Design

Clemson University
Department of Art

casisk@clemson.edu

