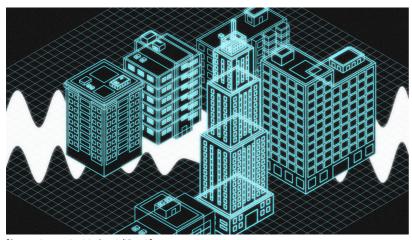
DESIGN TECH WORK LIFE CREATIVITY IMPACT PODCASTS VIDEO NEWS RECOMMENDER SUBSCRIBE FASTCO WORK

01-30-20

Al can now design cities. Should we let it?

We used to worry about Al turning our world into gray goo. But maybe we should be more afraid of it bringing in a Starbucks and a Lululemon.



[Source Image: LeshkaSmok/iStock]

in

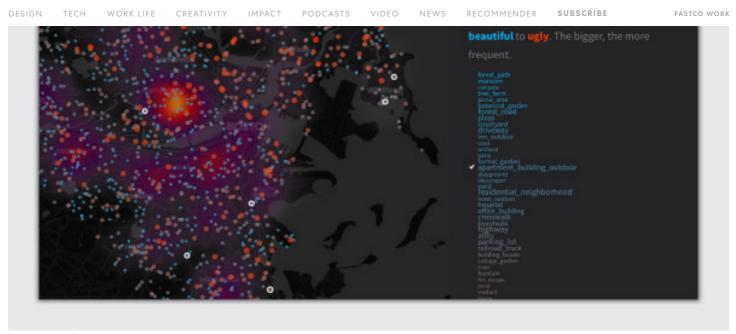
BY MARK WILSON

3 MINUTE READ

Seven years ago, MIT debuted a landmark project, which allowed everyday people to photograph and rate their streets like a Hot or Not for cities. It was a powerful showcase of how crowdsourcing opinions from citizens could help quantify a city's appeal and, in theory, help urban designers plan better cities.

Less than a decade later, artificial intelligence is taking this idea so much further. FaceLift is a new AI system developed by Nokia Bell Labs Cambridge that allows scientists and urban planners to use a crowd's aggregated sensibility to actually redesign the look of city streets. FaceLift AI can take any Google Street View scene and beautify it instantly—but at what cost?

To create FaceLift, 82,000 volunteers from 162 countries were tasked with rating 20,000 Google Street View images as beautiful or ugly. That data was pumped into an AI that then deconstructed people's preferences by features in these scenes: It learned picnic areas, orchards, and plazas were considered beautiful, while viaducts and construction sites were not. (Who knew?!?) Then in a final step, a "generative" AI system was tasked with beautifying images of a street by editing it with newly generated imagery (much like how a deepfake is made).



[Image: FaceLift]

You can see the results for yourself in FaceLift's interactive map of areas around Boston. It's in part a heat map that shows where beloved and hated features can be found in the city. It also includes a few side-by-sides of pre- and post-beautified streets on the map. The remade streets are completely unrecognizable compared to the originals, and you can learn a lot about what we consider beautiful by taking a look for yourself:

DESIGN TECH WORK LIFE CREATIVITY IMPACT PODCASTS VIDEO NEWS RECOMMENDER SUBSCRIBE FASTCO WORK

[Image: FaceLift]

I expected to see streets made over with fountains and fancy landscaping. Instead, the revised versions get decidedly less sexy adjustments such as crosswalks and sidewalks, because people find such public resources beautiful (perhaps for the same reason they find greenery beautiful—these pedestrian considerations imply a certain safety and security). You can also see that people prefer densely built streets lined with parked cars to more open areas, even if they have green fields and plentiful open parking (it's amazing how spacious areas in a city actually appear barren rather than luxurious).

The team has offered the Al's code for anyone with the know-how to download and try for themselves; the target audience is mostly urban planners, though the researchers believe it offers citizens a powerful way to reconsider their neighborhoods, too. In theory, FaceLift could remake every block of an entire city, providing City Hall with a scientifically measurable portrait of block-by-block improvement.

But that prompts a question: Is FaceLift a tool for beautification, or is it a tool for gentrification? Could its one-size-fits-all approach to taste enable homogenous cities with cookie-cutter designs?

I posed this to Daniele Quercia, a researcher on the project. He agreed that this would be a potential concern, if computers were handed all the keys to the decision-making. "Just blindly applying a computational judgment would not suffice, and more work is thus needed to understand when using these algorithms is appropriate and when it is not," he wrote via email. "At the same time, these types of platforms allow for much wider audiences to contribute to the redesign of urban spaces."

For now, the biggest insights I see lurking in the interactive map is that a city block doesn't need whimsical forest paths or fancy botanical gardens to be desirable. It just needs people living there with diverse buildings, trees providing shade, and designated places to walk. You don't need an urban

DESIGN TECH W

WORK LIFE CREATIVITY

IMPACT PODCASTS

STS VIDEO

NEWS

RECOMMENDER

SUBSCRIBE

FASTCO WORK

ABOUT THE AUTHOR

Mark Wilson is a senior writer at Fast Company who has written about design, technology, and culture for almost 15 years. His work has appeared at Gizmodo, Kotaku, PopMech, PopSci, Esquire, American Photo and Lucky Peach More

Fast Company Daily Newsletter

YOUR EMAIL ADDRESS

SIGN UP

✓ Receive special Fast Company offers.

See All Newsletters

VIDEO

IMPACT

DESIGN IMPACT

TECH WORK LIFE

CREATIVITY

IMPACT

PODCASTS

VIDEO

NEWS RECOMMENDER

SUBSCRIBE

FASTCO WORK

This electric motorcycle startup is transforming the Rwandan taxi industry

CREATIVITY

CREATIVITY

How 'The Lodge' discovers horror in dread

CREATIVITY

Don't call Mo'Nique's new Showtime special a comeback

CDEATIVITY

Apple's 'Mythic Quest' can't find enough funny in its video-game industry sitcom

CO.DESIGN

CO.DESIGN

Buying expensive stuff doesn't make us happy. Harvard researchers explain why

CO.DESIGN

This simple, visual trick makes people less politically polarized

CO.DESIGN

Why you can't escape dark patterns

WORK LIFE

WORK LIFE

This is when it makes sense to compare yourself to others

WORK LIFE

Why community matters for black and brown female founders

WORK LIFE

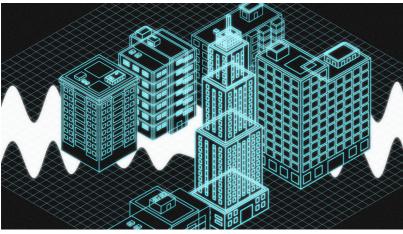
This is how to not fail at failing

Advertise | Privacy Policy | Terms | Permissions | Contact | About Us | Site Map | Fast Company & Inc © 2020 Mansueto Ventures, LLC | D

01-30-20

Al can now design cities. Should we let it?

We used to worry about Al turning our world into gray goo. But maybe we should be more afraid of it bringing in a Starbucks and a Lululemon.



[Source Image: LeshkaSmok/iStock]

5/9

DESIGN TECH

WORK LIFE CR

CREATIVITY

IMPACT

PODCASTS

VIDEO

NEWS

RECOMMENDER

SUBSCRIBE

FASTCO WORK

BY MARK WILSON

3 MINUTE READ

Seven years ago, MIT debuted a landmark project, which allowed everyday people to photograph and rate their streets like a Hot or Not for cities. It was a powerful showcase of how crowdsourcing opinions from citizens could help quantify a city's appeal and, in theory, help urban designers plan better cities.

Less than a decade later, artificial intelligence is taking this idea so much further. FaceLift is a new AI system developed by Nokia Bell Labs Cambridge that allows scientists and urban planners to use a crowd's aggregated sensibility to actually redesign the look of city streets. FaceLift AI can take any Google Street View scene and beautify it instantly—but at what cost?

To create FaceLift, 82,000 volunteers from 162 countries were tasked with rating 20,000 Google Street View images as beautiful or ugly. That data was pumped into an Al that then deconstructed people's preferences by features in these scenes: It learned picnic areas, orchards, and plazas were considered beautiful, while viaducts and construction sites were not. (Who knew?!?) Then in a final step, a "generative" Al system was tasked with beautifying images of a street by editing it with newly generated imagery (much like how a deepfake is made).

[Image: FaceLift]

You can see the results for yourself in FaceLift's interactive map of areas around Boston. It's in part a heat map that shows where beloved and hated features can be found in the city. It also includes a few side-by-sides of pre- and post-beautified streets on the map. The remade streets are completely unrecognizable compared to the originals, and you can learn a lot about what we consider beautiful by taking a look for yourself:

DESIGN TECH WORK LIFE CREATIVITY IMPACT PODCASTS VIDEO NEWS RECOMMENDER SUBSCRIBE FASTCO WORK

[Image: FaceLift]

I expected to see streets made over with fountains and fancy landscaping. Instead, the revised versions get decidedly less sexy adjustments such as crosswalks and sidewalks, because people find such public resources beautiful (perhaps for the same reason they find greenery beautiful—these pedestrian considerations imply a certain safety and security). You can also see that people prefer densely built streets lined with parked cars to more open areas, even if they have green fields and plentiful open parking (it's amazing how spacious areas in a city actually appear barren rather than luxurious).

1/6 [Image: FaceLift]

The team has offered the Al's code for anyone with the know-how to download and try for themselves; the target audience is mostly urban planners, though the researchers believe it offers citizens a powerful way to reconsider their neighborhoods, too. In theory, FaceLift could remake every block of an entire city, providing City Hall with a scientifically measurable portrait of block-by-block improvement.

But that prompts a question: Is FaceLift a tool for beautification, or is it a tool for gentrification? Could its one-size-fits-all approach to taste enable homogenous cities with cookie-cutter designs?

I posed this to Daniele Quercia, a researcher on the project. He agreed that this would be a potential concern, if computers were handed all the keys to the decision-making. "Just blindly applying a computational judgment would not suffice, and more work is thus needed to understand when using these algorithms is appropriate and when it is not," he wrote via email. "At the same time, these types of platforms allow for much wider audiences to contribute to the redesign of urban spaces."

For now, the biggest insights I see lurking in the interactive map is that a city block doesn't need whimsical forest paths or fancy botanical gardens to be desirable. It just needs people living there with diverse buildings, trees providing shade, and designated places to walk. You don't need an urban planning degree to understand how these simple ideas make a city so much more appealing, but then again, FaceLift's pretty pictures sure do demonstrate the point as clear as day.