

The Dharma of GANs

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Drawing inspiration from Buddhist Thangka paintings and South Indian dances, Harshit Agrawal incorporates South Asian art forms and visual culture in ways rarely encountered in either AI art or generative art. In much of his work, transformation and transcendence play a key role.

Born in 1992, Agrawal took his Bachelor of Design at the India Institute of Technology, Guwahati, before crossing the globe to get his master's degree at the MIT Media Lab, finding a home in the Fluid Interfaces Group. His undergraduate studies already allowed Agrawal to combine a creative thinking influence with a tech-heavy engineering influence, encouraging him to look at problems from both a tech perspective and a human-centered, societal perspective—all of which only deepened when he arrived at the Media Lab.

When he began to work with generative adversarial networks (GANs), Agrawal discovered that most AI art and generative art seemed to embed aesthetics drawn from Europe and the United States—the “Global North” as some might say. Indian and South Asian influence were rarely represented or even considered in any of the datasets people used. Most AI artists were from the U.S. or Europe, and archives of digital art created in those regions were much easier to come by because the documentation was more established, both in museums and online. Plus, the West simply provided more academic institutions at which to study these subjects and work with the material. He wanted to rectify the situation any way he could.

“As an Indian artist, I was very keen to offer an alternate visual aesthetic of what AI art could be,” Agrawal said. “And it felt like, yeah, right now is probably the starting time in terms of how people might talk about AI art down the years. And it should have a broader cultural grounding than only in Western art.”

Go East, Young Man

For his project, *Machinic Situatedness* (see cover and Figures 1 and 2), Agrawal trained GANs on Buddhist



FIGURE 1. Image from *Machinic Situatedness*.

Thangka paintings. No one had done this before. Visually, they were very different than what often gets pulled into AI or generative art. The brightness and multiplicity of colors immediately draw the viewer/participant to South Asia. *Machinic Situatedness* has nothing to do with the teachings of the Buddha per se, but instead explores man's quest for transformation.

“The visuals were definitely the most dominating factor, but the other factor was, every few hundreds of years, we as humanity use some aspect—be it religion, be it philosophy—as a means of trying to transcend what we are as just humans, to move to a ‘post status quo’ status,” Agrawal said. “And nowadays I feel we



FIGURE 2. Image from *Machinic Situatedness*.



FIGURE 3. A gallery attendee viewing Masked Reality.

are routing that through technology, or technology is one way in which we can route that journey of becoming, or transcending, to the post-human.”

Taking this concept further for his Masked Reality series (see Figures 3 and 4), Agrawal trained GANs on a curated selection of masks, face paintings, and dances from various regions of India. In the simplest version of the project, the results are outputted to basic 2-D portraits or 3-D sculptures.

An interactive version of the idea can be set up in any gallery or public space, where anyone can walk up to a webcam, which then captures his or her face and machine-transforms it in real time into monitor displays of male and female forms based on South Indian dances. Rather than simply viewing static masks or images on the wall, any attendee gets to see his or her face recreated as a traditional dance form or traditional face-painting form. The results also allow anyone to see both a male and female representation of himself or herself.

“There is an instant connection because you, yourself, are the art, and that sort of draws you in to start thinking about how Indian art can be recontextualized, but also, obviously, along the lines of what technology can enable in an art context,” Agrawal said, adding that culture does not simply jump from point A to point B. It exists on a continuum. “It’s not simply preserving a culture’s art form, but transforming the way in which people can actively engage with it through AI or technology, rather than passively observing it on the wall.”

In addition to allowing viewers to see themselves as both male and female, the project trained the GANs with dance routines from different caste backgrounds. One dance came from lower caste tribes and the other was typically performed by high caste



FIGURE 4. Image from Masked Reality.

Brahmins. Any viewer, after their faces are transformed, can thus see himself or herself represented across both gender and caste boundaries. The barriers between viewer and participant, between male and female, between higher caste and lower caste, all break down, thanks to GANs running in real time.

“You’re just simply walking up to a system and seeing yourself as poets instantly,” Agrawal says. “So that immediately sort of tells you that, yeah, there is that sense in which you can use technology almost on a plain, level sort of field, where you’re using it to break norms, social norms that existed, allowing everyone to sort of experience themselves as multiple identities.”

Building Community

Agrawal is one of the few Indian artists to combine GANs with South Asian imagery, precisely the reason why he chose to return to India after grad school. Working in his home country allows him to build more community and broaden the interest for this type of work.

According to Agrawal, more and more Indian galleries and museums at least seem open to the efforts of AI and generative art. The Museum of Art & Photography (MAP) in Bangalore has made an AI system to guide viewers along their exhibitions, for example.

Tech institutions should also be approached, he says. Universities and even lower educational facilities could always use more workshops with artists. Also, more international award-granting organizations are starting to include Global South categories. It won’t happen overnight, but there is hope.

“The conversation’s definitely starting,” Agrawal said.

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