



### AI wants your art. Do you have a say?

Beware, dancemaker Katherine Longstreth argues. Big Data wants to mine your creativity for profit, with no credit or compensation to you.

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CULTURE, DANCE, NEWS



Dancer and choreographer Katherine Longstreth performing "O Where." Photo: Marv Johnson

**T**HE NEXT THING BIG DATA WANTS IS YOUR BODY. While everyone is dazzled and distracted with ChatGPT, I am concerned about the next frontier for AI – how you move. Today’s technology enables companies to lift movement sequences from any video and turn them into movement data to be bought and sold. These programs do not need fancy motion capture suits; they just use video. Artists and creators who work with the body and movement are already experiencing the consequences.

Current software programs copy movement from any video to create “movement data” to be monetized as “emotes,” a kind of NFT. The owners of these emotes can then sell them to game developers and other content providers who in turn sell them to the gamers, but this does not mean the person who made the original movement data is protected. Choreographer Kyle Hanagami sued Epic Games in 2022 over the use of his copyrighted movement sequence in their game Fortnite, but the judge found not enough similarity in the emote to force Epic Games to either remove it from the game or pay Hanagami.

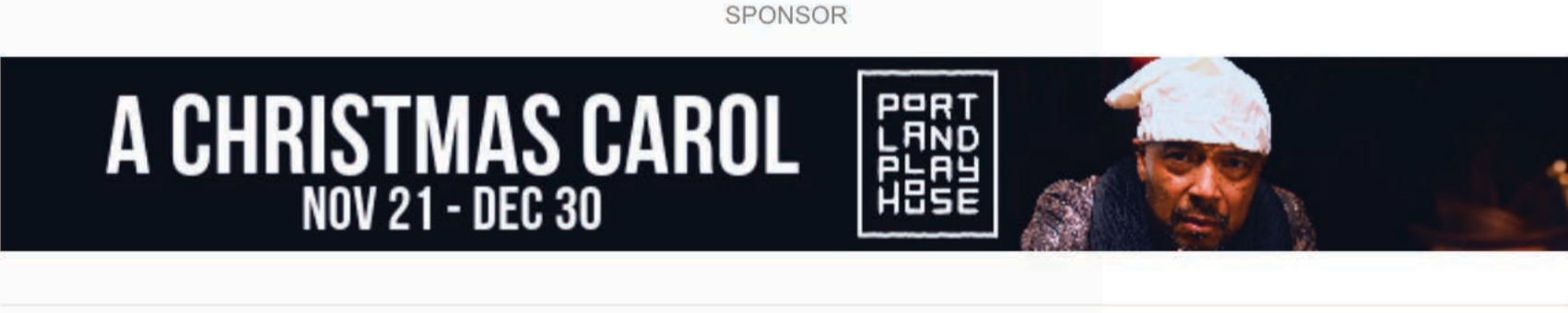
It is interesting that this judge found not enough similarity because to my eyes they are exactly the same, but the judge’s decision may be because “The U.S. Copyright Office cannot register short dance routines consisting of only a few movements or steps with minor linear or spatial variations, even if a routine is novel or distinctive.” But it is precisely these short movement sequences that are immensely popular in video games and on TikTok. Historically, there has not been much money at stake in dance, and movement sequences have not been able to be monetized, but AI is changing this.

Like many art forms, dance also incorporates nods or references to other choreographic styles or works, and the lack of copyright protection for choreographers is just one example of a culture that is cavalier about choreographers’ work. For example, people took aim at Beyonce because the choreographers for her videos were influenced by the creative work of Bob Fosse and Anne Teresa De Keersmaeker. (Fosse’s *Rich Man’s Frug* from *Sweet Charity* shows up in “Get Me Bodied,” his *Mexican Breakfast* in “Single Ladies”; De Keersmaeker’s *Rosas danst Rosas* and *Achterland* show up in “Countdown.”) Beyonce said, “Clearly, the ballet ‘Rosas danst Rosas’ was one of many references for my video ‘Countdown.’ It was one of the inspirations used to bring the feel and look of the song to life,” but as De Keersmaeker said to Studio Brussel, “this is plagiarism.”

ADVANCES IN AI MAKE THIS KIND OF “BORROWING” of others’ original movement that much easier. For example, composer and computer artist Glenn Marshall found a dance film called Painted he fancied on YouTube, copied video frames from that film to input into a neural network called CLIP (a program created by OpenAI) and gave the system verbal commands to emulate Painted’s look. The resulting film, The Crow, won him the jury award at the Cannes Short Film Festival in 2022. From the awards podium, and claiming to be a “herald of AI,” he shared his vision of a future in which he fantasized that “[for] each and every one of you, actor, set designer, costume designer, artist, composer...AI is coming, and soon you’ll find yourself in a very different job soon – or out of a job altogether.”

I am stunned by this threat to the very artists whose work he took, and to whom he owes his Cannes award. He gives no credit to the team of artists who created the short film, Painted, which is the basis for his film. Painted was written and directed in 2012 by Duncan McDowall with choreography and performance by Dorotea Saykaly, cinematography by Christophe Collette and original music by Simon Marchterre, and was awarded Best Dance Film at the 2012 Fastnet Short Film Festival and nominated for Best of Festival and Best Original Music. The process that Mr. Marshall used to “create” his video was essentially copying and pasting. The dancer’s exact movements are clearly identifiable even though they are performed by a crow. Sometimes even her human body peeks through the backdrop of the scene. So, the concept, choreography, cinematography, set design, art direction and costume, all elements which contribute to a work qualifying for copyright protection, are not just inspired by, but actually copied from McDowall and Saykaly’s work. AI developers are working on text to video systems which may make this kind of theft even easier.

This lack of protection should scare you, whether or not you are a dancer. Just as choreographers create unique series of movements as an expression of their artistic goals, you also create unique movements. All of us do. The devices we carry on our persons all day are already measuring many biometric markers and have discerned that our gaits are more unique identifiers than our fingerprints. Well beyond measuring calories and steps, the Apple Watch has biometric sensors that can track heart rate, blood oxygen, respiratory rate, wrist temperature, irregular heart rhythms, estimate time in REM, Core and Deep sleep, provide period and ovulation predictions, detect falls, measure cardio fitness and assess walking steadiness.



THE POTENTIAL INTEREST IN THIS DATA is as enormous as the privacy concerns. This intelligence data mining of your body could lead to very private information and inferences about you, your health, your movements, and your location being bought, sold and leveraged by advertisers, content providers, employers, and insurance companies. If you consent to these terms and conditions – presumably via voluminous and inscrutable fine-print legal documents that you e-sign when you start using your latest smart gadget – your most identifying feature that you cannot hide with a baseball cap or a face mask will be permanently linked to your identity.

Could biometric data find its way into AI diffusion models? What could information from bodies of all ages, levels of fitness, size, weight, and skill level contribute to data sets? Programs like Move.ai copy movement from the outside in, based on visual information. Might tools, such as geolocation, accelerometer and gyrometer in combination with biometric data make possible an inside out inference of movement? If this were possible it might be the most accurate form of dance notation ever, or the most intimate surveillance tool. If a future chatbox has access to somatic information, would it become even more human?

I am trying to imagine what our corporeal contributions might enable the next wave of AI to create. Perhaps instructional videos which enrich classroom content, training videos that make being a human safer, medical improvements that save lives, or a potent tool for artists. What will industries such as intelligence, military, pornography and cyberware do with these advances?

The generative AI programs such as Dall-E 2 and Stable Diffusion are already causing artists to lose control over their work and raise the real risk of artists being systematically sidelined both economically and culturally. I envision a free-for-all over the next several years with only the most well-resourced, connected and famous artists able to protect their IP. An independent artist, like me, might be led to believe that my obscurity will protect me, but this is not true if I have any kind of digital identity. As Bing’s awkward new chatbox has made clear, these generative models are training on datasets in which humans routinely display their worst selves. Artists should be able to opt in and out of training data sets just as users should be able to opt in or out of being tracked biometrically. If these new tools are indiscriminate about what they include in their data sets, how can they move us towards a more positive and equitable future?

THERE ARE SOME STEPS BEING TAKEN: The Department of Defense has formed a Defense Forensics and Biometrics Agency, lawsuits have been filed about the intellectual property theft, and websites are being created to help artists search to see if their work has been used in training data sets. Professor Ben Zhao and a team at the University of Chicago have developed a technique called Glaze which cloaks artist’s work online, confusing the AI data training process. Congressman Ted W. Lieu (D-Calif.) has recommended that Congress create a nonpartisan AI Commission. The University of Texas in Austin has created an interdisciplinary research program, Good Systems, which focuses on building ethical AI systems that benefit society.

But I think this is far too little, and too late. The public must demand more transparency and accountability from companies about the data they are collecting and using to train their new systems. And artists must be included in the conversations about AI, as we are uniquely able to help imagine how this new technology impacts us all and to ensure that creative work is protected.

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Katherine Longstreth

Katherine Longstreth grew up in Manhattan where she began dancing at the 92<sup>nd</sup> Street Y. She makes dance, video and installation work which has been presented in New York City by Dance Theater Workshop, David Parker/The Bang Group, Brooklyn Arts Exchange, the 92<sup>nd</sup> St. Y, and others. Since moving west, her work has been presented in San Francisco by CounterPulse, and in Portland by Ten Tiny Dances, the Risk Reward Festival and The One Festival. Her solo exhibition, *Marginal Evidence*, was presented by The White Box - University of Oregon School of Architecture and Allied Arts and at Reed College, where she was an artist in residence.