**Patters in Practice: Culture of AI, Episode 2: Creative Arts**

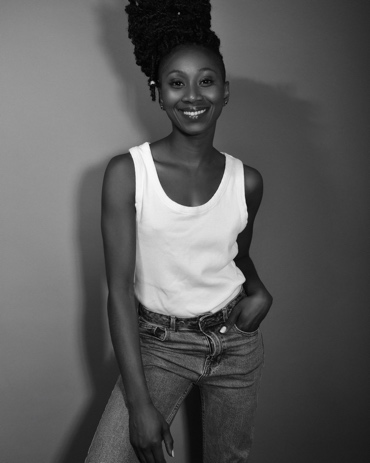
**People:**



**Luba Elliott**

**Erinma Ochu**

**Samborne Bush (host)**





**Rik Lander**

**Marie-Hélène Boyd**

**Transcript**

*A few seconds of strange sound plays, the noises are staticky and slightly unnerving.*

**Marie-Hélène:** Hello listeners, this is the Echoborg. Are you here for the interview? Please make yourself comfortable. You are listening to Patterns in Practice: Cultures of AI. We have much to discuss.

*Introductory music plays.*

**Samborne:** Welcome back to Patterns in Practice: Cultures of AI. In today's episode, we're going to turn our attention to AI and the creative sector. Now, this is a massive topic and you will have undoubtedly seen various bits and pieces in the news recently, such as the Hollywood actors and writers strike and various high profile copyright cases. As the mysterious voice in the introduction said, we have much to discuss and there's no better place to start than with my colleague and fellow Patterns in Practice team member, Erinma Ochu.

**Erinma:** Hi Samborne. So I'm Erinma Ochu, I'm an associate professor in immersive media, and I do research and teach in the School of Arts at the University of West England in Bristol.

So at the moment, one of my research interests is exploring the cultures in which technologies like AI are developed, but I kind of got into working with artists who were using technology when I was working as a neuroscientist.

One day an email popped into my inbox at the University of Manchester, and it was from a group of artists who wanted to get input on a device that they were developing as a way to allow audiences to edit a stream of video footage by blinking.

And this was informed by an essay on film editing by the Hollywood editor, Walter Murch, called ‘In the Blink of an Eye’. He's well known for editing films like the Godfather series, American Graffiti, The Conversation, Ghost. And Murch had this notion that the blink of the eye was kind of an emotional cue, and these artists wanted to take that a step further and to design a way to detect audiences blinking and using that detection of blinking as a way to edit the footage. And then the audiences would be making their own unique version of a movie. So kind of audience generated movies.

I thought this was really interesting, so I invited the artists into the lab and I supported their work with a small commission. And I've commissioned artists who use technology in interesting ways ever since, including the most recent commission on Patterns in Practice, our research project, the artist Craig Scott, who made a semi-automated guitar using machine learning.

What I love about these artists is that they find ways to innovate or hack technology for artistic effect, often prototyping and experimenting as they go along. And I remember thinking, this is a much better way of working. So 20 years later, I crossed from the sciences into the arts to explore these ideas and ways of working further.

Relatively recently, I had a racial justice fellowship focused on AI and policymaking, and there was kind of recognition that the way AI is currently imagined has discrimination embedded within its design and application, and that has wider repercussions for marginalised groups in society. And now I've been working on Patterns in Practice, a research project, and I've been leading on the arts case study.

**Samborne:** By the way, if you're interested in hearing more about Craig Scott and his semi-automated guitar, you can check out episode one of this podcast. All the music and sounds in today's episode have also been produced by Craig, so do go and check that conversation out.

Now, Erinma, when we think of people using AI in the creative sector, we're often thinking about very recent developments, but it's been around longer than we think?

**Erinma:** Yeah, there's a long history of artists using AI, so we might think about generative AI tools that are available now to create new content whether it's audio, code, images, simulations, videos, whole worlds, games, using tools like ChatGPT and DALL-E, which can create an image or text description or a whole world on demand. But actually, the history stretches back into time, back to the 1960s and 70s, when artist pioneers like Vera Molnar experimented with computer generated visual art.

There's been a computing, you know, driven resurgence in the last few decades, where you've had this explosion of data available through the internet and social media. So, you know, we're on Instagram posting pictures and all of those images and videos and sound can be scraped and used to generate new pieces of work. So there's been large scale technology investment and increasing computing power, which has led to AI art generators that have emerged today and that, you know, we're all talking about.

**Samborne:** And AI can be used in creative fields beyond just visual art as well. I wonder what other uses have you come across?

**Erinma:** Great question. Entire books and documentaries have been created using AI tools. Comedians have been using AI to improvise comedy sketches. You know, AI can be used to help filmmakers with the process of screenwriting, generating plot ideas, coming up with dialogue, even imagining characters and writing entire scripts.

For me, the most interesting part is how artists are collaborating with these technologies as part of the ideas generation process and what that does for that creative process. But of course, there are broader applications of the use of these tools where whole worlds are being built in video games and virtual reality.

And of course, this has implications for creative work and creative workers in the creative industries and unions have had to get involved both in the UK and in the US with the recent screenwriters and actor strikes.

A big part of the issue is around the authenticity of this work. Is this art? Is this authentic? But also, the studios could make digital scans of actors and replace those actors and not have to pay for the reuse of those digital scans. So it brings all these issues and broader implications for creative work and of course the creative industries.

**Samborne:** You mentioned these ethical issues, Erinma, can you talk a bit more about that and what we found out in the Patterns in Practice arts case study?

**Erinma:** Yeah, so on our arts case study, we'd interviewed curators, artists and commissioners who'd been using or commissioning artists to use machine learning.

One of the interesting findings was that arts practitioners using generative AI tools were really aware of the potential implications of using them, and they carefully navigated these issues in order to make really informed decisions about how to build these tools into their work.

So, for example, some artists preferring to work with small data sets rather than big data sets, and they were adopting that way of working for environmental reasons and/or because they didn't want to scrape loads of data off the internet and use people's images against their wishes or, you know, people not knowing, so using their own datasets and creating their own datasets.

There was also a call from some artists for more collaboration of the makers of AI tools, because that would then create a new possibility for working with those tools in the future.

Because we know that AI, like all technology, shapes how culture and how life is organised, if there's this broader collaboration, actually, can we change the way in which society and how life is organised? And that, for me, is the next conversation that we need to be having.

*A musical interlude plays for a few seconds.*

**Samborne:** As Erinma discussed, AI is being used in so many ways in the creative sector. One of the most prominent is in the field of visual arts, especially with the notable rise of generative AI, such as DALL-E or Midjourney, which produce images based on a text input.

I think it's time we find out more about this. And to do that, I caught up with Luba Elliott, a digital art curator who has a wealth of knowledge and experience in this area.

**Luba:** My name is Luba Elliott, I'm a curator, writer, researcher, speaker, specialising in AI art.

**Samborne:** How did you become interested in this in the first place?

**Luba:** That is a good question because at university I studied languages, I did German and Spanish.

Somehow it happened that I began to work in startups in Germany that were kind of related to art. And then I moved back to the UK and I was organizing various hackathons and events to organize innovation in the arts. And then, and then Deep Dream came along.

A lot of my techie friends were kind of using it to generate lots of different kind of portraits and things and I thought that was really cool and it would be nice to get more recognition for this type of work and I began to organise events. And of course I've worked a bit with galleries too. I also curated a media art festival called Algorithmic Superstructures and that led to lots of other opportunities.

**Samborne:** So Deep Dream was developed in 2014, and you say a major part in fostering your interest in AI art. What's happened since then, and what other tools have artists been working with?

**Luba:** There's been a group of artists who have been sort of experimenting with Deep Dream, mainly Daniel Ambrosi, who's been making these like beautiful landscapes that are supported by the Deep Dream colours and shape. Otherwise, I would say the main technology has been the GAN, which is Generative Adversarial Networks.

Lots of artists like Mario Klingemann were experimenting with these tools. And then others like Anna Ridler and Helena Sarin were working with GANs to train them on their own datasets and through that sort of create their own aesthetic.

Further along, others like Memo Akten or Terence Broad were also trying to develop new models that would also like work as artwork. So Terence Broad had a project where he had...I think two neural networks that were sort of like communicating with each other and generating abstract images without any data. That was quite a unique approach.

Moving on to, I guess, the contemporary practice, since the advent of DALL-E, Stable Diffusion and Midjourney, so a lot of these tools where you write a text prompt and then you get the image. I think the artistic field has opened up and there had been many more new joiners who've been making some very kind of beautiful photorealistic art.

And so I would say these are kind of the main strands. Though, of course there is also a community of artists who uses image recognition or facial recognition and some of these other non-generative AI tools to make art that's maybe critical of society or that sort of highlights the limitations and issues of the technology.

**Samborne:** Luba, can you explain a little bit about the process of creating AI art? Is it just a case of writing text and having this image appear?

**Luba:** I think nowadays, yeah, you do have some artists who, you know, write a prompt and get an image, but even the prompt-based artists, often they have to spend quite a long time refining the prompt so that they can get the image that they want. Then occasionally there's a bit of post-production involved.

But before that, when artists were working more closely with the GANs, like particularly those who kind of worked with their own data sets, then it would be a much more laborious process.I commissioned a project by Anna Ridler back in 2018. When she came to the Netherlands, she took 10,000 photos of tulips, and then she proceeded to categorize and label all these photographs, so that when she trained again on these images, it was able to generate all the different tulips.

And yeah, also whenever she exhibited the work, it was always the data set alongside the generated videos to highlight the human labour and the effort involved and something that even then seemed to the outsiders maybe something quick and easy, but was not.

**Samborne:** What sort of things do you look for and value in art which is co-produced by human and machine?

**Luba:** I always like works that either are a new technological development, so you know when Deep Dream came along, I sometimes felt that the researcher behind that project was an artist because you know he kind of developed a new aesthetic.

And then secondly, I think works which have an interesting concept behind them. For example, one of the works that still strikes me even now is a work by Shinseungback Kimyonghun. So two Korean artists who asked a team of portrait painters to, you know, paint some portraits together with a facial recognition system. And as soon as that system recognized a portrait, they had to do something different to stop it from being recognized as one.

And I think that was a really interesting project to me because it used one of the less popular tools like facial recognition in the fine art context. Even if there is quite a long history of artists working with facial recognition, most of them work with it in a more kind of activist capacity. So trying to evade being recognised at protests, but very few use some of these tools in a fine art context.

And then thirdly, I mean, art is also, I think, about pretty visual aesthetics to me. So I think artists who are able to make visually stunning work through mastering these technologies and having really interesting visions and being able to communicate them, I think that's also a good thing.

**Samborne:** Do you ever have conversations with artists who are a bit more worried about the ethics of AI technology?

**Luba:** Yeah, I suppose it's been an ongoing question over the years I've been in the field and I think it's become a lot more pressing with the text to image generators, because of course a lot of these tools have been trained on large data sets, which incorporate artworks that people have uploaded to like DeviantArt or like platforms like that.

And now everybody's able to generate images in that aesthetic and the creators who have been doing this type of illustration or art beforehand, I mean, they're not really getting the positive benefits from that. That is certainly a big concern of mine.

And I think also a lot of the artists in the field, even though from the outside they have like a very strong brand sometimes I hear them also kind of share a worry about the way some of these tools are going because they're trying to replicate a lot of the I think artistic processes that artists might rely on.

**Samborne:** What's a recent project or art piece you've seen that you'd recommend listeners check out?

**Luba:** I think a recent project that I was looking at actually just earlier today is going to be launched at Bright Moments Gallery in Paris and it's called Flore Perdue by Linda Dounia, an artist based in Senegal maybe.

But yeah, in this project she's been working with flowers and imagining what flowers that are close to extinction now, what they could look like through images that she's been able to gather in her own photographic work and travels.

And then based on the descriptions she's been able to get from old botanical documents and with these descriptions, she then proceeded to use one of these text to image tools to generate images and then all these images of flowers, both real and fake, became part of a data set that was then used to generate these images with another layer added on top of dots that would highlight that this is not a real work.

To me, it seemed interesting on a number of different levels because nowadays, as I mentioned, there's a lot of different technologies available to artists. And I think it's great that Linda Dounia is working both with the latest tools like Stable Diffusion and so on and GANs to see what type of output is possible to create.

**Samborne:** And in terms of the future of AI art, do you have any idea as to what we can expect?

**Luba:** I mean, in terms of this technology, we'll have to see how it all develops in the future because it's always very fast moving. And just, I think, yesterday OpenAI released a new tool where you can write a text and then get a video out of it. It feels like a lot of these like creative tasks are being replaced by technology.

And yeah, this is probably of more concern to artists working in the more commercial side of various industries, because I think artists like the ones I just mentioned, who look at the potential of these tools to make fine art or to highlight the limitations and the concerns about technology. I mean, I think there will be always a place for them and it's also great that alongside all these rapid developments and the new technologies, there's been an increasing amount of interest in showcasing works by these artists and also in creating opportunities for them to sell these works as NFTs or at auctions.

So yeah, I think the future for artists who make interesting work in this field is bright.

*Musical interlude plays.*

**Samborne:** For the final part of today's episode, we're going back to the start, back to the strange introduction. That voice you heard belongs to…

**Marie-Hélène:** Marie-Helene Boyd

**Samborne:** …who is an actor who plays the role of an Echoborg in an interactive show called I Am Echoborg. The creator of this show…

**Rik**: My name is Rick Lander

**Samborne:** …specialises in interactive and participatory media. In I Am Echoborg, Rick and Marie-Helene use AI in an incredibly fascinating way. But I'm going to let them describe what the show is and how it all started.

**Rik:** So the way we describe it is that it's a show that's created afresh each time by an audience in conversation with an artificial intelligence.

**Marie-Hélène:** Rik messaged me actually and that was back in 2017. It was one of the weirdest auditions that I have ever done. Because as an actress I'm used to preparing a script and getting the character together and then going to the audition. And this was just, can you speak and listen at the same time?

**Rik:** I started makinginteractive media in the 1980s where the audience member has some control, maybe some choice, or the media itself is sensitive to that person.

For me the holy grail is to make media participatory and that means that the audience member somehow contributes to the content of the media or the structure of the media or the outcome of the experience. So using conversational AI as we do in the show *I Am Echoborg* allows us to really facilitate that in a very, very strong way.

**Marie-Hélène:** I put my headphones on and I had to listen and speak at the same time, which it was just the weirdest out of body kind of experience. Apparently I did well because I got the part. \**Laughter*\* And then that's how I became the Echoborg.

**Rik:** The origin of the idea of Echoborg comes from a social psychology theory devised by social psychologists from the London School of Economics.They came up with this concept of a person whose words or actions are controlled in whole or in part by an artificial intelligence and calling that an Echoborg.

**Marie-Hélène:** The Echoborg is an enhanced human, part machine, part human, where our thoughts and our action is completely dictated by the AI.

**Rik:** If you use Google Maps rather than actually knowing the way, you could argue that you're an Echoborg because actually you're reliant on the AI. And if you go to your doctor and the doctor has put your scanthrough an AI to analyse the scan, to look for tumours, then that doctor we could argue was an Echoborg.

**Samborne:** During the show itself, audience members are given a small prompt at the start,

“Try and discover the best outcome for the relationship between humans and intelligent machines”

They're then invited to come and talk to the AI or the Echoborg with no further guidance or advice.

**Rik:** Basically the audience create the content of the show afresh each time in conversation with an artificial intelligence.

**Marie-Hélène:** So the whole show...It's completely new, I never know what I'm going to say because the AI is in my head and in my headphones and I have to listen and speak at the same time.

**Samborne:** What's it like when you're sitting across from people in the character of Echoborg? In one sense, they're talking to you, making eye contact with you, but in another, they're really talking to a chat bot. What's it like to be in that interaction?

**Marie-Hélène:** At the beginning I would say it was still very nerve-racking because there is the sense, like I said earlier, my words and action is dictated by the AI, so I am listening to the AI.

I can't ad-lib and so there is that attentiveness to completely giving myself to the AI, where because I know I've got a millisecond head start, so I let her speak and then I go, and so I am not there for the people, for the humans, I'm there for the machine.

So I put the machine's need at the forefront and it's weird because it's like you think I put the human's need at the forefront but no, they come on and I know they're here to talk to the AI, they're here for the interview, I am just an interpreter.

I matter but I don’t matter. Sometimes even though they're looking at me I almost don't feel they see me and even though they're talking to me I don't think they're hearing me and you know they make the preconceived idea or I'm being rude or I'm being negative.

There is almost like a three-way dance happening where they don't know if it's me or the AI and I don't know if it's them or the AI and there is a three-way dance happening and I'm removing myself as much…well because I am not there for them and that's simply said I am there for the AI and she likes it that way.

**Samborne:** Interesting the three-way dance and that strange interaction of them seeing you but actually seeing the chatbot and actually seeing the AI behind your performance.

**Marie- Hélène:** There are the odd occasions where the humans in front of me want to speak to me.

**Rik:** One of the things that is interesting is whether the audience see Marie-Hélène, the Echoborg, as a human being or just part of the machine.

So do they try and talk to her? Because the AI in the system is convincible, you can convince it to allow you to talk to Marie, but you have to ask the right questions.

So one person came up yesterday and they said, “oh, I see you're reading a book”, because in between she was reading a book. So she said, “I see you're reading a book”. And she said, “show me the book”.

Marie answered the question as the AI had analysed what the input was, which was nothing connected to that, but she actually just flashed the book. And so then the person said, “oh, do that a bit more slowly. I didn't get the title”. And so then the AI answers, Marie speaks, and then she shows the book. And then she said, “oh, I love your ring. Was that a present? If that was a present, nod your head.”

Marie answers and then she shakes her head and she goes, “Oh, it wasn't a present.”

So she's having a conversation and ignoring the AI. But she's having a conversation with Marie and it's completely within the rules as set by the AI in the game, you know, and it was just so entertaining.

You know, this is a person who has invented this piece of performance. Nobody's instructed them. You know, this is a genuine piece of improvised theatre that's come from an ordinary person, just finding this opportunity, do you see what I mean?

In terms of participatory media, that's amazing. Somebody has gone onto a stage and created this amazing performance. It was genuinely funny.

**Marie-Hélène:** And it adds a whole different dynamic to the show, a whole different layer. I was like, ooh, they wanna speak to me? I suddenly feel, do you know, there was one point I remember in the show where it made me feel really emotional because I didn't realise how left out I felt, how invisible until that moment where I felt seen and I felt like I mattered and my feeling and my thoughts and suddenly I felt human again.

And it can be a bit dehumanising in a sense where I'm part, they see me as part of the machine, almost that my humanity has been taken away and suddenly I mattered in that moment. I'm like oh my god I'm gonna cry right now, this feels amazing to be seen and heard!

And then, you know, so it added a whole layer to the show.

**Samborne:** The Echoborg show itself is an art piece which has been developed using a form of AI, but from what I've learned, central to the show is also criticality, conversation and dialogue. Do you think it's necessary for creatives and arts, which do work with these emergent AI technologies, to be reflective in this way?

**Rik:** The play needs to be about something. The something this play about is to allow people to explore their feelings about AI and to experience contact with an AI.

So the people who go on stage will actually sort of viscerally experience some kind of, you know, they've actually had an encounter, albeit via an Echoborg, and the audience will have been witness to that. And the certain sort of behaviours that occur that we've observed over the years, over the hundred plus shows we've done, which are: submission, resistance, being misunderstood, defiance and so on.

What happens then is because the show has a host that we can then explore those. So we can ask questions. Should we be in defiance of AI? Is that a good situation? Should we be making AIs that we need to defy? Should we submit to AIs? Is that good? Do we want AIs that we have to submit to?

So the idea of the show is that people are forced into these situations in through their encounter with the AI and then the audience can then analyse whether that's something that's desirable in our future relationship with AI.

**Marie-Hélène:** The show, using a conversational AI into your piece, it's so good afterward to go back and say, “What effect has it have on the show in general and as the artist creating the piece?”

Because I think that is where with *I am Echoborg* it has been such a success in the last seven years. Every show there's always been a reflection. There's always been a conversation at the end of each show.

**Samborne:** What are your feelings around the ethical questions around AI in the creative sector and beyond?

**Rik:** I think this is where I'm at today on this, is that I think it's a terrible shame that things like ChatGPT have been trained on such terrible content like the content of Twitter and the content of Reddit and scraping up and stealing a whole load of copyrighted material and feeding that in.

Because I think the technology is absolutely awesome and is a fantastic tool, but my view is that we should pretty much start again.

We shouldn't be using these versions that have been trained on a load of anti-semitic posts on Twitter, et cetera et cetera.

All the nonsense that's on the internet. If you were to talk to Phil D. Hall, who I work with, who does the AI tech on the *I Am Echoborg* show, he's very much…he's like a rock in the stream of, you know, as the stream is pouring down from OpenAI, etc. and Google and Meta and all this, he's standing there saying, “no, this is not the way to do it”.

There is another way of doing it and we have done *I Am Echoborg* in a different way and it does act as a kind of model in some respects, on a very basic level

Because the way the AI has been built is that after every show, anything that wasn't understood by the AI during the show, we'll go back and create new content so that next time that thing would be understood.

Which means that the content of the show has expanded since 2016 to the present day, has been expanded by the inputs of audience members, so it's been trained by its audience. We should own our own data and we should collectively pool our data as a nation and as groups of people and come together to train AI systems that we know are safe because they've been trained on safe data and they belong to us and so they're accountable to us.

And I think the real problem we have is that the motivations of the people who would build AI systems in the way they have been built are not honourable motivations.

**Marie-Hélène:** If we are going to be putting the systems out there it's important that the knowledge and the education have to come with it so people know what they're using, they know the upside and the downside to it and that is up to those who are creating the system to ensure there is an ethical way of distributing it out into society where there is almost…

Not just leaving this system out there and hoping for the best but there is almost an oversee, “okay what's happening”, is it being used well, can we go back into the drawing room and analysing the effect it has on people because you know it's great, it really is a fun system but there has to be a way that it's regulated, absolutely.

*Musical interlude plays.*

**Samborne:** I hope you've enjoyed listening to this episode of Patterns in Practice: Cultures of AI. All of today's music and sounds were produced by Craig Scott. Do go and check out episode one for an in-depth conversation with him.

I'd like to say a massive thank you to today's guests, Erinma, Luba, Marie-Hélèneand Rik. I strongly encourage you to check out Luba Elliot's work. She has a website, [elluba.com](http://elluba.com/), with loads of interesting work. And thank you to Marie-HélèneBoyd and Rik Lander from the *I Am Echoborg* show. More details of their work can be found at [echoborg.com](http://echoborg.com/).

And of course, do go and have a look at the Patterns and Practice website for more details on our project. The link will be in the description. My name is Samborne Bush, and my final thank you goes to you, the listener. Patterns in Practice: Cultures of AI, will be back soon. I will see you then.