

Preferable Pasts, Presents, and Futures of Creative Technology

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Over the past two decades, Creative Technology has emerged as a hybrid professional field shaped largely by art and design, rather than engineering, pedagogies. Creative Technology's successes have included open hardware platforms and open creative coding environments that have enabled new forms of artistic, civic, and educational experimentation, as well as enriching the tools available to the parallel amateur hobbyist and maker communities. At a time when Silicon Valley agendas seem complicit in limiting creative possibility, we instead see a preferable future in which the philosophy of Creative Technology can support critical and engaged relationships with complex systems and technologies, embracing uncertainty, messiness, and self-expression. This one-day workshop at BritCHI '26 is structured around preferable Creative Technology pasts, presents, and futures. We want to acknowledge past leadership from our community, take stock of our present practices, and seek to make positive contributions towards preferable futures.

Creative technology, creative coding, design education.

1. INTRODUCTION

Creative Technology is a design-led discipline in which practitioners create interactive systems and computational experiences for clients, public audiences, and cultural contexts. Practitioners often work across agencies, studios, corporate research environments, and artistic practices. The discipline is distinguished by its foundations in art and design traditions rather than formal engineering paradigms, a distinction rooted in pedagogical approaches that have now been established for more than two decades.

The successes of the Creative Technology community include open hardware platforms such as Arduino (2005), and open creative coding environments such as Processing (2001) and openFrameworks (2005). These tools have enabled new forms of artistic, civic, and educational experimentation,

and their outputs have shaped countless public interactive experiences worldwide. At the same time, they have enriched parallel hobbyist and maker communities, lowering barriers to entry and enabling widespread amateur participation.

We consider that the successes of Creative Technology can be attributed in part to the leadership of the academic design community, acknowledging the foundational contributions of figures like Red Burns at New York University (Huff, 2011), Muriel Cooper at Massachusetts Institute of Technology (Cooper, 1989) and Gillian Crampton Smith at the Royal College of Art and Ivrea (Smith and Tabor, 1996; Formia and Peruccio, 2021). We see the values of these individuals and this community embedded in the tools and pedagogies that shape our daily practice. The Arduino, for instance, was initially conceived at Ivrea, in response to MIT's Processing programming environment, and then developed in collaboration with NYU.

And yet the world has changed significantly in the past twenty years. The corporations of Silicon Valley have become dominant in our lives beyond our imagining and their agenda seems complicit in limiting creative possibility (Doctorow, 2025), no longer makers of ‘bicycles for the mind’ (Steve Jobs, Apple – (Lawrence, 1990)). While our optimism has become nuanced, we can see a preferable future in which the philosophy of Creative Technology can support critical and engaged relationships with complex systems and technologies, embracing uncertainty, messiness, and self-expression. Our conception of the preferable future is grounded in Voros’ futures cone (Dunne and Raby, 2013), which distinguishes between possible, probable and preferable plural futures, and positions the preferable as an actively shaped outcome rather than a passive prediction.

Our workshop aims to bring together practitioners, educators and students from computer science, HCI and design to surface and acknowledge some of these past narratives, openly discuss present opportunities and challenges, and collectively chart pathways for addressing pressing concerns in the field. The workshop is the second workshop the organisers have run. With the first workshop at the Design Research Society conference in Edinburgh in June 2026 (Clarke et al., 2026) focusing on the relationship between large scale societal challenges (SDG 8, 10 & 12 - (United Nations Development Programme, 2015)) and creative technology from a humanities and design perspective, but this lacked the perspectives from the HCI community. Through this workshop at BritCHI, we plan to further develop the role the future of creative technology may hold in addressing large scale societal problems, many which are highlighted in the UNs Sustainable Development Goals from a technology centred community.

2. WORKSHOP PROPOSAL

2.1. Goals and Participation

The goal of this one-day workshop at British HCI is to imagine preferable futures in which the philosophy of Creative Technology helps to reshape relationships with technology. In doing so we also want to take inspiration from the past and take stock of our present practices, while reconsidering Creative Technology processes, tools and pedagogies within HCI.

The workshop is structured around Creative Technology pasts, presents, and futures. Participants (including organisers) are asked to bring three artefacts: one representing their past, one their present,

and one their future in relation to Creative Technology. These contributions should be physically represented; with the exception of necessary hybrid meeting equipment. We will provide a printer for physical contributions from online participants. We encourage a diverse set of responses, including objects, low-fi prototypes, photography, sketches or a demonstration. The artefact from the future will present an interesting challenge for everyone, and we encourage the connection with, and use of, speculative design methods (Dunne and Raby, 2013).

The first activity of the day will be a round of introductions, during which each participant (including organisers) will engage in a show-and-tell of their artefacts representing the past, present, and future. At the conclusion of this session, the facilitators will synthesise the themes that have emerged, establishing threads that will structure the remainder of the day.

As organisers, we have already identified a shared thread of physical computing within our own practices: from early teaching experiences with the BASIC Stamp and the use of Arduino, to involvement in the design of the BBC micro:bit, and more recent work with ESP32 WiFi modules. Alongside these histories we bring emerging concerns, particularly regarding the future trajectory and governance of platforms such as Arduino. Our previous work provides a foundation for how creative technology tools and practices can underpin imagining more sustainable futures linked to the UN SDGs such as the inequalities between big technology giants and grassroots community innovation (Skelly et al., 2021).

2.2. Schedule

09:00 – 10:00 Introductions, show-and-tell and theme synthesis

Participants will introduce themselves and their artefacts. Each artefact will be placed on one of three long tables, representing the pasts, presents and futures of concern to the workshop. Three long reams of paper will cover these tables and physical collages that develop over the workshop will be documented with photography.

10:00 – 10:30 Break

10:30 – 12:00 Pasts

With reference to the themes identified, we will collectively tell the story between the artefacts from the past, with specific attention to who made them and with what intention. We will record these connections and annotations directly on the tabletop.

12:00 – 13:00 Lunch

13:00 – 14:00 Presents

The same format for the previous 'Pasts' session, but for the artefacts representing presents.

14:00 – 14:30 Break

14:30 – 16:00 Futures

The same format the previous 'pasts' and 'presents' sessions, but for the artefacts representing futures.

16:00 – 16:30 Reflection and next steps

Participants will be invited to reflect and discuss what preferable futures we have imagined for Creative Technology, how these are inspired by pasts and motivated by presents. Then consider how we might make hopeful gestures as a community towards these futures - these might form new collaborative projects, academic and non-academic publications, including a blog, GitHub repository, white paper, or another creative format appropriate to the contributions in the room. As a record of our conversations, we will have photographs of the contents of the tables. We have sufficient organisers to rotate the facilitation of each session between us.

2.3. Venue

We will require a well-lit room to host 15-25 participants (including organisers), in which we can situate three long tables (at least three metres long), we will cover them with three long reams of paper (which we will provide), and adequate stationery supplies. We will require hybrid meeting equipment (a screen, camera and microphone) and network connected computer. We will provide (and manage) a printer on which remote participants can contribute their printed artefacts. Some participants may require electrical sockets, if they contribute a technology demonstration.

2.4. Audience and Promotion

This workshop is open to researchers, designers, artists, educators, and students. Participants are required to bring three physical artefacts (objects, low-fi prototypes, photography, sketches or a demonstration, etc) representing a past, present and future relating to Creative Technology. We anticipate 15-25 participants, including organisers. The workshop will be promoted through our professional networks (including direct outreach and via social media) as well as via academic mailing lists (like CHI-ANNOUNCEMENTS).

3. ORGANISERS

David Chatting

David is a designer, researcher and Creative Technologist, with a career spanning over 30 years

in industry and academia, starting at BT Labs as a 16 year old apprentice. His is a technically, socially, and historically engaged Research Through Design practice, seeking to create knowledge through the reflective production of public design work - frequently exploring the impact of emerging technologies in everyday lives. David has previously led successful workshops at DIS, CHI and NordiCHI.

Loraine Clarke

Loraine leads the HCI group at the University of St Andrews, and lectures in Interactive Hardware & Software. Loraine has been tinkering with creative technology by hacking electronics, 3D printing, laser cutting, Processing, JavaScript, in a mashup to fabricate interactive public facing exhibits and prototypes for 15 years. She has a particular interest in the power of Creative Technology for advocacy by bringing together the fabrication of tangible-digital artefacts, socio-technical agendas and cultural contexts.

Joel Lewis

Joel is a Course Leader at the University of the Arts London, where he co-founded the Diploma in Creative Computing at the Creative Computing Institute. He was the Interactive Creative Director at Universal Everything and co-founded the Creative Technology studios YesYesNo and Hellicar&Lewis. Joel's Creative Technology career has seen him playtesting for Bullfrog Productions and touring with Massive Attack and U2.

Dan Lockton

Dan is a Professor of Design & Imagination at Norwich University of the Arts. He is the Director of the new Institute for Sustainable Worlds, working on tools and methods for collaborative re-imagining in an age of crises and transitions.

Tom Metcalfe

Tom is a post-disciplinary artist-designer and researcher whose work explores alternative approaches to design and Human-Computer Interaction through a critical posthumanist lens. Through his practice he creates Performative Artefacts — playful objects that invite audiences to notice unseen relations with Earth's rhythms and temporalities, co-created with humans and non-humans alike. He is Director of his own studio in Dundee; Honorary Associate Professor at the University of Bristol; and Doctoral Researcher at the University of St. Andrews.

Jon Rogers

Jon is Professor of Creative Technology at Northumbria University, dedicated to open hardware and connected devices. He has spent 25 years playing with (and breaking) electronics that can control physical attributes of the world, and teaching others to do the same – from BASIC Stamp to Arduino. He was previously a Senior Fellowship with Mozilla. Now Jon is increasingly determined to address the power of big tech through the resistance potential of Creative Technology grounded in communities.

Andy Sheen

Andy is a Creative technologist working across industry and research, and previously headed product development at Technology Will Save Us, leading the technology development of multiple products. With Mike Vanis, he runs the technology consultancy VAST, delivering projects for organisations including Google, Hermès, the Natural History Museum and the V&A. Andy's personal practice explores immersive systems at the intersection of music and technology.

Mike Shorter

Mike is a Senior Research Fellow in Creative Technology at Northumbria University. Across a career spanning research, product design, craft, and industry consultancy, he has consistently explored emerging technology through reflective and playful processes, making meaningful objects and experiences. He has a particular interest in open hardware, LoRa mesh networking, and TinyML as tools for digital sovereignty, and is increasingly focused on the potential of resilient community-owned technological infrastructure.

Martin Skelly

Martin is a Reader in Product Design at the University of Dundee. He lectures in Product Design and Creative Technologies, leading modules on the role of prototyping, the design of physical digital and internet-connected objects. Before academia Martin worked as a Product Designer & Creative Technologist for a leading design agency, creating data driven products and installations.

Mike Vanis

Mike is an interaction designer and engineer specialising in open-source DIY technology and commercial electronics. Previously, he led the product team at Technology Will Save Us, designing the DIY Gamer Kit and helping design the BBC micro:bit, distributed to one million young people in UK schools. With Andy Sheen, he runs the technology consultancy VAST.

4. CALL FOR PARTICIPATION

Over the past two decades, Creative Technology has emerged as a hybrid professional field shaped largely by art and design practices. Creative Technology's successes have included open hardware platforms and open creative coding environments that have enabled new forms of artistic, civic, and educational experimentation, as well as enriching the tools available to the parallel amateur hobbyist and maker communities. At a time when Silicon Valley agendas seem complicit in limiting creative possibility, we instead see a preferable future in which the philosophy of Creative Technology can support critical and engaged relationships with complex systems and technologies, embracing uncertainty, messiness, and self-expression.

We invite researchers, designers, artists, educators, students, and practitioners to join us to reflect on the past, present, and future of Creative Technology and collectively imagine preferable futures for the field. The workshop will be structured around three temporal perspectives: pasts, presents, and futures. We want to acknowledge past leadership from this community, take stock of our present practices, and seek to explore positive contributions towards preferable futures. We will engage in a hands-on, largely screen-free format centred on discussion, show-and-tell, and collaborative reflection, with activities designed for participation both in person and online.

We ask you to bring three artefacts to the workshop that represent your personal or professional relationship with Creative Technology: one from the past, one from the present, and one that speculates on a preferable future. These might include objects, prototypes, photographs, sketches, demonstrations, mood boards, or other creative forms. Please submit images of these artefacts by 13th August (AoE) via our website. We encourage early submissions and will review these as they are received, sending notifications on a rolling basis, before 27th August. We will accept diverse and relevant contributions that have the potential to contribute to the discussion.

At least one participant for each accepted submission must attend the workshop online or in person. There are registration options available for the full conference, including the workshop or the workshop individually. Registration closes on 16th October, with Early Bird discounts available until 10th September.

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