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3RD SYMPOSIUM ON

DIGITAL ART IN IRELAND

UNIVERSITY COLLEGE CORK & THE LORD MAYOR'S PAVILION, FITZGERALD'S PARK

22ND APRIL, 2026

CHAIRED BY

STEPHEN RODDY, JAMES O'SULLIVAN, AOIBHIE MCCARTHY & EMER YIP

PROGRAMME & BOOK OF ABSTRACTS

the arts council an chomhairle ealaíon
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The *3rd Symposium on Digital Art in Ireland* is a collaboration between Sample-Studios and University College Cork's Department of Digital Humanities and Future Humanities Institute.

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PROGRAMME

22ND APRIL 2026

VENUE: DORA ALLMAN, UNIVERSITY COLLEGE CORK

10:00am OPENING REMARKS

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(Centre for Creative Technologies, University of Galway)

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(University College Cork and MTU Crawford College of Art & Design)

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CHROMAESTHESIA IN CURGENVEN'S AGENESIS

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Chris Falconer

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Basil Al-Rawi

EXHIBITION OPENING

HOUSE OF MEMORY,

Basil Al-Rawi

THE LORD MAYOR'S PAVILION, FITZGERALD'S PARK
5:30PM

ABSTRACTS

IN ORDER OF APPEARANCE IN THE PROGRAMME

WEDNESDAY, APRIL 22ND

SESSION 1

10.15AM - 11.30AM

FAILING SMALL: TRAINING A GENERATIVE AI MODEL WITH IMPERFECT DARKROOM IMAGES

ALAZ OKUDAN WITH JAMES MCDERMOTT (CENTRE FOR CREATIVE TECHNOLOGIES, UNIVERSITY OF GALWAY)

Large-scale AI operations require large-scale datasets. Datasets containing billions of items cannot be sourced at a human scale. The web is scraped to collect as much information as possible to train models that can learn from the world and attempt to replicate it. This process extracts information without consent while capturing unwanted data alongside the data that is sought after. Dirty data that contaminates favourable information becomes the culprit behind hallucinating, biased, and struggling AI models. On the other hand, what is deemed as dirty may contain marginal, repressed, and unwelcomed voices.

To remove the dirt and refine the data, manual human labour which goes by the name of content moderation can be used. Companies that invest in AI technologies rely on intermediary agents specialised in collecting and selling data. These agents take advantage of economic crises and political instability as a way of getting their hands on cheap human labour for data labelling and annotation tasks while keeping workers in precarious conditions. Despite widespread rhetoric celebrating automation, exploited human labour remains the fundamental force behind automated processes.

Failing Small places what can be considered as "dirty" and undesirable data at the centre of a non-commercial generative AI model that does not claim to create truthful representations of the world and therefore has no interest in being large-scale. We trained a VAE (Variational Autoencoder) on a small dataset consisting of darkroom test strips, which are small pieces of photographic paper used in the darkroom to determine the correct exposure time before committing to a larger print. Test strips are inherently failed, imperfect fragments with fluctuating exposure and contrast values that represents unintelligible sections of wider compositions. They exist as deliberate and necessary failures that guide the path toward the successful print. Once the correct exposure is determined, the test strip is discarded, having served its purpose. Instead of discarding them, we wanted to give them a further purpose.

Our AI model, being trained on failed images, generates low-quality images that reflect but do not replicate the ambiguous nature of its training data. In contrast with large-scale operations that depend on systematically refined images obtained through questionable means, our model—built upon deliberately imperfect images, sourced at human scale and limited in scope—offers an alternative to prevailing data collection methods that exploit human labour and employ covert data harvesting techniques. ***Failing Small*** serves as a commentary on industrial-scale models and their operational logic while revealing possibilities for AI that operates at a more human scale. The work makes it possible to observe how a neural network can fail to learn from data that is itself flawed, small, and incomplete.

This work continues to evolve as the training dataset slowly expands with new images from the darkroom, which are used to further train the model.

ALAZ OKUDAN is a PhD researcher in the Centre for Creative Technologies, University of Galway with a background in media and visual studies. Alaz is interested in hidden, neglected, and marginal stories from the history of visual technologies. He enjoys looking at infra-ordinary aspects of life that lie beneath the threshold of everyday attention through the lens of visual media and working slowly in the darkroom with photochemical processes. He is concerned with the ecological and social impact of commercial technologies. He experiments in both analogue and digital forms of image-making, seeking hybrid modes of expression.

JAMES MCDERMOTT is Senior Lecturer and Director of Research & Graduate Studies in the School of Computer Science, University of Galway, Ireland. He has previously worked and studied in Hewlett-Packard, University of Limerick, University College Dublin, and Massachusetts Institute of Technology. His research interests are in artificial intelligence, including genetic programming, evolutionary optimisation, and deep learning, with applications in sustainability and AI music. He has chaired international conferences including EuroGP, EvoMUSART, and GECCO GECH Track, and is a member of the Genetic Programming and Evolvable Machines journal editorial board, and associate editor of the ACM SIGEvolution newsletter. http://jmmcd.net

ARTISTIC ACCESS TO COMPLEX DIGITAL SYSTEMS THROUGH PARTICIPATORY DESIGN

DR PAUL GREEN AND JUAN FRANCISCO MARTINEZ(MTU CRAWFORD COLLEGE OF ART & DESIGN & NIMBUS RESEARCH CENTRE)

This presentation outlines work undertaken as part of a Research Ireland CONNECT Centre project entitled Interwoven Networks: Artistic Explorations of Complex Communication Infrastructures. A broad concern of the project is addressing the potential risk the digital transformation of society may contribute to existing social, educational, and economic inequalities. The project is built on a collaboration between Nimbus Research Centre, the Department of Fine Art & Applied Art and the Department of Media Communications. The partnership combines advanced technological capability with creative and cultural expertise. Nimbus contributes advanced digital infrastructures, including AI, data platforms, and immersive and interactive technologies, alongside applied research expertise that ensures technical robustness and alignment with emerging digital transformations. In parallel, the Departments of Fine Art and Media Communication lead creative mediation, translating complex digital systems into accessible artistic, visual, and narrative forms that resonate with diverse communities.

During the initial stage of the project, members of the team collaborated with fine art and design educators and professional artists. Workshops focused on traditional drawing practices where technology is not typically integrated, alongside activities incorporated into the design of creative digital media projects where network technologies enabled the simultaneous display of work across multiple sites. Collaborative work was conducted with professional artists who were already integrating digital technologies into their practice, and those seeking to develop an understanding of how technologies might benefit expression in their artistic work. These collaborations functioned in supporting artists interested in adopting digital technologies, while also raising awareness among practitioners working with traditional (non-digital) methods of how their work might operate within expanded, hybrid contexts through networked technologies. Insights gained from the drawing experiments, the educational engagements, and artist collaborations informed the conceptualisation of a digital toolkit and interface intended to contribute to improving artists' access to advanced technologies and explore the challenges to collaboration between technological and creative communities.

The dART Toolkit is currently under development by the project team comprising electronic engineers and artists. It is designed to operate across two interconnected platforms: a remotely hosted server-side suite of technologies and local software modules intended for use by creative practitioners in collaboration with those from other disciplines. The server-side modules provide real-time access to data-intensive media streams, including large online datasets and live sensor data. The local modules offer accessible tools that allow artists to engage with online data sources while minimising the technical complexity typically associated with such systems. The toolkit's design methodology is participatory, employing co-creative approaches that directly involve artists, designers, technologists, educators, and students in the creative arts. In the coming months, a series of workshops will bring these groups together to collaboratively evaluate the toolkit and explore the challenges that emerge in the context of cross-disciplinary practice.

This presentation proposed here will introduce the dART Toolkit, outline the initial workshops that informed its conceptual design, present examples of collaborative work with professional artists, and showcase student projects developed in response to design briefs for interactive and co-located artworks.

DR PAUL GREEN is a Senior Lecturer in the Faculty of Creative and Performing Arts and Media (CPAM) at Munster Technological University (MTU), Cork, Ireland. He holds a primary degree in Fine Art, an MA by Research in 3D Visualisation, and completed his PhD in 2018, which examined narrative in creative art and design practices.
Prior to joining academia, Dr. Green worked on European-funded projects developing interactive content for language learning and environmental awareness applications. His research is practice-led and explores the intersection of technology, art, and design through traditional media, software, and interactive technologies. He currently supervises Post doctoral and PhD research projects at CPAM and in collaboration with MTU's Nimbus Research Centre, with a focus on media communications and interactive technologies. He has also collaborated with and mentors professional artists working at the intersection of media and technology.

JUAN FRANCISCO MARTINEZ is a Senior Research Engineer at the Nimbus Research Centre, Munster Technological University (MTU), Cork, Ireland. He holds honours bachelor's degrees in Telecommunications Engineering and Electronics Engineering, and is currently completing his PhD in Electronics Engineering, which examines extending touch-sensing capabilities onto everyday surfaces through smart materials.
Since joining the Nimbus Centre in 2008, Juan has specialised in sensor and transducer design within the fields of cyber-physical systems and the Internet of Things. He leads the Hardware Research and Development Group at Nimbus, overseeing the design and implementation of innovative sensing platforms while mentoring multidisciplinary teams. He has contributed to and delivered projects at national and international level, with close collaborations in industry and applied research. Juan currently collaborates with the Drawbridge Research Group and the Multimedia Department at Crawford College of Art and Design on the Interwoven Networks project, funded by Research Ireland's CONNECT Centre, exploring artistic interpretations of complex communication infrastructures, building communities at the intersection of science, technology, and art.
He currently supervises Post doctoral and PhD research projects at CPAM and in collaboration with MTU's Nimbus Research Centre, with a focus on media communications and interactive technologies. He has also collaborated with and mentors professional artists working at the intersection of media and technology.

A PRACTICE-LED APPROACH TO MUSIC VISUALISATION IN THE IRISH DIGITAL ARTS CURRICULUM

GUANG YANG (UNIVERSITY COLLEGE CORK)

Music visualisation transforms sonic data into dynamic visual form. In the digital era, this process has evolved into real-time, reactive artistic practice. Situated within broader discussions in Music Information Research and Information Visualisation (Lima et al., 2021), this project approaches visualisation as both analytical tool and creative medium. This paper reflects on the development and implementation of a practice-led approach to music visualisation within a Digital Art module at an Irish university, informed by techniques from Music Information Research but re-situated within creative and embodied practice.

Digital audio is decomposed through Fast Fourier Transform (FFT) analysis using the p5.sound library, allowing for real-time feature extraction of spectral data, amplitude, and waveforms. To enhance this digital signal, Arduino is integrated as a physical interface, allowing users to manipulate visual parameters through hardware controls. At the centre of the project is a real-time process of analysis and interpretive mapping. Sonic features such as amplitude, spectral distribution, and pitch are extracted through FFT analysis and translated into dynamic visual parameters. Rather than functioning as neutral data, these descriptors become material for aesthetic negotiation: pitch informs spatial positioning and form, while amplitude shapes scale and intensity. In this sense, the visualisation aligns with Dietmar Offenhuber's distinction between symbolic information visualisation and "autographic" visualisation, where traces reveal the conditions of their own production rather than merely representing abstract data (Offenhuber, 2020). In this approach, visualisation shows how sound is analysed and translated into visual form, revealing the computational and design choices that shape what is seen.

The project incorporates Music Emotion Recognition (MER) by interpreting musical mood through Russell's Circumplex Model of arousal and valence. These emotional values are mapped onto hue and saturation within an HSB colour space. Changes in musical intensity affect brightness and saturation, while shifts in emotional character influence tonal range. Through this mapping, colour responds to measurable variations in the music, positioning the visualisation as an active translation of affect rather than a decorative accompaniment. In this sense, the system resonates with Mark Hansen's account of digital media as embodied experience, where computation operates through perceptual and affective engagement (Hansen, 2007).

By situating this work within an Irish institutional context, the paper reflects on how combining creative coding with hardware interaction fosters emotion-aware digital art. By combining computational analysis with hands-on creative experimentation, the module encourages students to reflect on how technical systems shape aesthetic outcomes and influence the way digital media are experienced. This pedagogical practice contributes to the vibrant landscape of Irish digital humanities by demonstrating how practitioners can synthesise technical data analysis with expressive, tactile creative outputs.

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Hansen, M. B. (2007). Bodies in code: Interfaces with digital media. Routledge.

Lima, H. B., Santos, C. G. R., & Meiguins, B. S. (2021). A survey of music visualization techniques. ACM Computing Surveys, 54(7), 1–38. https://doi.org/10.1145/3461835

Offenhuber, D. (2020). Data by proxy—Material traces as autographic visualizations. IEEE Transactions on Visualization and Computer Graphics, 26(1), 98–108. https://doi.org/10.1109/TVCG.2019.2934788

GUANG YANG is currently an MA student in Digital Arts and Humanities at University College Cork. He was previously trained in data visualisation, having completed training programmes such as the Visualisation Summer School at Peking University and attended visualisation conferences such as IEEE VIS. He is currently investigating the use of the p5.js library and Arduino platforms within the digital art curriculum at University College Cork, as part of a broader exploration of contemporary digital art practice in Ireland.

SESSION 2

11.45AM - 1.00PM

FULLY SUBMERGED: COLLABORATIVE WORK AND IMMERSIVE EXPERIENCES

BARBARA DIENER AND DR. PAUL GREEN
(UNIVERSITY COLLEGE CORK AND MTU CRAWFORD COLLEGE OF ART & DESIGN)

The presentation *Fully Submerged: Collaborative Work* and Immersive Experiences addresses current work in progress arising from an art-and-technology collaboration between Dr Paul Green and Barbara Diener. Work conducted during 2025, supported by an Arts Council of Ireland Bursary Award and a Sample-Studios residency on Spike Island, culminated in the exhibition *No One Thought of Sleep*, hosted at the Lord Mayor's Pavilion between October and November 2025.

The exhibition combined digital photographic works and 360-degree video footage that Diener captured underwater in the River Lee and Cork Harbour, where Spike Island is located. The video work explored interconnected and continually shifting waterways and the layered histories they carry. The footage evoked the sensation of submersion and constraint beneath the surface, a feeling conceptually linked to Spike Island's former function as a prison and its role in nineteenth-century convict transportation. Water emerged as a central metaphor, representing both the only possible route of escape and a source of unpredictability and danger, thereby creating a tension between confinement and freedom.

For this exhibition, the collaboration evolved from a shared interest in conceptually driven practice, participatory visitor experiences, and interactive technologies. Using TouchDesigner and Python, Green programmed three sets of video works, synchronising each with corresponding audio compositions. Within the exhibition space, each video set featured two simultaneous projections onto transparent screens. AI-enabled cameras tracked the presence of viewers and dynamically overlaid a second video sequence, actively modulating the visual output. Conceptually, the use of cameras referenced acts of surveillance, while the layering of footage reflected the complex and contested history of Spike Island.

The initial dialogue surrounding *No One Thought of Sleep* has led to a further exploration of the history of the River Lee and the development of a deeper collaborative *focus* on narratives linked to the waterway as a channel for convict transport and sites of historical incarceration. Current work investigates the use of large datasets as sources to influence and structure narrative content. Using Python libraries such as Pandas and Selenium, data can be parsed, ordered, and deployed to manipulate multimedia content in TouchDesigner, thereby guiding the aesthetic and structural output possibilities for installation and exhibition.

In relation to data and historical content, Diener is examining specific accounts documenting the journey of the convict ship Elizabeth, which departed Cork in 1827 and delivered its human 'cargo' to Port Jackson (Sydney, Australia) in 1828.

The technical development of the project is linked, as a case study, to research that is being conducted at the Nimbus Research Centre as part of the SFI (Research Ireland)–funded project I*nterwoven Networks: Artistic Explorations of Complex Communication Infrastructures.* This project investigates networked art and collaborative practice and is developing a toolkit to support artists working with technology, whether through traditional or digital methods. The project presented here will contribute, as a test case, in evaluating the effectiveness of this toolkit and its potential benefits for future art-and-technology collaborations.

Born in 1982 in Germany, **BARBARA DIENER** is a lens-based artist currently living and working in Cork City, Ireland. She received her Bachelor of Fine Art in Photography from the California College of the Arts and Masters of Fine Art in Photography from Columbia College Chicago.
Diener's work has been exhibited nationally and internationally, including at the Museum of Contemporary Photography, Chicago, and her photographs are part of numerous private and institutional collections. She has participated in several competitive artist residency programmes and has received various grants and awards, most notably an Individual Artist Grant from the Chicago Department of Cultural Affairs and Events in 2015, 2017, and 2020.

Daylight Books published Diener's first monograph of her body of work *Phantom Power* in June 2018 and her project *The Rocket's Red Glare* was published by Fw: Books in 2023. She was recently awarded the highly selective Sample-Studios Spike Island Residency, presented in partnership with Sirius Arts Centre and Spike Island, and received an Arts Council Visual Arts Bursary Award in 2025.

Barbara Diener is the Photographic Collections Librarian in UCC Library.

A MULTI-MODAL ADAPTIVE MICROTUNING ARCHITECTURE: BRIDGING MTS, MPE, AND MIDI 2.0 FOR REAL-TIME JUST INTONATION

RUI SU, JOSEPH TIMONEY, DAMIÁN KELLER(MAYNOOTH UNIVERSITY)

Equal Temperament (12-TET) is a tuning system that divides the octave into twelve logarithmically equal steps and most digital keyboard instruments use this system. This scheme lets you change keys freely, but it is an acoustic compromise because the intervals it makes are approximations of the simple frequency ratios that the human ear finds most consonant. For instance, the major third is widened by almost 14 cents from its pure 5:4 ratio, producing audible beating. Just Intonation (JI) reduces this roughness by tuning intervals to exact integer ratios. This creates a unique periodic resonance and spectral fusion that equal temperament can't match. For musicians and digital artists, this is not just a technical difference; it is a hidden area of harmonic experience that is out of reach on the instruments that most creative people use today.

Adaptive Just Intonation tries to solve this problem by changing the pitches in real time as the harmonic context changes. Making this system widely available fits with the goals of ubiquitous music (ubimus), a field that sees the widespread presence of music in modern society as a chance for creative participation by a wide range of people, from highly trained musicians to casual participants. Recent ubimus research has identified struck-string interaction as a context that encourages the exploration of the boundaries between tuning and sonic qualities. This work adds to this goal by creating a browser-based adaptive tuning tool that gives any MIDI-capable keyboard real-time JI without the need for software installation, making it easier for people to practise microtonal music.

This paper introduces a multi-modal architecture based on the Web MIDI API that resolves the enduring conflict between tuning accuracy and hardware compatibility. The system uses a hierarchical fallback strategy. When the harmonic context changes, it first tries the MIDI Tuning Standard (MTS), which retunes all twelve pitch classes at once. If MTS isn't available or doesn't work, the system switches to MIDI Polyphonic Expression (MPE) mode that is optimised for precision. In this mode, pitch bend sensitivity is locked to ±2 semitones, which gives a resolution 24 times finer than the standard MPE specification while still following all standards. Both operational modes go well beyond the conservative perceptual threshold for audible mistuning, which means that protocol limits don't cause either static tuning artefacts or noticeable pitch changes during performance. A proof-of-concept MIDI 2.0 engine provides forward compatibility.

The architecture gives creative practice new options. Musicians can play pure intervals on familiar keyboard instruments in real time, exploring tuning as an expressive and compositional dimension rather than a fixed constraint. This system is possible in schools, participatory workshops, and experimental performances because it is built into the browser and doesn't need any special hardware or software. This work positions microtonality not as a niche technical concern but as an expanded territory for digital art and music-making.

RUI SU is a musician-researcher with a background in piano performance, currently pursuing a PhD in Computer Science at Maynooth University, Ireland. His doctoral project, "Instant Harmonies," develops browser-based tools for real-time adaptive Just Intonation on MIDI instruments, supervised by **DR JOSEPH TIMONEY** (Maynooth University) and **PROF DAMIÁN KELLER** (Federal University of Acre, Brazil), co-founder of the Ubiquitous Music Group. Rui has published in the ubiquitous music field and serves as Technology Engineer for the Ubimus Conference. His research lies at the intersection of music technology, microtonality, and accessible creative tools, driven by a lifelong passion for fusing music and technology

A LEGION OF DEVILS- THE ROLE OF DIGITAL TECHNOLOGIES IN THE SCULPTURE OF JAMES L HAYES

JAMES L. HAYES (MTU CRAWFORD COLLEGE OF ART & DESIGN)

This presentation explores the role of digital technologies and contemporary material processes within the multidisciplinary sculptural practice of contemporary visual artist and university educator James L. Hayes. The discussion centres on Cellini's Devils, a recent commissioned sculptural and performative work that combines digital modelling, metal casting, and live ritualised action to interrogate historical narrative, authorship, and self-mythologisation.

The project is informed by a mythic episode recounted in La Vita, the autobiography of the Renaissance sculptor and goldsmith Benvenuto Cellini (1500–1571). Cellini's life—marked by artistic brilliance, violence, transgression, and political intrigue—has largely faded from popular historical memory, despite the enduring significance of his surviving works. Hayes focuses on Cellini's account of an attempted necromantic ritual at the centre of the Roman Colosseum, in which a "legion of devils" is summoned following the loss of a lover. This episode stands apart from the remainder of La Vita, which is otherwise largely devoid of supernatural events.

Recent art-historical scholarship, most notably by Jerry Brotton (Queen Mary University of London), has questioned the reliability of La Vita as a factual autobiography, highlighting how Cellini deliberately blurs the boundary between truth and fiction. Brotton's analysis draws attention to the anomalous nature of the necromantic passage and its possible function as a rhetorical or symbolic insertion rather than a literal account. Responding to these interpretations, Hayes advances the proposition that the summoning of devils operates as a distorted mirror or delayed mechanism of atonement for the crimes and omissions Cellini recounts—and conceals—throughout his autobiography. Within this framework, the devils may be read as fractured projections of Cellini himself. This conceptual position is realised through a digitally mediated sculptural process beginning with 360-degree scans of the artist's own head. Using 3D modelling software, these scans are transformed into a sequence of progressively distorted "Devil's Head" forms informed by classical and Renaissance demonography.

The digital models are subsequently 3D printed as life-sized busts, moulded using CO_2-bonded sand, and cast in molten metal during performative casting sessions that deliberately echo Cellini's descriptions of bronze casting as an act of conjuration—an act he famously likened to the pouring of blood. The cast forms are installed while still hot within bespoke architectural niches and activated through performance involving the casting of salt and the burning of incense, referencing the fumigations described by Cellini during the Colosseum ritual.

The presentation argues that Cellini's Devils positions digital technologies not as neutral instruments, but as active participants within a lineage of artistic practices concerned with embodiment, transgression, and the unstable boundary between creation, confession, and resurrection.

JAMES L. HAYES is a contemporary visual artist and university educator whose multidisciplinary practice spans sculpture, print, installation, cast-iron performance, film, and large-scale public art. His work critically engages with the processes and histories of object-making, re-investigating modernist sculptural languages through the lens of casting technologies. Central to Hayes's practice is a sustained inquiry into the shifting boundaries between artist, artisan, and art object, and the paradoxical relationship between refined aesthetic forms and the industrial processes that generate them. Through material experimentation and performative production methods, his work draws connections between materiality, cultural memory, and conceptual form.

Hayes has exhibited widely at national and international venues, including the Hunt Museum Open (Limerick), the Festival of High Temperatures at the Eugeniusz Geppert Academy of Art and Design (Wrocław, Poland), the National Sculpture Factory (Cork), Centre Culturel Irlandais (Paris), The Glucksman Gallery (Cork), the Royal Hibernian Academy (Dublin), Caponi Sculpture Park (Minnesota, USA), MART Gallery (Dublin), La Salle College of the Arts (Singapore), UNO Gallery (New Orleans, USA), Art Market Budapest, and SUPERMARKET Art Fair (Stockholm).

He has undertaken residencies at the Sloss Metal Arts Program, Sloss Furnaces National Historic Landmark (Alabama, USA), the Tyrone Guthrie Centre, and the Irish Museum of Modern Art. Hayes is a recipient of multiple awards from the Arts Council of Ireland, Culture Ireland, and Creative Ireland. A graduate of TUS/ Limerick School of Art & Design, De Montfort University, and University College London, he was awarded Fellow status with the HEA in 2025 and published The Score & Other Works.

He currently lectures in Sculpture at Munster Technological University (MTU), Crawford College of Art & Design (CCAD), Cork.

SESSION 3

2.00PM - 3.15PM

CHROMAESTHESIA IN CURGENVEN'S AGENESIS

ROBIN PARMAR (UNIVERSITY OF LIMERICK)

Robert Curgenven is an Australian artist active in Ireland, who produces works that emphasise the physical and phenomenological aspects of the auditory experience. Curgenven's practice includes music composition, live performance, and audiovisual installations. Since 2015 he's also been exploring the possibilities of augmenting musical performances with visual components. His piece Agenesis saturates the concert space with sub-bass produced by custom dub plates, high frequency oscillator interference, field recordings, and other sound sources. Simultaneously Kat McDowall operates custom software that analyses the phase difference between the stereo audio channels and converts this to the DMX protocol, hence controlling the lighting rig. The result is a rapidly flickering colour field that produces various synaesthetic affects in the audience.

This paper will contextualise Agenesis in terms of the continued artistic interest in synaesthesia, Edwin Land's colour theory, and structural film (Tony Conrad, Anthony McCall). Agenesis can be considered a form of expanded cinema, in that it frees light from the planar screen, liberating participants from their fixed perspectival position. No longer passive viewers of a surface, audience members become active participants in a dynamic volume of light and sound. This builds on Curgenven's long-standing interest in sound as a weather-system, as expressed by Tim Ingold's dictum that we live not on some fixed landscape but "in the swirling midst of the weather-world."

ROBIN PARMAR is a media artist and researcher who explores the phenomenology of place-making and our relationships with nature. His cross-disciplinary practice includes electroacoustic composition, sound and video installations, experimental film, and improvised performance. Research interests include soundscape composition, psychoacoustics, and sonic arts theory. Aletheia, his fourteenth album, was released in 2025 by Silent Records (California). Awards include the Invisible Places residency (2017) and an Arts Council Bursary (2017). He was selected for the national showcase Just Listening – Ireland Calling in 2011 (curated by the National Sculpture Factory) and was an invited artist at EVA International, Ireland's Biennial of Contemporary Art in 2010 (curated by Elizabeth Hatz). Robin has a doctorate in Sonic Creativity from De Montfort University (Leicester, UK) and lectures in Video, Film, and Visual Communication at the University of Limerick (Ireland). He is Vice-President of the Irish Science, Sound, and Technology Association (ISSTA) and reviews for the journal Organised Sund.

NOTE

An early version of this paper was presented at Music and Sonic Art at the University of Manchester in 2023. It is currently being expanded for publication as a book chapter, so feedback is especially welcome.

CREATIVE TRANSPARENCY: REFLECTIONS ON A DEVELOPING HYBRID DIGITAL PRACTICE

CHRIS FALCONER

This artist/practitioner paper traces the development of a hybrid digital practice that I have adopted as a primarily audio-visual artist. It reflects on how this has evolved across both institutional and non-institutional contexts, as well as the intermedial and intertextual relationships between differing modes of production. The paper uses my recent interactive installation - the appropriately named Creative Transparency (2025) - as a point of convergence. The work, assembled from transparent materials, is a touch-activated structure that translates physical interaction into sound and light, evoking the interface logic of digital tools, but through primarily analogue haptic means.

Rather than proposing a theoretical model, the paper hopes to offer a situated reflection on how one practice has moved from a commercial audio and video output primarily consumed on streaming platforms, towards an increasingly physically-encountered body of artistic work that is digitally-augmented. It will suggest that such transitions can illuminate broader questions around contemporary perception, spectatorship, and encounter, as well as materiality. The talk will also draw briefly on Michael Baxandall's notion of historically conditioned ways of seeing.

This trajectory account is not introduced as biography for its own sake, but to frame a sustained engagement with intermedial practice, self-directed learning, and the creative possibilities afforded by increasingly accessible digital tools. The talk will briefly recount my earlier academic background as an art historian, and how this was followed by a necessary prolonged period of commercial work outside of the art industry that enabled both self-taught and structured digital media upskilling, and the exploration of modalities without the pressure of institutional classification. It will consider how this interim period provided the momentum for a more recent organic re-entry into the art industry, but this time as a practice-based artist.

The paper will briefly highlight how a series of works marked a gradual shift towards my work being more publicly situated and spatially aware - particularly Cocoon (2020), a non-narrative audiovisual work documenting the uncanny absence of people from public spaces during COVID-19 lockdowns, and subsequent commissions that involved composing music for digitally mediated gallery experiences. These projects are discussed as transitional moments, retaining screen-based modes of encounter, while introducing questions of place, atmosphere, and embodied reception.

Against this background, Creative Transparency represents a significant material and spatial turn in my output. Created for Imagine Arts Festival 2025 - during which it was installed in Waterford Medieval Museum's historic Choristers Hall - the physical structure is designed to emulate Baroque architectural interventions, however its additional employment of sound and audio-reactive lighting augments the spectacle in a digitally inflected way. In terms of interaction, the physical vibration caused by touch to the pendulous structure is translated into sound by a contact microphone, and to illumination through a direct cause-and-effect system. The presentation will reflect on how these interactions appear digitally mediated, but remain grounded in real-time, haptic experience, while playing with how contemporary audiences often read material light diffusion and auditory feedback through a digital lens.

CHRIS FALCONER is a Waterford-based audio-visual artist working under the pseudonym 'Waiting Space'. His interdisciplinary practice examines genius loci, intermediality, media mediation, and the creative potential of democratised digital technologies across music, moving image, and interactive interfaces. He holds an MA in Modern and Contemporary Art History (UCC, 2011), a BA in Art History and English (UCC, 2010), a PGDipSci in Digital Media & Business Analytics (SETU, 2024), and Prof. Dip. in Graphic Design (UCDPA, 2023). He has been commissioned by RTÉ, Luan Gallery, Garter Lane Arts Centre, and Imagine Arts Festival, and his audiovisual work Cocoon was 'Officially Selected' for the 16th Waterford Film Festival (2022).

ACCESSIBILITY AND MULTI-SENSORY INSTALLATION

JANE CASSIDY(2025-26 ARTS COUNCIL DIGITAL ARTIST IN RESIDENCE AT THE UNIVERSITY OF GALWAY'S CENTRE FOR CREATIVE TECHNOLOGIES

This presentation explores an evolving body of work at the intersection of accessibility, sound, haptic art, and community engagement. It grows out of my recent collaboration with Arts Alive, a creative programme for adults with intellectual disabilities within The Brothers of Charity Services Galway. Over six months, we co-created Tactile Tunes, an interactive sound installation that invited audiences to make music through direct contact with materials such as stones, shells, and wood. Exhibited during the Galway International Arts Festival, the installation welcomed nearly 7,000 visitors in two weeks. When participants touched a large Connemara granite stone, deep resonant drones emerged. When they touched a laser-cut rattle box, sound vibrations travelled through the fingertips. The space became a site of shared wonder, improvisation, and intuitive music making.

A defining feature of Tactile Tunes was its commitment to accessibility. Unlike most exhibitions, visitors were encouraged to touch every sculpture. More than 400 visitors with intellectual disabilities engaged with the work, many returning repeatedly to reconnect with its sensory and musical possibilities. Carers and educators responded with enthusiasm, expressing interest in adapting these instruments for schools and community settings. Their feedback revealed a clear need for accessible and intuitive musical interfaces that support creative expression for people of all abilities.

Building on this momentum, my current research focuses on developing touch-activated instruments and sculptures that use microcontrollers, capacitive touch sensors, and MIDI-compatible interfaces. These instruments require no formal musical training and instead invite spontaneous melodic play and embodied exploration. This presentation shares my path in creating accessible instruments that draw on many voices, hands, and bodies to shape the tools that invite us to play, listen, and connect.

JANE CASSIDY is a multidisciplinary artist and educator from Galway City whose practice spans installation, video, music composition, electronics, visual design for theatre and collaborative community projects. She creates immersive audiovisual environments that blend sound and image into meditative multisensory experiences. She trained in music and visual art, earning a Master's in Music and Media Technologies from Trinity College Dublin and an MFA in Digital Art from Tulane University. Her work has been exhibited widely across Ireland and the United States.

PANEL

3:30PM - 4:15PM

THE BODY AS HARDWARE: ENTANGLEMENT OF FLESH AND MACHINE THROUGH DIGITAL PERFORMANCE

EL PUTNAM (MAYNOOTH UNIVERSITY)

KATHERINE NOLAN (TECHNOLOGICAL UNIVERSITY DUBLIN)

PHAEDRA SHANBAUM (MAYNOOTH UNIVERSITY)

Humans and technologies have long been theorized as intertwined through, among other things, relations of co-becoming (Stiegler 1998; Barad 2007; Simondon 2016). Performance art that depends on digital technologies for its manifestation highlights such characteristics of human-technological relations where the entanglements of the body and machine are explored through aesthetic encounters, opening perceptions and enabling other forms of engagement. In this panel we hold a critical discussion of two performance works that explore these entanglements: El Putnam's Bring the strange that you were (2025) and Katherine Nolan's Motherload (2025)

EL Putnam presents on her current practice that involves performed engagement with Ireland's data industries. Created in collaboration with author Mike McCormack, this work combines digital video, audio, creative coding, and performed action to develop imagined myths of the data landscape. Putnam is specifically interested in the recursivity and contingencies of relations between humans and technologies, extending beyond devices and software to the elemental media of communications networks within Ireland. Through the durational digital performance work Bring the strange that you were (2025), Putnam plays with the frictions that arise in such relations.

Katherine Nolan discusses Motherload (2025) a recent live performance that sought to explore the weight of maternal care. An artwork in which the mother's body is covered in a mountain of soft sculptures of babies and children, which flap and bounce wildly, as she repeats the words "mama". It is set against a digital audio and visual landscape which echoes, distends, and amplifies the actions and experiences of maternal embodiment.

Phaedra Shanbaum responds to the works above, exploring the ways in which digitally-based performance art materialise an expanded idea of hardware and as a mixture of human and nonhuman forms. In doing this, she critically questions the socio-cultural stakes of a technology, both human and otherwise that shapes and reshapes relationships between humans and nonhumans. Her argument is that these positionings of the body within these works as 'hardware' provides us with a critical framework for understanding the relationship between humans and technology.

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EL PUTNAM is an artist-philosopher working predominantly in performance art and digital technologies. Exhibitions of note include *Under the Feet of Shadows* with Mike McCormack at MART in Dublin, Ireland (2024) and CIACLA in Santa Monica, CA, USA (2025), the solo exhibition P*seudoRandom* at Emerson Contemporary in Boston, MA, USA (2023), and Living Canvas in Dublin, Ireland (2022). Recent publications include the monographs *The Maternal, Digital Subjectivity, and the Aesthetics of Interruption* (Bloomsbury 2022) and L*ivestreaming: An Aesthetics and Ethics of Technical Encounter* (University of Minnesota Press 2024). They are Associate Professor in Digital Media at Maynooth University in Ireland.

KATHERINE NOLAN is an artist, lecturer, and curator. She works primarily in live and lens-based performance, investigating themes of gender and embodiment in live and digital spaces. Solo exhibitions include *Fluid Flesh* (2021) and *The Mistress of the Mantle* (2017) at MART Dublin. She has performed extensively at international venues such as Supermarket Art Fair Stockholm, MeinBlau Projecktraum Berlin, Mobius Boston and Panoply Performance Lab New York. Recent publications include "*Through the Lens of Grief: Re-reading Performance through Pregnancy Loss*" in *Performance Research Journal* (2024), and "*Networked Mothers: Care, Breastfeeding and Embodied Epistemologies of Relational Matter Reconfiguration*" (2023) in the European Culture and Technology Lab+ annual conference proceedings. She is lecturer in Creative Digital Media at Technological University Dublin and co-curator with Livestock: Performance Art Platform

PHAEDRA SHANBAUM is an assistant professor in the media studies department at Maynooth University. Her research is interdisciplinary, drawing on media and cultural criticism and theory, art history and computer science (HCI). She links theory and criticism around these topics to contemporary digital media arts practices – specifically interactive and immersive environments and digital performance art -- exploring questions around the ever-changing relationship between the body and technology. In doing so, she asks questions around what a body is and what it could potentially become when rethought, in productive ways, through and with technology. She is the author of three books on this topic: I*nterfaces and Interactive New Media Installations* (Routledge, 2019), *Aesthetics, Gender and Disability in New Media Art (Routledge*, 2024) and *Artificial Aesthetics* (Routledge, 2026).

FINAL SESSION

4:15PM - 5:15PM

LUDDITE ACADEMY; TOWARDS A POLITICISED DIGITAL CREATIVE PRACTICE

DAVID BENQUÉ (INSTITUTE OF DIAGRAM STUDIES, SAMPLE-STUDIOS MEMBER)

Digital tools and platforms are increasingly hostile places to build and nurture a creative practice: proprietary software companies extract extortionate subscription prices; billionaire-owned social media platforms reduce artists to "content creators" feeding algorithmic timelines; crawlers pillage portfolio sites, stealing training data for so-called "Artificial Intelligence" models; generative apps regurgitate statistical approximations of style as "slop" imagery, excluding artists from the system altogether.

Searching for new critical narratives to resist the current techno-political climate and an increasingly radicalised "Big Tech"[1] sector, authors, researchers, and journalists have been reviving a 200 year old social movement as a powerful counter-imaginary: the luddites. Textile workers in early 19th century England, they became known for sabotage actions on automated machinery such as stocking frames that were being imposed by factory owners. While "luddite" has since been used as a derogatory term to designate people opposed to progress and technology, the term is enjoying a resurgence in recent years with books and articles revisiting the history and politics of the luddite movement and giving it a new relevance in contemporary technological struggles [2]. It transpires that the luddites had very little to do with being anti-technology. Instead they politicised it as part of a wider struggle attempting to stop the deterioration of a highly skilled craft towards a low-skill low-wage labour. Translated to today's context, we can see the luddites as radical creative technologists; highly knowledgeable of their tools and of the power relationships threatening their livelihoods.

This paper is the start of an exploration of what a luddite digital creative practice might look like. I present an initial positioning for Luddite Academy, a project which aims to put the recent luddite revival in dialogue with an art and design context situated in Ireland. I use examples from existing projects, practitioners, and structures as well as my own experience. I draw in particular from my recent training in systems administration and my ongoing practice of running my own digital services. An initial list of practical activities for the academy includes: audit of dependencies and infrastructural power relations with big platforms[3]; sabotage of AI portfolio scrapers[4]; administration and maintenance of communal and collaborative infrastructure[5]. I present practical experiments in some of these areas as well as plans for future work.

Luddite Academy investigates the political economy of digital creative practice from a luddite perspective, it aims to produce, curate, and disseminate counter-strategies to reclaim the means of digital production.

DR. DAVID BENQUÉ is a designer and researcher from Paris France, currently living and working in Cork Ireland. Since his PhD at the Royal College of Art in London UK (2020) he operates as the Institute of Diagram Studies. This independent structure for research and creative practice stretches from graphic design to software development and media theory. The institute deploys the language of diagrams to read existing systems (algorithmic, technical, political) and to write new interventions in the form of publications, software, visualisations, and more.

[1] Big Tech" designates the massive companies that have come to dominate the digital world, also known as GAFAM (Google, Amazon, Facebook, Apple, Microsoft)

[2] for example: Bender, Emily M., and Alex Hanna. The AI Con: *How to Fight Big Tech's Hype and Create the Future We Want*. Harper, 2025. McQuillan, Dan. *Resisting AI*. Bristol University Press, 2022. Mueller, Gavin. *Breaking Things at Work: The Luddites Were Right about Why You Hate Your Job*. Verso, 2021. Sadowski, Jathan. *The Mechanic and the Luddite: A Ruthless Criticism of Technology and Capitalism*. University of California Press, 2025.

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COUNTER-ARCHIVAL METHODOLOGIES AND THE ARCHITECTURE OF MEMORY: THE IRAQ PHOTO ARCHIVE AND HOUSE OF MEMORY

DR. BASIL M. AL-RAWI

This paper presents an artist-led reflection on House of Memory / بيت الذاكرة and the Iraq Photo Archive, two interconnected practice-based projects that explore how digital and immersive technologies can be used to reassemble cultural memory beyond dominant archival frameworks. Developed as part of a practice-based PhD at The Glasgow School of Art (2019–2023), the work responds to the absence, fragmentation, and politicisation of Iraqi visual histories within mainstream media and institutional archives.

The Iraq Photo Archive (2020–ongoing) is a crowd-sourced, open-access digital archive of vernacular Iraqi photographs drawn primarily from personal and family photo albums. Contributors submit images alongside contextual descriptions, restoring names, places, and narratives often lost when such photographs circulate online as decontextualised or "orphan" images. The project operates as a counter-archival methodology, foregrounding consent, situated knowledge, and lived memory as structuring principles in the construction and circulation of digital archives.

Alongside the digital archive, House of Memory / بيت الذاكرة translates these photographs and accompanying oral histories into an immersive virtual-reality environment. Modelled on a traditional Baghdadi shanasheel house, the VR space functions as an architecture of memory: a spatial framework through which voice, images, sound, and atmosphere converge. Memory is approached not as a fixed historical record but as relational, fragmented, and embodied. While each testimony unfolds temporally, the overall experience resists a singular, totalising narrative, emerging instead through listening, spatial proximity, and sustained, embodied attention within the virtual environment.

The presentation will focus on how these projects have been activated through participatory exhibitions and community engagements with Iraqi diasporic audiences in Dublin, London, Glasgow, Paris, and Sydney, as well as presentations and workshops in Basra. In these contexts, the archive operates not only as digital content but as a social and spatial process. Audiences encounter the work not as consumers of a closed archive, but within an evolving structure that invites reflection, dialogue, and, in some contexts, contribution. This exhibition-led activation situates digital practice within questions of care, responsibility, and shared authorship in the construction of cultural memory.

Situated within an Irish digital arts context, the paper considers how immersive technologies can function as critical, reflective tools, and how artist-led digital practices can move beyond extractive or spectacle-driven models of innovation. By framing House of Memory and the Iraq Photo Archive as evolving, process-driven practices, the presentation argues for counter-archival approaches that use digital media to create spaces where memory can be encountered, negotiated, and shared on its own terms.

DR BASIL M. AL-RAWI is an Irish-Iraqi visual artist and researcher working across photography, film, installation, and immersive media. His practice examines vernacular and family archives as sites of memory, translation, and contested histories. He completed a practice-based PhD at The Glasgow School of Art (2019–2023), developing the Iraq Photo Archive and House of Memory / بيت الذاكرة, which reassemble Iraqi photographic histories through participatory methods and VR. His work has been exhibited internationally, including Rememory: the 25th Biennale of Sydney (2026), Of Mountains and Seas: 3rd Lahore Biennale, The Photographers' Gallery, and The Lab.

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