Stephen Roddy (Ph.D., M.A., B.Sc.)

Curriculum Vitae

Lecturer, Radical Humanities Laboratory & Department of Digital Humanities, University College Cork.

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EDUCATION

Ph.D.	Dept. of Electronic and Electrical Engineering, Trinity College Dublin: 2016. Title: Embodied Sonification.
M.A.	Music Technology, Dept. of Computer Science and Information Systems, University of Limerick: 2011.
B.Sc.	Music Media and Performance Technology. Dept. of Computer Science and Information Systems, University of Limerick: 2010.

PROFESSIONAL APPOINTMENTS

May 2023	Lecturer at the Radical Humanities Laboratory & Department of Digital Humanities, University College Cork.
Aug 2022	Assistant Professor in Film (Digital Arts) .6 FTE. Postdoctoral Fellow in Engineering (.4) FTE.
Mar 2019	Postdoctoral Fellow at the Department of Electronic & Electrical Engineering, Trinity College Dublin.
Oct 2017-2019	IRC Government of Ireland Postdoctoral Research Fellow, CONNECT Centre, Trinity College Dublin.
July 2016-Oct 2017	Postdoctoral Researcher, CONNECT Centre, Trinity College Dublin.
Aug 2015 – Jan 2017	Technical Officer, Department of Electronic and Electrical Engineering, Trinity College Dublin.

BIOGRAPHY

I am a Musician, Researcher, and Lecturer working in computing and the arts (sound, music, digital) at the Radical Humanities Lab and the Department of Digital Humanities at University College Cork. I hold a Ph.D. in sonification: the use of sound to perceptualize data and convey information. My research explores the application of auditory display, internet of things (IoT), and artificial intelligence/machine learning (AI/ML) techniques, in sound and music computing contexts. This work uses both engineering design and practice-based research methods, with theoretical roots in cybernetics and embodied cognitive science.

My previous projects have involved the design of auditory display solutions for large-scale IoT networks and investigated the integration of sonification and AI/ML techniques in generative music, sound art, and digital art applications. Much of this work was carried out under an IRC Postdoctoral Fellowship at CONNECT: the SFI Research Centre for Future Networks and Communications, at Trinity College Dublin (TCD), and subsequently at the Department of

Electronic & Electrical Engineering at TCD. My work is widely disseminated through peer-reviewed journal publications, book chapters, and conference proceedings.

I maintain a vibrant and diverse creative arts practice which forms a core component of my research activity. My creative projects span a variety of media and styles, including music composition and performance, generative and data-driven music and art practices, digital art, and sound art. This artistic work, described as majestic and sweeping yet beautifully unsettling, is frequently performed and installed at home and abroad. My most recent musical work Leviathan is available through Fiadh Productions. Recent events have included the Wrong Biennale, New York City Electroacoustic Music Festival and the Earth Rising Festival at the Irish Museum of Modern Art.

TRADITIONAL PUBLICATION OUTPUTS

Overview:
>8 peer-reviewed journal articles and 1 non-academic article.
>15 peer-reviewed conference papers.
>3 book chapters.
>1 IEEE SA Report/Policy Document.

JOURNAL ARTICLES (peer-reviewed)

Roddy, S. & Parmar, R. (2023). AI/ML in the Sonic Arts - Pitfalls and Pathways. Resonance: The Journal of Sound and Culture, 4(4).

Roddy, S. (2023). Nao Tokui in Conversation with Stephen Roddy (Interview). Resonance: The Journal of Sound and Culture, 4(4).

Roddy, S. (2023). Signal to Noise Loops: A Cybernetic Approach to Musical Performance with Smart City Data and Generative Music Techniques. Leonardo, 56(1).

Roddy (2022-23) Signal to Noise Loops: A Cybernetic Approach to Music Performance with Smart City Data and Generative Music Techniques. Leonardo, MIT Press.

Roddy, S. (2020) Using Conceptual Metaphors to Represent Temporal Context in Time-Series Data Sonification. Interacting with Computers., Volume 31, Issue 6, November 2019, Pages 555–576, https://doi.org/10.1093/iwc/iwz036

Roddy, S. & Bridges, B. (2020) Mapping for Meaning: the Embodied Sonification Listening Model and its Implications for the Mapping Problem in Sonic Information Design. Journal on Multimodal User Interfaces 14, 143–151 (2020). https://doi.org/10.1007/s12193-020-00318-y.

Roddy, S., & Bridges, B. (2018) Addressing the Mapping Problem in Sonic Information Design through Embodied Image Schemata, Conceptual Metaphors and Conceptual Blending. The Journal of Sonic Studies, 17(1).

Roddy, S., & Furlong, D. (2014). Embodied Aesthetics in Auditory Display. Organised Sound, 19(01), 70-77.

Non-academic Article:

'Technology Trends Transforming the World' for Impakter January 2019.

BOOK CHAPTERS

Roddy, S. (2023) Creative Machine-Human Collaboration: Towards a Cybernetic Approach to Artificial Intelligence & Machine Learning Techniques in the Creative Arts. In: Filimowicz, M. editor AI and the Future of Creative Work. Algorithms and Society Series. Routledge, Focus.

Roddy, S., & Bridges, B. (2021). Meaning-making and Embodied Cognition in Sound Design Research. In Doing Research in Sound Design, Routledge Sound Design series. Routledge.

Roddy, S., & Bridges, B. (2018). Sound, Ecological Affordances and Embodied Mappings in Auditory Display. In New Directions in Third Wave Human-Computer Interaction: Volume 2- Methodologies (pp. 231-258). Springer, Cham.

CONFERENCE PAPERS (peer-reviewed)

Roddy, S. (2022). A Technique for Controlling the Proportion of Information in the Sonification of Complex Time Series Data. The 27th International Conference on Auditory Display.

Roddy, S. (2022). Creating Signal to Noise Loops v4. In the Proceedings of the International Conference on Auditory Display, ICAD 2022.

Roddy, S. & Bridges, B. (2021). The Design of a Smart City Sonification System using a Conceptual Blending and Musical Framework, Web Audio and Deep Learning Techniques. In the Proceedings of the International Conference on Auditory Display, ICAD 2021.

Roddy (2021). The Body in the Machine: Indices Online. In Proceedings of xCoAx 2021, Online (+ Graz) 12th-16th July 2021.

Roddy (2018) Ambient Data Monitoring w/Generative Music Systems using Evolutionary Computing & Machine Learning Techniques. In Proceedings of the Computer Simulation of Musical Creativity 2018, 20-22nd August 2018.

Roddy (2018). Signal to Noise Loops i++. In Proceedings of xCoAx 2018, Madrid 11th-13th July 2018.

Roddy, S. & Furlong, D. (2018) Vowel Formant Profiles and Image Schemata in Auditory Display. In Proceedings of HCI 2018 4-6 July 2018, Belfast.

Roddy (2017) Composing The Good Ship Hibernia and the Hole in the Bottom of the World. In Proceedings of Audio Mostly 2017 23-26 August 2017.

Roddy (2017) Absolute Nothingness: The Kyoto School and Soundart Practice. In Proceedings of Invisible Places 2017.

Roddy, S, & Bridges, B. (2016) Sounding Human with Data: The Role of Embodied Conceptual Metaphors and Aesthetics in Representing and Exploring Data Sets. In Proceedings of the Music Technology Workshop 2016 June 10th, Michael Smurfit Business School, University College Dublin, Dublin, (pp. 64-76).

Roddy, S., & Furlong, D. (2015). Embodied Auditory Display Affordances. In Proceedings of the 12th Sound and Music Computing Conference: National University of Ireland Maynooth (pp. 477-484).

Roddy, S., & Furlong, D. (2015). Sonification Listening: An Empirical Embodied Approach. In Proceedings of The 21st International Conference on Auditory Display (ICAD 2015) July 8–10, 2015, Graz, Austria. (pp.181-187).

Roddy, S., & Furlong, D. (2014). Embodied Aesthetics in Auditory Display. Organised Sound, 19(01), 70-77.

Roddy, S., & Furlong, D. (2013). Embodied cognition in auditory display. In Proceedings Of the 19th International Conference on Auditory Display, July 6-10 Łódź, Poland (pp. 127-134).

Roddy, S., & Furlong, D. (2013). Rethinking the Transmission Medium in Live Computer Music Performance. Presented at the Irish Sound Science and Technology Convocation, Dún Laoghaire Institute of Art, Design and Technology.

REPORTS & POLICY DOCUMENTS

Clancy, M. *et al.* (Forthcoming: 2022) The Voice of the Human Artist in the Age of the Algorithm. *Report of the IEEE Committee on Ethically Aligned Design of Autonomous Intelligent Systems in the Arts.*

FUNDING AWARDS AND COMMISSIONS

2017-2019	Irish Research Council Postdoctoral Fellowship: €91,790.
2017	Artistic Residency Commission: Hear This Dance w/Sibéal Davitt & Niall Vallely at Dance House, Dance Ireland: €3000.
2016	Project Commission: Fógraím/I Proclaim w/Sibéal Davitt & Tristan Rosenstock at Embodied, The GPO Witness History Centre 20th -22nd of April 2016: €6000.
2012-2015	Trinity College Dublin Postgraduate Research Studentship: €24,000.
2015	Trinity College Dublin, Postgraduate Travel Grant: €500.
2013	Trinity College Dublin, Postgraduate Travel Grant: €500.
2010	Project Commission: Romeo & Juliet w/ Legitimate Bodies Dance Company: €300
2009	Project Commission: (You)th Share/Nutcracker w/ Legitimate Bodies Dance Company: €300.
2008	Project Commission: Pinocchio - Dance of the Long Nose w/Legitimate Bodies Dance Company: €300.

CONFERENCE PRESENTATIONS (peer-reviewed, without proceedings)

2024	Reflections on Signal to Noise Loops. The 2nd Symposium on Digital Art in Ireland. June12th & 13th,University College Cork.
2023	Signal to Noise Loops A Cybernetic Approach to Musical Performance w/Smart City Data and Generative Music Techniques. The Irish Human-computer Interaction Symposium. Dundalk Institute of Technology.
2018	IoT and AI-Driven Audio in the Smart City: A Rhythmanalysis inspired approach. ISSTA 2018, Derry.
2016	Sound Place and Multi-place at The Irish Sound Science and Technology Association Conference, Ulster University, September 7th 2016.

2015   Sonification and the Digital Divide at the Digital Material Conference, National University of Ireland Galway, May 21st 2015.

TALKS, INVITED LECTURES AND PANEL DISCUSSIONS

2024   Messy Cybernetics and UbiMus the Graduate Music Residency, GIM2024 Symposium at the Federal University of Acre, Rio Branco, Brazil, w/Dr. Brian Bridges.

2024   Working at the Intersection of Art & Technology. Digital Media and Design Seminar Series. University of Limerick.

2023   Research Career Overview. Principal Investigators' Forum. University College Cork.

2023   Working at the Intersection of Art & Technology. Digital Humanities Colloquium, University College Cork.

2023   Auditory Display for Large-scale IoT Networks. People and Technology Group Research Talks, UCC.

2021   In Practice: PhD conference on creative research and careers. Ulster University, Derry, 2021.

2019   WHOSE MUSIC? Public Discussion on the impact of AI on music composition and audience reception. Music Current Festival, at Smock Alley Theatre, April 12th 2019.

2017   Data-driven Sound for Raising Awareness, Public Outreach and Insight Generation in Complex Data Sets at the I.NY Creative Education Symposium, Irish World Academy, University of Limerick, October 11th 2017.

2016   Embodied Sonification at D.A.T.A: Dublin Arts and Technology Association, The Connect Centre, November 3rd 2016.

2016   Sonification, Sound Art & IoT at The Arts and Technology Research Lab, Trinity College Dublin, December 12th 2016

2016   Sounding Human with Data: The Role of Embodied Conceptual Metaphors and Aesthetics in Representing and Exploring Data Sets at The International Digital Empathy Workshop, Ulster University, October 31st 2016.

2016   Sonification at The Connect Centre for Future Networks and Communications, Trinity College Dublin, August 2016.

2015   Data Listening at Discover Research Dublin 2015, Trinity College Dublin.

INVITED SEMINARS

Usability Testing Methods, March 2018-2021 @ Music and Media Technologies, Trinity College Dublin.

Embodied Cognition and Sonification Research Methods, 2016 @ Music and Media Technologies, Trinity College Dublin.

Empirical Research Methods in Music and Media Technologies, 2015 @ Music and Media Technologies, Trinity College Dublin.

CREATIVE & PERFORMING ARTS OUTPUTS

The following is a list of performance and installation projects categorised by medium. Peer-review indicates that participation in the events was subject to academic peer review while commission/competition indicates that I was either commissioned to create a system or won the opportunity via open competition. Invited indicates that I was invited to take part.

Recent/Forthcoming Performances & Installations

2024   Thonis-Heracleion, peaceful beneath the waves. Sound of the Anthropocene. Alphabet Art Center. The New Museum of Networked Art. Cologne, Germany. July 13th - August 30th 2024 (Competition).

2024   Signal to Noise Loops - Reflections. The 2nd Symposium on Digital Art in Ireland. June 13th 2024. The Aula Maxima, University College Cork (Invited).

2024   opening to the ambient light, Becoming-Machine Pavillion at The Wrong Biennale 2023. Curated by Isil Ezgi Celik, CapitArt. November 2023-March 2024. Physical exhibition at Artsect Gallery, London in November 2023 (Competition).

2024   Signal to Noise loops V5, Metatopia - Hybrid Spaces Pavillion at The Wrong Biennale 2023. Curated by Luciana de Paula Santos, Aisthesis Lab. November 2023-March 2024 (Competition).

2023   Thonis-Heracleion, peaceful beneath the waves @ the Leviathan Album Launch, the Radical Humanities Laboratory, October 6th 2023 (Invited).

2023   Signal to Noise loops V5.1, UbiMus2023 International Symposium on Ubiquitous Music, Ulster University, Derry. November 2nd-4th 2023 (Peer-reviewed).

2022   Signal to Noise Loops v5: Breathing Space @ Earth Rising Eco Art Festival , Irish Museum of Modern Art: IMMA, 21-23 October, 2022 (Commissioned).

2022   Signal to Noise Loops v4 @ The International Conference on Auditory Display 2022 (Peer-reviewed).

Online Performances & Art Installations w/AI/ML techniques (peer-reviewed):

2021   The Body in the Machine: Indices Online. xCoAx. Online (+ Graz).

2020   Indices Online. The International Conference on New Interfaces for Musical Expression 2020, Royal Birmingham Conservatoire, 21-25 July 2020.

2019   58 Indices On The Body: A Reflection on Translations through Language, Technology and Sounds - Selected Indices Soundworks and Musical Pieces w/Sentiment Analysis. @ ISSTA 2019, Cork School of Music October 2019.

Automated live music performances w/AI/ML techniques and IoT data (All Peer-reviewed):

2022   Signal to Noise Loops v4 @ S3 of the Video Sound Archive, February 2022.

2021   Signal to Noise Loops v4 @ Culture Night Dublin, September 2021 (commission).

2021   Signal to Noise Loops v4 @ Audio Mostly, Trento, Italy, September 2021.

2021   Signal to Noise Loops v4 @ The International Computer Music Conference, Santiago, Chile, July 2021.

2021   Signal to Noise Loops v4. New York City Electroacoustic Music Festival

2018   Signal to Noise Loops 3++ at ISSTA 2018, Derry, September, 2018.

2018   Signal to Noise Loops i2+: Noise Water Dirt at CSMC 2018, Dublin.

2018   Signal to Noise Loops i++ Live at xCoAx 2018, Madrid.

2017   Noise Loops for Laptop, Improvised Electric Guitar and Dublin City Noise Level Data at Sonic Dreams 2017, Sonic Arts Waterford.

Audiovisual Performance Systems for Live Dance Performance (All Commissioned):

2017   Hear This Dance w/Sibéal Davitt & Niall Vallelly at Dance House, Dance   Ireland.

2016   Fógraím/I Proclaim w/Sibéal Davitt & Tristan Rosenstock for Embodied at The GPO Witness History Centre 20th -22nd of April 2016.

2016   Fógraím/I Proclaim w/Sibéal Davitt & Tristan Rosenstock at The Cube, National University of Ireland Galway, 22nd September 2016.

Exhibition (Invited):
2017-   1967 – 2017 aspen 5+6 Experiments in Art and Technology (E.A.T.) & the Orthogonal
2018   Methods Group (OMG). Coast-Lines. The Irish Museum of Modern Art.

Immersive Interactive Art Installations with AR, Smart Devices & Locative Technologies: (All Peer-reviewed):

2016   Zones 1.5 w/Alan Dormer at The International Digital Empathy Workshop at Ulster University October 31st 2016.

2016   Zones 1 w/Alan Dormer at ISSTA 2016 at Ulster University September 7th-9th 2016.

Sociocultural Data Sonification and Data-driven Music for Concert and Installation (All Peer-reviewed):

2017   The Good Ship Hibernia at Audio Mostly Queen Mary University London 23-26 August 2017.

2017   The Good Ship Hibernia at The 2017 ICAD Concert, Playhouse Theatre, Pennsylvania State University, PA, USA 20-23 June 2017.

2015   Doom & Gloom at ISSTA 2015, UL & MIC, Limerick, Ireland August 12-13 2015.

2015   Doom & Gloom at The Sound and Music Computing Concert, NUI Maynooth, Ireland: July 30th -August 1st, 2015.

2015   Doom & Gloom at the ICAD 2015 Concert, Forum Stadtpark, Graz, Austria: 8-10   July 2015.

2014   Idle Hands- A 31-Part Exploration Of Irish Unemployment From 1983 - 2014 In G Major at ISSTA 2014 at NUI Maynooth, Ireland August 2014.

Fixed-Media Music and Sound Art Performances and Installations:

2016   Symmetric Relations and Hidden Rotations at the Irish Sound Science and   Technology Conference at Ulster University September 7th-9th 2016. (Peer-reviewed)

2016   Symmetric Relations and Hidden Rotations at the Sonorities Festival of Contemporary Music, Belfast November 24-26 2016. (Peer-reviewed)

2015   Jean Luc Nancy Indices 21 7 and 3 w/AMAE/De Pinto and Jean Luc Nancy at the Helicotrema Recorded Audio Festival, Pinault Foundation, Punta Della Dogana/Palazzo Grassi, November 4th 2015 (Competition).

2015   Extensive Structure no 1, The Human Cost, Doom & Gloom at the Contemporary Music Centre Spring Salon Series, National Concert Hall, Kevin Barry Room March 24th 2015 (Competition).

Music for Stage & Dance (All Commissioned):

2010   Romeo & Juliet w/ Legitimate Bodies Dance Company.

2009   (You)th Share/Nutcracker w/ Legitimate Bodies Dance Company.

2008   Pinocchio - Dance of the Long Nose w/ Legitimate Bodies Dance Company

DISCOGRAPHY

The following is my discography of music sound works released through various labels. The nature of the release: Album or Track is denoted in brackets alongside the label on which the work was released.

2024   **Stardust Sonata (Album- Fiadh Productions):** A tribute and lament to David Bowie recorded in the winter of 2016 shortly after the release of Blackstar and Bowie's premature death. The six tracks feature ambient soundscapes informed by the sound Bowie developed with Brian Eno and Robert Fripp on his infamous "Berlin Trilogy".

2024   **From Dreams to Living Things II: Brawling Sparrows Brilliant Moon (Track - Fiadh Productions):** A compilation album of more than 50 Fiadh Productions artists to raise money for Heartstone Sanctuary.

2023   **Leviathan (Album – Fiadh Productions):** A dark ambient exploration of our impending climate catastrophe.

2021   **Idle Hand -A 31-Part Exploration of Irish Unemployment from 1983 2014 in G Major (Track – Stolen Mirror):** *Featured on Tides: An ISSTA Anthology.* On Stolen Mirror Label.

2019   **Der Kardinal (Track – Brutal Resonance [OUT OF PRINT]):** featured on the Dead Leaves Charity Compilation.

TEACHING EXPERIENCE

Current: Department of Digital Humanities, University College Cork.

Module: DH6018: History and Theory of Digital Art.
Role: Module Coordinator/Lecturer.
Semester: Spring 2024.

Discussion and analysis of problems in the history and theory of digital art. This module will review a wide range of readings on the theory of art in the digital era. For practical work students will explore digital tools (JavaScript/P5.JS) which can be used to create 'art' and will produce an artifact which demonstrates an exploration of the use of digital tools to produce creative work.

Additional teaching and co-ordination duties for:
        DH6003: Digital Humanities Institute.
        DH1001: Introduction to the Digital Humanities.
        DH1002: Digital Tools and Methods I.
        DH2002: Digital Tools and Methods II.

DH6012: Contemporary Practices in Publishing and Editing.
DH6010: Humanities and New Technologies: Tools and Methodologies.

Previous: Department of Electronic and Electrical Engineering, Trinity College Dublin.

Module: Engineering Design IV (Robotics).
Level: Undergraduate.
Role: Module Co-coordinator/Lecturer.
Semester: Spring 2020. **Students:** 227.
Semester: Spring 2021. **Students:** 196.
Semester: Spring 2022. **Students:** 209.

This undergraduate module is taken by roughly 210 students each year. It is delivered in collaboration with the Department of Computer Science and Statistics. It is a practically based course in which students learn the design, software and hardware skills necessary to design, assemble and program a robot: a small autonomous vehicle. I co-coordinate the module, asses assignments and examinations e and deliver lectures on the engineering portions of the module. Due to the COVID-19 pandemic I collaborated to redesign this module with my colleagues so that it could be delivered online.

Module: Programming Interactive Systems.
Level: Postgraduate.
Role: Module Coordinator/Lecturer.
Semester: Spring 2019. **Students:** 7.
Semester: Spring 2020. **Students:** 11.
Semester: Spring 2021. **Students:** 11.
Semester: Spring 2022. **Students:** 11.

This practical hands-on course teaches postgraduate students the technologies and skills needed to design and create interactive systems for creative and performing arts contexts. Students learn about sensors, microcontrollers, and microcomputers and write code using Processing, JavaScript, Python, Max/PureData and Arduino. For their final project they create a creative system of their own design to support either a live audiovisual/intermedia performance or an interactive installation.
Due to the COVID-19 pandemic I redesigned this module for online delivery, dispatching components to students via post and delivering labs and lectures online.

Module: Introduction to Max.
Level: Postgraduate.
Role: Module Coordinator/Lecturer.
Semester: Spring 2020. **Students:** 12.
Semester: Spring 2021. **Students:** 15.

This module introduces postgraduate students to the Max programming language where they learn to create interactive multimedia systems for live audiovisual and intermedia performances.

Due to the COVID-19 pandemic I redesigned this module for online delivery, dispatching components to students via post and delivering labs and lectures online.

Module: Introduction to Professional Engineering.
Role: Guest Lecturer & Lab Attendant.
Semester: Autumn 2019. **Students:** 196.
Semester: Autumn 2020. **Students:** 234.
Semester: Autumn 2021. **Students:** 280.

I delivered guest lectures to Engineering Undergraduates introducing them to concepts in distributed computing, IoT and Healthcare Analytics. I also ran tutorial sessions along with my colleagues and partook in marking students' work.

Module: Research Methods.
Level: Undergraduate.
Role: Guest Lecturer.
Semester: Autumn 2019. **Students:** 143.
Semester: Autumn 2020. **Students:** 101.
Semester: Autumn 2021. **Students:** 110.

I lectured Engineering Undergraduate & Masters level students (4th year and BAI) introducing topics in data visualisation and coding (Unix .sh & Dos .bat , Matlab, python).

Module: Research Methods & Innovation.
Level: Postgraduate.
Role: Guest Lecturer.

Semester: Spring 2015. **Students:** 8+.
Semester: Spring 2016. **Students:** 8+.
Semester: Spring 2018. **Students:** 8+.
Semester: Spring 2019. **Students:** 8+.
Semester: Spring 2020. **Students:** 16.
Semester: Spring 2021. **Students:** 17.

I have delivered lectures on the Research Methods module on the Music and Media Technologies Course in Trinity College Dublin. This module introduces students to a range of research approaches critical for research and praxis in the creative arts. My lectures focused on methods for testing interactive systems (live performance systems and multimedia art installations).

Course: Coding Crash Course.
Level: Postgraduate.
Role: Co-coordinator and Instructor.
Semester: Autumn 2019. **Students**: 8.

I co-coordinated and delivered a two-day intensive crash course designed to introduce students on the MSc in Electronic Information Engineering to coding in Python and Matlab.

Module: Probability and Statistics.
Role: Lecture-based Labs (Co-coordinator).
Semester: Autumn 2019. **Students**: 287.

This module provides a thorough grounding in probability and statistics for technical applications. I co-coordinated the labs, delivered lecture assisted labs and managed marking.

Module: Experimental Methods.
Role: Lab Co-coordinator.
Semester: Autumn 2020. **Students**: 234.
This module introduces roughly 200 undergraduate engineering students to a variety of experimental methods and techniques. I co-coordinated the online labs for this module and delivered labs personally.

Module: Electrical Engineering.
Level: Undergraduate.
Role: Lab Instruction Coordinator.
Semester: Spring 2020. Students: 235.

This 1st-year module introduces students to some of the foundational theoretical concepts underpinning Electronic Engineering. I aided with the coordination of tutorials for this module. this involved organising tutorials and ensuring that they were delivered to a high-quality standard.
Module: Sound Design and Synthesis.
Level: Postgraduate.
Role: Teaching Assistant.
Semester: Spring 2013. **Students:** 8.

In 2013 I was a tutorial instructor for Csound and Synthesis. The aim of this course is to provide students with an introduction to digital synthesis techniques. On successful completion of this module, students should be able to address: audio synthesis using the Csound programming language and synthesize musically interesting tones using various audio synthesis algorithms, together with their implementation details in Csound.

STUDENT ADVISING

2024   Supervising 3 master's theses in the Department of Digital Humanities.

2015-2022	Supervised 17 master's thesis projects to date. 16 on the MPhil in Music and Media Technologies and 1 on the MAI in Electronic/Computer Engineering at Trinity College Dublin.

PROFESSIONAL SERVICE

Co-coordinator and Co-chair of Radical Futures: The Inaugural Conference of the Radical Humanities Laboratory

Co-chair of Paper Track & Organization Committee, Irish Sound Science and Technology Conference 2019: CIT Cork School of Music, Cork.

External Examination for PhD transfer at Limerick Institute of Technology, 2019.

Created Gestural Control System for Musical UAV (Drone) Flight and demonstrated the system with members of the public for Trinity College Dublin Open Day 2019.

Co-chair of Paper Track & Organization Committee, Irish Sound Science and Technology Conference 2018: Who's Listening? Sound and Public Space, Ulster University, Derry.

Program Committee Member for the International Community for Auditory Display, 2018.

Program Committee Member for the Conference on Computer Simulation of Musical Creativity 2018.

PR & Social Media, Organization Committee & Conference Team, Irish Sound Science and Technology Convocation 2017: Sound–Makers: technologies, practices and cultures. Dundalk Institute of Technology

Board member, book reviews editor and reviewer for Interference: A Journal of Audio Culture 2017-2019.

Board member, Web Developer and PR Manager for the Irish Sound Science and Technology Association, 2016-2019.

Consultation Services:

Consultant for BlackBear Software, an IoT company delivering solutions for cultural sector applications, 2017.

Consultant for Sensum, an empathic technology company, building emotion AI solutions to measure, understand & respond to human emotions, physiology and behaviour, 2016.

Reviewing Service:

IEEE Communications Magazine.

Digital Creativity, Taylor and Francis.

Interacting with Computers, Oxford University Press.

International Journal of Human-Computer Studies, Elsevier.

Ergonomics, Taylor & Francis.

Displays, Elsevier.

Organised Sound, Cambridge University Press.

Multimodal Technologies and Interaction, MDPI.

Applied Sciences, MDPI.

JAR: Journal of Artistic Research.

Irish Sound Science and Technology Association.

International Conference on Auditory Display.

Conference on Computer Simulated Musical Creativity.

MEMBERSHIPS

2024	Member of the Institute of Electronic Engineers (IEEE).
2023	Member of the Internet of Sounds Research Network.
2023	Member of the Ubiquitous Music Group.
2019-present	Member of The IEEE Global Initiative on Ethics of Autonomous and Intelligent Systems (A/IS) EAD for the Arts Committee
2016-2019	Board member, Web developer and PR manager of the Irish Sound Science and Technology Association.
2017-2019	Board member, book reviews editor and reviewer for the Interference: A Journal of Audio Culture.

2013-present   Member of the International Community for Auditory Display.

PUBLIC OUTREACH AND MEDIA BROADCASTS

Radio Broadcasts:

There are 99 miles of caves below the Burren. Whinger. KFJC 89.7FM California, 18th March 2024.

Thonis-Heracleion, peaceful beneath the waves. Ears Have Eyes - PHONOSTALGIA: from other times and places, 11th October 2023.

Leviathan. No Place Like Drone, Dublin Digital Radio, October 5th 2023.
What's This Called?, KFFP-LP FM 90.3 Portland Oregon, September 30th 2023.

Piteraq Over Tasiilaq. Brainvoyager Electronic Fusion Episode #419, Modul303, SCIFI.radio & Radio Dark Tunnel 16-17 September 2023.

Leviathan. Popular Culture Process Filter w/ Chuck Nicklow. WRUW FM 91.1 Cleveland, 11th October 2023.

v5: Breathing Space, The Dylan Hunter Show CKCU-FM 93.1. February 24th 2023.

opening to the ambient light, Ridgewood Radio with David Weinstein. January 4th 2023.

Interview about AI in Music Composition on Gwaith Sŵn's Sonic Darts on Resonance.fm, June 6th 2022.

100 Epoch Opus, Gwaith Sŵn's Sonic Darts on Resonance 104.4FM, February 7th 2022.

No Light, But Rather. Monthly Diatribe, Dublin Digital Radio, January 20th 2022.

Signal to Noise Loops: A Quiet Year. Monthly Diatribe, Dublin Digital Radio, October 27th, 2021.

Search Party - The Noisy Plug Episode 7

Sketch 2, Improvised Guitar Take 1 - Glór Mundo 17th October 2018 - Glór Mundo - 93.7fm.

The Good Ship Hibernia and the Hole in the Bottom of the World - Glór Mundo St Patricks Day Session 2018 - Glór Mundo - 93.7fm.

Symmetric Relations and Hidden Rotations - Nova Sunday 13 September 2015 - Nova RTÉ lyric fm.

No Output: Cellular Storm Nova Sunday 11 October 2015 - Nova RTÉ lyric fm.

Extensive Structure No 1 - Nova Sunday 8 November 2015 - Nova RTÉ lyric fm.

Excerpts from Fógraim/I Proclaim - Arena Tuesday 5 April 2016 - Arena - RTÉ 1.

The Good Ship Hibernia and the Hole in the Bottom of the World - Glór Mundo 27th September 2017 - Glór Mundo - 93.7fm.

Cellular Storm [Excerpt] & The Good Ship Hibernia and the Hole in the Bottom of the World - Glór Mundo 29th September 2017 - Glór Mundo - 93.7fm.

Sketch 2, Improvised Guitar Take 1 - Glór Mundo 4th October 2017 - Glór Mundo - 93.7fm.

Reviews & Coverage Online:

2024:

Nialler9: New releases out today: Lankum, Hazey Haze & mankyy, The Mary Wallopers, AE MAK, O, Burial & more.

Ghost Cult Magazine: Fiadh Compilation Launch.

2023:

Bandcamp: New and Notable - Leviathan September 16th 2023.

Avant Music News: Leviathan Review (2023; Fiadh Productions).

Industrial Complexx: Stephen Roddy - Leviathan.

Aaron's Albums of the Year - Cave Dweller Music: Leviathan by Stephen Roddy

Hayduke's 2023 End of Year Round-Up. Moshpit Nation: Leviathan by Stephen Roddy

The Sleeping Shaman: George Green AOTY Honorable Mention: Leviathan - Stephen Roddy (2023; Fiadh Productions).

Avant Music News. Picks of the Week: Worrell, Blackman & King / Stephen Roddy / Dronal / Gdanian / John Zorn.

The Wrong Biennale is Reshaping the Experience of Art - Fakewhale: FW/&ltLOG&gt.

Tome To The Weather Machine: Thonis - Heracleion, Peaceful Beneath The Waves. 18th September 2023.

2022:

Queen City Sound and Art: Darkness Visible EP.

ICAD Community Spotlight: Stephen Roddy.

Bandcamp: New and Notable - Darkness Visible March 13th 2022.

Tome To The Weather Machine: opening to the ambient light. 31st January 2022.

Brutal Resonance: Darkness Visible.

Visual Ateiler 8: 61Years.

Underground N' Proud: Darkness Visible..

Underground N' Proud: No Light, But Rather.

Last Day Deaf: Darkness Visible.

2021:

The Journal of Music: TIDES: An ISSTA Anthology.

Underground N' Proud: Jupiter Video.

Roadie Metal: Jupiter Video.

Indie Criollo: Jupiter Single.

Last Day Deaf: Jupiter Single.

Rock Era Magazine Jupiter Single.

Brutal Resonance: Jupiter Album.

Son of Marketing: Jupiter Album.

A Closer Listen: Jupiter Album.

Last Day Deaf: Ignite the Core.

Postcard Elba: Connemara Chaos.

Underground N' Proud: Ignite the Core.

2020:

Synthpocalypse: Search Party Review.

Sez Hoo (Aer Music): Search Party Review.

Roadie Metal: SIGIL.

METALPERVER: SIGIL.

The Golden Plec: Irish Songs You Need To Hear This Week 20 (Search Party Recommendation).

The Golden Plec: Irish Songs You Need To Hear This Week 44 (SIGIL Recommendation).

2019:

EBM Radio: Minimal Synthwave Musician Stephen Roddy Releases New Album Wave Grid.

Synthpocalypse: Album Review: Stephen Roddy - Wave Grid.

Brutal Resonance: Minimal Synthwave Musician Stephen Roddy Releases New Album Wave Grid.

Nightride.fm Wave Grid Review.

2014:

Pure Mzine: The Life and Death of Terminus Abruptus.

The Metaphorical Boat: Line-In - The Life And Death of Terminus Abruptus

Newspaper Articles:

 'It's great to be out again' – Culture Night brings joy back to young and old, plus relieved artists. Irish Independent, September 28th 2021.

Offaly man prepares for 'unique' musical performance in London. The Offaly Express, 17 August 2017.

Bodily autonomy and inequality: women dance around the Proclamation, Irish Times, April 14th 2016 (Collaborative project).

Powerfully "Embodied" at the GPO. The Examiner, April 21st 2016 (Collaborative project).

Embodied- Review, TN2, April 25th 2016 (Collaborative Project).

REFEREES AVAILABLE UPON REQUEST