

CV

Professor Oliver R Bown

Highlights

- **Public Engagement:** I consult and speak regularly to mainstream media including the ABC, BBC, Economist, Guardian, Sydney Morning Herald. I have been invited to speak on Creative AI at the World Intellectual Property Organisation, the Australia Council, SXSW Sydney, and the BBC. I have consulted for the Australian National AI Voluntary Safety Standard, APRA/AMCOS, and the OECD AI Capability Scales.
- **Grants:** I am a CI on one European Union Advanced Grant (€2.1m, lead CI Georgina Born) awarded in 2021. In Australia I have one completed ARC Linkage Grant (lead CI, AUD\$292k) and one ARC Discovery Project Grant (second CI, AUD\$350k), and two ongoing ARC Discovery Project Grants (second CI, combined AUD\$1,2M).
- **Publication:** My first book was published by MIT Press in 2021. The book, entitled “Beyond the Creative Species: Making machines that make art and music” provides a general readership with a broad survey of practice and theory in the fields of computational creativity, generative art and creative AI. I have an H-index of 25 (1,900 citations Google scholar). My outputs can be coded in various research codes across computer science, design, creative arts and critical theory. I made one of the largest contributions by quantity to my school’s 2018 Excellence in Research for Australia (ERA) result of 5 (well above world standard) in the Film and Digital Media code. I have held a postdoctoral fellowship from the University of Sydney and a variety of research roles including Visiting Research Fellow Powerhouse Museum and UNSW PLuS Alliance Fellow.
- **Knowledge Exchange and Non-Traditional Research:** I have strong research outputs combining traditional paper outputs and creative outputs. For example, in 2019 I produced the sound design for a pioneering 720 speaker outdoor sound and light artwork at the Scottsdale Museum of Contemporary Art in Arizona, with Squidsoup. I have extensive collaborative relations and contacts with practitioners in the creative technologies industries, including The Sydney Opera House, Google Creative Labs, Dolby, Squidsoup (UK), Mod Productions, Uncanny Valley, Monarc Media, The Studio, The Casula Powerhouse, Vivid, Code on Canvas, and the Museum of Applied Arts and Sciences.
- **Leadership:** From 2021-2024 I was co-Deputy Head of School, Research, supporting research training, grants strategy, internal research funding, research metrics, research career planning and mentorship. I have strong course development experience and academic and professional organisation and management experience. For example, I implemented and executed a shared honours year for cohorts of 200 students working across three diverse undergraduate degrees.

Citizenship

British and Australian.

Qualifications:

2008: PhD *Lond* (Thesis: *Theoretical and Computational Models of Cohesion, Competition and Maladaptation in the Evolution of Human Musical Behaviour*). Supervisors, Geraint Wiggins and Tim Blackwell, Goldsmiths College.

2004: MSc (distinction), *Evolutionary and Adaptive Systems*, University of Sussex.

1999: BA (2:1), *Mathematics (part I) and Social Anthropology (parts IIA and IIB)*, Trinity College, Cambridge.

Academic positions:

2025-ongoing: Professor, Faculty of Art & Design, University of New South Wales (**current position**).

2020-2025: Associate Professor, Faculty of Art & Design, University of New South Wales.

2015-2020: Senior Lecturer, Faculty of Art & Design, University of New South Wales.

2013-2015: Postdoctoral Fellow, Design Lab, University of Sydney.

2011-2013: Lecturer, Design Lab, University of Sydney.

2008-2010: Postdoctoral Research Assistant, Centre for Electronic Media Art, Monash University.

2007-2008: Research Assistant, Creative Research in Sound Art Practice, London College of Communication.

Awarded Competitive Research Grants

ARC Discovery Project (2025), K. Bowrey, O. Bown, M. Hadley, L. Buckingham, “Artists and Generative AI: Copyright and Private Regulation of Creativity”. Awarded, \$814k.

ARC Discovery Project (2025), C. Kelly, O. Bown, L. Harvery, P. Van Gelder, A. Wang, “From Noise to Signal: Improving Sonic Experiences in the Gallery”. Awarded, \$425k.

European Union Council Advanced Grant (2021), G. Born, L. Suchman, K. Crawford, N. Baym, K. Bijsterveld, G. Bowker, R. Dean, D. De Roure, A. Mackenzie, B. Whitman, F. Diaz, B. Sturm, A. Einbond, J. Sterne, A. Chan, R.

Fiebrink, C. Hawordth, E. Drott, O. Bown, N. Seaver, “Music and Artificial Intelligence: Pasts and Futures, Opportunities and Risks”. Awarded, €2.1m.
ARC Discovery Project, (2019) K. Grace, O. Bown, D. Ventura, “An interaction model for human–machine creative collaboration”. Awarded, \$350,000AUD.
ARC Linkage Project (2019), O. Bown, S. Ferguson, A. Davies, B. Tulloch, A. Rowe, L. Candy, “Artistically rethinking creative coding for digital media”. Awarded \$292,112AUD.
Social Sciences and Humanities Research Council (SSHRC) of Canada Insight Grant Research/Creation, 2016, CI - Arne Eigenfeldt, Simon Fraser University, Partner Investigators - Andrew Brown, Oliver Bown, “Collaborative Musical Composition and Performance with Creative Agents”. Awarded, \$109,225 (CAD).

Awarded Grants and Project Commissions

\$15,000 Engagement and Impact grant, Faculty of Arts, Design and Architecture UNSW, for Creative Technologies network building. 2024.
\$10,000 Engagement and Impact grant, Faculty of Arts, Design and Architecture UNSW, for Creative AI Symposium, 2022.
\$49,000 City of Sydney Activation grant, awarded to 107 Projects Sydney in collaboration with the Interactive Media Lab, UNSW to host “Jams with the Hueosphere”, an original light and sound installation.
\$5,000. City of Sydney Festivals Grant for MOVE Symposium (part of Sydney Design Festival), 2019, with Deborah Turnbull.
\$5,000. Grants Management Office Linkage Support Grant, UNSW, 2019.
\$16,900. Faculty Research Grant, Faculty of Art & Design, UNSW, 2018.
\$14,932. Faculty Research Grant, Faculty of Art and Design, UNSW, 2017.
\$6,360 travel support. Special Studies Program (sabbatical), Faculty of Art and Design, UNSW, 2017.
\$5,000. Grants Management Office Linkage Support Grant, UNSW, 2017.
\$78,470. Research Infrastructure Grant, UNSW, 2017.
\$24,000. University of Sydney educational development grant to develop new creative coding teaching tools for medical science students, 2016, with Philip Poronnik.
\$11,000. Faculty Research Grant, Faculty of Art and Design, UNSW, 2016.
£52,000GBP. Squidsoup, *Bloom*. A commission by Christmas at Kew Gardens to produce an outdoor interactive installation. 2016, artistic lead Anthony Rowe.
\$60,000. Faculty Grant to establish the Interactive Media Lab, 2015, with Brad Miller, Alex Davies, George Khut.
\$25,000 Emerging and Experimental Arts Grant from Australia Council for the Arts, for Musify+Gamify, major event at the Seymour Centre, part of Vivid 2015. Total operating budget \$56,000. 2015.
\$10,000 production cost award for Phase Frames, an interactive installation at Vivid Sydney, 2015.
\$60,000 commission by AMP, Amplify Festival and Vivid Festival for large scale interactive artwork on AMP building, Circular Quay, total operating budget \$60,000. 2013, with Miriama Young, Luke Hespanhol, Martin Tomitsch.
\$12,000 International Program Development Fund, University of Sydney, 2013.
\$20,000 Postdoctoral Fellowship research budget awarded with University of Sydney Fellowship, 2012.
£1,000 PRSF award, UK, tour support, Icarus, 2011.
\$20,000 Early Career Researcher support grant, Monash University, 2009.
£1,000 PRSF award, UK, London Placard Headphone Festival, with Alex McLean, 2008.
£1,000 PRSF award, UK, tour support, Not Applicable Artists, 2007.
£3,000 commission for AV performance from the Lighthouse, Brighton, with Tom Arthurs, 2007.

PhD Students

Completed PhD students (*first or joint supervisor): Aengus Martin, Luke Hespanhol, Craig Morgan, Anhong Zhang, Carly Vickers, Sam Gillespie*, Steffan Ianigro*, Frederic Robinson* (UNSW Dean’s Award), Kurt Mikołajczyk*, Rodolfo Ocampo*.
Current PhD students (first or joint supervisor): Chloe McFadden, Tom Willma.

Administrative Experience, Membership of Committees and Academic Service

Co-director, Creative Technologies Research Lab (formerly Interactive Media Lab), UNSW Art & Design, 2017-present.
Editorial board, Cambridge Forum on AI: Culture and Society, 2024-present.
Paper Chair, Conference on AI Music Creativity, Brussels, Belgium, 2025.
Co-Director Research and Engagement, School of Art & Design (Deputy Head of School, Research), UNSW, 2021-present.
Chair, Creative AI Sydney, symposium, UNSW, 2022.
Director, MOVE Symposium, Sydney Design Festival, 2019.
Workshop co-chair, International Conference on Computational Creativity, 2019.
Program committee for the Workshop on Co-Creativity, ICCO, 2017-present.
Program committee for the International Conference on Live Interfaces (ICLI), 2017-present.
Program committee for the International Joint Conference on AI video competition 2017.
Co-Chair for the International Conference on Computational Creativity video competition, 2016.

Social Inclusion Representative and Aboriginal and Torres Strait Islander student contact, Design Lab, Faculty of Architecture, Design and Planning, University of Sydney, 2014-2015.
Program committee for the New Interfaces for Musical Expression Conference (NIME), 2014–present.
Working group, University of Sydney Reconciliation Week and Vivid @ Sydney University Festival, 2014-2015.
Project member: Widening Participation Grant, Division of Architecture and Creative Arts, University of Sydney, 2014-2015.
Program committee for the Digital Art and Entertainment Track, GECCO Conference, 2013-2015.
Research committee, Faculty of Architecture, Design and Planning, University of Sydney, 2013.
Local co-chair, International Conference on Computational Creativity, Sydney, June 2013. Henceforth steering committee member, ongoing.
Co-chair for the Musical Metacreation (MuMe) workshop and concerts, 2012-2018.
Organising committee for the Biome Symposium, University of Sydney, 2012.
Program committee for the International Computer Music Conference (ICMC), 2012.
Program committee for the Evolutionary Music and Art (EvoMusArt) workshop, 2011-2014.

Teaching and Research Supervision

I have had research focused positions during 2008-2010, 2013-2015, 2022-2025.

Course designer DART2331, *Data, AI, Culture, Aesthetics*, UNSW, 2025.
Course designer, DART2252, *Generative AI for Artists*, UNSW, 2025.
Course designer, DDES1050, *Interaction Design for AI (IxDAI)*, UNSW, 2025.
Lecturer, DART2331, *Data Aesthetic*, UNSW, 2024-2025.
Course designer, *Adapting to AI in the Creative Industries* (Short Course), UNSW, 2024-ongoing.
Stream designer, *Interaction Design Stream*, Bachelor of Design, UNSW, 2018.
Course designer, DART1201, *Media Arts Gateway*, UNSW, 2018.
Course designer, convenor and lecturer DDES1150, *Interaction Design 1 – Principles and Practices*, UNSW 2019, 2020.
Lecturer, ADAD3114, *Research Foundations*, UNSW, 2018.
Convenor, ADAD2400/DART1250, *Introduction to Systems for Interactive Media*, UNSW, 2016-2020.
Convenor, SOMA2417, *Sound Installation and Soundscape*, UNSW, 2017- 2020.
Course co-creator and lecturer, with Sam Ferguson, *Creative Audio Programming for the Raspberry Pi*, MOOC, Kadenze.com/UNSW, 2017, >2000 participants.
Lecturer, *Transmedia Storytelling and Narrative Worlds*, MOOC, Coursera/UNSW. >13,000 participants.
Convenor and lecturer of SOMA2818, *Media Apps and Digital Publishing*, UNSW, 2017.
Convenor of UNSW Art & Design Undergraduate 4th Year *Honours Research Projects* (all degrees combined). 2015-2016.
Acting program director, Bachelor of Design Computing, Semester 1, 2015.
Lecturer and coordinator of DECO3200, *Human Computer Experience Design Studio*, 3rd year studio (double) unit in Bachelors of Design Computing, Faculty of Architecture, Design and Planning, 2011, 2012.
Lecturer and coordinator of DECO1013, *Sound Design and Sonification*, 1st year unit in Bachelor of Design Computing, Faculty of Architecture, Design and Planning. 2011, 2012 (coordinator only for 2013-2014).
Coordinator, Design Computing Honours Year, 2014.
Completed University of Sydney Certificate in *Principles and Practice in University Teaching and Learning and Foundations of Research Supervision*.
Supervisor for honours, MPhil and PhD students since 2012.

Selected Awards, Invited Lectures, Fellowships and Residencies

Panellist, ACMI Future of Arts, Culture and Technology, Melbourne, February, 2025.
Panellist, Tech Expo, SXSW Sydney, October 2024.
Guest speaker, Login Conference, Vilnius, Lithuania, May, 2024.
Keynote Speaker, Sound and Music Computing Conference, Stockholm, June, 2023.
Guest speaker, BEYOND Conference, London, 2023.
Special Studies Program (sabbatical), UNSW, August-December, 2023.
UNSW PLuS Alliance Fellow, 2019-2020.
MAAS Research Fellow at the Powerhouse Museum, 2018-2019.
Special Studies Program (sabbatical), UNSW, January–July, 2017.
Best workshop award, NIME Conference, Brisbane, 2016.
Two-week artist residency at Gunyah, Port Stephens, NSW, 2016, with Ben Carey.
Postdoctoral fellowship, awarded from The University of Sydney, 2013-2016.
One week artist residency at STEIM, Amsterdam, February 2012, with Sam Britton and Daniel Jones.
Three-week artist residency at STEIM, Amsterdam, February 2011, with Sam Britton.
Invited talks and workshops at Stone & Chalk (Sydney), Vision Critical (Sydney), IT University Copenhagen (Denmark), New York University (US), Sydney Conservatorium of Music (Australia), Powerhouse Museum, Sydney (Australia), University of Plymouth (UK), IRCAM (Paris, France), University of Sussex (UK), De Montfort University

(Leicester, UK), Edinburgh University (UK), Street Vibes Festival, Public Engagement in Science Event (London, UK), Dartmouth College (USA), STEIM (Amsterdam, Netherlands), DIEM (Aarhus, Denmark), University of East London (UK), ElectroFringe, Newcastle (Australia), Dorkbot (London, UK; Melbourne; Sydney, Australia), Bilgi University (Istanbul, Turkey), NIME conference, London (UK), Newcastle University (Aus), NIME conference, Brisbane (Aus), AIIDE Conference, Boston, Stanford and North Carolina (US).

Research Outputs

Books

O. Bown, "Beyond the Creative Species: Making machines that make art and music", MIT Press, 2021.

Scholarly Book Chapters

O. Bown, F.A. Robinson, K. Mikolajczyk, S. Ferguson, (2024). Managing complexity in multi-device environments, in M. Filimowitz (ed) *The Routledge Handbook of Sound Design*, Routledge.

F.A. Robinson, **O. Bown**, M. Velonaki, (2023). The Robot Soundscape, *Cultural Robotics: Social Robots and Their Emergent Cultural Ecologies*, 35-65.

W. Marynowsky, J. Knowles and **O. Bown**, (2022). Sonic robotics: musical genres as platforms for understanding robotic performance as cultural events. In *Cultural Robotics 2.0*. Springer, Springer Nature.

O. Bown, (2021). Risk, creative spaces and creative identity in creative technologies research: Or why it's okay for academic creative technology outputs to look scrappy and be buggy. In *The Routledge International Handbook of Practice-Based Research* (pp. 614-621). Routledge.

O. Bown, (2021). Sociocultural and design perspectives on AI-based music production: why do we make music and what changes if AI makes it for us?. In *Handbook of Artificial Intelligence for Music* (pp. 1-20). Springer, Cham.

O. Bown, A. Brown, (2018) Interaction Design for Metacreative Systems, in M. Filimowicz and V Tzankova (eds) *New Directions in 3rd Wave HCI, Volume 1: Technologies*, Springer HCI Series.

A. Eldridge and **O. Bown**, (2018) Biologically Inspired and Agent Based Algorithms for Music, in R. Dean and A. McLean (eds), *The Oxford Handbook of Algorithmic Music*, Oxford University Press.

O. Bown, P. Gough, P., & Tomitsch, M. (2017). Learning Design Through Facilitating Collaborative Design: Incorporating Service Learning into a First Year Undergraduate Design Degree Course. In *Collaboration and Student Engagement in Design Education* (pp. 209-229). IGI Global.

O. Bown, P. Gemeinboeck and R. Saunders (2014) "The Machine as Autonomous Performer", in L. Candy and S. Ferguson (eds), *Interactive Art in the Digital Age*, Springer, Berlin.

T. Blackwell, **O. Bown** and M. Young (2012) Live Algorithms, in J. McCormack and M. d'Inverno (eds), *Computers and Creativity*, Springer, Berlin.

O. Bown (2012) Generative and Adaptive Creativity, in J. McCormack and M. d'Inverno (eds), *Computers and Creativity*. Springer, Berlin.

O. Bown (2008) Worlds of Human Sound, in C. Lane (ed), *Playing With Words*, Cornerhouse/CRiSAP, Manchester/London, UK.

Journal Editorial

Editorial Board member, Cambridge Forum on AI: Culture and Society.

F. Robinson, H. Pelikan, K. Watanabe, L. Damiano, **O. Bown**, M. Velonaki, eds (2023). Special Issue on Sound in Human-Robot Interaction, *ACM Transactions on Human-Robot Interaction*.

S. Dubnov (associate editor), **O. Bown**, A. Eigenfeldt, P. Pasquier (guest eds.). Special Issue on Musical Metacreation (double issue). *ACM Journal of Computers in Entertainment*. Volume 14, issues 1 and 2.

Refereed Journal Articles

K. Mikolajczyk, A. O. Har, L. Wachsmann, **O. Bown**, & S. Ferguson, (2025). Mimetic Possibilities: Collaboration through movement in multimedia opera. *Leonardo*, 58(2), 149-156.

O. Bown, (2025). From genies performing magic to sages imparting wisdom: a value-centred survey of music AI user interfaces, creative affordances and artist objectives. *Journal of New Music Research*, 1-14.

K. Mikolajczyk, A.O. Har, L. Wachsmann, **O. Bown**, & S. Ferguson, (2024). Mimetic Possibilities: Collaboration through movement in multimedia opera. *Leonardo*, 1-15.

O. Bown, (2024). Blind search and flexible product visions: the sociotechnical shaping of generative music engines. *AI & Society*, 1-19.

K. Mikolajczyk, S. Ferguson, L. Candy, A. Dias Pereira dos Santos, & **O. Bown** (2024). Space shaping in the design process for creative coding: a case study in media multiplicities. *Digital Creativity*, 35(1), 31-51.

- F.A. Robinson, M. Velonaki, **O. Bown**, (2023). Robot Sound in Distributed Audio Environments, *Sound and Robotics*, 128-158.
- F. Robinson, H. Pelikan, K. Watanabe, L. Damiano, **O. Bown**, M. Velonaki, (2023). Introduction to the Special Issue on Sound in Human-Robot Interaction, *ACM Transactions on Human-Robot Interaction* 12 (4), 1-5.
- P. Gough, **O. Bown**, C.R. Campbell, P. Poronnik, P.M. Ross, (2023). Student responses to creative coding in biomedical science education, *Biochemistry and Molecular Biology Education* 51 (1), 44-56, 1.
- F.A. Robinson, M. Velonaki, **O. Bown**, (2023). Crafting the Language of Robotic Agents: A vision for electroacoustic music in human-robot interaction, *Organised Sound* 27 (2), 206-218, 6.
- F. Robinson, **O. Bown**, and M. Velonaki, (2022). Designing Sound for Social Robots: Candidate Design Principles. *International Journal of Social Robotics*, pp.1-19.
- O. Bown**, S. Ferguson, A. Dos Santos, and K. Mikolajczyk, (2021). Hacking the Medium: Shaping the creative constraints of network architectures in multiplicitous media artworks. *Organised Sound*, 26(3), pp.305-316.
- O. Bown**, S. Ferguson, A. Dos Santos and K. Mikolajczyk, (2021). Supporting Creative Practice in Wireless Distributed Sound Installations Given Technical Constraints. *Journal of the Audio Engineering Society*, 69(10), pp.757-767.
- A. Fraietta, **O. Bown**, S. Ferguson, S. Gillespie, and L. Bray, (2020). Rapid composition for networked devices: HappyBrackets. *Computer Music Journal*, 43(2-3), pp.89-108.
- O. Bown** (2018), Performer Interaction and Expectation with Live Algorithms: Experiences with Zamyatin and friends, *Digital Creativity*, Special Issue on Improvisational Creativity, J. McCormack and S. Knotts (eds). Volume 29, 2018 - Issue 1, Pages 37-50.
- O. Bown**, S. Ferguson (2018), Understanding Media Multiplicities, *Journal of Entertainment Computing*, Volume 25, March 2018, Pages 62-70.
- A. Martin, C. Jin, **O. Bown** (2018), Design and Evaluation of Agents that Sequence and Juxtapose Short Musical Patterns in Real Time, *Computer Music Journal*, 41 (4), Winter 2017, MIT Press, pp.45-63.
- O. Bown**, S. Ferguson (2018), Creative Media + the Internet of Things = Media Multiplicities, *Leonardo*, **Leonardo** 51, No. 1 (February 2018).
- P. Pasquier, A. Eigenfeldt, **O. Bown**, S. Dubnov (2016), An Introduction to Musical Metacreation, Special Issue on Musical Metacreation, *ACM Journal of Computers in Entertainment*. Volume 14 Issue 2, Summer 2016 Article No. 2.
- A. Rowe, G. Bushell, L. Birtles, C. Bennewith, **O. Bown** (2016), Submergence (description of art exhibit for SIGGRAPH exhibition 2016), in *Leonardo Journal*, 49(4):356-357.
- O. Bown** and R. Saunders (2015), Computational Models of Social Creativity, *ALife Journal*, Vol. 21, No. 3: 366-378. MIT Press.
- O. Bown** and S. Britton, An Album in 1,000 Variations: Notes on the composition and distribution of a parametric musical work, *Leonardo*, MIT Press, 47(5):437-441.
- J. McCormack, **O. Bown**, A. Dorin, J. McCabe, G. Monro and M. Whitelaw (2014), Ten Questions Concerning Generative Computer Art, *Leonardo*, MIT Press, 47(2):135-141.
- O. Bown** (2011) Experiments in Modular Design for the Creative Composition of Live Algorithms, *Computer Music Journal*, MIT Press, 35(3):73-85.
- O. Bown** and J. McCormack (2010), Taming Nature: Tapping the creative potential of ecosystem models in the arts, *Digital Creativity*, Taylor & Francis, 21(4):215-231.
- O. Bown** and G. A. Wiggins (2009), From Maladaptation to Competition to Cooperation in the Evolution of Musical Behaviour, in O. Vitouch and O. Ladinig (eds) *Musicae Scientiae*, Special Issue 2009/10 on Music and Evolution, 13(2):387-414.
- [Also published in French as, **O. Bown** and G. A. Wiggins (2010) "L'évolution du comportement musical : de l'inadaptation à la compétitivité et à la coopération", in I. Deliège, O. Vitouch and O. Ladinig (eds), *Musique et Évolution*, Éditions Mardaga.]
- O. Bown**, A. Eldridge and J. McCormack, (2009) Understanding Interaction in Contemporary Digital Music: from Instruments to Behavioural Objects, *Organised Sound*, 14(2):188-196.

Refereed Conference Publications

- R. Ocampo Blanco, & **O. Bown**, (2024). Integrating Generative AI into Creative Workflows: Dealing with Consistency, Scene Control, and Refinement in a Professional Image Generation Case Study. In *International Conference on Computational Creativity*, Jönköping, Sweden, June 2024.
- R. Ocampo Blanco, **O. Bown**, B. Wright, J. Shave, C. Pegram, (2024), Interpretative Data Sonification: Using LLMs to Interpret Data, In *Proceedings of the Sound and Music Computing Conference*, Porto, Portugal, July 2024.

- K. Mikolajczyk, **O. Bown**, S. Ferguson, (2023). A Study of Creative Development with an IoT-based Audiovisual System: Creative Strategies and Impacts for System Design, Proceedings of the 15th Conference on Creativity and Cognition, 139-149, 1.
- K. Mikolajczyk, S. Trolland, A. Ilisar, J. McCormack, S. Ferguson, **O. Bown**, (2023). Gestural Interactions with Object-Based Audio in an Internet of Sounds Ecosystem, 2023 4th International Symposium on the Internet of Sounds, 1-9.
- F.A. Robinson, **O. Bown**, M. Velonaki, (2023). Spatially Distributed Robot Sound: A Case Study, Proceedings of the 2023 ACM Designing Interactive Systems Conference, 2707-2717.
- R. Ocampo, J. Andres, A. Schmidt, C. Pegram, J. Shave, C. Hill, B. Wright, **O. Bown**, (2023). Using GPT-3 to achieve semantically relevant data sonification for an art installation, International Conference on Computational Intelligence in Music, Sound, Art.
- J. Andres, R. Ocampo, **O. Bown**, C. Hill, C. Pegram, A. Schmidt, J. Shave, (2023). The Human-Built Environment-Natural Environment Relation-An Immersive Multisensory Exploration with 'System of a Sound', Companion Proceedings of the 28th International Conference on Intelligent Interface Design.
- M. Peepkorn, R. Saunders, **O. Bown**, A. Jordanous (2022). Mechanising Conceptual Spaces using Variational Autoencoders, International Conference on Computational Creativity.
- O. Bown**, K. Mikolajczyk, S. Ferguson, B. Carey, (2023). Buildings as Audio Visual Synthesisers: Experiments Performing Live Music on Wirelessly Networked Multi-Speaker Media Architectures, International Symposium on Electronic Art.
- F. Ibarrola, **O. Bown**, K. Grace, (2023). Towards co-creative drawing based on contrastive language-image models, coordinates, International Conference on Computational Creativity.
- M. Peepkorn, M., R. Saunders, **O. Bown** and A. Jordanous, (2022). Mechanising Conceptual Spaces using Variational Autoencoders, Proceedings of the International Conference on Computational Creativity, 2022.
- F. Robinson, M. Velonaki. And **O. Bown**, (2021), March. Smooth operator: Tuning robot perception through artificial movement sound. In *Proceedings of the 2021 ACM/IEEE international conference on human-robot interaction* (pp. 53-62).
- A. Fraietta, **O. Bown**, and S. Ferguson, (2020), September. Transparent Communication Within Multiplicities. In *2020 27th Conference of Open Innovations Association (FRUCT)* (pp. 61-72). IEEE.
- F. Robinson, **O. Bown**, and M. Velonaki, (2020), March. Implicit Communication through Distributed Sound Design: Exploring a New Modality in Human-Robot Interaction. In *Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction* (pp. 597-599).
- O. Bown**, A. Fraietta, L. Loke, and S. Ferguson, (2020). Creative Coding and Interaction Design for Media Multiplicities: Challenges, Paradigms and Frameworks. In Proceedings of the Fourteenth International Conference on Tangible, Embedded, and Embodied Interaction (pp. 877-880).
- M. Peepkorn, **O. Bown** and R. Saunders, (2020). The Maintenance of Conceptual Spaces Through Social Interactions. *BNAIC/BeneLearn 2020*, p.430.
- A. Fraietta, **O. Bown** and S. Ferguson, (2020), September. Transparent Communication Within Multiplicities. In *2020 27th Conference of Open Innovations Association (FRUCT)* (pp. 61-72). IEEE.
- S. Ferguson, D. Turnbull Tillman, **O. Bown** and A. Fraietta, 2020. Rapid Composition for a Multi-Device Networked Music Platform. *Sound and Music Computing*.
- F. Robinson, **O. Bown** and M. Velonaki, (2020), March. Implicit Communication through Distributed Sound Design: Exploring a New Modality in Human-Robot Interaction. In *Companion of the 2020 ACM/IEEE International Conference on Human-Robot Interaction* (pp. 597-599).
- O. Bown**, K. Grace, L. Bray and D. Ventura, (2020). A Speculative Exploration of the Role of Dialogue in Human-ComputerCo-creation. In *ICCC* (pp. 25-32).
- W. Marynowsky, S. Ferguson, A. Fraietta, and **O. Bown**, (2020). 'The Ghosts of Roller Disco', a Choreographed, Interactive Performance for Robotic Roller Skates. In *Proceedings of the Fourteenth International Conference on Tangible, Embedded, and Embodied Interaction* (pp. 631-637).
- O. Bown**, A. Fraietta, S. Ferguson, L. Loke, and L. Bray (2019), Facilitating Creative Exploratory Search with Multiple Networked Audio Devices Using HappyBrackets, in Proceedings of the International Conference on New Interfaces for Musical Expression, UFRGS, pp. 286-291.
- A. Fraietta, **O. Bown** (2019), Creating a Sonified Spacecraft Game Using HappyBrackets and Stellarium. in Proceedings of the 17th Linux Audio Conference (LAC-19), CCRMA, Stanford University, California, US, CCRMA, Stanford University, USA, pp. 1 - 7.
- S. Ianigro, **O. Bown** (2019), Exploring Transfer Functions in Evolved CTRNNs for Music Generation, in Proceedings of the International Conference on Computational Intelligence in Music, Sound, Art.
- S. Ianigro, **O. Bown** (2018), Exploring continuous time recurrent neural networks through novelty search, in Proceedings of the New Interfaces for Musical Expression Conference, Blacksburg, Virginia, June 2-6.

- S. Gillespie, **O. Bown** (2017), Solving Adaptive Game Music Transitions from a Composer Centred Perspective, In Proceedings of the Musical Metacreation Workshop at the International Conference on Computational Creativity, June 19, Atlanta.
- L. Bray, **O. Bown** (2017), How Can We Deal With The Design Principle Of Visibility In Highly Encapsulated Computationally Creative Systems? In Proceedings of the International Conference on Computational Creativity, June 19-23, Atlanta.
- S. Ferguson, A. Rowe, **O. Bown**, L. Birtles, C. Bennewith (2017), Sound Design for a System of 1000 Distributed Independent Audio-Visual Devices In Proceedings of NIME'17, May 15-19, 2017, Aalborg University Copenhagen, Denmark.
- S. Ferguson, A. Rowe, **O. Bown**, L. Birtles, C. Bennewith (2017), Networked Pixels: Strategies for building visual and auditory media with distributed independent devices. In Proceedings of the ACM Conference on Creativity & Cognition, June 07–12, 2017, Singapore.
- S. Ferguson, **O. Bown** (2016), A Musical Game of Bowls Using the DIADs, in Proceedings of the 16th International Conference on New Interfaces for Musical Expression, Brisbane, July 2016.
- A. Eigenfeldt, A. Brown, T. Gifford, **O. Bown** (2016), Flexible Generation of Musical Form Beyond Mere Generation, in Proceedings of the 7th International Conference on Computational Creativity, Paris, June 2016.
- L. Bray, **O. Bown** (2016), Applying Core Interaction Design Principles to Computational Creativity, in Proceedings of the 7th International Conference on Computational Creativity, Paris, June 2016.
- S. Ianigro, **O. Bown** (2016), Investigating the Musical Affordances of Continuous Time Recurrent Neural Networks, in Proceedings of the 7th International Conference on Computational Creativity, Paris, June 2016.
- S. Ferguson, **O. Bown** (2016), HCI, Music and Audiences: Enabling New Performance Contexts by Understanding Experience , in Music and HCI Workshop, CHI 2016. May 7th 2016. San Jose.
- S. Ianigro, **O. Bown** (2016), Plecto: A low-level Interactive Genetic Algorithm for the Evolution of Audio, in Evolutionary and Biologically Inspired Music, Sound, Art and Design. Springer International Publishing, 2016. 63-78.
- L. Bray, **O. Bown** (2015), Ludic Human-Computer Co-Creation, Australasian Computer Music Conference, UTS, Sydney, November 2015.
- R. Dorabjee, M. Tomitsch, S. Sarkar, **O. Bown** (2015), Back to the future: Identifying interface trends from the past, present and future in immersive applications, OzCHI 2015: Being Human - Conference Proceedings. 540-544. 07 Dec 2015.
- O. Bown**, B. Carey, A. Eigenfeldt (2015), Manifesto for a Musebot Ensemble: A platform for live interactive performance between multiple autonomous musical agents, Proceedings of the 21st International Symposium on Electronic Art. Vancouver, Canada. August 14th-18th, 2015.
- O. Bown**, L. Loke, S. Ferguson, D. Reinhardt (2015), Distributed Interactive Audio Devices: Creative strategies and audience responses to novel musical interaction scenarios, Proceedings of the 21st International Symposium on Electronic Art. Vancouver, Canada. August 14th-18th, 2015.
- O. Bown** (2015), Attributing Creative Agency: Are we doing it right? in Proceedings of the Sixth International Conference on Computational Creativity. Park City, Utah. June 30th-July 3rd, 2015.
- A. Eigenfeldt, **O. Bown**, B. Carey (2015), Collaborative Composition with Creative Systems: Reflections on the First Musebot Ensemble, in Proceedings of the Sixth International Conference on Computational Creativity. Park City, Utah. June 30th-July 3rd, 2015.
- O. Bown** (2015), Player Responses to a Live Algorithm: Conceptualising computational creativity without recourse to human comparisons? Proceedings of the Sixth International Conference on Computational Creativity. Park City, Utah. June 30th-July 3rd, 2015.
- O. Bown** and L. Loke (eds) (2015), Musify+Gamify: Catalogue, Musify+Gamify: Catalogue. Sydney. May 26th-June 6th, 2015.
- O. Bown** and L. Loke (2015), Playthings: the mishmashed world of musified games and gamified music. In Musify+Gamify: Catalogue. Sydney. May 26th-June 6th, 2015.
- O. Bown**, (2014) "Empirically Grounding the Evaluation of Creative Systems: An interaction design approach", in *Proceedings of the Fifth International Conference on Computational Creativity*, Ljubljana, July 10th-13th, 2014.
- O. Bown**, (2014) "A Model of Runaway Evolution of Creative Domains", in *Proceedings of the Fifth International Conference on Computational Creativity*, Ljubljana, July 10th-13th, 2014.
- O. Bown**, R. Bell, A. Parkinson, (2014) "Examining the Perception of Liveness and Activity in Laptop Music: Listeners' inference about what the performer is doing from the audio alone", in *Proceedings of the New Interfaces for Musical Expression Conference*, London, June 30th-July 3rd 2014.
- O. Bown**, R. Saunders, M. Tomitsch, (2014) "A Survey of Programmers' Practices for Handling Complexity in Creative Coding", in Proceedings of the xCoAx Conference, Porto, June 26th-27th 2014.
- L. Hespanhol, M. Tomitsch, **O. Bown**, M. Young, (2014) "Using Embodied Audio-Visual Interaction to Promote Social

Encounters Around Large Media Façades”, in *Proceedings of the Designing Interactive Systems*, Vancouver, June 21st-25th, 2014.

O. Bown and R. Saunders, (2013) "Multi-Feature Visualisations of Phenotypic Behaviour for Creative Interactive Evolution”, in *Proceedings of the Genetic and Evolutionary Computation Conference*, Amsterdam, July 6th-10th 2013.

M. Mitchell and **O. Bown**, (2013) "Towards a Creativity Support Tool in Processing: Understanding the Needs of Creative Coders", in *Proceedings of the OzCHI Conference*, Adelaide, November 25th-29th, 2013.

L. Hespanhol, **O. Bown**, J. Cao and M. Tomitsch, (2013) "Evaluating the Effectiveness of Audio-Visual Cues in Immersive User Interfaces", in *Proceedings of the OzCHI Conference*, Adelaide, November 25th-29th, 2013.

O. Bown, A. Eigenfeldt, A. Martin, B. Carey and P. Pasquier, (2013) "The Musical Metacreation Weekend: Challenges arising from the live presentation of musically metacreative systems", in *Proceedings of Artificial Intelligence and Interactive Digital Entertainment (AIIDE'13) workshops*, Boston, MA, October 14-15th, 2013.

A. Eigenfeldt, **O. Bown**, P. Pasquier and A. Martin, (2013) "Towards a Taxonomy of Musical Metacreation: Reflections on the First Musical Metacreation Weekend", in *Proceedings of Artificial Intelligence and Interactive Digital Entertainment (AIIDE'13) workshops*, Boston, MA, October 14-15th, 2013.

O. Bown, M. Young and S. Johnson, (2013) "A Java-Based Remote Live Coding System for Controlling Multiple Raspberry Pis", in *Proceedings of the International Conference on Computer Music*, Perth, August 11th-17th 2013.

O. Bown and A. Martin (2012) "Autonomy in Music-Generating Systems", in *Proceedings of Artificial Intelligence and Interactive Digital Entertainment (AIIDE'12) workshops*, Stanford University, CA, October 9th, 2012.

O. Bown (2012), "The Art of Behaviours (artist statement)". in *Proceedings of the Biome Symposium*, University of Sydney, August 18th 2012.

A. Martin, C. Jin and **O. Bown** (2012), "Implementation of a Real-Time Musical Decision Maker", in *Proceedings of the Australasian Computer Music Conference*, Brisbane, July 2012.

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O. Bown, D. Jones, S. Britton (2012), "Surface as Structure: The Multi-Touch Controller as Map of Musical State Space", in *Proceedings of the 9th Sound and Music Computing Conference*, Copenhagen, Denmark, 11-14 July, 2012. pp 226-232.

A. Martin, **O. Bown** and C. Jin (2011) "A Toolkit for Designing Interactive Musical Agents", in *Proceedings of the 23rd Australian Computer-Human Interaction Conference (OzCHI'11)*, Canberra, pp. 194–197.

O. Bown, J. McCormack and T. Kowaliw (2011) "Ecosystemic methods for creative domains: niche construction and boundary formation", in *Proceedings of IEEE Alife*, Paris, pp. 132-139.

M. Young and **O. Bown** (2010) "Clap-along: A Negotiation Strategy for Creative Musical Interaction with Computational Systems", in *Proceedings of the First International Conference on Computational Creativity*, Lisbon, Portugal, pp. 215–222.

J. McCormack and **O. Bown** (2009) "Life's what you make: Niche Construction and Evolutionary Art", in M. Giacobini, et. al. (eds), *Applications of Evolutionary Computing*, LNCS 5484, Springer, Berlin, Heidelberg, pp. 528–537.

O. Bown and J. McCormack (2009) "Creative Agency: A Clearer Goal for Artificial Life in the Arts", in *Advances in Artificial Life*, LNCS/LNAI 5777/5778, Springer, Berlin, Heidelberg, pp. 254–26.

O. Bown (2009) "Ecosystem Models for Real-Time Generative Music: A Methodology and Framework", in G. Scavone, V. Verfaillie, A. da Sliva (eds) *Proceedings of the International Computer Music Conference (ICMC)*, Montreal, Canada, pp. 537–540.

O. Bown (2009) "A Framework for Ecosystem-Based Generative Music", in F. Gouyon, Á. Barbosa and X. Serra (eds), *Proceedings of the 6th Sound and Music Computing Conference*, Porto, Portugal, 23-25th July 2009, pp. 195–200.

O. Bown and G. A. Wiggins (2007) "On the Meaning of Life (in Artificial Life Approaches to Music)", in *Proceedings of the 4th International Joint Workshop on Computational Creativity*, London, pp. 65–71.

O. Bown (2006), "The Extended Importance of the Social Creation of Value in Evolutionary Processes: A Proposed Model", in *Computational Creativity Workshop*, ECAI, Riva Del Garda, 2006.

O. Bown and S. Lexer (2006), "Continuous-Time Recurrent Neural Networks for Generative and Interactive Musical Performance", in *Springer Lecture Notes in Computer Science, Proceedings of EvoWorkshops*, LNCS 3907, pp. 652–663, 2006.

O. Bown and G. Wiggins (2005), "Modelling Musical Behaviour in a Cultural-Evolutionary System", in *Computational Creativity Workshop*, IJCAI, Edinburgh 2005.

Creative Outputs (since 2004)

Interactive Systems and Installations

O. Bown, J. Shave, C. Hill, C. Pegram, R. Ocampo, C. McFadden, S. Kroll, (2023). “Music of the Sails”, a generative music system commissioned for the Sydney Opera House’s 50th Anniversary. The system converted the realtime state of the building, via access to their building management system, to drive a generative music live stream. This was achieved using a novel approach of semantic interpretation via a large language model.

A. Cortese, A. Tregloan, R. Jarvis, G. Ruben, **O. Bown**, K. Mikolajczyk, S. Ferguson, (2023). “Belief System”, a 120 speaker sonic installation artwork created by Ranters Theatre and premiered at the Substation, Melbourne. The Interactive Media Lab delivered the technical system and provided sound design services.

O. Bown, S. Ferguson, A. Davies, K. Mikolajczyk, B. Carey, (2022), “Speech Bubble”, an interactive multiplicitous media artworks for Casula Powerhouse, commissioned for their Way Out West children’s festival.

O. Bown, S. Ferguson, A. Davies, K. Mikolajczyk, B. Carey, (2022) “Jams in the Hueosphere”, a multiplicitous live music and visual performance installation, commissioned by 107 Projects’ “107 on the Rocks”, with guest artists Party Dozen, Rydeen, Joe Manton, Gillian Kayrooz, Gauci, Flowerboy. Funded by a \$49,000 City of Sydney activation grant.

O. Bown, S. Ferguson, A. Davies, A. Dias Pereira Dos Santos, A. Fraietta (2020) “The Mind at Work”, a multiplicitous media artwork consisting of 300 Internet of Things media devices with quality speakers, producing a multi-point field of sound at the Performance Space, Casula Powerhouse Arts Centre, NSW. Significant technological improvements on the previous works.

A Rowe, **O. Bown**, L. Birtles (2019) “Murmuration”, a multiplicitous media artwork consisting of 720 Internet of Things media devices with quality speakers, producing a 720 point field of sound encircling the Scottsdale Museum of Contemporary Art, Arizona. Significant technological improvements on the previous works.

O. Bown, A. Fraietta, A. Lim-Klumpes, P. Hollo, S. Ahmad, E. Dorrian (2019). Spiral. A networked, semi-mechanical musical rendering of an original composition by Adrian Lim-Klumpes and Tangnets for the Powerhouse Museum, Sydney, part of the Museum of Applied Arts and Sciences. The work was an outcome of a research residency by Oliver Bown examining the Powerhouse’s collection of mechanical musical instruments.

A Rowe, **O. Bown**, L. Birtles, E. Klein (2017-ongoing) “Wave”, a multiplicitous media artwork consisting of 400 Internet of Things media devices with quality speakers, producing a 400 point field of sound. First shown at Salisbury Cathedral, December 2018. Other locations: Burning Man 2019, Canal Convergence, Phoenix, 2019.

A Rowe, **O. Bown**, S. Ferguson, L. Birtles, C. Bennewith, (2016-ongoing) “Bloom”, a multiplicitous media artwork consisting of 1,000 Internet of Things media devices. First shown at Christmas at Kew, Kew Gardens, London, December 2016.

L. Hespanhol, **O. Bown**, R. Couper, I. Kuzmanovska (2016). “Silent Island”, an interactive audio-visual, sound responsive, generative artwork for Vivid 2016. Circular Quay, May 27th-June 18th 2016.

Squidsoup (UK): Ocean of Light (2010-ongoing). Realtime 3D audio visual installation using LEDs. One of the earliest examples of a large-scale 3D LED grid. Presented at the Watershed, Bristol (2013), Oslo Lux (2012), Ars Electronica Festival (2011), Kinetica Art Fair (London 2010). Received Honorary Mention at Prix File Luxe (Brazil 2010). Designed and created by Squidsoup, sound design and some 3D agent programming by Oliver Bown.

O. Bown, S. Ferguson, B. Hatzius, R. Couper, I. Kuzmanovska, J. Narai, J. Murchison (2015) “PhaseFrames,” an interactive multi-screen installation for Vivid 2015. Martin Place, Sydney, May 22nd-June 8th 2015.

M. Young, **O. Bown**, L. Hespanhol, M. Tomitsch and R. Young: Solstice LAMP (2013). Commissioned by AMP’s Amplify Festival and presented as part of the Vivid Sydney Illuminati Buildings Series along with the Opera House and MCA, with an operating budget of \$70,000, Solstice LAMP was an interactive installation that transformed the 125m tall AMP building into an interactive audio-visual performance involving lasers, depth tracking cameras. I was involved in all aspects of concept development, and in charge of animation and generative music systems software development, in collaboration with composers and interactive systems programmers. The last night of Vivid attracted over 500,000 people.

C. Cynn (UK), V. Manz (Germany) and **O. Bown**: Future Pod (2013). A part of the DisSentience Exhibition at the Tin Sheds Gallery, Sydney, Future Pod continues award-winning film-maker Christine Cynn’s work in exploring reality through story-telling. The project asks scientists and citizens to weave together a collectively told sci-fi story based on their own research and lived experiences. I created a video-recording tool based on the surrealist game Exquisite Corpse, as part of an interactive installation that would allow individuals to contribute to a continuous video-story.

Aphex Twin (UK): Remote Orchestra (2012). Premiered at the Barbican, London. Software development for electronic music pioneer and Ars Electronica Prix Ars winner Aphex Twin (Warp Records). A system was developed to allow the artist to send spectral ‘control’ data over headphones to a 32 piece orchestra, enabling him to improvise with the orchestra as his instrument. Software development by Oliver Bown and Sam Britton.

O. Bown and E. Gee (Canada): ANIM.OS (2012). Tin Sheds Gallery, Sydney. An audio visual installation consisting of a network of discarded computers. The network could be performed as a multi-screen, multi-speaker instrument or run as a generative artwork. Vocal performances by Erin Gee were prepared as source material, played back using spectral synthesis methods to enable time manipulation effects and separation of harmonics across devices.

Robococo: Urban Fiction 2 (2011). Part of the Powerhouse Museum's Love Lace exhibition, Sydney. Realtime audio visual installation based on social media data visualisation. Designed and created by Rob Saunders and Petra Gemeboeck (Robococo) with sound design and interactive sound programming by Oliver Bown. Nominated for the exhibition's digital category prize.

O. Bown: Sonic Ecosystems, generative ecosystemic artwork series (2008-ongoing): Shunt arts space (London), International Computer Music Conference (Montreal), Club Transmediale (Berlin), Guildford Lane Gallery (Melbourne), Cube 27 (Frankston, Victoria). Realtime, generative multi-agent audio visual installations based on ecosystem dynamics, associated with the ARC Discovery Project "Computational Creativity: An Ecosystemic Approach" (Jon McCormack and Oliver Bown). All visual and sound design and programming by Oliver Bown.

Squidsoup: Driftnet (2007). Immersive 3D audio-visual environment, or "navigable composition" through which a user can "fly" using physical gestures, using a precursor to the Kinect. Part of the UK Arts Council curated Future of Sound Tour. Presented at The Sage (Newcastle UK), Goldsmiths (London), Shunt (London). Created as a collaboration between SquidSoup and Oliver Bown. 3D interactive sound design and mobile 3D sonic agents and environment programmed by Oliver Bown.

Performance Work

O. Bown and collaborators (including D. Reinhardt, L. Loke, S. Ferguson, M. Young, A. Fraietta, S. Gillespie, L. Bray): Distributed Interactive Audio Devices (2013-ongoing)

A series of concerts and live performances using a collection of miniature, portable, wireless audio computers with their own speakers. The computers can be remote-controlled from a central computer, over WiFi and can be used to produce multi-speaker musical performances quickly and easily in arbitrary spaces. Performances: Tin Shed Spots, Sydney (2013); International Computer Music Conference, Perth, with Miriama Young (2013); The NOW now, 107 Projects Space, Sydney (2013); xCoAx Conference, Porto (2014); NIME Conference, London (2014); NIME Conference, Brisbane (2016); NOW now Festival, Sydney (2018).

Live laptop performance with custom software development, including:

A. Lim-Klumpes, P. Hollo, S. Ahmad, E. Dorian, **O. Bown:** Tangents (2010-ongoing). An improvising ensemble with a focus on a rapidly shifting movement across genre boundaries during performance. The group combines electronic and instrumental playing in novel ways, facilitated by custom looping software tools that I have created with cellist Peter Hollo. Performances: New Music Network Mini-Series @ Seymour Centre, Sound Lounge (2013), Canberra Capital Jazz Festival (2013), ElectroFringe Festival, Newcastle (2013), Megaphon Studios, Sydney (2010), New Immersion @ The Rocks, Vivid Sydney Music (2012), 45 minute live studio session for the ABC's Sound Quality show (recorded 2013, aired 2014), National Gallery of Victoria (2017), Womadelaide (2017), Music by the Sea, Brisbane (2017), Manning Bar, Sydney, supporting Tortoise (2016), Unashamedly Original Festival at City Recital Hall (2017); Melbourne Recital Centre (2018); Bellingen Winter Festival (2018); Phoenix Central Park (2021); Dark MoFo, Hobart (2021); Sydney Opera House / Vivid (2022); Melbourne International Jazz Festival (2022).

O. Bown and S. Britton: Icarus (1998-ongoing). Icarus is an improvising electronic music duo consisting of Oliver Bown and Sam Britton, critically acclaimed internationally. Recent significant performances: the Bimhuis for the Viral Radio Festival (Amsterdam), the Paradiso for the Sonic Acts Festival (Amsterdam), Cafe OTO (London), DIEM (Arhus), the Sonic Arts Expo (Plymouth), the AudioVisiva Festival (Milan), Norberg Festival (Sweden). Icarus have also been awarded two artist residencies at STEIM in the Netherlands. Icarus' music has been played on national and local radio in numerous countries, including the ABC, BBC, Italian National Radio and Danish National Radio.

O. Bown, solo performances (2007-ongoing). Significant performances include London Headphone Festival (2008), Electrofringe Festival (Newcastle, NSW 2011), Cockatoo Island FBi Radio showcase (Sydney 2011).

O. Bown, other improvised performances (2005-ongoing) with Brigid Burke, Tom Arthurs, Lothar Ohlmeier, Peter Hollo, Adrian Klumpes, Shoeb Ahmad, Evan Dorrian, Adrian Sherriff, Alice Eldridge.

O. Bown: Zamyatin (2010-ongoing). Autonomous improvising music system. Originally commissioned by Non-Fiction media arts, Amsterdam, for the North Sea Jazz Festival. Performed with Tom Arthurs, Lothar Ohlmeier and Isambard Khroustaliyov at the North Sea Jazz Festival, Rotterdam (2010), NK media arts centre, Berlin (2010), King's Place, London (2012). Further performances of the work developed for this initial commission were given at the Australasian Computer Music Conference, Canberra, with Brigid Burke (2011), The Centre for New Music and Audio Technologies, UC Berkeley, California, with Ritwik Banerji (2012), ISEA, Sydney, with Roger Dean (2013), the Powerhouse Museum, Sydney, with Peter Hollo (2013), and the Fei and Milton Wong Experimental Theatre, Vancouver, with François Houle (2013); ACALCI Conference, Newcastle, with Ben Carey (2015); Tempo Reale, Florence, with Chris Redgate (2017); BCC Radio 3 Late Junction, with Charles Hayward (2018).

Curation

O. Bown, L. Loke (2015): Musify+Gamify. Seymour Centre / Vivid Sydney / University of Sydney. A major exhibition and concert set with over 30 artists, including the commissioning of new work from Chris Abrahams and Robbie Avenaim, Ensemble Offspring, and Lucas Abela.

- O. Bown**, A. Eigenfeldt (2016). Musical Metacreation Concert at ICCA 2017, Atlanta.
- O. Bown**, A. Eigenfeldt (2015). Musical Metacreation Concert at ISEA 2015, Vancouver.
- O. Bown**, A. Eigenfeldt (2014). Musical Metacreation Concert at Café Oto, London, part of NIME 2014.
- O. Bown**, A. Eigenfeldt (Canada), P. Pasquier (Canada), I. Zavada: The Musical Metacreation Weekend at ISEA 2013, Sydney. A concert series presented as an associated event with the International Symposium on Electronic Arts in Sydney 2013, and held at the Sydney Conservatorium of Music. The event was curated via a call for contributions and featured invited works from well-known generative music systems composers Agostino di Scipio and Shlomo Dubnov. It involved 23 contributed pieces and 6 local musicians. It was supported by an International Program Development Fund award of \$12,000 from the University of Sydney.
- O. Bown**: Live Algorithms for Music workshops and concerts (2009-2012). At Goldsmiths and Cafe OTO, London (2009), and at Guildford Lane Gallery, Melbourne (2010). Previous incarnations of the above event.
- O. Bown** and J. Nichols: Tin Shed Spots (2013-2015). A concert series run every two months in association with the Tin Sheds Gallery, Sydney, exploring experimental uses of technology in music.

Software

- O. Bown**, S. Ferguson, A. Fietta (with contributions by S. Gillespie and O. Coleman) (2013-ongoing). HappyBrackets. A creative coding toolkit for the Internet of Things, enabling easy programming of audio programs on devices such as Raspberry Pi. <https://github.com/orsjb/HappyBrackets>
- O. Bown**, O. Coleman, P. Gough, HiVis. A Processing library for data visualization. Commissioned by University of Sydney medical school for the creative teaching of programming to medicine students. <https://github.com/OliverColeman/hivis>
- O. Bown** with contributions from B. Porter, B. Crawford, E. Merz and A. Martin (2008-ongoing): Beads. A software library for realtime sound and music for the Processing environment. Receives 300 downloads a month and is used to teach an introduction to programming audio systems. <https://github.com/orsjb/beads>
- C. Lane and **O. Bown**: Deja Vu (2008). A user-friendly composition environment built as a wrapper around the OMRASII suite of audio feature and similarity measurement tools. Deja Vu allowed a user to seek similar sounds from a large database of audio. Commissioned by the Creative Research in Sound Arts Practice group at the London College of Communication. Used in new works by the composer Aki Pasoulas.

Recorded musical works

- Tangents: Timeslips & Chimeras (Temporary Residence, 2021).
(Tangents are **O. Bown**, A. Lim-Klumpes, P. Hollo, E. Dorian, S. Ahmad.)
- Tangents: New Bodies (Temporary Residence, 2018). Longlisted for the Australian Music Prize. Included remixes by Jim O'Rourke and Katie Gately.
- Tangents: Stents+Arteries EP (Temporary Residence, 2018).
- Tangents: Maze Crescent EP (Temporary Residence, 2017). Included remixes by Marcus Whale and Kane Ikin.
- Tangents: Stateless (Temporary Residence, 2016). Included remixes by Four Tet, Bundy K Brown (Tortoise) and Rabbit.
- Ben + Zamyatin: Ben + Zamyatin (Not Applicable Records, 2013). Written and performed by **O. Bown** and B. Carey.
- Tangents: I (hellosquare / Not Applicable Records, 2013). Written and performed by **O. Bown**, S. Ahmad, A. Lim-Klumpes, P. Hollo, E. Dorrian. A track from I was featured on The Wire Magazine subscribers CD (2013).
- Icarus: Fake Fish Distribution - An album in 1,000 variations (Not Applicable Records, 2012). Written and performed by **O. Bown** and S. Britton. Supported by STEIM, Amsterdam and promoted by the software manufacturers Ableton. The project received press interest including a feature on the ABC's Catalyst science show, a feature in the music magazine Q, the websites of Cycling '74 and Ableton, makers of the software used for the project, and the popular music technology website Create Digital Music.
- The Not Applicable Artists: Long Division (Not Applicable Records, 2012). Written and performed by **O. Bown**, S. Britton, T. Arthurs, L. Olhmeier. Selections feature on the Computer Music Journal annual CD for 2011.
- Oliver Bown and Brigid Burke: Erase (Not Applicable Records, 2011). Written and performed by **O. Bown** and B. Burke. A track from Erase was featured on BBC Radio 3's Late Junction show (2011).
- Icarus: All is for the best in the best of all possible worlds (Not Applicable Records, 2010). Written and performed by **O. Bown** and S. Britton.
- Icarus and guests: Sylt Remixes (Rump Recordings, 2009). Written and performed by **O. Bown**, S. Britton and guests. Nominated for Quartz electronic music award, France 2009.
- Icarus: Sylt (Rump Recordings, 2007). Written and performed by **O. Bown** and S. Britton. A track from Sylt was featured on The Wire magazine subscribers CD.
- Icarus: Carnavalesque (Not Applicable Records, 2005). Written and performed by **O. Bown** and S. Britton.
- Icarus: I Tweet the Birdy Electric (The Leaf Label, 2004). Written and performed by **O. Bown** and S. Britton. Selected

by the Wire Magazine as one of their top 10 electronic music albums of the year.

Miscellaneous tracks and remixes:

Reuben Ingall, remixed by Tangents (2017).

Springintgut, remixed by **O. Bown** and S. Britton (2013).

Boy King Islands, remixed by **O. Bown** and S. Britton (2013).

Badun, remixed by **O. Bown** and S. Britton (2013).

Icarus v Badun: Flensburg EP (Not Applicable Records, 2011). Written and performed by **O. Bown**, S. Britton, O. Dukert, A. Krammer.

Caribou, remixed by **O. Bown** and S. Britton (2011).

Dead Friend, remixed by **O. Bown** and S. Britton (2011).

Eclectic Method featuring Chuck D, remixed by **O. Bown** and S. Britton (2011).

Aria Rostami, remixed by **O. Bown** (2011).

Infinite Decimals, remixed by **O. Bown** (2011).

Favourite Places 2, track contributed by **O. Bown** and S. Britton (2009).

Not Applicable Artists: An introduction to Not Applicable (Not Applicable Records, 2007). Contributions by **O. Bown**, S. Britton, T. Arthurs, L. Ohlmeier, M. Ravalico and guests.

Referees

The following is a list of previous/potential referees. Please notify me before approaching referees.

Prof. Georgina Born

Relationship: lead CI on ERC Advanced Grant, Music and AI.

Professor, UCL Institute of Advanced Studies.

Email: g.born@ucl.ac.uk.

Telephone: unavailable.

Prof. Andrew Brown

Relationship: regular collaborator.

Professor, Queensland College of Art.

Email: andrew.r.brown@griffith.edu.au.

Telephone: +61 (0)7 3735 6252

Prof. Lian Loke

Relationship: regular collaborator and previous colleague at Design Lab, University of Sydney.

Associate Professor, Design Lab, University of Sydney.

Email: lian.loke@sydney.edu.au.

Telephone: unavailable.

Prof. Arne Eigenfeldt

Relationship: regular collaborator on Musical Metacreation organising committee and related projects.

School for the Contemporary Arts, Simon Fraser University.

Email: arne_e@sfu.ca.

Telephone: unavailable.

Prof. Geraint Wiggins

Relationship: My PhD supervisor and occasional collaborator.

Professor of Computational Creativity, Artificial Intelligence Research Group, Vrije Universiteit Brussel.

Email: geraint@ai.vub.be.

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Prof. Philippe Pasquier

Relationship: regular collaborator on Musical Metacreation organising committee and related projects.

School of Interactive Arts and Technology, Simon Fraser University.

Email: philippe_pasquier@sfu.ca

Telephone: +1 778 782 8546

Prof. Jon McCormack

Relationship: I was RA for A/Prof McCormack, 2008-2010.

SensiLab, Monash University.

Email: Jon.McCormack@monash.edu

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Prof. Michael Casey

Relationship: Professor at Goldsmiths whilst I was doing my PhD, occasional collaborator.

James Wright Professor of Music, Professor of Computer Science.

Bregman Media Labs, Dartmouth College, US

Email: mcasey@dartmouth.edu

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Description of the research group

We are the Creative Technologies Research Lab (CTRL) based at the School of Art & Design, at the University of New South Wales, Sydney, Australia. We are a creative community interested in the impacts of new technologies on creative practices.

<https://www.unsw.edu.au/arts-design-architecture/our-schools/art-design/research/research-groups/creative-technologies-research-lab>

Description of the work to be carried out by the student

This project will explore music performance and creative arts systems that combine machine learning with evolutionary computation to explore new forms of creation. This could involve developing live evolutionary music systems for our 256 speaker array at the National Facility for Human Robot Interaction.