Making micromusics: musical summarisation for sonic branding

WRoCAH funded Collaborative Doctoral Award between Department of Music & Department of Computer Science, University of Sheffield and Maison Mercury Jones

Lead Academic and Partner Organisation Supervisors

Prof Nicola Dibben  
Department of Music  
University of Sheffield

Ilā  
Composer and Creator  
Maison Mercury Jones

Prof Guy Brown  
Department of Computer Science  
University of Sheffield

Dr Ning Ma  
Department of Computer Science  
University of Sheffield

Project summary

The contemporary mediascape of sonic branding is characterised by short-duration music (sound logos, video clips) for which current compositional methods are ill equipped. This collaboration with sonic branding agency Maison Mercury Jones, draws on musical, cognitive and computational approaches to investigate sonic identity across musical materials of different durations, propose a theoretical framework for sonic identity in branding contexts, and create musical summarisation software helpful to sound branding practitioners.

PhD Project description

Sonic branding features in multiple places in the contemporary mediascape: in longer-form broadcast media of TV ads and background music to the short duration social media clips and sonic logos afforded by the new media niches of mobile computing. This
The project addresses a conceptual and practical challenge: what constitutes a coherent sonic identity across multiple ‘touchpoints’ of different durations?

Reducing sound in temporal space in a meaningful way is a non-trivial task into which there has been extensive research: music theoretic approaches posit the cognitive reality of reductional representations (Huron, 2000) and music information retrieval approaches use audio thumbnailing techniques, intended to produce short representative samples of music tracks (Raposo et al., 2016). Time compression and harmonic reduction are unsatisfactory since they omit what is often perceptually important (rhythm, melody, timbre), and concatenating evenly distributed short excerpts can miss perceptually relevant moments. Identifying a single salient short excerpt, or concatenating distributed salient excerpts, is often preferred, but does not take into account critiques of MIR’s abstraction of musical material from the social (Born, 2022). A critical review of music summarisation techniques will guide a behavioural experiment to help determine how best to condense long-form music into smaller temporal packages. The aim is to retain qualities (meanings, musical structures etc) deemed important in the original by listeners and creatives for sonic branding purposes. This will be used to develop a music summarisation software.

This is proposed as a PhD by publication (three journal articles) with a practice component (music technology software tool design) in order to quickly disseminate the research and maximise its impact for current sound branding practice. Other PhD formats will be considered.

This interdisciplinary project addresses innovation in the creative industries. It answers intellectually challenging research and innovation questions by connecting complementary strengths in music, cognition and AI at the University of Sheffield (research groups MMM and MiMA) with unique expertise in sound branding (ilā).

**About Maison Mercury Jones**

Maison Mercury Jones are a sonic branding agency working across composition for marketing campaigns, sonic identities, artist booking and brand and music partnerships. Led by renowned musicians, award-winning strategists and supported by Grammy nominated producers and composers, they are founded on the belief that the pillars of diversity, science and technological innovation are the key to excellence in music for brands. They support and collaborate with artists that are currently underrepresented in the music and marketing industries, including Female, Trans+, LGBTQ+, diverse ethnicities, class, dis/abilities and ages, to compose innovative and effective soundtracks for brands. They pride themselves on being the first creative agency entirely POC / Queer / Female / Trans+ led.

The CDA partnership will:
- Enhance knowledge about musical ‘summarisation’
- Use a participatory design process in the context of commercial music making and client briefs
- Create a software tool for music summarisation in sonic branding

**Engagement, outreach, dissemination and Impact Initiatives**

Results from the project will be disseminated by the student through multiple channels to a variety of stakeholders.

- The sonic branding partners who will use the knowledge in their professional practice
- The business clients who will benefit from the music/sound made using these ideas
- A stakeholder workshop
- An academic-practitioner study day/conference session

**Financial support**

Studentships for doctoral research are 40 months in duration for full-time study. Awards are subject to satisfactory academic progress. Awards must be taken up in October 2023; no deferrals are possible. Awards will comprise fees at Research Council rates and a maintenance grant (£17,668 in 2022/23). The grant pays the fees at the Home/UK rate; international students are, however, eligible to apply for this Studentship and the difference between the Home/UK and International fee will be met by the University of Sheffield for a successful international applicant. Awards may be taken up on a part-time basis if a student is eligible to undertake part-time study; international applicants may be required to study full-time by the terms of their visa.

**Qualifications**

Applications are invited from students with a good first degree in an appropriate subject (e.g. music, computer science, music technology, psychology) and a Distinction in a Master’s degree appropriate to the topic (or strong evidence of working experience at an equivalent outstanding level). You should have some experience of computer programming (e.g. Python), and the ability to apply your programming skills to a music-related project. Experience of machine learning is not essential but desirable. We particularly welcome applicants who self-identify as being from underrepresented groups.
Requirements of the Studentship

WRoCAH students are required to undertake a bespoke training package and to complete a Researcher Employability Project of at least a month, a Knowledge Exchange Project, and to engage with Internationalisation.

All WRoCAH students must submit their thesis for examination with the funded period. This is a requirement of the Arts & Humanities Research Council, which provides the funding for WRoCAH, and is a condition of accepting a Studentship.

Before applying for any WRoCAH Studentship, please first ensure that you have read the WRoCAH webpages about the WRoCAH training programme and requirements, as well as other funding opportunities http://wrocah.ac.uk/

How to apply

By 5pm Wednesday 8 March 2023, applicants are required to submit to WRoCAH an Expression of Interest, which should include:

1. A CV with details of academic qualifications

2. A covering letter comprising a two-page statement to convey your motivation and enthusiasm for the project, and to demonstrate your suitability for your intended PhD studies with the University and Project Partner.

   The covering letter should specifically highlight the following:

   ■ Your interest in the project and details on why you have chosen that University and Project Partner.

   ■ How you will apply your current skills, knowledge and experience to undertake a PhD and the approach you would take to develop the project.

   ■ How the project fits into your career plans and ambitions.

Expressions of Interest must be submitted via this form.
• **17 March 2023: decision on short-listing**

The short-list of candidates to be invited for an interview will be announced on Wednesday 17 March 2023. *Short-listed candidates must complete a PhD programme application before interview.* If you are short-listed for an interview you will be sent details of how to apply for a place at the University of Sheffield. At that point you will need to submit the names and contact details of two referees, copies of transcripts of your academic qualifications and (if applicable) an IELTS certificate.

• **w/c 17 April 2023: interviews**

Interviews will involve the academic supervisor, Project Partner supervisor and a member of the WRoCAH Studentships Committee. They will be conducted online.

For more information about this project contact

Prof Nicola Dibben (n.j.dibben@sheffield.ac.uk)