



School of Computing, Engineering, and the Built Environment Edinburgh Napier University

PHD STUDENT PROJECT

Funding and application details

Funding status: Self funded students only

Application instructions:

Detailed instructions are available at <https://blogs.napier.ac.uk/scebe-research/available-phd-student-projects/>

Prospective candidates are encouraged to contact the Director of Studies (see details below) to discuss the project and their suitability for it.

Project details

Supervisory Team:

- DIRECTOR OF STUDY: Dr Rod Selfridge (Email: R.Selfridge@napier.ac.uk)
- 2ND SUPERVISOR: Dr Iain McGregor

Subject Group: Applied informatics

Research Areas: Computer Science - other

Project Title: Equally Safe Sound Design

Project description:

This aim of this research is to identifying emotions women might perceive when harassed or intimidated in public spaces and how these emotions might be represented sonically. Findings of this research will then be incorporated within sound designed outputs in order to maximise empathy. Outputs will engage the public, bringing to their attention the prevalence of these incidents and the emotional effect it has on its victims. High impact outputs could include serious games [1, 2, 3], sound maps [4, 5], AR applications [6] and VR experiences [7].

Harassment of women and girls in public spaces is an all too common and underreported issue, affecting a significant portion of the female population. A UK

government, all-party parliamentary group survey found that 71% of women have experienced sexual harassment, increasing to 86% of 18–24-year-olds [8]. In contrast, the 2022 BBC / YouGov survey shows that only 5% of women reported these incidents which occurred when walking alone [9].

Equally Safe is the Scottish Government's strategy for tackling violence against women and girls [10]. One of the main emphases is on the importance of proactive engagement to support behaviour change of those who may carry out violence against women and girls. One of the key drivers of behaviour change is empathy among those receiving the information for the victims, [11]. Empathy is defined in [12] as an emotional response to a person's understanding and perception of a stimulus emotion.

In media and interaction design [13], the sound design of any output is one of the main drivers evoking empathy to the emotional context of the content or interaction [14, 15, 16, 17]. This research intends to investigate emotion and the corresponding sounds associated with harassment and intimidation of women and girls in public space. By understanding these it should be possible to employ novel sounds and sound design techniques to evoke empathy in others in relation to these incidents. It is envisaged that outputs derived from this research will support and scaffold behaviour change in those who might commit harassment and intimidation of women and girls in public spaces.

References:

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- [13] Pauletto, S., Selfridge, R., Holzapfel, A., & Frisk, H. (2021). From Foley professional practice to Sonic Interaction Design: initial research conducted within the Radio Sound Studio Project. In Nordic Sound and Music Computing Conference.
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Candidate characteristics

Education:

A first-class honours degree, or a distinction at master level, or equivalent achievements in Computer Science, Sound Design, Sound and Music Computing Music Technology or Acoustics

Subject knowledge:

- Sound Design
- Interaction Design

Essential attributes:

- Sound Design principles
- Good written and oral communication skills
- Strong motivation, with evidence of independent research skills relevant to the project
- Good time management
- Audio programming fundamentals
- Interest in safety of women and girls