



Performing The Soundscape With Third Age Adults: The Derry Soundscape Project

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Abstract

This paper will focus on a creative process that took place in Derry Northern Ireland in June of 2014 and culminated with the production of a CD of sound art works. The project engaged a group of older adults, who were members of the University for the Third Age (U3A) in Derry, to explore sound art through mobile technologies. During a two-week workshop period these participants recorded various soundscapes within Derry, edited and designed sounds on mobile technologies, and created a series of sonic art works for publication. The following paper discusses the processes and practices used to introduce sound art and technology to this group.

Introduction

In 2014, the Irish Research Council funded a project that sought to generate interest amongst older adults in mobile creative technologies and software. The project focused on soundscape art and sound design as processes for engaging older adults with their

social spaces and the production of sonic art works. The project ran over a 9-month period and included a two-week workshop with a group of third age adults based in Derry, Northern Ireland. This fulltime workshop consisted of training three people aged between 65-70 in the area of gesture based audio technologies on iOS devices, deep listening methods, soundscape recording and gesture based performance.

The ageing digital divide

Much of the language used today to discuss technology and older adults' participation with it revolves around the concept of the digital divide. There are several reasons ascribed to the digital divide; economics, gender, age and nationality are some of the factors, which are seen to limit certain social groups' access to or engagement with digital technology (Abad 2014). Key reasons offered for improving accessibility include the digital economy - for example access to mobile technologies, the internet of things - research into the future of AAI technology and older adults (Skouby et al. 2014), and the potential for the internet to offer people access to information, knowledge and networking capabilities (Bazalgette et al. 2011).[1] Deursen et al argue "the differential possession of digital skills" (2011:126) is seen as necessary in a rapidly changing digital world. However, what defines digital skills is "Internet skills", seen as a necessity amongst older adults because of the scope in which people can engage socially within the space of the World Wide Web. Policy makers believe that with the exception of a small minority of older adults, most people have access to the Internet and have a basic understanding of how to use it (van Deursen et al. 2011:126). Van Deurson et al argue that this differs greatly from the general public, who believe "that Internet skills are not equally distributed in society" (2011:126). Some argue that the growing digital divide

could be considered an emerging “technological apartheid” (Abad 2014), in which certain social groups are increasingly excluded because of reasons of age, class or gender. Sometimes there is a link between all three, with working class older adults, particularly women, who have had limited access to education in their childhood, being unable to access digital technologies, including the training necessary to develop digital skills. This gap increases as they get older, sometimes as a result of what, following Giddens (1986), may be seen as the structures that influence people’s participation in the digital community. Livingston and Helsper argue that some of the key reasons older adults do not engage with technology are a 'lack of skills' and a 'fear of technology' (Livingstone and Helsper 2007:8). This was supported by the feedback given by the participants of the Derry Soundscape project, where they stated that they 'didn't know what to do with their technology'; most owned some form of mobile device whilst two owned tablets - iPad and Samsung. The female participant would bring her iPad in to a computer store at least once a week because an assistant would help her with any problems that arose. When he left the store she felt unable to work with the device.

The Derry Soundscape project had two interrelated goals: 1) to use sound art to consider and move beyond the digital divide and the ways that it is commonly conceptualised in relation to particular skills (such as “Internet skills”); and 2) fostering technological confidence and bringing up design issues, the workshop aimed to promote awareness of the soundscape, place and memory. These goals fed into one another. The workshop was not solely about technology - not just about learning practical skills - but neither was it only about the soundscape and sound studies. The approach of the workshop resonates

with some other participatory action research and research-creation projects working with seniors and digital technology (Fisher and Specht 1999; Light et al. 2009).

Workshop

At the beginning of the Derry Soundscape project it was important to find a place that supported third age adults in continued learning through the provision of space and access to other support systems. The University for the Third Age, U3A, is a space which explores and allows for the continued learning of older adults. It is one of a number of such organisations on the island of Ireland and in Europe.

The group that participated in the workshop consisted of two men and one woman, with varying degrees of knowledge of computer or digital technology. Two members of the group were connected in some way to the arts; the woman had been part of a female music band for a number of years and one of the men was a published poet. The third participant had worked in business all of his life and had joined up out of curiosity. They had all lived in Derry for most of their lives and were connected in varying ways to the community and city.

The workshop was developed as a way to introduce the participants to a range of audio-based applications designed for the iPad. One of the goals was to find an easy way for people to engage with sound as an art form while learning to use a range of technologies. The workshop was divided into three parts focused respectively on: 1) the use of digital audio recorders, field recording and vocal recording techniques; 2) uploading and accessing audio files from a cloud space (Dropbox), importing audio files and audio

editing; and 3) sound design and gesture based audio applications. The group also took part in a soundwalking exercise documenting the soundscape of Derry. The three stages of the workshop crossed over in various ways. For instance, during the first week we explored the iPad and editing, listening to sound recordings, using a digital audio recorder and deep listening as a practice. The first weekend concluded with making field recordings of the Derry soundscape. The second week involved working with the sounds the participants had recorded, editing and shaping them, exploring gesture based composition using a variety of audio applications, and finalising participants' finished works.

Composing the soundscape

The workshop began with an introduction to sound art and sound studies. A number of sonic art works were played during the first week, including works by Slavek Kwi, Eric Leonardson, Milena Droumeva and some of my own pieces. In asking participants to engage with the concept of creating sound art it was necessary to introduce them to a number of concepts which have emerged during the 20th century including acoustic ecology, Pauline Oliveros's Deep Listening method (2005) and soundscape studies (Schafer 1993). This was a brief introduction but it informed them of the scope and potential of sound as an art form and area of theoretical conceptualisation. In listening to different sonic art works, participants gained an awareness of the potential of sound to reconceptualise a moment, experience or memory. This helped shape ideas about what they would record and why. One participant, a published poet, recorded teenagers reading lines of his poetry, then layered the sounds of Derry city, abstract sounds and music over these readings. Another participant created a sonic artwork that reflected his

passion for car engines. The third participant focused on singing a narrative of Derry's past, which overlaid a recorded journey of the city. [2]

1. "Belfast Rose" — composed by SAM BURNSIDE AND LINDA O'KEEFFE

1:54

2. "My Kind of Music" — composed by DAVID CANNING

4:00

3. "Song in a cafe with bells" — composed by FLORENCE FORBES

3:51

Workshop: active listening and sound design

During the workshop the process and practice of sound making was emphasised over the technology required to undertake the production of art works. The idea was to remove the focus on technology from the discussion, to emphasise its potential as a tool for creativity. I have found in previous discussions with older adults that focusing on the technology is off-putting when they cannot see a particular reason for learning something. The intention was to talk about sounds that participants were interested in, the stories they would like to tell through their sounds, how certain sounds trigger memories having explicit or implicit meanings, and finally, what sounds were unique to Derry. By focusing on sonic materiality rather than technology, the group were more animated in their discussions. On the third day of the workshop, when learning about recording with a digital recorder (a Zoom H2) the group went outside of the U3A

building, a space surrounded by trees and fields located below a major bridge crossing the Foyle river, to practice using their devices. On returning to the room the focus of the discussion was steered, by the participants, towards their impression of the soundscape rather than how well they got on with the tech. The overwhelming response, which shaped a much larger discussion, was how loud the soundscape was – an unexpected experience as they had always associated the visible presence of nature in the area as somehow meaning the space was quiet in comparison to a town. The group then began to talk about loud sounds and quiet sounds as having different meanings depending on where the sound was produced and what the sound was. We talked briefly about the Zoom recorders and participants asked if they could take them home for the duration of the workshop to explore recording different sounds. This interest in recording was unexpected, as only one day had been planned for a field-recording trip, but after one afternoon of active listening participants wanted to continue in their own time and in spaces that were familiar to them.

One facet of the production of sound during the workshop was the use of gesture based performance applications. Studies on gesture and gesture based applications have found that in comparison to other age groups older adults approach gesture based technologies differently (Rico, Crossan, and Brewster 2011). The movement of the hand as a gestural tool in normal modes of communication (talking) is different when touching a screen to communicate ideas. The gestural processes design of iOS applications often use “arbitrary hand positions designed for the system, rather than something resembling our everyday conversational gestures” (Rico et al. 2011:176). The result of this design has led to a limited engagement with gesture-based applications by

most age groups. Instead, one must consider the user as an essential part of the design of gesture based application. Although older adults physical abilities may alter as they age, these variables are not limited to an older population. Banes and Seale argue that people with physical and mental impairments often have difficulties accessing or using information and communications technology. They suggest, "a computer should be adapted to the needs of the user, not the other way round" (2002:2).

Exploring the gestural potential of different applications in the workshop led to discussions about the movements required to create types of sounds, and how comfortable participants were with this form of technology. In advance of the workshop three properties were considered in relation to working with iOS applications: responsiveness, accessibility and interaction (see Figure 1).



Figure 1 - Editing and Importing

Responsiveness

Applications used during the workshop needed to allow the user to place both hands on the screen to create sound without causing the app to crash, so that if participants had any issues with their joints or movement this would not create problems. Often an application will freeze or close if too many options are selected. One participant had finger and joint issues and the app TC11 worked very well for him – he could place all fingers down and move around the screen while still generating an interesting and musical sound.

In addition, TC11 also responded to tilting the iOS device, meaning there were more ways in which to shape the sounds than just touch. It was important that the movement corresponded with meaningful changes to the sounds that could be learned over time. So for example in TC11 tilting meant increasing or decreasing the playback speed of the sound.

Accessibility

Because of the potential for different abilities of hearing and vision amongst the participants it was necessary to anticipate what might be considered overwhelming on a screen. For example, the iPad 2 has a 9 inch screen, an interface with dozens of buttons, colours, lots of tiny words and floating panes which might prove difficult to engage if one has poor vision and/or limited dexterity. Hawthorn (2000) argues that even though computing has become ubiquitous, the design of interfaces rarely include the aging population in the methodologies of technological and software design. This gap means that most technologies, from phones to the internet, can become inaccessible because

such factors as different abilities of hearing and vision, reduced sensitivity to colour and light, and cognitive capacities are ignored (Helve and Krause 1972). To counteract these problems several applications were chosen for their simple interface design, very little text, and limited colour palette. These were,

- Hokusai-audio editing
- TC11-gesture based performance application
- Dropbox-cloud sharing application

These apps had what seemed to be the most intuitive and user-friendly interfaces (see figures 2-6)



Figure 2 - Hokusai Editor

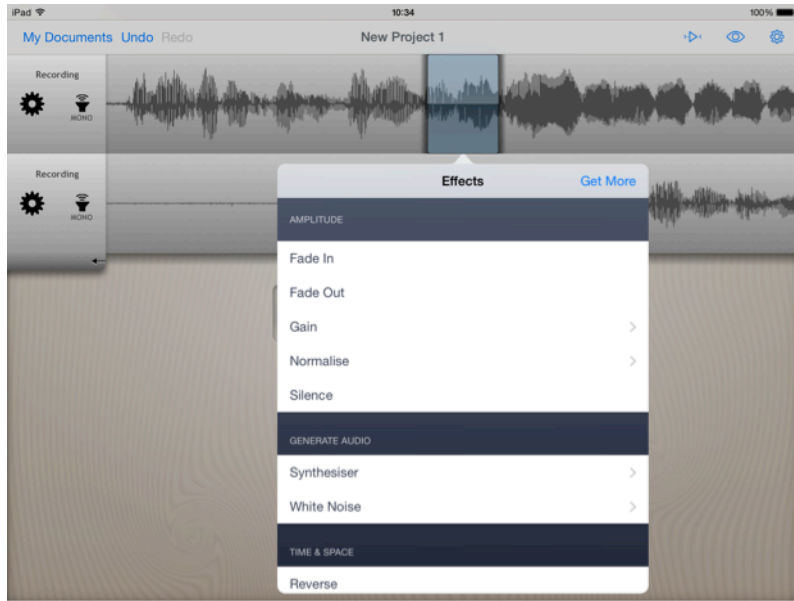


Figure 3 Hokusai effects pane

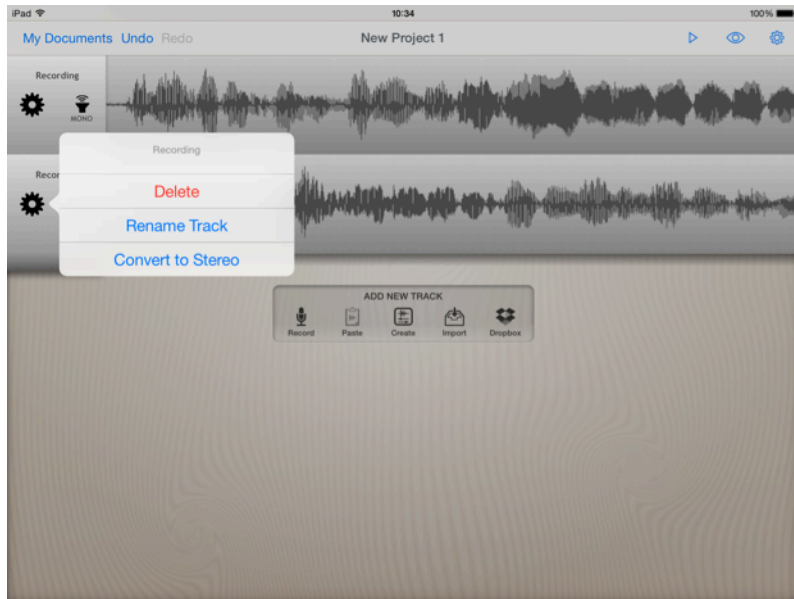


Figure 4 Hokusai Track Information Pane

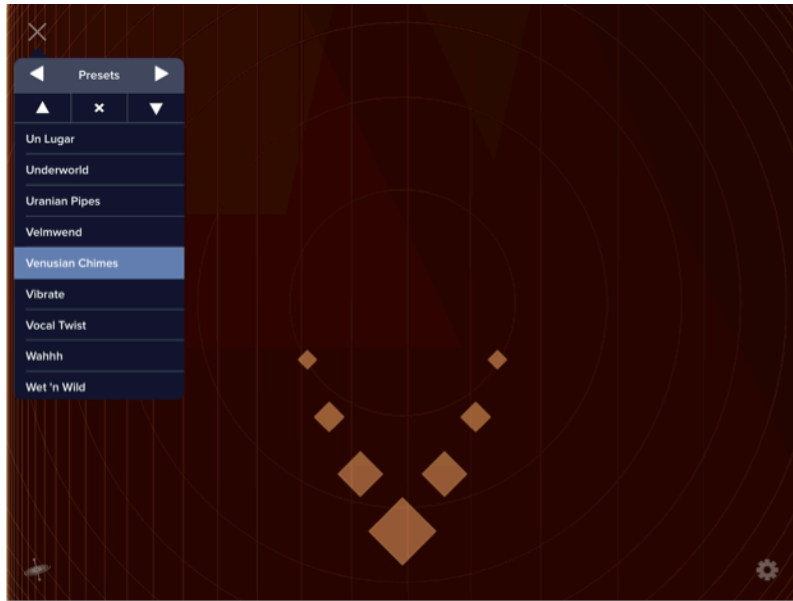


Figure 5 TC11 Pre-Set Pane

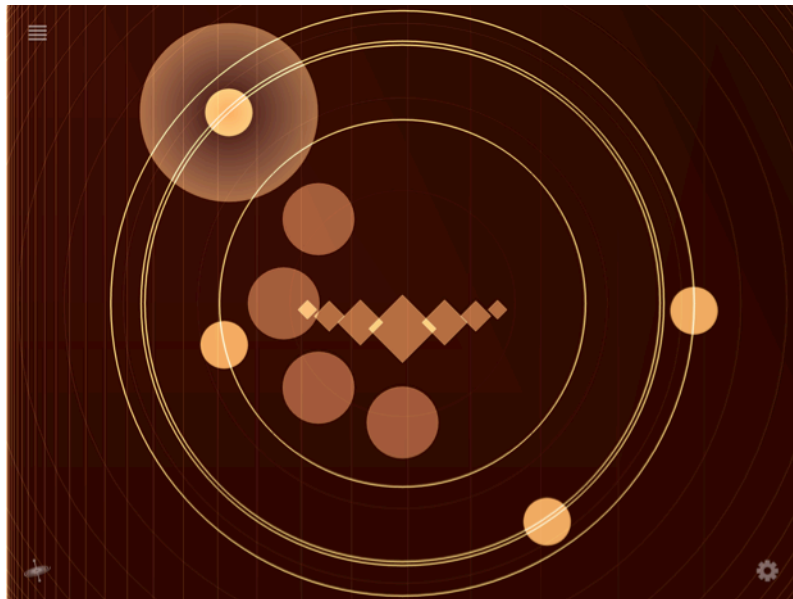


Figure 6 TC11 Image produced in response to touch

Interaction

Part of the focus of the workshop was to examine the possible interaction potential between the user and a chosen application. Over the two weeks each application was examined for potential usability, how it might be better designed and how it shaped or negated participation. This process was part of the larger interrogation of interaction design, asking how an application could be more accessible if designed for a particular user. Klemmer et al (2006) assert that the bimanual dexterity learned while using a computer has meant that “with a keyboard and mouse interface, the use of our bodies for writing a paper is the same as for editing photographs. And playing music. And communicating with friends and family. And anything else that one might want computation for” (2006:140). The keyboard and the mouse, and associated shortcuts, work across many platforms. If you have a basic understanding of one platform, theoretically you can apply this to all. IOS devices have altered this relationship to computational media, with the engagement occurring through touch screen and gesture-based interfaces. By working with gesture-based technology it can become clear, quite quickly, what does and does not work to engage a user in pragmatic action.

The first sound editor, Hokusai, was taught to the participants within an hour on the first day, and it was immediately found that in its simplicity there was very little opportunity for experimentation. The program allowed for cutting, pasting, moving and saving, but very little in the way of affecting or transforming sounds. Having discussed ideas about the potential of sound design, the group felt that there was little they could do with their sounds within the Hokusai application. The group was then introduced to a more sophisticated audio editing application, Auria. I had initially dismissed this application because of its complexity. Auria was built as a mobile DAW designed for audio professionals who wish to work within the same kind of environment they are

used to on a PC. It contains multiple editing, affecting, and filter options with which to transform a sound (see Figure 7). Despite the initial dismissal, within a couple of days the participants were using the software, and while there were issues around the ways in which gesture shaped the screen view (i.e., pinching and expanding to zoom in or out, sliding and touching to add fade ins and outs etc.), they quickly adapted when the potential for affecting a sound became apparent.

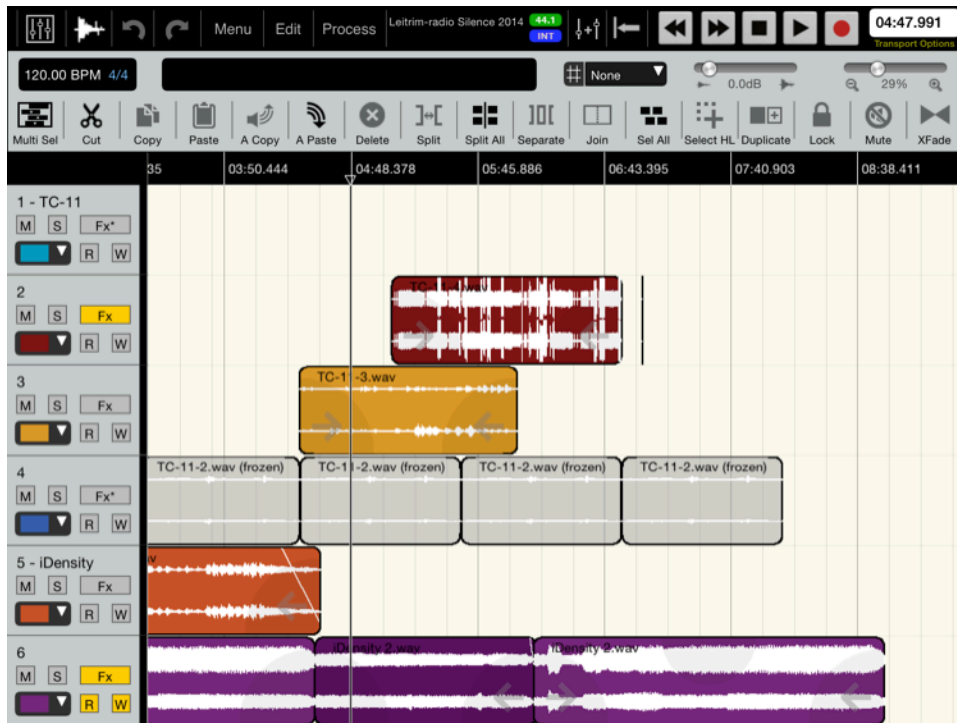


Figure 7 Editor Window Auria



Figure 8 Mixer Window Auria

Introducing the soundscape: mobility and sound recording

By the end of the first week the participants had become very comfortable working with a digital audio recorder, and on the first Saturday of the workshop they went on their first field-recording trip around the city of Derry. In preparation for field recording we discussed processes of listening, inspired by Pauline Oliveros's guide to Deep Listening (Oliveros 2005), an approach that asks listeners to pay attention to both the small details and expanded soundscape of any environment – to essentially tune in and tune out of different spaces. The day was spent walking in and around various spaces, approaching and talking to people, and recording a variety of sounds (see Figure 9-10).



Figure 9 Recording the Derry Soundscape 1



Figure 10 Recording the Derry Soundscape 2

Two of the participants approached an organist in training in the Derry cathedral and asked if they could record his rehearsals; they also had the vicar ring the cathedral bells allowing them to record the sound within the building. These two also talked to shop owners about their experience of living and working in the city. They were intent on recording all the sounds and stories that for them shaped locality and community. For these two, having a microphone gave them permission to talk to strangers and document their stories. In later discussions they expressed an awareness of how a recording device and a project gave them a sense of legitimacy and purpose. The third participant, a poet, decided that he would have different people around the city read parts of his poems, collecting accents and voices different but belonging to the same space. He then recorded small details of the city, from pigeons cooing on the street, to footsteps walking under bridges and the voices of children laughing. These were to be the backdrop to his sonic poems.

These sounds were part of a larger collection participants were recording over the two week period, which included sounds of car engines, songs sung in a bathroom, and sounds downloaded from the internet, among many others. As the workshop progressed participants became more confident in recording and uploading their sounds for their project. At the end of the workshop each participant stated that the technology, which gave him or her the greatest pleasure, was their recorder, as they could be mobile and

record wherever they went. It offered them the constant potential to capture sounds on the move.

Sound as a method for engaging communities

Whereas the first week focused on recording and collecting sounds, the second week concentrated on editing and sound design.

One participant also began to engage with different performance and synthesis applications not introduced during the workshop with growing confidence. My role from that point on was of art teacher and critic. The participants had become quite comfortable with the iPad and only occasionally needed a reminder of how to do things. Their language also changed: how they discussed sounds and sound design became more fluid and confident. They also began to share their sounds, seeing their recordings as a palette of colours which others might use if they did not. Over the course of a week spent on editing and sound design the participants created very different sound works using the same technologies; the sounds reflected their interests, passions and abilities. They saw the potential of mobile technologies as tools for creative output.



Figure 11

A key concern, expressed by all participants, was having no community of artists they could engage with after the workshop ended. They had enjoyed the support of a group – if one forgot how to do something, someone else would remind them. In addition, having an 'expert' around meant they could always ask for feedback. Even though the workshop had instilled some level of confidence in engaging them with digital technologies, participants stated that there are no support structures for older adults working in the digital arts in Derry. Coming to a practice late in life seemed daunting without a community to work with. When it was suggested that a potential iPad orchestra be set up in Derry for older adults, two of the participants expressed a keen interest in taking part in this.

Following from the workshop it was decided that a CD was the best method to present the group's finished works, and in November 2014 the Derry Soundscapes project was released and launched at the U3A.



Figure 12

Conclusion

The Derry Soundscapes project argues that the combination of sound, music and creativity can be a powerful entry point for engaging with older people around contemporary technology (Westerkamp 2012) and social inclusion (Castells 2008).

Recent research has emphasized the participatory and creative potential of widespread

media technologies (Fisher & Specht 1999, Jenkins et al 2006). This project aimed to extend that work with an emphasis on the interaction between older people and audio technology in creative production. Through a creative process that linked the technologies directly to creative output, the three participants learned how to use both the software and hardware in ways they said they would not have imagined. Having found that there was a general approach through which they could engage with the iPad, they soon developed the confidence to open other audio applications, knowing that they could not 'crash' the system – something they had always feared they might do, relating previous experiences with computers as negative ones. Using mobile technologies to record, edit, transform and perform instilled a confidence in the participants in their abilities to engage with both the digital sphere and the soundscape. However, without the support of a group or the continuation of this project, participants felt that they would probably not engage with sound in this creative way again. Nonetheless, some months after the workshop one participant submitted an application for a public art project; he was successful in this application.

Notes

1. AAI stands for Advanced Artificial Intelligence: tools such as smart cities and smart homes.
2. The samples of the audio created by the participants included in this article can also be found at this link: <http://lindaokeeffe.com/blog/cd-release-derry-soundscapes/>

Acknowledgements

An earlier essay on the same project was published in the Sound Studies Blog in April 2015. The link to that paper, "Workshopping the Derry Soundscape: Mobile technologies as Creative Tools for Third Age Adults", is available here: https://soundstudiesblog.com/2015/04/20/mobile_technologies_for_third_age_adults/ I am delighted to be able to expand on that paper for the WI journal.

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About the Author

O Keeffe is a lecturer in sound at Lancaster Institute of Contemporary Art. She has several papers and book chapters published in the field of sound studies, and is editor of the *Interference Journal* and president of the Irish Sound, Science and Technology Association. She has exhibited internationally since 2003 exhibiting, performing and designing sound for various commission led projects. She is currently working on a project, which explores the role of women in sound. <http://www.lindaokeeffe.com>.