

Impact case study (REF3b)

Institution: University of Ulster
Unit of Assessment: 35
Title of case study: Including Disabled Musicians Using Technology
<p>1. Summary of the impact</p> <p>This case study articulates impacts arising from Lyons' research into how creative application of developing accessible technologies can facilitate and enhance inclusive participation in music making (composition and performance) for artists with disabilities. These impacts have been felt in developments in disabled musicians' creative practice, in the resulting increased levels of personal artistic expression and professional development, and, in turn, in the influence of both of these on understanding and appreciation of disabled musicians' creative output in the mainstream music world, the wider public consciousness, and public policy.</p>
<p>2. Underpinning research</p> <p>The underpinning research, largely practice-based, comprises two related strands: first, Lyons devised and tested original practical methodologies aimed at maximising the potential offered by new technologies in the creation and performance of new work by musicians with disabilities; second, Lyons has actively collaborated on the design of new interfaces for music composition and performance for musicians with disabilities.</p> <p>Lyons' research in this area began while working as a part-time lecturer and researcher in Music Technology at the University of Ulster (1999-2003) and as Training Officer for the Drake Music Project, where he contributed to several research projects (e.g. with the University's Nanotechnology and Integrated Bioengineering Centre, NIBEC, 2001-3 and Peace II Composition Challenge 2002-2005) and devised and delivered training programmes derived from the research findings to Drake Music project access tutors across Ireland.</p> <p>After securing a full-time post at the University, in 2003 and 2004 Lyons' research resulted in two major compositions, <i>Option Anxiety</i> and <i>Rush</i>, both for the Wired Ensemble (an ensemble of disabled and non-disabled musicians), which developed highly innovative, technology-focused inclusive artistic approaches. <i>Rush</i>, which for the first time integrated an internationally renowned soloist (Darragh Morgan) with a group of disabled musicians performing using digital technologies exclusively, was shortlisted for a British Composer Award in the New Media Section in 2005 and has received numerous further performances internationally.</p> <p>The methodologies underpinning the inclusive creative practice derived from the research undertaken in <i>Option Anxiety</i> and <i>Rush</i> were developed further during invited residencies with organisations such as Share Music in the UK and Sweden (2002-2007) and were interrogated by Lyons in a 2007 article, 'Sonic Art – Opportunities for a Level Playing Field for Disabled Composers and Performers', where he argued that creative application of new technologies in combination with artistically appropriate interfaces offered the possibility that musicians with disabilities could for the first time enter the music profession as performing artists in their own right.</p> <p>Lyons' work caught the attention of Professor Magnus Magnusson from the Department of Special Education at the University of Stockholm, and they collaborated on the 2009 article 'Inclusive Arts Provision in Higher Education – Learning from the Share Music Model', in which they proposed that methodologies underpinning creative utilisation of new technologies, devised by Lyons and delivered as part of Share Music residential programmes, could form the basis of a new, inclusive approach in higher education.</p> <p>Further examination of the expressive capabilities of multi-touch and remote-control interfaces and their application in accessible environments has been carried out by Lyons in works such as <i>Tease</i> (2008), <i>Stung</i> (2009), <i>Shake</i> (2012) and <i>Thud</i> (2013).</p> <p>Lyons' direct input into the design of new interfaces for music and performance for disabled musicians originated in collaboration with researchers from NIBEC on a Department of Trade and Industry SMART project which focused on the design of new hardware (Paddle Player and Giant Keyboard) for disabled musicians. Further collaboration on inclusive interface design is on-going with Brendan McCloskey (a Drake tutor who is currently undertaking a PhD in Inclusive Hardware Design under Lyons' supervision) and John King (PhD in Inclusive Software Design under Lyons' supervision).</p>

Impact case study (REF3b)**3. References to the research**

One index of the quality of the practice as research outputs is the international profile of the artists who have commissioned and performed them; also the prestigious nature of the events and venues at which they were performed. As mentioned above, *Rush* was shortlisted for a British Composer Award in 2005; it was also submitted to RAE2008.

Practice as Research

Shake (2012) for flute, guitar and live electronics. Premiered by Sabrina Hu, Matthew Slotkin and the composer, at Walled City Music Festival, 31 July 2012. (Further performances have been given in Derry and New York; see REF2.)

Stung (2010) for bass clarinet and live electronics. Premiered by Paul Roe and the composer at the National Concert Hall, Dublin, 23 April 2010. (Further performances have been given in Derry and Dublin; see REF2.)

Rush (2004) for violin and live electronics. Premiered by Darragh Morgan and the Wired Ensemble, 26 April 2004 at Sonorities International Festival of Contemporary Music. (Further performances have been given in Aberdeen, London and Ulrichsberg.)

Option Anxiety (2003) for electric guitar and live electronics. Premiered by the composer and the Wired Ensemble, 1 May 2003 at Sonorities International Festival of Contemporary Music.

Publications

'Inclusive Arts Provision in Higher Education – Learning from the Share Music Model' in *Proceedings of the Challenge and Change Conference, University of Ulster* (2009). With Professor Magnus Magnusson, University of Stockholm.

'Sonic Art – Opportunities for a Level Playing Field for Disabled Composers and Performers' in *International Journal of Technology, Knowledge and Society* 2/2 (2007), 129–134.

External Funding

£24,999 from Culture Company Ltd. for Inclusive Creativity Festival 2013.

4. Details of the impact (indicative maximum 750 words)*Influence on Creative Practice*

The research findings generated by the investigations outlined above have provided the thrust of numerous creative projects, residential artistic programmes and training events focused on accessible technologies in the UK and Ireland (twenty events between 2000-2012, for example in Belfast, Holywood, Lisnaskea, Dublin and Roscommon), Sweden (five events between 2003 and 2007 in Hjö, Gothenburg and Stockholm), the US (Washington, May 2007) and Japan (Tokyo, August 2010).

In the course of this work Lyons has directly influenced over five hundred composers and performers with disabilities to reassess and revise their creative practice with a view to more constructive use of new technologies (see testimonial from a disabled musician in the Wired Ensemble).

Over fifty access tutors in the UK and Ireland, including those working with Drake Music Project, Share Music and Stravaganza, have reassessed and revised their approach to working creatively with disabled musicians after attending training on accessible technologies delivered by Lyons. The methodologies presented by Lyons form the basis of Drake Music Project training and the format of Share Music and Stravaganza residential projects to the present day.

Lyons' research findings have directly influenced formulation of policy regarding music technology provision for musicians with disabilities by Share Music Sweden, one of the leading arts and disability organisations in Europe (see testimonial from Share Music Sweden).

Over twenty University of Ulster graduates who took Lyons' research-led modules in Accessible Technologies have gone on to pursue careers in the Music and Disability sector.

Lyons has been successful in securing over £200K funding from the Department of Employment and Learning (DEL) for PhD studentships related to this research, with past and current postgraduate students working outside academia using accessible hardware, software

interfaces, and methodologies devised in association with him.

Several contemporary composers, including Iain McCurdy and Bill Campbell, have been inspired by the artistic excellence of Wired Ensemble performances to compose works based on Lyons' methodologies for the group (which has received commissions for high profile performances and broadcast recordings). McCurdy's *Piano Music for the Wired*, commissioned by Sonorities Festival and premiered there in 2003, was composed and rehearsed over a period of months in workshops supervised by Lyons.

<http://iainmccurdy.org/sounds//compositions//PianoMusicForTheWired.mp3>

Contribution to Personal and Professional Development

Musicians with disabilities in the Wired Ensemble have testified that through working closely with Lyons over a period of years they achieved higher levels of creative expression as composers and performers, gaining new independence as artists and increased self-confidence in their personal and professional development. They have commented on how, after implementing in their creative practice methodologies pioneered by Lyons, they felt empowered by the fact that their compositions and performances had attained more high-profile, mainstream opportunities for dissemination (see testimonial from a disabled musician in the Wired Ensemble).

Influencing Public Understanding

Given the limited opportunities for self-expression in more conventional, less technology-focused approaches to music making by disabled musicians, there has been a misconception that people with a disability are less artistic, creative or self-expressive. Historically, performances by disabled musicians have been marginalised, often taking place at events limited to the 'arts and disability' community. The increased levels of artistic accomplishment achieved by those musicians with disabilities who have worked with Lyons' technology-focused methodologies has resulted in greater visibility at mainstream music events and in wider public acceptance and understanding of, as well as respect for, their creative output. This is evidenced, for example, in performances given by the Wired Ensemble in 2002 at the Belfast Festival at Queen's, at Sonorities International Festival of Contemporary Music annually 2000-2005, by Share Music Sweden at the City of London Festival in 2012, and by Stravaganza at the CultureTECH Festival, Derry, in 2013.

Influencing Public Policy

The influence on Public Policy of Lyons' research is evidenced by:

- the decision of the Culture Company Ltd., an entirely publicly funded body, to devote over £100K of funding to music, disability and technology events, including c.£25K to commissioning a team led by Lyons to organise and deliver an international festival, entitled **Inclusive Creativity**, to showcase cutting-edge creative work by composers and performers with disabilities as part of the UK City of Culture 2013 celebrations (see testimonial from Culture Company Ltd.);
- invitations to pitch the research and associated projects to the Arts Council of Northern Ireland (which subsequently took it into account in the formulation of its five-year Music Strategy, published in 2012);
- invitations to demonstrate the research outcomes to Members of the Legislative Assembly (MLAs) at Stormont.

5. Sources to corroborate the impact (indicative maximum of 10 references)

Testimonials from:

Member of the Wired Ensemble

Culture Company Ltd.

Executive Director of Share Music Sweden

People who can be contacted:

Music Festival Director including City of London Festival

Former Head of Music at the Arts Council of Northern Ireland

URLs:

<http://inclusivecreativity.com>

<http://www.qub.ac.uk/sonorities/old/2004/pdf/son04mon-tue.pdf>