

Community-building to support and encourage women and girls in music technology

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Abstract— This paper documents a community-building project underway in the north of England that aims to support and encourage women and girls in academic and industrial careers relating to music technology.

I. BACKGROUND

The issue of gender imbalance in music technology has been receiving a lot of attention in recent years. Significantly fewer girls apply as undergraduates to study music technology (Born and Devine, 2015) or follow careers in related industries (see e.g. female:pressure's 2013 and 2015 reports). The same pattern is borne out locally and globally for established academics too. Female-led contributions to the UK-based Digital Music Research Network meetings averaged 12.3% of all contributions in the period 2011 to 2015, and occurred at a similar rate to those reported recently at conferences of The International Society of Music Information Retrieval, where 14.1% of all contributions in the period 2000 to 2015 were female-led papers (Hu et al., 2016). While girls have often been reported to lack confidence in engaging with technology, a recent study at Georgia Tech reported that integrating music to the syllabus provided a way to increase engagement in computer programming amongst girls (Freeman et al., 2014). Thus it might be the case that music offers a specific pathway along which girls and women can, in the right setting, begin to engage more widely with STEM subjects.

II. COMMUNITY-BUILDING

This paper reports on a social initiative in the north of England that engages women and girls in sound and music technology. Established in 2015, the Yorkshire Sound Women Network provides opportunities for women and girls who may have felt excluded or uncomfortable in

male-dominated environments to meet, share knowledge formally and informally, and thereby develop their technical and creative skills. Some of this activity has taken place in Sheffield as part of the city's 'Year of Making' celebrations. A 'Catalyst: Festival of Creativity' grant recently funded 8 expert-led workshops, 3 peer-learning maker-space days and a monthly social gathering. Averaging 10 registrations per workshop, these sessions covered a wide range of topics: sound synthesis, machine listening, performance hardware, electronic prototyping, live coding, data sonification, looping and DJing.

As part of the 'Catalyst: Festival of Creativity' evaluation, a post-workshop questionnaire was circulated amongst attendees. Of 35 respondents, 68.6% reported some pre-existing familiarity with the workshop topic through their work or studies. However, participants' lack of confidence was clearly apparent in their self-rated knowledge of the topic on arrival to the workshop [34.3% not at all knowledgeable, 42.9% a little bit, 22.9% somewhat, 0% quite a bit, 0% a lot]. By the end of the session, these scores had improved in every case [overall: 0% not at all, 5.7% a little bit, 40% somewhat, 51.4% quite a bit, 2.9% a lot]. The majority reported living within Sheffield (63.6%) or its surrounds (6.1%), but almost a third (30.3%) had travelled from elsewhere in the UK to attend one of these workshops. Further, attendees fed back that they would recommend the workshop to others 'a lot' (94%), 'somewhat' (3%) and 'quite a bit' (3%). We therefore suggest that this community-building approach may provide a useful model for others to adopt in order to increase the participation of women and girls in sound and music technology in other localities.

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