

Sketching music: making music by exploring art

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Abstract

Music is complicated, so we explored how we can make it easier for inexperienced people to engage with it, and improve their understanding of it. In a series of exploratory studies, we asked participants to use a musical tabletop interface to compose music in relation to different forms of art, such as paintings and narrations. We found that (i) discussing extra-musical material in terms of music helped the participants to learn to use certain musical features, that (ii) musical tabletop interfaces provide the necessary facilities for groups of people with different levels of musical experience to discuss and create music together, and that (iii) careful consideration of the material being discussed is necessary to design effective technology-supported learning experiences.

Keywords

music, tabletop, contrast

Aims

Music, among the Arts, and particularly in Western culture, is often perceived by the uninitiated as difficult to understand and engage with. This does not imply that other forms of art are any easier: in reality, different people may engage differently with different art forms, depending on their personal preferences and expertise. Our question is: how can we make it easier for people to engage with, and better understand, music? Can we combine different forms of art to facilitate

musically inexperienced people in discussing and making music in a collaborative group situation? Tabletops are a popular choice when it comes to collaborative music making technologies, particularly for musically inexperienced people. Tabletops are generally more flexible compared to pure tangible and graphical interfaces, in the sense that complex information can be represented concisely and expressively. Furthermore, tabletops naturally allow groups to work together on a shared space. However, this technology has been sparsely studied and more empirical research is necessary (Marshall, 2007), particularly to understand its role in music education. Our aims were to explore how the use of art and narrative could be used to facilitate music-making, based on the following two scenarios. Scenario 1: visit to an art gallery In the first scenario, we imagined a visit to an art gallery. It sometimes happens that people leave a gallery unsure how to feel about the exhibition – whether it was "good", what it was about, and what they will remember about it. Would it be helpful if they could discuss their visit with other attendees, and exchange impressions with them to improve their mutual understanding of the art works? What would happen if they engaged in this discussion through music making? We imagined that, after the visit, people could join a small group of visitors around a touch table presenting several of the art pieces. The group would choose one of these, and discuss and explore features of music in relation to features of the artwork, using a simple graphical representation displayed on the tabletop. Scenario 2: using narrative to learn about similarity and contrast in melody In the second scenario, we imagined groups of people discussing narrative in music, and learning how to use particular musical features – melodic similarity and contrast (Laney, 2015) - to compose melodies that express narrative. The existence of narrative in music is a highly controversial topic, and yet one that is often exploited by composers and educators. Mixed groups of people with different levels of musical expertise, that we refer to as beginners and experts, would come together around a musical touch table to discuss the notions of melodic similarity and contrast, and how these contribute to create structure, and suggest a sense of narrative.

Methods

The scenarios above take advantage of the two key aspects of tabletop interfaces: representational simplicity and flexibility, and collaboration support. These scenarios were implemented in a series of exploratory studies (Franceschini, 2016) in which participants used a musical

touch table application offering a simplified, yet expressive, representation of music that was developed specifically around melody. Representing music for beginners is challenging, given the many features of music that can potentially be involved, depending on what aspects of music are under consideration. The restriction to melody allowed us to use a simplified representation that beginners and experts were able to use as a medium for discussing melody itself. Thematic analysis was used extensively to analyse the participants' discussions and music. This produced a rich and nuanced picture of the participants' efforts in discussing the relationship between art and music, and the music that they created in the process.

Outcomes

In general, having beginners compose music can be difficult. The scenarios that we explored showed that careful design of both technologies and activities are critical in achieving this. By interacting with experts, beginners were able to discuss aspects of music and art, and to become confident in their ability to create original music in response to extra-musical stimuli. In particular, participants engaging in the first scenario often stated that making music helped them revise their opinion of the art piece under consideration. Participants engaging in the second scenario developed narrations that were structured in multiple parts, and used melodic similarity and contrast to represent each part in ways that they considered narratively and musically meaningful. The participants in both scenarios generated a considerable amount of material, in terms of both discussion and musical output. Although a full musicological evaluation of the musical output was not performed, the extensive thematic analysis of the materials produced – including discussions and musical output – revealed that the majority of the participants developed their own understanding of music making in relation to the extra-musical material. In particular, we found that the key aspects of tabletop interfaces – representational simplicity and flexibility, and collaboration support – were instrumental in facilitating the discussion between beginners and experts. The studies generated a number of actionable insights (Franceschini, 2016) for the development of educational tabletop platforms and activities. In particular, we highlighted the importance of carefully examining the core notions that are going to be covered in the educational experience, and the benefits of tailoring the software around these notions. It seems therefore critical that educators, designers, and developers should work

together in developing these kind of technologies. In this way, the synergy of their respective deep expertises can create experiences that are well designed from both the educational and technological points of view.

References

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