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Music without an end - students perspective on music production for an interactive exhibition

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1. BACKGROUND

Since the days of Thomas Edison and his invention, the phonograph cylinder, music has been recorded and listened to through technology [1]. The sound quality of the recordings, the medium for distribution and how we consume music has changed a lot but the concept of music is captured in a linear format has remained constant. Since the growth of computer games in the 1980s and the current trend in virtual reality there is a new arena for music. The process of composing music for interactive applications shares a lot of similarities with composing traditional, linear music but is new in other aspects. As Andersson and Cappelen stated it:

The fact that the composer writes programming code is an essential difference. Instead of writing one linear work, he creates infinite numbers of potential music that reveal themselves as answers to user interactions in many situations. [2]

Recent Swedish statistics from Nordicom [3] show that children today listen to more music through computer games than to traditional, linear music. This makes me challenged and devoted in both my teaching and research to find more knowledge about and guide students into the world of composing for interactive applications.

In this text I use the term Interactive Music (IM) to define music that responds to and is changed by the actions in an application. IM is found in different contexts including loop based live music [4], computer games [5], virtual reality, interactive physical objects [6] and interactive exhibitions [7].

2. AIMS

The aim of this study is to answer the question “How do students with a traditional, linear, music background describe the challenges they experience when composing and producing music for an interactive exhibition?” This study focus on IM for an interactive exhibition, but I will try to understand if the result is partly applicable to different types of IM.

3. METHOD

3.1 Nobel Creations

I have studied the process of three master students at Royal Music College in Stockholm composing and producing music for an interactive exhibition, Nobel Creation. In the exhibition the music was played back through sixteen speakers and two subwoofers. The visitors interacted with the playback system through infrared sensors and touch screens. The compositions were exported from traditional music production tools as short audio files and integrated through iMusic [8] - a framework for IM built on Web Audio API. The music should interpret the six different Nobel Prizes with musical sounds triggered by visitors and a music background playing together with all other stems. I took part as teacher and supervisor during the project and interviewer in the study.

3.2 The Study

After the project the students were participating in a focus group interview moderated by me [9]. I transcribed the whole interview and the participants checked that I hadn’t misunderstood their answers. The quotes from the interview are sometimes concentrated [10], and they are also translated from Swedish to English.

4. RESULTS

4.1 Describing Words

The positive words used by the students to describe the experience were “creativity”, “curiosity”, “stirring”, “positive” and “technology” but they also used more negative words like “challenging”, “tricky” and “low self confidence”.

4.2 Challenges

They articulate the mental shift to compose music without a fixed form being the biggest challenge, using expressions like “another way to think”, “another way of experience music” and “I have started to appreciate music with a beginning and an end after this experience”. The second challenge mentioned was the technical part of the process. The steps they found most frustrating were cutting and naming all separate files, the need of programming skills and all the time spent on technical issues. The third challenge mentioned was the difference between mixing the music in an ordinary studio and hearing it in the Nobel Price hall.

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with 16 speakers. The students also commented that the nature of an exhibition like this makes the composer and producer relatively invisible.

4.3 Strategies

The students found that they had been using completely different approaches when composing and producing the music. One started off with lots of ideas and reduced them down to a number where they began to fit together. Another student began with a few, minimalistic ideas and added more as long as it worked well.

5. CONCLUSIONS

There are several big challenges in the process of making music for an interactive exhibition. The difficulties to picture the end result in a big hall with discrete speakers is specific to projects in physical exhibitions like this but challenges like the mental shift mentioned in the interview and the many tedious and tricky steps required to integrate the music into the interactive environment also applies to composing music for computer games and virtual reality. The fact that the students were positive in general in spite of all problems they faced during the project might be related to individual characters. I would argue that these students accepted the possibilities and limitations in the technology fairly easy whilst a less motivated group might have lost patience and inspiration during the process.

I can see a big need for new technical solutions to support the process of integrating the music and enhancing the possibilities for musical ideas to be used in IM and also a need for more studies in how students develop their skills in making non-linear music.

References


