Name that mood! Describe that tune! Invitation to the IMP

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Abstract

The ongoing research project *The Interactive Multimedia Playroom (IMP)* was established to stimulate discourse about issues relating to our perception and description of sounds in artistic and multimedia contexts. Although it was originally conceived to help develop better analytical tools for music, the unique and playful design is well-adapted to helping establish common references for potential collaborators in media arts. As the team working on the project development includes experts in psychology as well as creative artists and theorists, the format of the project is being designed to maximize its transfer to psychological studies. Unlike most psychological studies, however, we are particularly interested in the reactions of those intimately involved in the arts, and ask participants to comment on the suitability of the terminology, perceived relevance of the questions, etc. It is believed that the issues being addressed by the project are fundamental ones which could have high relevance for MIR research, including descriptors, sound-image associations, and the recognition of salient characteristics of a musical excerpt.

Keywords: descriptors, multimedia, non-verbal, play

1. Introduction

The *Interactive Multimedia Playroom (IMP)* is an expansion of the earlier project *The Multimedia Thesaurus (MMT)[1]*. The project was conceived to help stimulate discourse on the elusive questions relating to our description and identification of sounds and music. It has also been designed to help us understand the various ways in which music and sound can be naturally associated with other sensory information (image, colour, light, and movement); and to what extent these associations may be shared within communities or cross-culturally.   The two major motivations for the project development were: the perceived need for a greater range of tools for music analysis, and a need for a richer and more shared vocabulary among potential collaborators in the arts and their associates (performers, critics, teachers, etc.)

Subsidiary motivations emerged from working in the field of electroacoustic music. The absence of notation for electroacoustics has created an urgency for creating new strategies for composition as well as analysis. Even basic steps such as how to name and organize digital sound files to facilitate subsequent retrieval are not yet clear.

The *IMP* project was not initially conceived of with any specific reference to MIR research. However, it investigates several aspects that seem to overlap with that field.   The aim of our project is to further our understanding about how people think about music and sonic art, and to encourage the refinement of appropriate vocabulary and methods for describing music. Therefore, the strategies which we are designing to stimulate discourse on these issues, as well as the actual responses we are beginning to collect, may offer unusual perspectives to the questions posed by MIR.

2. Project description

The format of the *Interactive Multimedia Playroom* is normally that of a one-room installation. A main visual focus of the installation is composed of a series of plastic chains which hang in an even grid, about 0.5m apart, thereby describing a large cube through which participants can walk. Participants are presented with a collection of objects linked by barcode to numerous short (10 sec.) sound and image clips. They are invited to scan and then "sort" these coded objects in any of a variety of ways: by sonic characteristics, genre, mood, colour, similarity, pairings, etc. A preliminary sorting can benefit from card labels and diagrams, placed by bins and racks. The grid can then be used as a major sorting cube, with appropriate labels being chosen for each of the three axes. Participants are encouraged to explore the installation in groups, and discuss their choices. It is these discussions that are at present the most valuable aspect of the project.

The *Playroom* houses not only the sound and image clips with their sorting grids and labels, but also other resources which are designed to encourage involvement: relevant books and journals; sound-producing objects of both electronic and acoustic types; video cameras, a

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[1]Both of these projects were funded by Hexagram, the Montreal interuniversity Institute of Research/Creation in Media Arts and Technologies.

SmartBoard, and drawing materials to record participants' non-verbal descriptions of sounds; computers linked to websites of cognate projects. Future plans include a virtual version to complement (but never replace!) the physical space, and we are open to any means to link other relevant projects to ours, as the success of the project is directly related to the number of minds working in it.

3. Categories and descriptors

To date, we have experimented with several different labels for the grid axes, used in a variety of combinations. These have been drawn mainly from psychology, musicology, and computer music studies, and supplemented by suggestions from team members and visitors. One of the interesting aspects of the *Thesaurus* (core element of the *Playroom* and that most closely linked with possible categorizations of music and sounds) is that any participant can suggest a label, and then we can experiment to see how useful it seems over the range of musical and sonic examples. Clearly, some are not appropriate for the grid format (which suggests a continuum between poles on each axis): genre and colour being two good examples.[2] We have been grouping the other (non-genre) labels loosely into two groups: sonic characteristics, and qualities of association or character (including mood). For sonic characteristics we have been using categories such as melody, texture, gesture, chordal, rhythmic, etc. These can be used in a preliminary classification, to refer to what seems the most striking characteristic of the sound or its best description; some of them can also be used as the basis for axis labels to encourage sorting according to the nature of the characteristic: "sparse/dense" or "less/more grainy" for texture; "smooth-angular" or "simple/complex" for melody, "regular/irregular" for rhythm, etc. Of course, with the amount of borrowed vocabulary in music, these descriptions quickly become associative too. This is not seen as a problem, but rather as an interesting way to probe the ideas of researchers such as Rolf Inge Godøy – one of the *IMP* collaborators – who suggest that our appreciation of aural information is often if not always linked to some form of visual imagery.

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[2] Although genre is naturally a significant and often the first classifier for many people, we have found it sometimes unhelpful, for several reasons. Many genre descriptions are so broad that they beg further discrimination, but often only those who listen to that broad category are familiar with the sub-categories, which can be carried by the specialist into an almost infinite number of subheadings. Also, a considerable bulk of the past century's musical repertoire exhibits a diversity of styles but has not yet received adequate genre labels, remaining under such unmanageable categories as "avant-garde classical". In general, a focus on genre seems to deflect from a focus on the components which may contribute to its being recognized as that genre.

4. Team members

Probably the most valuable aspect of the project is the diverse expertise of those who have volunteered to participate in the project development, whether as consultants or experimenters. Dr. John Sloboda, Dr. Annabel Cohen, and Dr. Stephen McAdams all have vast knowledge of psychological studies (in the areas of emotion & music, film music, and auditory perception respectively); Dr. Louise Poissant and Dr. Leigh Landy are both leaders of projects which aim to define terminology (*Encyclopédie des Arts Médiatiques* and *EARS* respectively); the other team members are all active and noted artists / researchers in design, dance, sculpture, film, and music.[3]

5. Summary

The essential concepts and design of the *Interactive Multimedia Playroom* are being continually reviewed and updated. The project design improves itself naturally as those of us working on it further our collective understanding of the issues and factors involved. Meanwhile, the nature of the project is proving successful in encouraging participants, whether team members or visitors, to spend extensive time reflecting on the latent associations we have regarding sound and image, and ways to articulate them. It was considered essential to have such diversity of disciplines represented on the team and through selection of installation locales, to ensure that we are not too hasty to jump to any conclusions about how "people" listen, articulate, associate, and communicate. We are not as interested in the "average" or majority response as we are in our own and our colleagues' responses to music and image. I suggest that this priority, along with the emphasis on collaborative discussion about categorization, may provide insights to research being undertaken by members of the MIR community. In addition, the design of the Playroom – a "flexible framework" – can easily function as an adaptable testing-ground for work-in-progress. Meanwhile, we are already disseminating some of the MIR results to a community who might otherwise be less likely to hear of them, and thus hoping to ensure that the vocabulary and concepts are mutually consistent and enriching.

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[3] Space limitations precludes an exhaustive list of all team members and their respective research; please visit the website http://www.armchair-researcher.com for up-to.date information, more details, pictures, upcoming installations, etc.