

Columbia University Human Subjects Study Description Data Sheet

Protocol: IRB-AAAC4468(Y1M00) Protocol Status: Approved

Effective Date: 03/05/2007
Expiration Date: 03/04/2009

Originating Department: ELECTRICAL ENGINEERING (168)
Submitting To: Morningside
Title: Music Labeling Game
Sponsor Protocol Version#:
Abbreviated title: Music Labeling Game
IRB of record: Columbia University Morningside
IRB number used by the IRB of record:

Affiliated Institutions: -Standard Columbia Submission
Protocol Begin Date: 02/22/2007
Protocol End Date: 02/22/2008
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Study Description

1. Study Purpose and Rationale.

We would like to build a system for automatically describing and recommending music to users. In order to train and test such a system, we need "ground truth" labels collected from people describing music that our system has analyzed. The most useful such descriptions would be short clips of music that do not change much stylistically over their duration. The proposed game is a means by which we can collect such data in order to facilitate building our description engine while at the same time providing subjects with a means to be exposed to new music and an entertaining online game.

2. Study Design and Statistical Procedures.

Since the website will be publicly available, people will continually be able to sign up. In order to ensure that each clip is thoroughly described, we plan on scaling up the number of clips available with the number of users. The experiment can also scale up to a large number of users, becoming more informative by covering more music as it grows.

3. Study Procedures

The study is in fact a game that the user plays. The goal of the game is to label short clips of music with words that are consistent with the words that other people have used or will use. The rules of the game try to encourage original, yet relevant labels. Labels that agree with other users' labels earn the user points and a leader board will be posted on the website listing the users with the most points. The rules of the game are as follows:

- * The user will be presented with one randomly selected 10-second music clip at a time.
- * The user will describe that clip with any word or phrase they choose, we call these words and phrases "tags".
- * If the user is the first person to describe that clip with that tag, he or she will get 2 points when the next person tags that clip with that tag.
- * If the user is the second person to describe that clip with that tag, he or she will get 1 point immediately.
- * If more than two people have already tagged that clip with that tag, the user won't get any points, but he or she can try another tag.
- * The user can tag each clip as many times as he or she wants, or can follow one of the "new clip" links to listen to a new one.

4. Study Drugs or Devices

This section does not pertain to our study

5. Study Questionnaires

The questionnaire is quite simple and the same for every music clip. The user is instructed to "describe this clip" while being presented with a small "play" button to be able to hear the clip and textual information about the artist, album, and track names.

6. Study Subjects.

Since our website will be publicly available, our subjects could include anyone on the internet. Because of the way we will advertise the site, however, we expect it to mainly attract student and faculty researchers in the field of music information retrieval and anyone they might tell about the site. Because we do not track or otherwise authorize people to visit the site, we have no means to guarantee that all users are fully autonomous adults. However, since participation in the site is self-selecting and voluntary, we do not expect any children to be involved. Wording is included in both the announcement and the registration screen to emphasize that the study precludes participation of the under-18.

7. Recruitment

Subjects will be recruited to this study through an email announcement, a draft of which is attached to this proposal as the "recruitment email" document. We intend to circulate this announcement via one or both email lists associated with the subject matter, specifically:

music-ir@listes.ircam.fr, a list dealing with research issues in music



information retrieval. Members are academics concerned with automatic music similarity. Estimated circulation: 100 academics and graduate students in the US and overseas.

AUDITORY@LISTS.MCGILL.CA, a list of researchers in aspects of auditory cognition, including many researchers in music analysis and music cognition. Estimated circulation: 1800 academics and university students worldwide.

Once the potential subjects arrive at the site, they will be greeted by the welcome page, the text of which is attached as the "welcome text" document. This document explains the purpose of the study to the subjects, the potential benefits, and the procedure (rules), and then directs new users to the registration page. The welcome page clearly explains to the users that their responses will be used in music information retrieval research.

The registration page contains the rest of the informed consent information. The text of the registration page is attached as the "registration page" document. The users have to register before they can begin to participate, so every user will have read the information contained therein. This page explains the confidentiality of the users' responses, the fact that only people over 18 years old may participate, and the fact that participation is entirely voluntary and that users may stop using the site at any time. It also includes email addresses at which the subjects may contact either us or the IRB.

8. Confidentiality of Study Data

We plan to release an anonymized version of the data to the music information retrieval community. Since no personal information is collected to begin with, except for a username, there is little risk of the subjects' identities being inferred. The publicly released dataset will not even include the usernames, only user numbers. The website is served from a server in a professional web hosting company, mediatemple.net, which keeps the machines at industry standard levels of physical and electronic security. Only the researchers involved in this project will have accounts on the server.

9. Potential Risks

Risks to participants are minimal to non-existent.

10. Potential Benefits

By listening to randomly selected music from a wide variety of sources, subjects could discover new music that they enjoy listening to. The game is also designed to be enjoyable and fun to play, so



subjects will hopefully be entertained by their participation.

11. Alternatives

This section does not pertain to our study