

Massh! - A Web-based Collective Music Mashup System

Nao Tokui
International Media Research Foundation
4F Sanko Bld. 1-1 Kagurazaka, Shinjuku-ku, Tokyo, Japan
tokui@imrf.or.jp

ABSTRACT

Massh! is an online music software, which enables users to use any portions (i.e., loops) of sound data found on the Internet and mix them to make their own versions of songs (i.e., Mashup). Mashups made on this system can be also published as "blueprints" containing descriptions enough to reproduce the same result on other users' computers. Its distinctive visual user interface also provides highly interactive user experience, so that people with little music knowledge and experience can join the creative process of making music.

Keywords

Interactive Music, Music Mashup, Web-based Music

1. INTRODUCTION

"A mash-up is a song created out of pieces of two or more songs"[4]. Mashup has been getting popular as various types of consumer generated media (CGM) emerged. One of the reasons why mashup gained such popularity is the fact that music is ubiquitous on the Internet. Now, the Internet itself is a huge jukebox. If we take it for granted, can we propose a new form of music and/or a new way of enjoying it in Web 2.0 era? Massh! is an experimental software project to tackle this question and try to foster a new music culture, in which any music lovers can join the creative process of making music.

2. DESCRIPTION AND USAGE SCENARIO

Massh! consists of a database server and Java-based client, which runs on any Java-compatible browsers. The server stores information of loops found and tagged by users (e.g., URL of sound data, starting point and duration of loop). It also stores blueprints of mashup created by users (e.g., IDs of loops used in mashup). No actual sound data is stored in our database.

Once the client is loaded, users can start with a query on our database or browse the list of loops. When the user selects

a loop, a portion of song will be loaded from the original location of the sound file. Once loaded, the loop is time-stretched to be played in sync with master tempo. Those loops are graphically represented on the screen.

Loaded loops can now form a group (i.e. mix), which are played in sync with each other and can be triggered by a single trigger. These groups can be made and deleted by simple mouse gestures. To form a group, users can simply draw an enclosing circle around loops, which the new mix is composed of. Contrary, a "slash" over the group removes the group under the mouse. Now these groups can be connected with arrows, so that the groups are played in the order defined by the arrows to make progressions in music.

If the initial loop search gives no result back, users can now turn into sound search engines on the Internet integrated into Massh! interface. Once a target song is found, sound data is loaded onto built-in waveform editor. Then, users are asked to find interesting loops (often referred as "breaks"), which he/she wants to use in his/her mashup, with the aid of automatic tempo estimation[1]. Found loops are stored into our loop database with arbitrary additional tags.

Once a user made an interesting mashup, he/she can name and publish it on our mashup database. These mashups are shared and the possibility of making mashup of other mashups (meta-mashup) is left for other users.

3. RELATED WORKS

Our previous work realized collaborative DJ mix in real time using a central streaming server and client softwares[3]. Music Mosaic Generator also focuses on sharing "recipes" of mashup in stead of recorded sound data, but it requires a standalone software and only handles files stored in local computer[2]. These systems seem similar to mine, however, they clearly aim different targets and situations.

4. REFERENCES

- [1] M. Cooper and J. Foote. Automatic music summarization via similarity analysis. *Proceedings of International Symposium on Music Information Retrieval*, 2002.
- [2] Y. Miyajima. Music mosaic generator: Music remix system using high precision time-series metadata. *Workshop on Interactive Systems and Software 2007*.
- [3] A. Tanaka, N. Tokui, and A. Momeni. Facilitating collective musical creativity. *Proceedings of the 13th annual ACM international conference*, 2005.
- [4] Wikipedia.
[http://en.wikipedia.org/wiki/mashup_\(music\)](http://en.wikipedia.org/wiki/mashup_(music)).

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

DIMEA '08, September 10-12, 2008, Athens, Greece.
Copyright 2008 ACM 978-1-60558-248-1/08/09... \$5.00