Hathaway Hester DIG 540: Fall 2015 December 13, 2015

Soccer Chants: Origins and Connections

#### I. Intro

From the earliest days of organized soccer, fans have supported their clubs by singing songs during matches. These soccer chants are often based on existing melodies with lyrics changed to pertain to the home club, rival, or events during the game. Over time these chants have been borrowed and modified from club to club. Some are based on traditional songs (the Welsh hymn "Cwm Rhondda" is the basis for numerous popular chants, such as "You're not singing anymore," "We can see you sneaking out," and "I will never be a Blue"), while others are based on more recent popular music (Depeche Mode's "Just Can't Get Enough" has been adapted by fans of Celtic, Burnley, Sydney, and the Chicago Fire, among others).

This exhibit explores the origins, evolution, and connections between soccer chants across the globe. The central organizing principle for each Collection is melody. All chants with the same melody are grouped with their origin song, allowing users to easily compare and trace variations. In addition, maps enable users to discover chants and visualize the variations geographically. As chants have their origins in fan culture, the exhibit goes to the source with a feature that invites fans to contribute additional chants.

#### II. Site Breakdown

- A. Theme Custom Chants theme, based on Minimalist.
- B. Plugins Exhibit Builder, Neatline, Contributor, Commenting, Musipedia (in development).
- C. Major Sections and Pages
  - 1. Homepage
    - a) Featured collection Twice a month, site administrators select a particularly robust Collection to feature on the homepage. The Collection Title, introductory paragraph, and one accompanying image appear on the homepage, with links to the full record. These featured collections can serve as an entry point to the exhibit for new or casual users, while also acting as good examples for contributors to follow when creating new records.
    - b) Browse on map Using the Neatline plugin, the homepage includes a browsable map showing all chants in the exhibit.

- Clicking on the map opens a larger version where users can filter the results by Collection, Club, or Location.
- c) Search Every page in the exhibit has a simple keyword search box at the top right of the screen. Under this box is a link to the advanced search screen for those who wish to create more detailed searches. In addition to searching metadata fields, the advanced search also contains the Search by Melody feature, which uses the Musipedia plugin.
- d) Navigation Tabs: Across the top of all pages on the site are navigation tabs. Clicking on these take users to the different sections of the exhibit: Chants, Collections, Add Your Own Chant, and About.
- 2. Chants Each chant in the collection has its own database record. The record consists of an audio file, map, optional image, descriptive metadata, and a section for comments. The metadata fields are: Title, Date, Club, Location, Origin Song, Lyrics, Description, Audio File Type, Date of Recording, and Contributor. Clicking on the name of the origin song takes users to the record for the origin song's Collection. The map shows the chant and its origin song, both of which link to their accompanying records. Through the Commenting plugin, users may add their own perspectives on a particular chant.
- 3. Collections Collections are organized based on origin song, as identified by shared melody. Each Collection has a page containing the song's title, an audio file, a description field, list of variations, and a map. The description contains a brief history of the song's origin, composer, and key dates. Variations link out to the individual Chant records. The map shows all Chants in that Collection, offering users another way to explore a Collection's records.
- 4. Add Your Own Chant Fans can contribute additional chants to the exhibit with this feature, using the Contributor plugin. As chants are numerous and ever-changing throughout the world of soccer, this feature enables the exhibit to keep current with new developments. Since the Collections are arranged by origin song melody, the Musipedia plugin will be especially helpful in the Add Your Own component of the exhibit. Fans can easily identify which Collection their chant should belong to by searching the existing database for a matching melody.

5. About - The About page contains information on the goals, development, and creators of the exhibit.

# III. Musipedia Plugin

The current list of Omeka plugins contains no option for melody identification. With this being a critical aspect of the exhibit's design, a plugin for this purpose is currently in development. It is based on the melody search engine at Musipedia, originally created by scholar and programmer Rainer Typke and maintained by a community of nearly 6,000 registered members.

## A. Musipedia Search

Unlike applications that identify specific recordings of songs, Musipedia searches are based solely on melody. This is a crucial distinction to make for the purposes of this exhibit. For one, the amateur recordings that make up the bulk of the audio files in the exhibit would not be recognized by a search engine that only searches known recordings. More important, with each chant recording being unique, a recording identification search would properly distinguish each as a separate entity rather than recognizing the similarities. Meanwhile, a melody search will have the ability to pick out matching chants

Musipedia offers multiple options for searching, all of which require little-to-no musical knowledge.

- 1. Microphone Likely to be one of the two most popular methods for searching by melody in the exhibit, users submit a melody by singing or whistling a melody into their computer microphones.
- Rhythm-based The other method expected to find favor with a large number of users is the rhythm-based search. Users tap out a rhythm using a single key on their computer keyboards in order to find results. This will be especially useful for chants that are more spoken rather than sung.
- Piano There are two options for the piano search, one of which uses
  JavaScript while the other uses Flash. Both options replicate a piano
  keyboard where users can play a melody through use of the computer's
  mouse.
- 4. Contour The contour search utilizes the Parsons Code, originally developed in 1975 as a simple musical notation method based on pitch movement. With only three letters representing shifts in pitch U for Up, D for Down, R for Repeat a nearly unique code is generated for each melody ("When the Saints Go Marching In," an origin song for numerous

soccer chants, has a Parsons Code signature of UUUDUUUDUUUDDUDDRUURRDDUUDDU). In Musipedia, users can type in an approximation of a chant's Parson's Code to retrieve matching results.

Given that all of these methods have a general amount of potential user error, the Musipedia search typically returns several results, all of which have some melodic features in common with the search input. In the exhibit environment, a user may play the associated audio file for each search result in order to determine which is the correct match.

### B. SOAP Protocol

SOAP is an XML-based protocol designed to help carry out remote procedure calls over a transport protocol, in this particular case HTTP. A SOAP message - comprised of a SOAP envelope, header, request information contained in a body, and any fault handling information - is sent to a recipient. The recipient in turn responds with another SOAP message, sending a response based on the request from the original message.

Musipedia has created a SOAP interface for those who want to use Musipedia search capabilities in their own applications. Details of this interface are found in a freely-available XML document on the Musipedia website. This interface code will be modified into the Musipedia plugin's config file for Omeka.

In the exhibit, the Musipedia search engine will act as an intermediary in the search process. Users will search chants in one of the four methods described above, which will be sent to the search engine via a SOAP request. The response message will in turn send a request to the Soccer Chants database, which will then return results back to the user via a third SOAP message.

The melody identification will be crucial to the development and continuing growth of the exhibit. Initially, exhibit developers will make use of the plugin to design the first group of collections, ensuring that each chant in the database is associated with the correct origin song, and hence fits into the correct Collection. As the exhibit grows through contributor additions, the plugin will help contributors identify their chants and maintain the accuracy of the collections. Finally, the Musipedia plugin offers a unique search method for visitors to the exhibit, communicating the history and relationships between chants in a way that would be impossible through text searches alone.

## Works Consulted

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