

CELLPHONIA: In The News / Work-In-Progress

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ABSTRACT

Cellphonia: In The News is an open source cell phone karaoke opera with a mixed final performance delivered to the participant as a podcast and online as a web based mp3. The ever-changing current state of the opera will be continuously available as an online stream-cast.

Keywords

Cell phone, locative media, opera, karaoke, RSS news feed, libretto, algorithm music composition, GIS, dynamic queries, mobile devices, open source, multiple users, location, pervasive, mp3, podcast.

INTRODUCTION

Cellphonia: In The News is an open source location-based karaoke cell phone opera that uses a libretto generated from RSS news feeds. The music is both pre-composed and algorithmically generated by news feeds. The full opera is comprised of many callers' voices mixed with audio-enhancement tools and delivered by continuous Internet audio stream-cast. The fresh addition of new caller voices and evolving music creates a never-repeated streaming 24/7 opera. Individual songs from the opera are available as mp3 files that can be downloaded or retrieved as a podcast. With Cellphonia, a potential worldwide group of users is provided with a means of unique social interaction that refers to a centuries old tradition, opera, in a new context that leverages the broadening wireless technological base in a simple, familiar, and accessible manner. In Cellphonia, the artist is both coder and composer, while the caller is both performer and audience.

MOBILE MUSIC

The use of cell phones in Cellphonia allows callers to be

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performers in an opera anytime anywhere. It also allows many callers separated by distance to contribute in a karaoke manner to the same song in the opera.

USER INTERACTION

When the caller telephones the VoIP server, he hears instructions on how to interact and use the Cellphonia service. Next, he chooses a libretto from the news feed topics presented, e.g., world events, local sports, life-style, love or obituaries. Cellphonia constructs hourly news feed scrapes. After the caller hears a narrator sing a fragment of the libretto, an audio prompt acts as a cue for the caller to repeat it karaoke style. The caller keeps on doing this until he hears no more fragments. Instructions then inform him of the URL for the 24/7 audio opera stream and where to download his song from the opera server.

DISTRIBUTION METHODS

Cellphonia uses the Internet to provide a public performance through a public address (PA) playback system at an opera venue.

The next generation of enhanced wireless devices with access to greater Internet bandwidth enables Cellphonia to stream-cast directly to the caller's cell phone so that he can enjoy hearing the opera while mobile anytime anywhere.

Cellphonia also delivers a customized individual song to the caller. After the caller contributes his vocals, he makes an Internet download request from the Cellphonia website for his song from the opera. The caller provides the Cellphonia server with his telephone number to make a database lookup. After locating the caller's recording, the server mixes a song of his portion of the opera so that the caller's voice is heard clearly over the other voices. The server presents the caller with the song available as a download in either podcast or mp3 file format.

CRITICAL REVIEW TOPICS

Automatic Music Tools

Cellphonia: In the News explores the automatic libretto creation of songs, real time recording, enhancement of performance through algorithms using the cell phone as its mobile music acquisition platform. Can the automatic music generating tools improve the acquired 8k-8bit cell phone

vocalization to a point that an acceptable performance is created? What happens when a recording is made on the cell phone in a noisy setting?

Prosody Rules

RSS news feeds are continuous and need to be broken into comprehensible fragments that the caller can comprehend. Cellphonia is testing a set of prosody rules of "-" + "," + "." + [prepositions] + [conjunctions] as RSS delimiters to easily cue the caller to sing/speak back the short phrases he hears. This should supply the necessary vocal elements to be mixed together.

User Interaction

Will the automatically generated lyrics interest singers? What happens when the singer deliberately or inadvertently delivers lyrics that are not part of the intended composition? How can the singer be efficiently redirected to hear the podcast or stream-cast?

SERVER

The artists will provide a functional Asterisk server for the mobile music participants to add their own voices from their cell phones to create a daily Cellphonia: In The News work-in-progress opera.

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