YZYT: Your Zones | Your Tones

Sonic Modulations within Location

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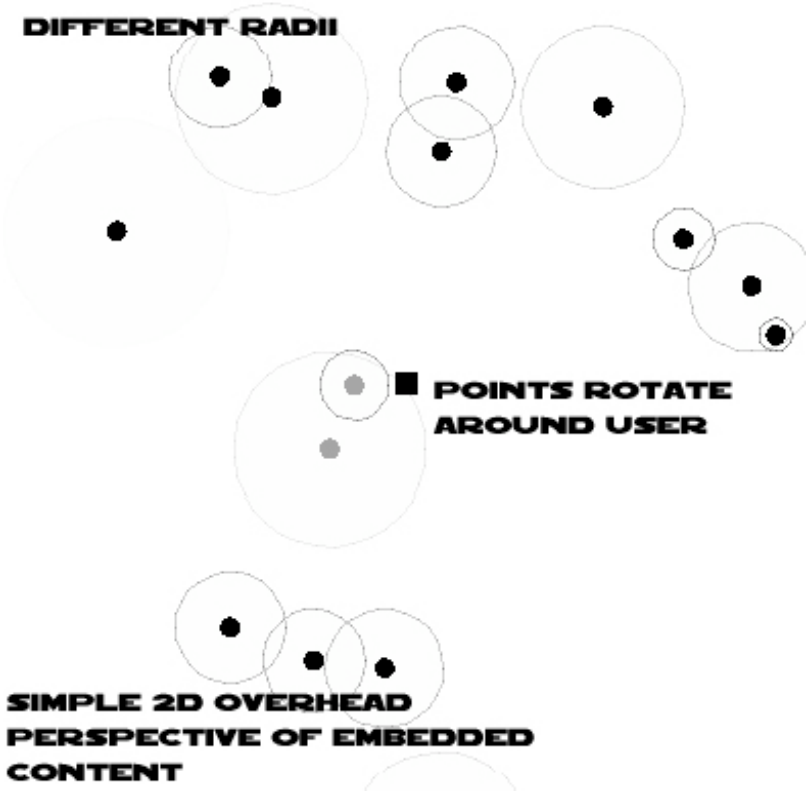
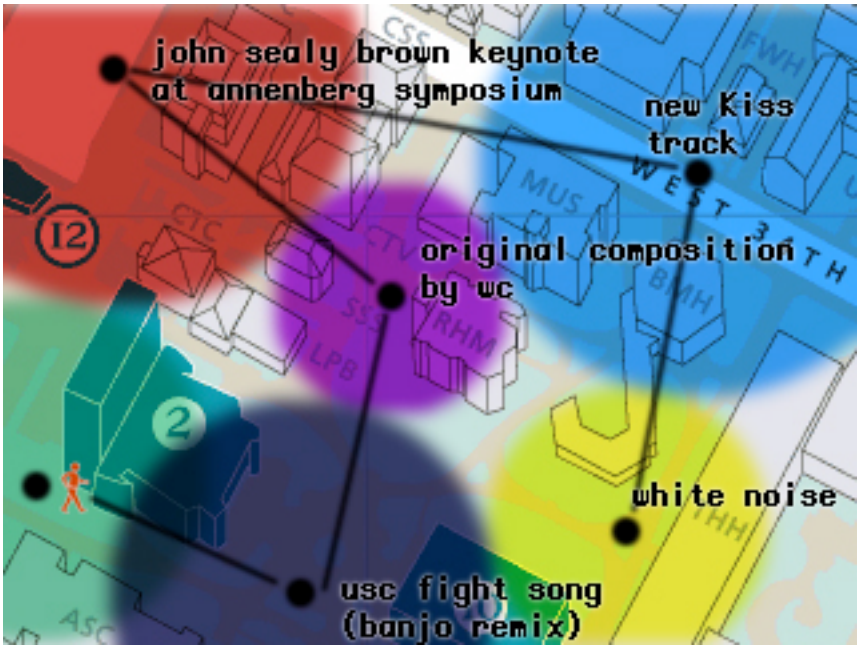
.contents

.abstract

Your Zones, Your Zones is a research project exploring the development of a persistent sonic layer embedded upon physical space, and the construction of user communities that exist within this parallel landscape. The ultimate goal of the Zones|Tones project is to build an alternative sonic space for users to explore music and sound. Using a GPS mobile device and headphones, YZYT users explore an audio space that fluxuates depending upon their current location. As they move between different spaces with embedded content, current and previous music and sounds are crossfaded. If the user isn't ready for the change, they can simply walk back towards the previous location. Users are also able to upload sound files to the YZYT database and choose where those sounds are mapped. Based on this feature, can create environmental playlists and publish these contributions to a website where other system users can experience them. Through these embedded soundscape, YZYT users are able to experience the environment in a different and unique way.

.images | sketches





.project description

I. Goals

As noted above, the major goal of this project is to develop a new way for users to experience sound and music, and to provide a community based on this type of embedded content. In the effort to achieve such a goal, the system must be designed to be adaptable, allowing for alterations and changes to be made to the content side of things without having to seriously effect the technological architecture of the system. The main factor behind this mutability in the system is to allow two branches of content to be developed in this space, one inheriantly commercial, and the other fundamentally non-commercial. Cutting the content development into these two spheres is not to say that the content of either will be predetermined by this grouping. If the system can change quickly, both of these spheres can be developed and commented on by the other. The main commercial path will focus on developing a system that allows record companies or labels to distribute their music in a new and unique manner via location. This commercial aspect will also include authors to develop location-playlists that allow users to walk specific paths to hear a certain order of songs. As a comment and reaction to this commercial space, the main non-commercial current of the project will be to grant users the ability to remix these commercially embedded zones, either through sound graffitti, or through traditional remix form.

Certainly as time progresses and location based content becomes more and more ubiqutous, it will also become more and more commercial, with financially motivated interests pushing content. From the beginning then, we should begin to recognize space as a viable commercial medium, and contemplate the possibilities for recorded music to begin recognizing location and the environment as important aspects of an album. At the same time, we should offer a reaction towards that commercialism in the form of graffitti, commentary and remix.

II. Applications

a. Commercial

The primary commercial model would entail a record company or music label embedding albums, or album tracks around specific locations as promotional tools. For example, a record company could embed tracks from a upcoming release on certain locations around Austin, TX during the SXSW music festival. The company would then provide PDAs to festival goers, and allow them to experience a new release in a unique way. At it's best, this model could expand and influence the manner in which albums are recorded. As an example, think of the way this technology may have affected the recording of U2's The Joshua Tree. Imagine the experience of walking or driving through the state monument with embedded content from that album slowly fading in and out as your location changed. Albums therefore may begin to have location context built in, another creative element of the recording: walk from here to here passing through here and you'll hear the album the way it was meant to be recorded. Certainly, location context would add another dimension to recorded music.

b. Non-Commercial

The primary non-commercial model is that of the soundscape – that is, using sound to paint an interpretive picture of a specific location. These soundscape projects would create a persistent virtual layer upon the physical space, gradually arranging complex layers and dynamics that ideally would have some relationship to the space that it is mirroring. For example, the sonic graffitti model would apply to this scenario, wherin a user could record some type of sound byte, a political comment embedded near the white house, clips of ambient white noise embedded all around the world trade center footprint, etc. The ability to upload music files, attached to to a GPS locations turns users into authors, and the results may resemble something similar to the web, where you have independent artists or musicians offering location-based songs or sounds, trying to achieve some level of fame (or notoriety). This makes the stakes for adequate filtering on such a system very high – e.g. what do I want to stream into my headphones.

c. (re)Mixing

An exciting possibility comes out of the mixture of these commercial and non-commercial spheres: remixing. Embedded sound, like most other embedded content, will eventually be dominated by commercial interests. In this particular case, the record companies will be in control. Because the system allows users to upload sound files to the server, it is not unlikely that a remix culture will emerge based on the appripriation of commercial material. Imagine taking a walk, and instead of choosing to hear original music, choose to hear remixes. Using the earlier U2 example, the user may have selected 'remix' as a filter, and now when they hike through joshua tree they will hear the alternate user contributed remixes that have been layered upon the original. The same type of remix-layering might exist between non-commercial elements as well.

d. Making sense of the data – the web

Because multiple layers (sound streams) can exist on each location, there needs to be some mechanism in place that tells the database which stream to send to a user's PDA when they are within a given radius of that node. There are two distinct ways to do this, and both could be implemented within a web-based observation system that allowed users to make decisions about this assumed wealth of embedded sound.

Ranking/Reputation Systems:

Rankings and reputation systems have become increasinly popular in the websphere, allowing sites such as Slashdot, Amazon, and ebay to filter and sort the extreme mass of content into a digestable size. Such community-based systems could also be applied to embedded content – the cream would rise to the top, and would be assessable only when it had reached the pinnacle ranking for it's location. An example scenario could be imagined, that when a music label releases a terrible single a user remixes the single and embeddes their file at the original location of the record label's awful track. Based on high

rankings, the parody remix rises to the top and forces the commercial powers-that-be to go back to the drawing board.

Metadata filtering
Another option is to allow individual users to choose which types of streams they want to listen to. By logging in and selecting a specific filter, only locations matching their selection would be streamed, and the mass of content would be limited.

Environmental Playlists
Users could also create and share custom environmental playlists, that would act as a way of navigating redundant content. Going through the web interface and selecting music, then publishing that as one of your playlists would allow users to selectively filter things they don't want. Other users could also download these playlists, and hear a specific sonic path throughout the environment. If the number of these playlists was built up, it would largely eliminate a number of the problems encountered by the flood of embedded content.

III. Experience/ Example Use

a. A user logs onto the YZYT system and checks in on new embedded music and sounds. She notices that the new Radiohead album has been releases as an environmental album – that is, it has been recorded with a certain location-context in mind, and each track has been embedded to the appropriate location, which in this case is an area of Los Angeles.
b. The user then downloads this playlist (they could pay for it, or it could be free)
c. She walks around the appropriate locations in Los Angeles and listens to the whole album this way. She likes what she hears.
d. She buys the tangible version of the album, and she likes it, except that she thinks there is an absence of harmonica and pitchfork.
e. She does this. It takes her a couple months.
f. She bounces out all the tracks to mp3 files and uploads them at the same location as each original Radiohead track via the website.
g. She sends her friends a location playlist containing her remix as an alternate path.
h. Word spreads, and she is highly regarded within the community.

IV. Technology

i. PDA System
- streaming audio to PDA via matching GPS coordinates
- crossfading material when you encounter a zone
- fade out if you are moving away from a zone and no other zone is available.

ii. Web Interface
- flash map (isometric)
- content embedded on that map
- authoring ability: click on a point on the map, it asks you for a file and a category. The file is then uploaded along with the GPS location.

.timeline

March/April 2004:

- Recruit Engineers and have a contract with one signed by the end of the month
- Prepare proposal – text, sketches, imagary
- Do some experience testing with local device developed for CTIN 542.
- Research: Similar Projects
- Research: System architectures
- Research: community websites

Summer:

- Work with USC engineer to finish a working prototype of the technology, namely the crossfading of audio streams and the accurate transmission of GPS between the PDA, the server, and the database

Fall '04:

- Develop content applications and try and build up a rich database of content before user testing.
- This content should be developed on both sides of the coin: the commercial side and the non-commercial side.
- Finish the basic web interface / toolset
- get a isometric model of the campus (convert the chôjô 3d campus model to isometic and work on a vector-look with Swift 3D.

Spring '04:

- User Testing
- Give a couple PDAs out to people who will use the system.
- Address bugs / design issues
- Live in this feedback loop
- Exit Loop, smile and go listen to some music

.references

Related

- Soundwalk: http://www.soundwalk.com
- Mobile Whack: http://www.mobilewhack.com/services/location/ location_based_playlists.html
- Sony Personal Radio: http://www.reuters.com/locales/
- newsArticle.jsp?type=technologyNews&locale=en_IN&storyID=458 8731
- Sound Sticker: http://users.design.ucla.edu/~aniemetz/
- soundsticker/timespace/sticker.html
- Hear&There - Rozier, Joey
- Janet Cardiff - http://www.abbeymedia.com/Janweb/jan.htm
- SMDK Simulation Sound Mosaic – Knowbotic Research, http://www.krcf.org/krcfhome/
- Glasbead – John Kilma http://www.cityarts.com/glasbeadweb/

Mixed Reality & Location Specific Media

- *Environmental Media: An Authoring Toolkit for Mixed Reality Experiences* - Fisher, Scott S.
- Augmented Reality: A Class of Displays on the Reality-Virtuality Continuum – Milgram, P., Takemura, H., Utsumi, A., Kishino, F. (1994)
- Delca Project - http://delca.itu.dk/
- Blast Theory – http://www.blasttheory.co.uk
- Urban Tapestries - http://www.proboscis.org.uk/urbantapestries/

Communities

- Slashdot – http://www.slashdot.org
- Habbo Hotel - http://www.habbohotel.co.uk/habbo/en/

Soundscape

- Danish Soundscapes on the Web - http://www.danishsoundscapes.com/danish.html
- World Soundscape Project - http://www.sfu.ca/~truax/wsp.html
- Brian Eno - http://music.hyperreal.org/artists/brian_eno/

.venues

- futuresonic
- ACM SIGCHI ACE
- ISEA
- SIGGRAPH
- UBICOMP
- COACHELLA VALLEY MUSIC AND ARTS FESTIVAL
- SXSW Interactive (2006)

.budget

- see attached spreadsheet