Keywords:

Encryption, code breaking, the hidden word, secure speech, secure networks, artifacts, finding patterns, ciphony, wireless transmissions, transformation.



motivation:

In my previous work/research on the human voice and the way it's transmitted via electrical means I stumbled upon the vocoder. The vocoder is a method of speech synthesis, it is used and overused in pop music today. What fascinated me the most is the fact that the vocoder was initially developed to send encrypted messages during world war 2. The vocoder is not the only piece of wartime equipment that has made its way into pop music, but the fact that it is used for improvement or alteration of the human voice is what separates it from the rest.

historic value - encryption and the vocoder. The SIGSALY Speech encypherment system

From the idea of sending encrypted messages in sound also came the fascination of using sound as a carrier for other media. As I have done earlier with my wikileaks radio project. http://en.wikipedia.org/wiki/Commodore_Datasette

I want to investigate the possibilities of modern DSP and using the radio to distribute content. distribution and radio.

I have always been curious about encryption and algorithms in general, since this is an obvious curiosity people have regarding solving mysteries and finding patterns. However, this is an increasingly important aspect of modern interaction. In digital communication algorithms play a crucial role especially in accessing or creating secure networks.

I am also fascinated by transformation of text and speech, where for example normal plain text is being completely encrypted and transformed into a ciphertex, and decrypted again for information to become hidden from anyone but a few.

Relation to previous work

- Material aspect, research and reinvent old media.
- Using old media to find an answer in contemporary debate.

- Storage of data on different media.
- More of the same is about recognizing patterns within a music recommendation algorithm. By showing the database in a more complete way, you can see patterns within the recommendation algorithm.
- The schizophonic search is about finding messages within the radio spectrum.
- wireless transmissions and the Utopian state or radio also applies to secure speech transmissions and the existence of ciphertext

Free Wikileaks Pirate Radio

A radio based work that was partly a radio broadcast and partly a web browser tool for automatically broadcasting Wikileaks content. The radio broadcast was done by a simple FM transmitter. The automatization part consists of a Firefox web browser plug in. Whenever the user of this plug-in visits Wikileaks or one of it's many mirrors, the plug-in automatically sends chunks of the Wikileaks text document to a back end of translate.google.com. Here the text is automatically converted to speech and spoken in a robotic manner. The combination of fm transmitter and text to speech automatization enables for easy broadcasting of Wikileaks content. The first broadcast of Wikileaks material was done at a moment of much heated debate on shutting down Wikileaks servers.

To successfully broadcast Wikileaks content at the Speed show, I had two requirements. One the process had to be automated as I didn't want to present a performance piece. Two the project had to be run on the Belhuis computers where the Speed show was held. I opted for a Firefox plug-in that would automate the process, which I wrote using Greasemonkey, Jquery and Javascript. The script would redirect the Wikileaks content to the Google translate text-to-speech website, so that it was spoken out automatically once you visited the Wikileaks page. For transmission I used a standard FM transmitter, normally used in cars to broadcast from your mp3 player to your car radio. This transmitter was simply connected to the speaker port of the computer.

At the time there was a lot of discussion and on the taking down or backing up of the Wikileaks servers. Which I thought was rather trivial since the wikileaks content had been up for a while. In my opinion it was the same as taking down the original source of a pirated movie. Once the movie has been downloaded by someone, it can be reproduced and distributed again. Because of the reproducibility of all digital material, the source in essence loses its value. If the Wikileaks server would ever be taken down, the holders of downloaded Wikileaks material could recreate it. The concept of medium was also very important to me. Nowadays the average computer user also has access to some form of printer, thus if anyone had downloaded Wikileaks content it could be printed. I chose radio because it is one of the most fleeting media, it happens only at a certain time but it can be picked up by anyone within transmission radius.

More of the same

More of the same is a music recommendation website that uses and abuses the last.fm database. When visiting More of the same, the visitor is presented with typical web 2.0 style logos and a search bar for his initial search. After clicking search the visitor is presented with a 100 to 200 new recommendations. These recommendations are presented in one horizontal bar of thumbnail sized images accompanied by the text 'if you like' and 'then you also like'. At the end of this line is a YouTube clip of the least relevant recommendation. The visitor can

then further specify his musical taste by filling out a survey style question. After answering even less relevant recommendations are given, with again the least relevant being played as a YouTube clip, accompanied by a new question. This process can loop endlessly if the user keeps answering the survey questions.

In this project I made use of two databases, namely the music recommendation website last.fm and the video website youtube.com. Once you enter the More of the same website you can fill in the music that you like. The python script that powers this website first checks if that search query is in the last.fm database. If it is in the database it searches for similar artists, and picks the least similar one. From this artist the script searches for keywords the artist has been tagged with. It takes one of these keywords and searches for a new list of artists associated with these keywords according to the last.fm database, again picking the artist that is the most unrelated. From this artist the script looks for a last.fm user that has been listening to this artist. The script then searches this users music listening history and picks the least listened to artist. This artist is then searched on Youtube.com. The more of the same website then displays all the complete llists it has searched for in a line of thumbnail size pictures of artists usually between 100 and 200 results, accompanied by the Youtube video.

I wanted to make a statement against music recommendation websites. Music recommendation websites are made to recommend their users music that they like but the way they are constructed means that everything is based on keywords, genres and other peoples listening behaviour. This results in getting a lot of the same music, mostly music that you already know. More of the same does almost that, it presents the user with an overload of music recommendations, mostly based on genre and keyword similarities. However there are moments where is it falls of the map completely, presenting you with music that is somehow an error of the last.fm database or music that is made by amateurs that somehow made it's way unto last.fm or youtube.com. This has led to More of the same to be a very surprising and sometimes very odd user experience.

The schizophonic search

An interactive multi channel radio piece. Messages on the schizophonic and deathly nature of radio are hidden within the FM radio spectrum. The user is invited via a small list of instructions to pick a small transistor radio and search for these messages by turning the radio's tuning dial.

Bonnie Jo Dopp (Numerology and Cryptography in the Music of Lili Boulanger: The Hidden Program in "Clairières dans le ciel") Eric Sams (Music and Cipher) Eric Sams (Elgar's Cipher Letter to Dorabella) Stephen D. Houston (The Archaeology of Communication Technologies) http://www.nsa.gov/about/cryptologic_heritage/center_crypt_history/publications/ sigsaly_story.shtml Jayson E. Street & Kent Nabors (Dissecting the Hack The F0rb1dd3n Network) Douglas Hofstadter(I am a strange loop) Simong Singh(The code book)

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