MIR Assignment 4. Spring 2014 (100 pts)

IMPORTANT Some questions have additional deliverables for the graduate students taking the course. These are marked with [CSC575]. Undergraduate students are welcome to do them but they are optional and will not affect their grade. The assignment is worth 10% of the final grade. There is some variance in the amount of time each question probably will require. Therefore dont expect them to be equally difficult even though they are all worth the same number of points. Please provide your answers in a SINGLE PDF file. There is no need to copy the assignment specification. Also please answer the questions in order and explicitly mention if you have decided to skip a question. For questions that involve programming provide a listing of the relevant code but not all the details that are not directly relevant to the question. You can either hand me a paper copy of your submission in class or email me an electronic copy.

Hope you find it interesting, George Tzanetakis

Question 1 (20 points)

Check out the tangible music interfaces in http://modin.yuri.at/tangibles. Look at all the categories (tangibles, blocks, toys). Pick 3 that you find interesting and write a short summary (1 paragraph for each interface) of what you find interesting about them.

Question 2 (20 points)

Propose a tangible interface that is somehow combined or related to the concepts we have covered in this course. Describe the user interfaction and motivate its usage. Although you don't need to do any hardware design try to propose something that can be engineered using existing technologies.

[**CSC575**] Sketch how you could design a user study to evaluate the effectiveness of the proposed tangible interface. How many participants ? What would their instructions be ? What would you measure ? What would you ask them ? If you don't have experience with human-computer interaction then reading some recent papers from the CHI conference would be a good starting point.

Question 3 (30 points)

Obtain an developer account at EchoNest. There are both Java and Python clients and lots of examples of source code. Pick 3 of your favorite artists and use the API to find their biographies, find the 2 most similar artists to them and display the results in a simple (or fancy) webpage. Your code should take as input the names of the 3 artists and generate the webpage. There is no need to make it fancy and dynamic. Simply generating a static html page out of the XML returned is sufficient.

Question 4 (30 points)

Read the following paper describing a tabletop graphical user interface for exploring large collections of songs:
`http://ismir2009.ismir.net/proceedings/PS4-17.pdf`

- What aspect of the work did you find most interesting ?

- Describe what task was used for the user study and what was evaluated ?

- Pick one paper from the bibliography, read it and summarize the main contributions of it

- [**CSC575**] Assuming that you had a reasonable amount of resources to conduct a more detailed user study how could you improve upon the relatively simple user study described in the paper.