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CS 174A Project Proposal – Music Visualizer

General Idea:

We'll have a musical visualizer that takes in any song or sound clip and allows the user to visualize the beats (similar to iTunes' visualizer and http://lights.elliegoulding.com/). To complete this task, we'll need to use a library to convert the music to a data structure that we can read and interpret. Once it's converted, we'll be able to use that information to determine how we want to move the shapes on the screen. With louder sounds, we'll display it as bigger shapes or longer lines. With softer sounds, we'll display it as smaller shapes or shorter lines. The idea is that the shapes are continuously scaling while the music is playing, and it will scale bigger with certain higher beats.

Visual:

We were thinking about implementing something like http://lights.elliegoulding.com/, where the user is controlling the eye and we can move around a volume in which objects move and change as the music is playing.

User Controls:

The user would use his or her keyboard to navigate through the 'world' and be able to visualize the music.

Keyboard inputs will control the eye of the screen and navigate.

We can add other keyboard keys to do fun things like changing the colors and other things.

Possible Advanced Topics:

We could use collision detection to check whether objects moving hit one another, and adjust their movements or change their colors.

We could also use bump mapping for the spheres if we wanted to.