5 members

CMPUT 401 (Winter 2018): Happy Dances

Project Background:

This system will be presented as part of a pop-up museum aimed at preschool children. The topic of the pop-up museum is emotions and emotion regulation. The purpose of this particular system is to demonstrate that it is possible to change a mood by acting in a way that is consistent with another mood. In particular, we will try to make children happier by asking them to imitate a happy dance. We have hypothesized that the more closely they imitate the happy dance, the greater their increase in happiness.

1) Does the project involve the development of a new system? Or is it about changing (or migrating) an existing software system? Is there code to be reused? Is there data to be ingested in the system?
   This is the development a new system.

2) What is community envisioned to use the system to be developed?
   Children between the ages of four and seven years (the age range can be modified, if need be).

3) What is the computer-usage experience of the envisioned users?
   It could be varied but we should assume none

Project Objectives:

Is the target a throw-away prototype or the first version of an evolving system?
We are looking for a working system that can be tested .

Project Sponsor and Stakeholders:

1) Who will sign off?
   Elena Nicoladis
   Victor Fernandez will be acting as a consultant to the client and the team.

2) Who will be available to meet with the students? We anticipate that at least four meetings will take place between the development team and the client team.
   Elena Nicoladis and, if possible, a psychology student who is working on developing the entire pop-up museum.
   Also Victor Fernandez.

Key Functional Requirements of the System:

The system should measure something about the similarity between the happy dance of the avatar and the happy dance of the child. Minimally, the similarity would have to include

movement of the major joints. If similarity could also include the mouth, that would be ideal. Any other measures of similarity related to happiness would be welcome, too.

Technical Requirements:

The system will be built around the Kinect sensor, most likely using Unity3D as the display platform.

Quality Requirements:

1) usability
2) aesthetics
3) fun, entertainment