

Courtesy of Hei-Jung Kim. Used with permission.

# HeiJungKim7

## ***Design Project Proposal:***

### ***Team Members: Miriam Manglani, Hei-Jung Kim***

For our project, we will explore the design of a product that we think will help a child develop a deeper connection to his/her community and thus also a deeper sense of identity. In our first class activity, we teamed up with an expert in our community, to discover something that interests us. Similar in some ways to this activity, we propose **My PAL (Personal Assistant for Learning)**. My PAL's main function will be to serve as an interactive journal or diary. The diary entries will be made graphically via a drawing board, or by voice recording, or by text recording supported by emoticons. The contents can be made shareable or private. The journal will have sensors that can measure a variety of environment indicators such as sound, temperature, light, as well as a visual media device such as a camera or video recorder that help frame the reflections that the child has about his/her observations. The journal will also have an embedded GPS device that will be used to connect the child's location to historical, current, and possible future events and unveils this information for reflection. My PAL will take the form of a stuffed toy, currently we are thinking that My PAL will take the form of a person-toy whose personality can be selected from a pool of various experts such as scientist, journalist, historian, artist, and so on. The expert personality will interact by talking with the child and guiding the child to reflect on his/her environs with questions, which might include reflections of their own.

Other design ideas for our product include the ability to program My PAL to take on a customized personality which might involve programming personality rules, the ability to program data collection using the sensors, the ability for My PAL to parse the reflections and observations and respond to it, ability to communicate with other My PALs for community building, the ability to calibrate to the child's voice, demeanor (facial expressions) and detect changes from the normal and respond to the changes by asking relevant questions.

We believe that My PAL expands upon the interest that a child has about his/her community and empowers kids to direct their own learning about their community and themselves through observations and guided reflections(via the expert) that they can create through the interactive journal functionality. The principles that have guided the design thus far are constructionist learning ideas (building artifacts through tangible activity), constructivist learning (learning by constructing knowledge by connecting new knowledge to existing knowledge), pluralism of learning styles.

With the ideas here, we realized that the MIT research project 'KISMET' might have some information that would be helpful, thus we would like to have some communication with the KISMET research team. We have also thought of at least one user that we would like to get some feedback from, a researcher in the field of human and computer interaction.

### **Some questions that we need help on are:**

- 1) Does our design project have to be feasible?
- 2) If so, how do we find out if it is possible with today's technology?
- 3) Is our scope too large?
- 4) What other types of users should we get feedback from?

### ***Web-Based Creative Learning Tool***

<http://creatingmusic.com> (look at the links for "Musical Sketchpad" and "Rhythm Band") The Musical Sketchpad and Rhythm Band tools allows the user to create a simple composition using various instruments, tones, and rhythm. The user as composer experiments with placing the bars

on the sketch pad and discovers how to create interesting rhythms and sounds. The sketchpad allows the user to build knowledge about pitch, timbre of sound, and rhythms by connecting these elements to the bars and their relative placements. I think it is interesting that the sketchpad doesn't look like a blank music sheet. I believe this supports playing and designing led by the user's ideas rather than the user being constrained to an existing structure.