

'Baby Talk': Using Silhouettes to Communicate Simply

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I. Purpose to Research

Aim: To establish a simple method to utilize more complex user interaction i.e. Gesture Control that is intuitive or learned by the individual computer

How can a child communicate before their speech has fully developed?

Right now, there are multiple ways to interact with a computer, for example keyboard and mouse. But these often have to be close and can be disruptive. Sometimes the interaction between user and computer should be more subtle, this style of interaction is commonly called *calm technology*^[1]. Calm technology is the ambient transfer of information that doesn't require a user's full attention, it allows for interaction that can happen alongside other tasks.

Why this if other interaction exist? Well, realistically this approach is not ideal, but when there is a problem, sometimes breaking down the problem or solving it in simpler terms can lend answers as to improve the current answer proposed.

II. Steps to Algorithm

Initialization

To start the program, it needs to make sure that everything is set before it continues. This is to reduce further errors that could result, similar to a constructor in Java. Initially, it needs to set up how it will be receiving the visual data. As of the time of this being written, it has *some* support for receiving a single image, a frame, but it is designed to mainly accomodate a constant polling of frames from the primary video source, a webcam. If there is no camera connected and it is in the appropriate mode, the program will exit and not move further.

Capture And Prep

"Zone" Elimination (& Recycling)

Hand Determination

Gesture Matcher

Carryover

Additional

Tasks To Be Done

Future Research/Extendible Uses

Thanks And Citations