

Face Code Communication

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1. Introduction

Traditionally, Japanese people like “anonymity” or “deformation”, which has brought circumstances bearing a unique expressing form such as “a deformed character” in Japanese “manga” and animation. The reason why Japanese people like such things is that they have “shyness” which lessons one’s behavior through the eyes of others and the idea of “harmony” which brings peacefulness by avoiding friction of personality. We consider that modern society needs such idea, and then developed a “deformation” tool which is effective for video chatting.

2. Exposition

Then we advocate a tool that can sustain anonymity as well as reacting to user’s emotion and affectivity. As a means we propose a video chatting tool “Face Code Communication”.

3. Face Code Communication

3.1. Algorithm

We tried to extract the voice level of the amount of speech and the upsurge of the conversation and reflect the resolution in the video. This is that reflects level of desire = emotion which a user want to see the user's other party's face in the image. This is an idea to balance realistic sensation of the video chatting and protection of privacy.

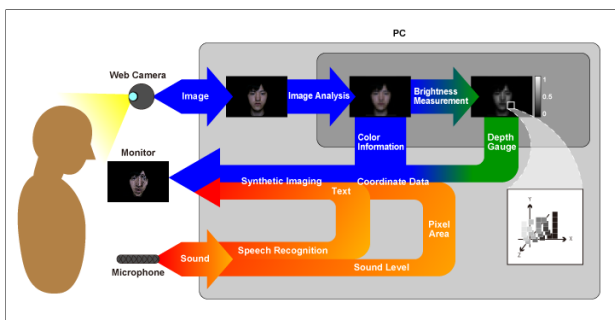


Figure 1 : Flow of the proposed system.

3.2 Form

3.2.1. Image representation by characters

Visualization of conversation which is the most basic form of communication shows the fact that the content of conversation determines one’s impression.

3.2.2. Pseudo Stereoscopic Effect

By transforming brightness value which is got from video into depth we succeeded in sustaining anonymity as well as reproducing presence of the user.

4. Results

This attempt has a potential for developing a new form of interaction. Figure 2 shows the resulting images obtained using “Face Code Communication” system. It shows the process of change of the resolution. From now on, we would like to consider a method to understand user’s desire for communication and react on the upsurge of conversation.

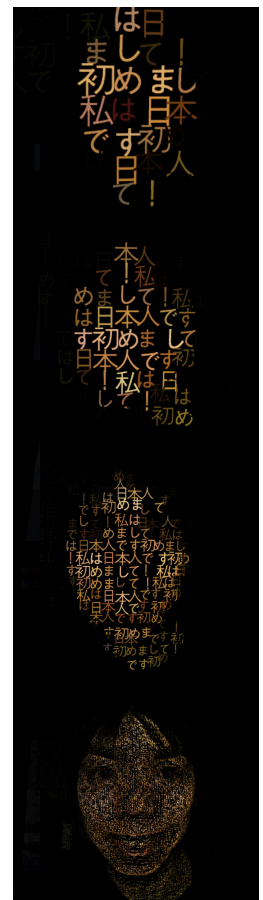


Figure 2 : Performance of the proposed system.