

## **Research Project**

Make a Face: User-defined Face Gesture Interactions Using Webcams  
(Master's Thesis)

Eyewear to Make Me Smile: Can Electric Muscle Stimulation increase Happiness?  
(Conference Work in Progress)

Zanshin : Altering Our Alertness and Relaxation  
(Keio Media Design, School Individual Project)

## **Music and Sound Design**

“Crazy Festival” Smart Phone Game

“Hielo” Smart Phone Game

## **Personal Project**

Kind of Music (Personal Website)

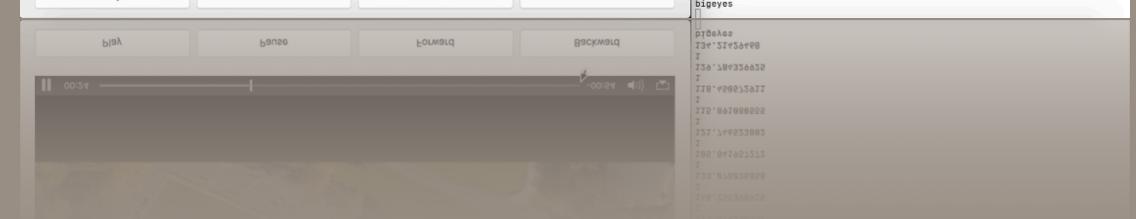
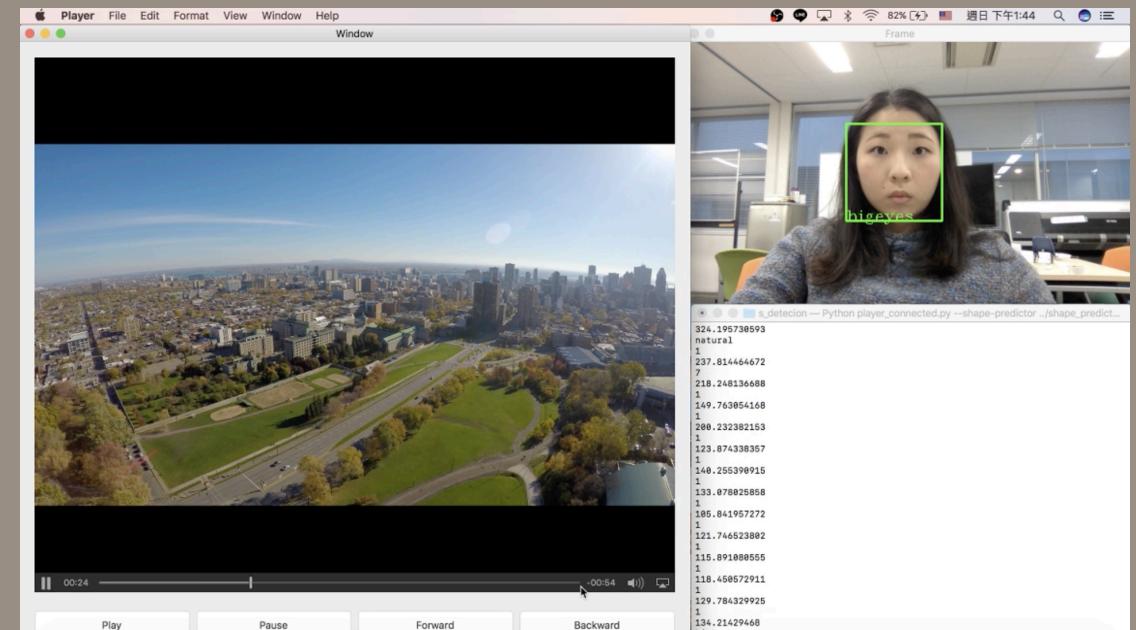
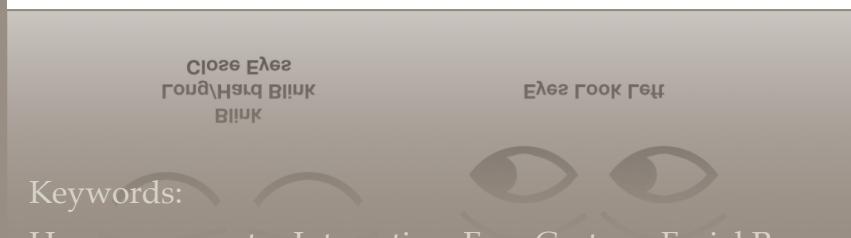
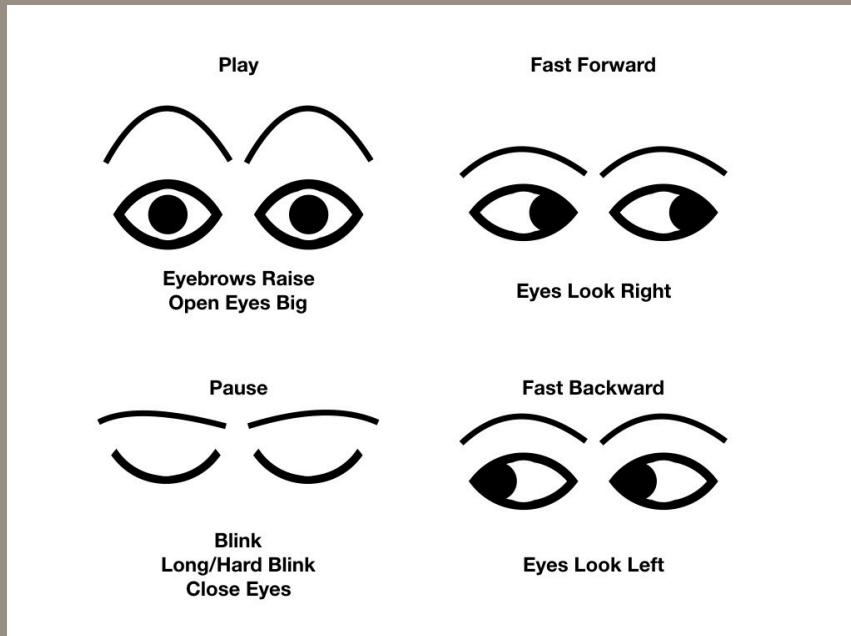
**Portfolio**

**Yenchin Lai**

# Make a Face: User-defined Face Gesture Interactions Using Webcams

(Master's Thesis)

In this thesis, I present a face gesture interaction based on the user-defined gesture study and an implementation of the system on computers using webcams as input. Three computer applications are discussed in the study. They are e-mail checking, media playback, and a document reader. The study indicates that gestures made with the eye region are the most used ones because they are easier to perform and more socially acceptable. Through the detection accuracy test conducted on the implemented system, it shows that the accuracy achieves over 80% in both media playback and reader application.



Human-computer Interaction, Face Gesture, Facial Recognition, Hands-free Input, User-defined Gesture, Elicitation Study.



## Eyewear to Make Me Smile: Can Electric Muscle Stimulation increase Happiness?

Lai Yen-Chin, YuanLing Feng, Kai Kunze, Junich Shimizu, Takuro Nakao

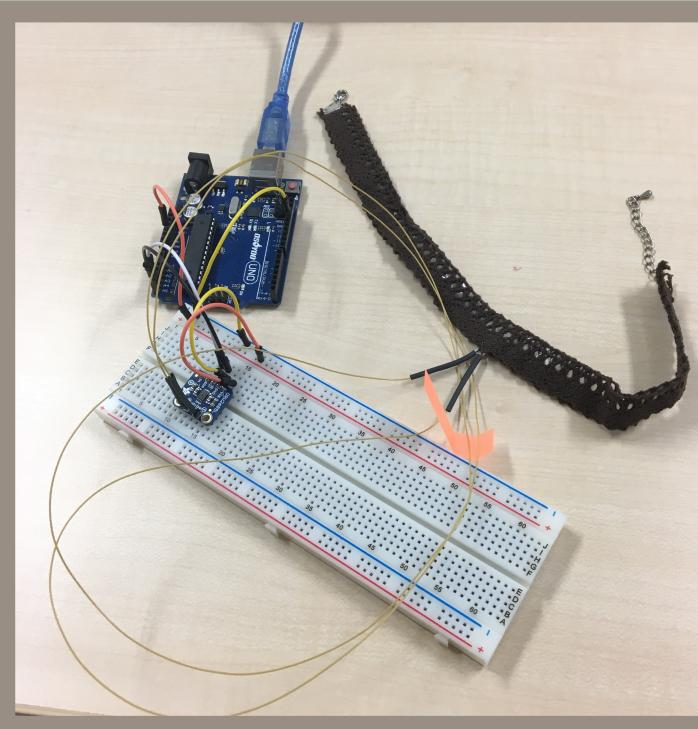
March 2017 TEI '17: Proceedings of the Eleventh International Conference on Tangible, Embedded, and Embodied Interaction

Publisher: ACM

*(Conference Work in Progress)*

This paper suggests a demonstration to make users smile using electrical muscle stimulation (EMS). We present our first insights in how to use an unobtrusive EMS setup to stimulate smiles and showed first findings from our entry in this year's student innovation competition at an international HCI conference. We also outline our approach and follow up experiments to potentially use this technology to improve user's mood.





## Zanshin : Altering Our Alertness and Relaxation

(Keio Media Design, School Individual Project)

Zanshin is a choker designed device which provides a false heart rate feedback. I explore how a false heart rate feedback on neck with a frequency of 120 bpm influences human alertness. Although the result of the experiment with 10 participants does not show a positive influence, I discuss the implementation and findings toward this prototype of alteration design for emotion.

SCORE: 0



## "Crazy Festival"

"Crazy Festival" is a Taiwanese smart phone game released by ARSABALLOON in 2011. In the final update of this application, it introduces four Taiwanese festivals, which are Chinese New Year, Moon Festival, Lantern Festival, and Dragon Boat Festival. I joined the team in a later stage and designed the music and sound for the games introducing Lantern Festival and Dragon Boat Festival.

Sound Track on SoundCloud

<https://soundcloud.com/yen-chin-lai/game-music-20111126>



## hielo store

"hielo store" is a smart phone game produced by a frozen yogurt brand, hielo, as the promotion campaign in 2010. Players can purchase coupons with coins in the game and redeem frozen yogurt in physical hielo shops. This is my first game music and sound design work.

Game Demo

<https://vimeo.com/62840486>

Sound Track on SoundCloud

<https://soundcloud.com/yen-chin-lai/game-music-2010>



# Kind Music

**Kind of Music** is my personal website from 2011 to 2016. It is written in both Japanese and Chinese to introduce music from each country. Through the website, I had chances to get in touch with artists, producers, and companies in music industry. Sometimes, I also had the chances to work with them, such as translation or writing articles for music magazines.

**Kind of Music** (Japanese and Chinese)  
<http://kindofmusiclai.blogspot.tw>

