

## **Personal Expression and Wearable Technologies**

### **Despina Papadopoulos & Zach Eveland**

In this class we will explore the possibility of developing wearable devices & accessories as means to social experiments and agents of expressivity and communication. As the class traces the relationship between the body, fashion, technology and social interaction students will be asked to actively explore this trajectory and develop ideas and devices around them. What would an electronic gesture be like? How can technology & fashion allow people to dynamically express themselves? What is a subversive technology? Weekly assignments will frame the theoretical discourse while a final project will help students synthesize theoretical considerations and design practices in the wearable computing space.

#### **Week 1: Introduction**

Intro - what the class will be about. Why discuss wearable computing at all? What does wearable computing mean today? What are the fundamental and essential components for something to qualify as “wearable technology”? How is technology aligned with personal expression? Present the approach the class will take.

**Assignment:** create 2 masks for next class: one that you think represents you and one that “hides” you.

#### **Week 2: Identity**

What is the relationship between clothing and the “self” : or how this relationship is exposed by our relationship to clothing - memory, practicality, sex?, communication - what do high-heels represent? an old sweater? the Sari? Talk about armors, insignia, labels. Clothing as protection etc. Clothes - why do we wear clothes? How does the “evolution” of clothes relate to social changes? What are the politics of dressing?

Make an item of clothing for yourself that fulfills at least one “aspect” of a “dream” item (does not have to look perfect or work, but present the idea of what it would look like or problem that it would solve, or present a problem that you have with an existing item, that you like but it is just not right (too long, wrong color, painful, sloppy etc).

#### **Week 3: Politics of Dress / Subversive Technologies**

Relationship of “dress & politics”, “technology and politics. Subversive technologies - present Digital Peacocks and similarly “subversive” projects and technologies. What does it mean to subvert technology and through technology? Providing people with alternative channels of expression can itself be subversive? Topsy turvy.

**Assignment:** High level idea for final project - present in medium of choice.

#### **Week 4: Evolution / Brief history of Wearable Technologies**

Technology - is technology the next phase in the “evolution” of clothing? If not, why? If yes, how? What does this mean for our image of self and social interactions? Examine technologies in clothes and their ramifications. A brief exposition and critique of how technology has been used so far.

**In class exercise:** improvisation > object & 2 or 3 students, create & enact a scenario using a non existing device (maybe the one for final project)

#### **Week 5: Sensors and actuators**

A survey of technology options appropriate for wearable devices. What's out there and how can you work with it to make a wearable that reacts to its environment or wearer? Problem

solving: using what is there and adapting both the existing technologies and the conventions of wearables to meet your needs.

**Assignment:** Identify possible technologies to use for project. Prepare a short presentation (less than two minutes) for next week covering one of the technologies.

### **Week 6: Personal Expression / Magic**

Personal expression – how do you enable people to express themselves dynamically through their clothes and accessories while using technological components? What constitutes personal expression? Technology as ready to hand (Heidegger in Being and Time) – Technology as magic, technology as revealing (the “penny drops” moment).

**Assignment:** prepare your presentation for next week

### **Week 7:**

Students briefly present their initial concept. For this presentation they can use boards / photos / video / a collection of objects; they must communicate the kernel of their idea – [depending on the number of the students this might take 2 sessions].

### **Week 8 / 9:**

Discussion of gestures. Gestures and communication, evolution of gestures. Where do we stand today? Do we have “electronic” gestures? Think of the Duchene smile, semiology, trends etc.

**Assignment:** choose a common gesture (a handshake, a wink) and present an electronic version of it -- presentation medium of choice

### **Week 9 / 10:**

Discussion on social interaction -- Observing and amplifying. Gestures, faciality. What does technology do to us? What do we do to technology? How can we use technology to conduct social experiments and how can we use social interaction to provide an alternate meaning and use to technology?

### **Week 10/11:**

Projects update & critique

### **Week 11/12:**

Solutions workshop – how do you thread with wire? What needle to use to that end? What is the best adhesive for fabric / LEDs? Foam, vinyl, leather or plastic?

### **Week 12:**

TBD depending on time

### **Week 13:**

Final Presentations

### **Week 14:**

Final Presentations

*A selected bibliography will be provided at the beginning of the class and students will be encouraged to familiarize themselves with those texts.*