

The Choreography of Switching Systems; Active Sensate Materials

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Two main questions

- What materials/methods do you use for “sensing” the body?
- WHY are you “sensing” the body?

What is a switch?

- A control consisting of a mechanical or electrical or electronic device for making or breaking or changing the connections in a circuit.

What does this mean on the body?

- Push
- Pull
- Stomp
- Grope
- Slap
- Roll
- Kiss

Very large choreographic space

- What technologies do you use?
- What discoveries have you made?
- How do you chose the “right” switches?

What is a sensor?

- A device that responds to a physical stimulus, such as thermal energy, electromagnetic energy, acoustic energy, pressure, magnetism, or motion, by producing an electrical signal.

Wearable sensors

- It is easy to get body sensor data. We can sense position and acceleration. We can track gaze; record muscle tension. With instruments such as a Galvanic Skin Response (GSR) sensor, a Blood Volume Pulse (BVP) sensor, a Respiration sensor and an Electromyogram (EMG) we can even suggest some degree of "affective sensing"... The hard part is to develop **meaningful** mappings.

And then what?

- As designers of wearable technologies, we need to step back and ask why we want our garments to be any more “active” than they already are.
- What kind of interactions do we want to carry out on our bodies?
- What kind of functionality do we want to enable inside our clothes?

What do you think?

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My take on things

- The clothing and electronic industries are looking for the killer application, the next big thing that will introduce wearable computing to a mass market.
- Many research directions are misguided.
- The focus on health monitoring and surveillance technologies clearly reflects the (military and pharmaceutical) funding structures and fails to deliver appealing product ideas that respond to personal, social and cultural needs.