English version:

Livin' bits: tangible/sensory interface concepts for communication

(perspectives for interaction design systems in the future)

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1. Livin' portable device

Imagine an object made into a "living"[1], multimodal/multisensory communication prosthesis to be handled and "physically" activated by users. This amenable, transformable and shapable object would respond to "transmitted"[2] emotions and sensations. All interactions/relationships between users and *their*[3] objects (and the other way around) would result in a symbolical *manifestation* of life itself (both outside and inside the object): the expression of all actions and operations voiced/solicited by users (referring to the development of a formal metalanguage). In this device the control interface would be integral part of the *physical* dimension of the object: foldings, twistings, tiltings and so on. Any type of action upon the object would come down to activating a command, be it an action or an operation.

The object seen as a sensory, emotional and affective prothesis

This device would be able to sense or interpret (with a view to transcribing and translating) our moods as well as our personal communication purposes (desires, longings). It would manage to grasp and interpret our communication "intentions" – referring both to the information sent by the object itself and to its interpretation of received/"incoming" messages.

The object learns by coming into contact and "mixing" with other items

Both shapable and transformable, this object could come into contact with other objects and thus exchange data, information, profils and settings. By mixing with other objects, this device would gather information enabling it to alter, enhance and increase its functionalities.

Keywords: living/life, energy, density, amenability, biomorphism, sensation

2. Livin' body data network

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[1] This "biomorphic" object would bear a strong analogy to living creatures.
[2] The object would have both a mediating and prescriptive role.
[3] Users and objects would be linked with each other in a close relationship based on a taming effort.

The communication object/device or system would literally be "incorporated" to the user thanks to connection/information "cells" scattered all over his/her body. These cells would constitute a data transmission network ("wearable data network") graphically represented by a set of luminous shapes moving across the whole surface of the body (skin and garments). From this network would arise an adaptable and customizable "genome-like" information structure implying "concrete" interactions (that is to say interactions derived from body-language): "motion body tracking"; thus long-distance communication would be able to offer the same features as close-range communication (physical communication, body language).

"Cells"[4] in a bodily network

These cells would materialize through a set of LED of different kinds[5]. Each one of them would contain specific information and would exchange data with other cells thanks to synaptic connections. Made out of a matter that can easily be stuck to the body (skin and garment) they would be fixed on the visible or non-visible surface of the body (skin and/or garment, accessory). Thus they would act both as fashion items ("fashion wearable computing") and as elements of a "genome-like" information structure.

The body used as an interface

The body (as an information exchange micro-network) comes into contact with the public space (as an information exchange network) and with the whole wide world (as an information exchange and communication macro-network).

The skin used as a screen

This innovative graphic representation would lead to the emergence of new ways of displaying information. It would delineate a surface dedicated to data organization and display while providing information as to the nature of the exchanges. Moreover it would give birth to a new kind of tactile/sensory interaction that would have the ability to activate some commands.

Keywords: body, experience, sensation, network, skin, fashion item, accessory

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[4] Reminiscent of a neuronal unit.
[5] Shape/format, color, size = media, functionalities etc.