

# Convention on Health Analysis and Management

## CHAM 2015

### Connected Things: Aids, Drugs or Spies?

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Virtual health is now part of real life; connected things are arriving. Anyone can take their own blood pressure with their smartphone, count how many steps they've walked, or weigh themselves on a connected scales. For all that, many of us continue to distrust connected things. They are both a strongly developing economic market and a public health challenge.

#### **1. Connected things as an extension of our body**

In a digital ecosystem, the various tools we use are extensions of our bodies. Indeed, the expression "connecting thing" may already be outdated. The communication revolution has already happened. What has now started is symbiosis with the environment.

#### **2. An aide to knowledge and awareness**

Using a connected thing to measure the number of steps walked, encourages users to change their behaviour, or walk more, or play more sports. In this sense, the connected thing is an aid. Similarly, it helps patients on insulin to better manage their disease.

#### **3. Quantifiable prevention and enhanced monitoring**

Quantifiable prevention becomes possible by measuring the effects of a diet or drug treatment. If society acknowledged the efficacy of monitoring via connected things, their use could ultimately be made mandatory. Similarly, health insurers might define penalties for their non-use.

#### **4. Health becomes an unconscious imperative**

Thanks to smartphones, health data is becoming an everyday presence. Big platform providers want to capture as much personal data as possible. Although the debate has already begun in the United States, it has not yet reached the political arena in Europe. These state-owned firms subvert the principle of disintermediation in many fields and set up direct links between individual consumers. Although these new players may be feared, they achieve nothing by infighting. It seems preferable to forge partnerships, to capitalize on the vast databases they hold.

## **5. From doctor to health adviser: the bionomist**

Patients have access to increasing amounts of information, but they still need a doctor to interpret it. Doctors will not be disappearing, but they could see their role evolve to that of a health adviser. As such, their role would be to help patients manage their lives. The doctor would be a kind of “bionomist”, having to help patients lead a healthy life by using data from connected things.

## **6. An aid, but also a drug**

Most people who use a connected thing don't really need to. Many runners buy them only to measure their performance. For those who really need a connected thing, permanent access to real-time data can become a drug, like the classic use of a smartphone can be for any of us.

## **7. Spies on life?**

Although it is up to the user of the connected thing to share the data, the data itself is stored by hosting entities. You only have to launch Google to see that recommendations are offered based on what sites you've visited. When posting data online, their owners should realize that they run a risk of their data privacy being breached. The right to privacy no longer exists unequivocally.

## **8. The premises of preventive medicine?**

Building up Big Data containing the health information of an entire population could promote the development of preventive medicine. Such data would be anonymized and would not permit hosting entities to give targeted health advice to users. However, there can be no guarantee that such data would never be managed at individual scale. On this assumption, users could automatically receive advice based on changes in their personal health data.

## **9. Towards a questioning of health insurance and solidarity?**

Widespread and personal access to genome data could eventually lead to individual evaluations of the probability of having cancer or Parkinson's Disease. In such circumstances, people with a statistically low chance of contracting a serious disease could be tempted to cancel all or part of their health insurance.