

# IoT for entrepreneurs

## *Session 3*

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# 1. Objectives of the course

- Recap: how does it **feel** building an IoT?
- Business models and IoT: an example
- What to do next? Publishing best works
- What to do next? Data x IoT

# 2. How did it feel?

"Feeling" is an unusual term to describe a course / project\_title

→ the point is to stress the **cultural** novelty you encountered:

In business schools, you acquire skills such as "conducting marketing research" or "knowing the principles of accountancy".

When you think of it, this kind of skills are characterized by:

- difficulty / error / failure: memorizing courses is hard, lack of experience in marketing can mean poor judgement.
- equipment: Word, Powerpoint, Excel
- information search / knowledge acquisition: attending lectures, reading books and memorizing, practising cases.
- types of output: presentations in class with ppt, written report as a Word doc, written exams.
- length / time: time spent on reading and memorizing
- quality / excellence: nuanced and rich judgement. Knowledge and correct application of accountancy procedures.

You practiced something different. Building this connect object, you did:

- difficulty / error / failure: not knowing where the error comes from. Is it the code? The object? The token? The computer? The cable? Poor documentation or documentation for engineers.

- equipment: an object, a software, a cable, a soldering station, computers in the Makers Lab, 3D printers. Equipment is diverse and potentially poorly documented.
- information search / knowledge acquisition: attending lectures, reading the pdfs, but also a lot of self search and trial and error.
- types of output: an artefact that works. Deviation from the "model" is ok. You are in control.
- length / time: contrary to purely
- quality / excellence: getting something that works and which is **engaging**:
  1. Esthetics: is it beautiful? is it pleasing to use?
  2. Utility: does it provide a useful service?
  3. Ergonomics: is it simple, easy and comfortable to use? Does it lead to repeat use?

### 3. An example of a business model based on IoT

Withings is a company born in France in 2008. It designs connected objects for a B2C market:

HIGH-TECH ET MEDIAS

**Withings De la balance connectée à l'assistance au sommeil**

LES ECHOS | LE 09/01/2014

Figure 1. Withings making the headlines in 2014

In 2016, Nokia acquires Withings:

fitness  
withings  
Nokia  
Popular Posts

## Nokia completes \$190M acquisition of Withings health gadget maker

Posted Jun 1, 2016 by Natasha Lomas (@riptari)



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### Crunchbase

**Nokia**

FOUNDED  
1865

OVERVIEW

Figure 2. Withings acquired by Nokia

In 2017, Nokia fades away the Withings brand and develops its digital health solutions:

**engadget**

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Nokia launches new digital health products as Withings name fades

There's a new WiFi scale, a new blood pressure monitor and a redesigned app.

Nicole Lee, @nicole 06.20.17 in Home

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Nokia

Figure 3. Withings retires as a brand, Nokia health develops

The value proposal of Nokia's solution is not to sell more IoT. It consists in providing servicing,

enabled by IoT.

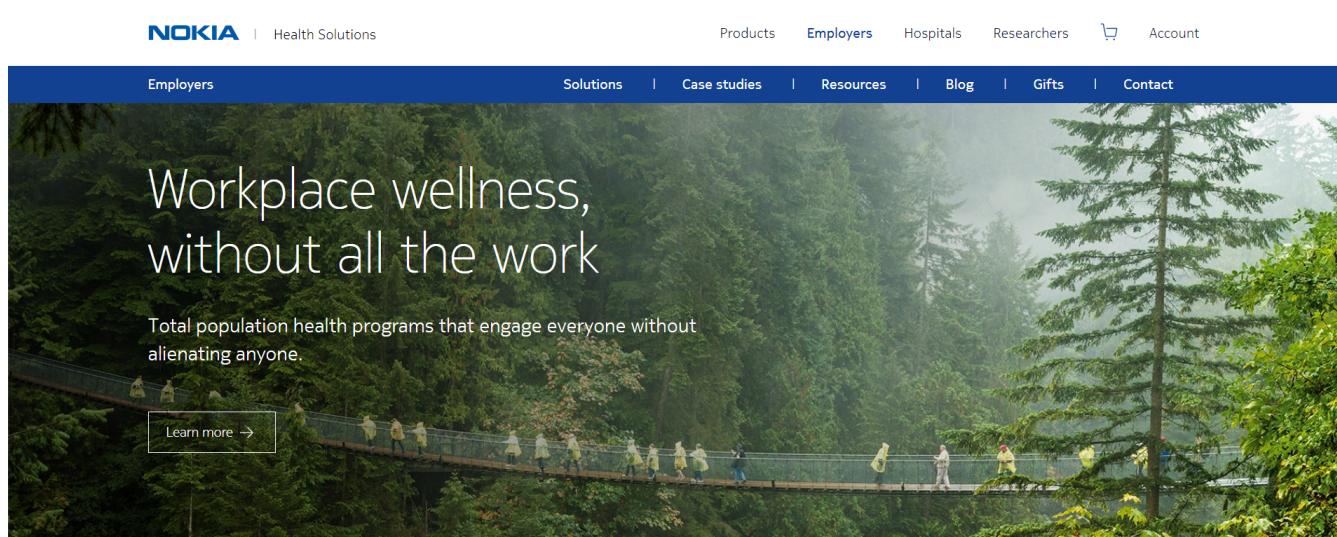


Figure 4. Nokia Health solution in a B2B market

## Engage your employees in their health

Employer medical costs have risen 51 percent over the last ten years. And the growth shows no sign of slowing down. Yet studies show that for every \$1 invested in corporate wellness, employers receive \$3.27 back. Here at Nokia, we go a step further. We help build cultures and communities of wellness throughout your employee population.

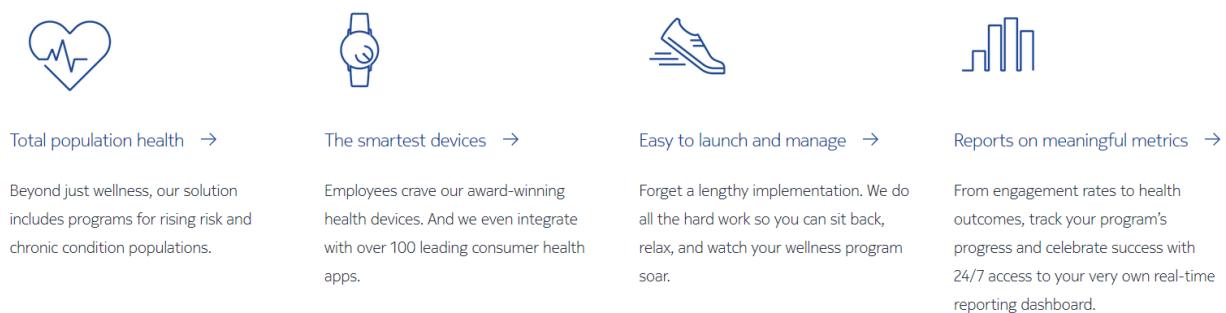


Figure 5. Better health at the workplace as a value proposition

Note: this is the latest development of an old trend, which is the "servicing economy":



Figure 6. From selling photocopiers to printing services

## 3. What to do next?

### 1. Publishing best videos

Goal of the [Data R&D Institute](#): pushing forward and publicly what emlyon business school does in data science.

A screenshot of a website page for the Data R&D Institute. The header includes the emlyon business school logo and the Data R&D Institute logo. The main content features a dark background with colorful, glowing code snippets. A central banner reads "Welcome to the Data R&D Institute!" and "We offer data analytics and data science courses, specialized training like workshops and tutorials, and data science consulting." Below the banner, there's a "Recent posts" section with a search bar and a "Recent Tweets" section with a link to "Tweets by data\_emlyon".

data.em-lyon.com

Howdy, Clement Levallois

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Welcome to the Data R&D Institute!

We offer data analytics and data science courses, specialized training like workshops and tutorials, and data science consulting.

Recent posts

Search site:

Search ...

Recent Tweets

Tweets by data\_emlyon

Figure 7. Data R&D Institute front page

### 2. You must continue developing an interest in IoT x dataviz

There is a convergence between IoT, data science and AI. See the [AYT Kit released by Google](#):

## Introducing AIY Vision Kit: Make devices that see



Figure 8. The AYT Kit by Google

To stay updated on these topics, contributions welcome:

→ <http://seinecle.github.io/mk99>

# The end

Find references for this lesson, and other lessons, [here](#).



[align="center", role="right"] This course is made by Clement Levallois.

Discover my other courses in data / tech for business: <https://www.clementlevallois.net>

Or get in touch via Twitter: [@seinecle](#)