MOOC

Innovating in a Digital World

Lesson: Connecting products and businesses

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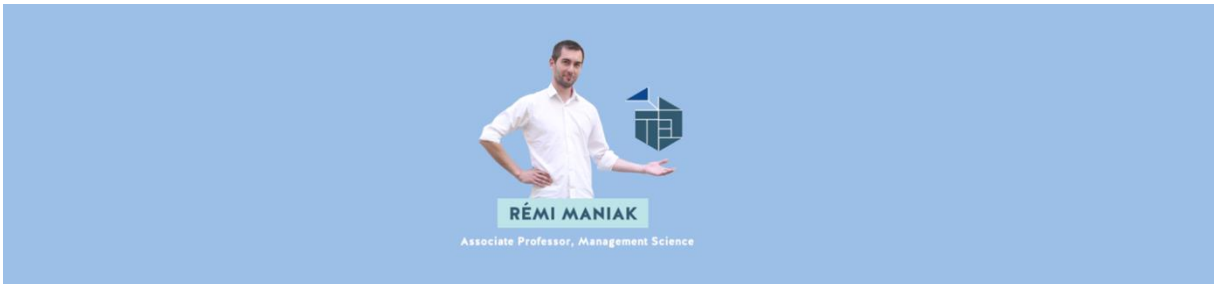

Introduction

In 2011, at the worst moment of the company, Stephen Elop, CEO of Nokia, wrote an internal memo to all the employees saying « Nokia, our platform is burning. The battle of devices has now become a war of ecosystems where ecosystems include not only the hardware and software of the device, but many other things. Our competitors aren't taking our market share with devices; they are taking our market share with an entire ecosystem."

To REALLY understand what happens, we need a bit of theory.

PACKAGING COMPONENTS, PACKAGING PRODUCTS

Let's take a product. This can be a PC, a phone, a car, software, whatever.

A product is made of components that interact together.

This means « someone » has to define the "interfaces" among all these components.

A company can define its own interfaces, and keep it private.

For example, in the car industry, the product is VERY integrated. The way components interact together is specific to each carmaker, and to each model.

If you do this you need A LOT of strength to define all of this, put all of this together… and big money so you can absorb all the fix costs.

Or, you can share these components interfaces with other companies.

So you have « standardized components interfaces », and « modules » that you can shop around and plug and play within the global architecture.

Now let's take ANOTHER product which fits perfectly with the first product: a mobile phone and a tablet, a car and a road, a sportswatch and a heart rate monitor.

« Someone » has to define the way these products interact together.

Again (again n'est pas dans la bande son), you can be a very strong company and trying to define your own product interfaces.

If you do so, you have a range of private products, which all fit well together. You have a "closed platform".

Again, you need a lot of strength and big money, because investments are enormous to define and keep all of this together.

Or you can co-define standardized product interfaces with other companies, or enjoy publically available standards.

HOW DIGITIZING CHANGES THE RULES

Digitizing leverages standards both at the component level and at the product level, from programming languages to communication protocols, from developer toolkits to plug&play standards.

This means that nearly anyone can create a module and integrate it within the architecture of a product. Or nearly anyone can create a product and interface it with other existing products. You just have to know the standard!

This game is open. Innovation opportunities continuously arise at the component and the product level. There are more and more publically available plug&play components, and connectable products. This makes a dynamic picture where everything, even partially digitized, moves VERY FAST.

This makes it very difficult for a single company to master the dynamic big picture.

Digitizing pushes companies:

- To embed public component interfaces so their product can benefit not only from the in-house R&D, but also from others potential external players.
- To ally with other companies in order to create products which really make sense together developing a « platform » of complementary products.

LET'S TAKE THREE EXAMPLES TO GET A TASTE OF DIGITAL BASED COMPETITION

A) Mozilla Firefox was firstly developed as integrated software, meaning as a non-modular product, with private interfaces.

The company undertook 2 strategic moves in the late 2000s:

a. Making the product more « modular », meaning shifting from a privately designed and close interfaces policy to a product made of bricks, making the possibility for anyone to propose a new brick in an open source philosophy and activating a large community of external developers.
b. Allying with Chinese phone makers which develop specifically adapted phones, with a Mozilla operating system and promoting the software in an increasingly wide range of products which all fit well together.

Mozilla is right now a dynamic platform taking full advantage of digital!

B) Let's go back to Nokia and the "phone industry."

Yes Apple launched an outstanding product in 2007, taking advantage of a global premium brand image.

But Apple also was developing a "semi-private platform", with existing lines of complementary products which perfectly fit with the phone, product interfaces which allowed companies to develop complementary products and component interfaces to engage a worldwide community to develop modules.

That's why Nokia suddenly realized this was a war of ecosystems… it had to open and decide « how they build, catalyse or join an ecosystem".

Nokia finally joined the Microsoft ecosystem, which was also suffering, for not having attractive mobile products. It is ready to fight against Apple, which finds now harder and harder to deal with all these fast-paced technologies and external products.

This move is quite emblematic of what the digitization of industries causes, and how players evolve within a digital based competition.

C) Even the "old industries" are in their way to partially digitize, and to deal with the same forces.

Let's take the automotive industry. A car is historically a non-modular / non interface product, which the carmakers are not compelled to change.

At a product scale, some digital portions of the car evolve so fast that carmakers try to develop modular designs to activate external developers with Appstores, or to embed Apple or Android based platforms directly within the dashboard and instrument panel.

At a multiproduct scale, digitizing opened new avenues within the vehicle architecture. Now anyone can invent products which plug on the car data network and build value on it. The vehicle is on his way to get connected, and becomes a part of wider ecosystems.

TO SUM UP

To sum up, digitization radically changes the good-old-days of competition. Launching a good product is not enough.

Depending on their degree of digitization, products are pushed:

- From the « inside » because of the fast pace of component evolution, which tend to become modules, shared in coordination with others, open to external contributions.
- From the « outside » because products become more and more compatible with each other. So the products tend to belong to « multi-product platforms » which only make sense and value together.

Now, let's the war of platforms begin!