Disruption, innovation and R&D in the software world

François Bancilhon

twitter.com/fbancilhon
francois.bancilhon@data-publica.com
www.data-publica.com
Data about me
François Bancilhon

- Academia (1972-1989) 17 years
  1. INRIA
  2. University of Paris XI
  3. MCC

- Start ups (1989-) 24 years
  1. O₂ Technology (1989-97)
  2. Xylème (2000-)
  3. Arioso (2000-05)
  4. Mandrakesoft/Mandriva (1998-)
  5. Ucopia (2003-)
  6. Data Publica (2011-)
What is simple is false
What is complicated is incomprehensible
Disruption

- We are living a new economic revolution
- Major disruptions caused by the Internet, the Web and social networks

- Disruption
  - Changes in the rules
  - New games
  - New players
Disrupted
To be disrupted
Not disrupted
Innovation

- Substantial improvement or creation of new products, services or internal processes
- Generating a two digit growth of the associated revenue
Innovations
What changed in the innovation scene (in Europe)?

- VCs
- Angels investors
- Mentors
- Incubators
- Pitch contests
- Start up programs
What is different in the software innovation scene?

• Accelerators (3-6 months)
• App contests (2-4 weeks)
• Hackathons (2 days and 2 nights)

• Time is moving faster
Innovation time is getting shorter

- Start ups
- Incubators
- Accelerators
- Hackathons

- Accelerators are software specific
Drastic changes in software engineering

• Between 2000 and 2010, the cost of software development has dramatically decreased

• Project development
  • Number of person.years
  • Elapsed time
What made this progress possible?

• Open source software
• SaaS
• SaaS + open source = Mash ups
• Geek social networks
• Agile methodology
• Cloud
Impact of those changes

• Drastic reduction of the barrier to entry in many areas
• Cost and time

• Software development (in € and time) is not the critical resource in a software start up life anymore
• Made accelerators possible
Innovation: versatility

• The average software start up changes its business model three times in its first twelve months

• Examples in the data world
  • Data Publica, qunb, Infochimps, BuzzData, Factual, Datamarket, Scraperwiki
Technology centric companies

Build product → Look for customers
Customer centric companies

Look for customers ➔ Build product
Innovation summary

- Cycle time is short: 3 months
- Business model keeps evolving
- Customer driven reactivity

- There is currently no R&D model associated with that behavior
Can we invent agile R&D?
An old R&D/Innovation impedance mismatch

- R&D funding requires technology challenges « verrous technologiques »
- Need to show you are doing something difficult
- Embedded in FP proposals
- Embedded in French R&D funding
- Focuses on difficult problems
DATA PUBLICA
Data Publica: expertise

Transformation

Crawl
Scraping
ETL
Data cleansing
Text & Web mining
Databases

Generic dataviz
Specific dataviz

Open Data
Web
Social network
Private data
Crowdsourcing

Content
Data
Presentation
Dataset Examples

- Public Tender announcements
- Information on public organisations
- Economic activity (by vertical and by geography)
- Economic dashboard on 36,000 cities
- Employment dashboard on 300 employment zones
- Retail stores and services
- Hotel room prices
- Stores opening hours
- Electric car charging stations
- Elected officials
Data Publica

- We surf on a new trend (data)
- We are here to disrupt major players
- We got limited funding
- We build software super fast
- Our business model keeps being refined
- Six months is long term

- We try to cooperate with R&D labs
François Bancilhon
twitter.com/fbancilhon
francois.bancilhon@data-publica.com
www.data-publica.com