

# Another narrative<sup>1</sup>

Philippe Aigrain<sup>2</sup>

When I read the PARADISO report, I had an uneasy feeling. It had all the right words about the great challenges facing humanity from climate change to the rise of inequality, from globalisation to new measures of wealth and how the ICT can give us new capabilities. It told us that time is short before the catastrophe, but still, it felt like a bedtime story. I did not recognize the Internet in which I live and struggle. When I tried to pinpoint the source of my dissatisfaction, what stroke me is that the narrative about the past 50 years and even more the last 10 years was “sanitized”. Here is another narrative in 2 minutes, and a few words on which R&D issues matter in this context.

The key components of our open common infrastructure of computing and communication, that is the open personal computer and the neutral end-to-end Internet were designed in the 1970s, based on work conducted before. It took 30 years, and the addition of free software and information commons before their empowerment impact for individuals and groups fully materialized. However, during these 30 years, and in particular the last 15 years, powerful players have been at work to undermine this potential. They used a variety of means: the extension of copyright and patents and the hardening of their enforcement, a focus on innovation that targeted primarily the maintenance or acquisition of dominant positions rather than new user capabilities, and more recently, invoking security to tramp on fundamental rights. I am going to insist on another track of this counter-reform movement. It is particularly important because, in a way, most of us gave it an implicit consent. It is the recentralization of computing, data storage and service provision.

Suddenly, we woke up with centralized social networks such as Facebook, centralized group and document management such as GoogleDocs and centralized media hosting such as YouTube or Megaupload<sup>3</sup>. Whether we, as individuals, as groups, as neighbours, will be able to reclaim servers, services and data<sup>4</sup> is the key issue that will determine the answer to the questions tabled for this last session. There is a powerful movement in the US and in Europe for constructing a new decentralized infrastructure for the Internet. The code names are Free-

---

<sup>1</sup>Talk at the Addressing Research Challenges and Other Open Issues session of the PARADISO Conference, Brussels, 7–9 Sept. 2011

<sup>2</sup>Dr. Aigrain is the CEO of Sopinspace, a company developing innovative free software for collaboration and democratic processes using the Internet. He is one of the founders of La Quadrature du Net, a citizen group defending fundamental rights and freedom in the digital sphere.

<sup>3</sup>The latter having been strongly promoted by the war against P2P sharing.

<sup>4</sup>See Decoupling freedom: reclaiming servers, services and data, <https://flossroadmap.com/text/NUFVxf6wwK2/view/>

dom Box<sup>5</sup>, Commotion<sup>6</sup>, OpenGarden<sup>7</sup>, Diaspora<sup>8</sup>, Thimbl<sup>9</sup>, or dozens of other projects. Some will fail, others will succeed. As usually, some of the key ideas can be traced back to fundamental research conducted in Europe<sup>10</sup> and European R&D teams have strong expertise in some layers of the new infrastructure (databases, cryptography, and application services for instance). But Europe is almost absent of the present efforts to coordinate the many grassroots initiatives in this domain. European R&D programs can help it regain a position, under three conditions :

- Express a strong endorsement for efforts to put the power back into people: the answer to the question : “Who are the relevant stakeholders who can act as” credible “agents of change” and generate massive scale citizen trust and participation” is “those and empower citizens and participation” .
- Promote a culture where technology is not considered as a given or a consumption product, but rather as a social construct, where choices are problematized and debated.
- Develop original forms of funding for projects that develop as a free-software, open hardware common infrastructure. The need to move out of the 50% partial funding/property of results for participants model was discussed during the preparation of previous framework programmes, but it is a *sine qua non* for funding innovative R&D contributing to a freely usable common infrastructure. In other terms, let’s ask ourselves what is best: another round of 250 million euros 50% funding for the 4.5G of whatever, or 20 million euro 100% funding to a limited number of selected projects for the common infrastructure of tomorrow.

---

<sup>5</sup><http://freedomboxfoundation.org/>

<sup>6</sup><http://tech.chambana.net/projects/commotion>

<sup>7</sup><http://opengarden.net/>

<sup>8</sup><https://joindiaspora.com/>.

<sup>9</sup><http://www.thimbl.net/>

<sup>10</sup>For instance Commotion, a key project to build self-organizing wifi-based networks in dense areas uses the Optimized Link State Routing (OLSR) protocol whose specs were produced by Thomas Clausen and Philippe Jacquet from INRIA from 2003.