

# Fourth Generation Living Labs Quest for Human-Oriented Glocal Society

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**Abstract:** While mixing a theoretical analysis with practical experiences, this article, emphasizing on rural particularities, tries to define the conditions for creating a Local Living Lab.

## 1. Introduction

This paper tries to answer some of Jesse Marsh's queries while presenting the Living Labs and Regional Development workshop, which he proposed to eChallenges e-2008.

*Theoretically and practically, what are the chances for successful Local Living Labs?T<sup>i</sup>*

The title of this article refers to a well-documented paper written by Annerstedt and Haselmayer [1] that can be used as a starting block for thinking on a fourth generation of Living Labs, "society-oriented".

This article is on the merge of three major professional concerns (of the author).

The consultant, specialized in the policies and strategies of development within the frame of a Network Society, searches for a clear attitude<sup>ii</sup> on the positioning of the local within the global and vice-versa.

The teacher is looking for the best possible ways to let the students understand the importance of the changes within the Network Society and to help them to define their own tools for a better comprehension of the world.

The researcher is all the time faced to the Network Society comprehension and has to build conceptual and methodological tools which can help the local decision makers to lay down policies which take into account the Network Society environment policies.

The paper, a mix-up of theory and practice, is constantly meshing these triple concerns at defining the conditions for the realization of a Local Living Labs.

## 2. A More "Society-Oriented" Theoretical Framework

The way the title of this article has been built in regards to the paper of Annerstedt and Haselmayer's [1], gives the tone to the suggested approach:

"Living Labs Europe, Third Generation Living Labs : The Quest for User-Centered Mobile Services"

"Living Labs Glocal - Fourth Generation Living Labs : The Quest for Human-Oriented Society"

"Fourth Generation Living Labs: Quest for Human-Oriented Glocal Society

### 2.1 Glocal Environment

The prospect is definitely global and insists on the essential and complex link between the closely interlaced dimensions of GLObal and LOCAL. If there can be sometimes a subordinated relation, it is necessary to insist on the fact that neither one nor the other can exist without its other half. The glocal is a social system which determines several dimensions of the Network Society, a geographical one of course and consequently a

temporal one. But it also determines a tension, an essential flow. *The flows of interlaced “locals” and their relation to the “global(s)” constitute the glocal.*

## 2.2 A Human-Oriented Fourth Generation

The paper of Annerstedt and Haselmayer [1] describes the impact of information and communication technologies (ICT) by centering its analysis on the user (user-centered) and not on technology (techno-centered). It seems to us that it is necessary to go further not giving the primacy to the user, who is always technology-centered, but to define another society-oriented<sup>iii</sup> approach. Therefore, it is interesting to analyze the changes of society and to question some of the dimensions<sup>iv</sup> of the Network Society, in regards to the individuals (the inhabitant and not the technology user) or to the collectivity (in this particular case the territory). We could venture speaking of a third approach : after the queen “technology” from the world of “Technocrats”, the king “user” from the world of “Consumers”, a new “participative” citizen from the “democratic” world (and not the king, as the participative citizen is responsible). It means overtaking the co-design of technology, or of its use, which origins in technology, to search a society co-design, integrating technology as a tool, which origins in a human project.

## 2.3 A Network Society

The expression “Network Society” is the object of various debates. Let’s take it as defined by Castells [6] as a social building in a specific period. The Network Society characteristics differ from the industrial society that it replaces and its features are still under construction. Let’s look at it as a new object of study and a new ecosystem. The difficulty of the Network Society considered as an operational concept lies in its historical blur, being at a same time, on one hand a moment of transition between the Middle Age in which we live and, on the other hand, the result of this transition. It can also be seen as... a navigation-light, a mirage, an object of desire, an ideology, a future...

## 3. Is the District “La Brie” Excluded from Network Society?

Can anyone think of a Local Living Labs in a low-size rural territory? Let us study this extreme case in order to release an “a minima” model which will then enable to draw results about territories with larger resources. Is a rurally environment without visible resources excluded from the Network Society?

### 3.1 La Brie, a Case Among Others

- Location

La Brie belongs to the Seine-et-Marne county which is the most rural and widest county of the Ile-de-France Region (representing 50% of the total surface area) where Paris dominates.

Hybrid territory, “neither-nor”, neither rural nor urban, neither rich nor poor, neither industrial nor service-oriented (among which ICT), neither central nor peripheral, La Brie has difficulty to come together, except for its cheeses which make it famous.

Paris, close to it, obliterates its chance of survival as a specific entity. Yet 100.000 to 200.000, depending the frontiers definition, inhabitants live there. Some people struggle for its destiny, though obliterating the fact that its destiny will develop within the framework of Network Society.

- Approaches

Under these circumstances, how can one build a Local Living Lab and which form should it take? Neither the technology-centered analysis nor the users-centered analysis answer the question. A Local Living Lab can be a development tool only if considering the territory in

its domestic, educational, cultural, economic, social, political and ... technical dimensions. How to avoid losing the ultimate but still active companies, how to attract new ones, how to develop the countryside for tourism without devitalizing the territory and fighting against an anarchistic urbanization? How one can develop the territory in the Network Society? All these questions are at the core of the future of the Brie.

### *3.2 Networking of the Actors*

Without resources, what to do? One can rebuild the society by creating new networks, more human than technical ones, integrating the digital networks and the new services they offer or will offer. What the territory can best offer is human resources even if they suffer lack of skill and will. Therefore it needs new means to create new dynamics. It has been the objective of some politicians and citizens who encountered both success and difficulties, but never failure, as a society-oriented experimentation is a success by its own existence! Even if it does not succeed at the very beginning, it creates favorable conditions for future achievements, as long as it has been thought out as a social construction.

A network of small tourism actors has been launched 3 years ago. They have created together their very first products and are now striving for a leveling and an exchange of their skills (Tourisme et Terroir des 2 Morins<sup>v</sup>). Farmers, builders, training centers, territorial collectivities, architects are networking in order to define a new ecology-building cluster. A training organisation has been created and bets on Flexible and Open Distant Training. A popular, open, distant University has been launched with ambitious plans but also deep difficulties in finding its rhythm and publics. The project of creating a Regional Nature Park is in process creating a network of 135 villages and small towns. ICTs are not to be found at the core of the projects, neither for the e-training centre nor within the “popular” university, but they are always there. But, much more they are present by their power of networking support to human networks necessary in building a “Network Society” culture. Human beings still are the leavens for developing projects. Politicians are aware of that event if the Network Society dimension is not at the core of their vision. The mayor of one of the most important towns (10.000 inhabitants), vice-president of one of the districts and vice-president of the Region has been initiating a certain number of projects based on real networking and is able to work with good-will people, whatever their political tendencies are. But for lot of them the Network Society is a chimera.

## **4. To Think a Virtual Local Living Labs**

Is a Local Living Labs a relevant instrument in this context? A negative answer seems reasonable. But what does reasonable mean? The acceptance of a destiny tied up to the past or the building of a new future in progress.

Yet, the territory does not have the capacity to build up either an urban Local Living Labs (megapolis type) nor a very large rural region Local Living Labs. Economics, research and even human capacity are lacking. However human resources are the most readily available. They are to be considered as raw material for endogenous development in the frame of sustainable development and as networkers with other territories. The internal and external networking in the territory turns to be the motorization of local development, and the Local Living Labs could become a prime instrument in its binding function and the link between the various actors, their interests and their cultures.

### *4.1 Which Aggregation of Interests?*

Far beyond any political will, “Network Society” culture or any means for implementing it, the most important issue concerns the aggregation of interests, at several levels.

How to outline the aggregation of interests? Should one keep to relatively informal mechanisms or choose more institutional lines, without freezing the aggregation dynamics through networking which is based on the actors' strong autonomy? How to conceive and set up a co-regulation which is thought in a society-oriented perspective for the Network Society, such as the co-design is for the uses and the design of technologies?

How can we apply legitimacy and consequently democratic forms to these new tools of aggregation of interests and to these methods of networking? Which coexistence can be figured out between the new, not yet institutionalized, mechanisms (which may lose its enforcement while becoming institutionalized through traditional criteria) and the current institutions (with tools from the industrial society are not adapted to the Network Society)?

Is the democratic value of innovation the same within techno-centered, user-oriented and society-oriented approaches?

#### *4.2 Frontiers Go-Through as New Aggregators*

New intermediaries and gate-keepers are rising up as “frontiers go-through”, sorts of network fluidificators and aggregators of interests, at the same time. Nowadays, these new actors, with very different and blurry backgrounds, have a strong impact on the evolution of society whoever they are, either webmasters-organizers of digital resource centers, ICT operation managers of territorial collectivities, “Network Society” or ICT consultants, and, certainly, ... Living Labs by themselves. Their functions are not yet clearly defined. It is the same regarding their legitimacy. Should one still be thinking in terms of gate-keeper in a society which is “frontiers-centered” or at least very hierarchical or should one be thinking in more dynamic terms of “frontiers go-through” in a more open networked Society?

Let us be aware of a great number of boarders to go through: inside versus outside, politicians versus inhabitants, enterprises versus territorial institutions, individuals versus communities and ICT visions versus Network Society visions. The Local Living Labs as frontiers go-through are disclosures and creators... of the rich value of networking.

#### *4.3 Territory and Living Labs with Variable Geometry*

The boarders and their territories, whether geographical, professional or institutional, do not superimpose each other. The territories increase with indefinite outlines into a dynamic imbroglio. Particularly in France where the layers of institutional territories have grown fast and do not any longer correspond to the layers of everyday life territories. Generally speaking, everyday life territories have also expanded these past decades under the influence for example of increasing transports and consumption. Expansion is even larger in the Network Society context due to the dematerialization of flows and to the globalization of links.

To understand these new situations it is necessary to think in terms of flexibility of territories and even in terms of territory as a flow. In everyday practice and in the building of representations for the Network Society ideology, the concept of territory with variable geometry is more and more meaningful.

However, is there a territorial node which focuses the capacities and organizes the roles? The relationship between the various levels of territories moves in time and space. There is no standard configuration. New tendencies seem to emerge. Perhaps we can notice lately a possible weakening of the State to the profit of the immediately lower and higher levels. A specialization of the roles seems to be redistributed at least in France and thus according to issues. The local level (NUTS 3, Nomenclature for territorial and statistical units) would be the place for the mutualization of the inhabitants' actions as well as for their training, their sensibilization, their follow-up of ICT uses and their entry in Network Society. The district level (NUTS 2) mutualizes and coordinates the actions of smaller

NUTS but also.... manages intermediate transports among which intermediate numerical infrastructures. It is probably the best nest for clusters. The regional level (NUTS 1), sorts of megapolitan archipelagoes [14] concentrate the R & D resources, lodge the poles of competitiveness, while the States and the EU are tending to become normative levels. Isn't then the virtual Local Living Labs, which is based on the reality of a potential richness to upcome, a frontier go-through in a world of territories with variable geometry?

#### *4.4 Local Living Labs, Disclosures and Creators of a Territorial Intelligence*

What is a territorial intelligence<sup>vi</sup> if it is not the intelligence of living together in a given spacetime. This broad definition of territorial intelligence does not dilute it. Our spacetime changes very quickly. In the Network Society the intelligence of living together results in the co-design of society, its co-regulation, probably its co-administration. However, beyond the democratic dimension, we are facing the dimension<sup>vii</sup> of values production. The virtual Local Living Labs are instruments revealing and operating hidden territorial values (endogenous and interactive), through the actors' mutualization and networking. The territorial intelligence constitutes in Network Society one of the innovation melting pot, underlining its cognitive contents, "a way of interacting that leads to specific competence to innovate" [8, p3].

#### *4.5 Measurements*

How to qualify and consequently to measure the Network Society reality of a regional policy or a Living Lab? It is not simply a question of finding out indicators which measure the degree of Network Society with ICT equipment and networks (R&D expenditure, phone and ICT infrastructure, ICT investments and so so...), or in terms of ICT use (eTV watching, number of net-surfers, weight of e-business in total trade, public services on line, etc), but it is a question of refining the measurement of the social and territorial value of practices (capacity to work in network, of co-design, of co-defining the needs and of following-up the development of the methodological and technological tools, etc). The indicators are often poor, even when implemented by an a priori effective institution [10].

However, some territorial public institutions are taking more and more into account society-oriented data in the progress reports of their ICT policies, such as the "Diagnosis of the Information Society in Midi-Pyrenées " [7] which is incremented each year with new prospects and analyzes, especially with sector monographs. "For characterizing the innovative potential of a region, it is necessary to look for qualitative variables and not classical measures scientific and technological production [8].

The experimentation of 2T2M has been the occasion to rethink indicators, even if not put in practice, such as : measurements of confidence, appetite for training, types of leadership and their impacts on confidence, digital literacy, recognition of the proper values of the group, collaborative capacity for an individual or for a group, cognitive potential of the actors, as individuals and as a group [8].

#### *4.6 Which governance for a virtual Living Lab?*

In a Network Society context and in the context of social roles for Living Labs, which form of governance is enforced? Governance ruled by each of its members, the Anarchy of nodes? Governance defined by each transaction, the Anarchy of flows? Governance founded on "ruled auto-organization" [5] such as internet and the digital economy, a co-governance (.. of nodes and flows)? Can one make a parallel between an economy "based on the network" where " the delicate control of the exchanges of information applied on the numerical networks federated by Internet makes it possible to found new methods of interactions between the agents" [5] and governorship of the Living Labs where refined

creation and exchange of information and knowledge on an intelligent territory would make it possible to found new methods of interactions between the actors of the territory based on new settings in network?

The Living Labs then become a tool, among others, to pilot the territory.

#### 4.7 *Does a Briard Local Living Lab exist?*

In the light of these developments can one think about a Briard Local Living Lab, currently? On first hand, certainly not. No institution and unconscious will, if exists. On the other side, it is possible to draw the first conditions of its creation and even the first scattered achievements which, once put in network, would constitute its own prefiguration. The first actions draw tracks, point out difficulties. The need for institutionalizing is necessary - not to achieve effectiveness because institutionalization is heavy to implement but by need for representation, for visibility, for assertion of oneself with (old-fashioned?) values understandable by all - but also by need for more flexibility in actions, initiatives, ideas in a territorial coherence (with variable geometry!). Making a square of the circle? No, the flows circulate.

To transform the “non-lieu” (the hybrid neither-nor as a nowhere) into virtual territory with a true identity.

## 5. Conclusions

Can this too short and too elliptic analysis of the Local Living Labs, positioned in an extreme Briard context, help to read anew the current experiments of the Local Living Labs? Three issues have to be addressed but can already animate the debate of our session.

First, the concepts applied here to a very local territory, the Brie, have to be improved on a larger scope of such territories but also to larger territories even if still local ones.

Frontiers go-through, variable geometry territory, territorial intelligence, actors networking, Network Society and hybrid cultures, all these concepts and practices are transferable and enlightening. The bias of a society-oriented analysis, where the user of technologies is first of all a social being in a social environment, a “co-designer”, a Network Society co-author before to be a co-designer of services and technologies, should be probably and generally speaking applied to Local Living Labs and to Living Labs.

The first next job will probably be to focus on the idea of LLL as frontiers go-through, concept that has imposed itself to the analysis and that allowed revisiting the aggregation of interests mechanisms. How LLL and Living Labs in general can be seen and act as a new actor of the aggregation mechanisms by its role of frontiers go-through? The choice of technology, user or society orientated policies of LLL and LL will determine the type of development and so the type de living of the territories.

Secondly, have local territories, especially poor and small ones, the possibility to create LLL that will structure their future? Two conditions seem at least necessary. First, the actors should have the conscientiousness of the challenges that they are facing and the imagination to create new devices, social devices. Secondly, these devices have to fit with the local situation and the global environment. As local means are poor, imagination and will has to be rich. LLL has to rest on human resources and confidence, networking and training in a large assumption.

Such LLL should be conceived as flows, or at least as nodes that capture the necessary wealth of the territory outside and internal flows. For example, LL of bigger areas will feed LLL, but at the demand of the second one. Nevertheless reciprocity must exist, probably not exactly on the same level.

Thirdly, a network of LL, or more generally clusters, including LLL, appears as a new actor by itself. It is breeding the LL and the territories they live in and can structure them

for a part. This innovation and innovative networking is of real interest for territories and the LL, each one having its part of work at its level but also in transversal flows.

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<sup>i</sup> To simplify the approach, but it will be one of the purposes of the workshop to deepen the definition, a Local Living Lab is defined like a Living Lab with local dimension. "Living Labs Europe opens up the potentials of innovative (mobile) applications and technologies to (mobile) European citizens, companies, researchers and investors for the purpose of pioneering applications for European end-users and markets, enhance attractiveness for visitors, residents, business and to provide a European platform for innovative collaboration and opening markets." [<http://www.livinglabs-europe.com/livinglabs.asp>]. We do not treat here the "mobile" dimension.

<sup>ii</sup> or at least the clearest as possible

<sup>iii</sup> A preference for the concept of "centered" when addressing the users and of "oriented" when addressing the society.

<sup>iv</sup> The article focuses on three dimensions of the Network Society that seem particularly important in that analyzing context : ICTs, sustainable development and globalization

<sup>v</sup> [www.2t2m.fr](http://www.2t2m.fr)

<sup>vi</sup> The expression recovers at least two meanings. The most current, nearer to the marketing than to scientific approach, refers to anglo-saxon expression "Intelligence service". The territorial intelligence "connects (then) the watching practices to the public action for economic and industrial development of a territory" [11]. Territorial Intelligence can have a broader connotation of instrument of sustainable development including territorial management, evaluation, prospective and governance [12]. Another approach Bertacchini, Quoniam [4] refers to collective intelligence, Levy [9] and Michel Authiers [2].

<sup>vii</sup> Another dimension appears essential, object perhaps of future works, that of the esthetics of the Network Society.