

## The Way and Tracks of Mediation in Action through ICTs into a Territorial Sustainable Development Project

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### Abstract

**Background:** *The territorial intelligence paradigmatic approach, connected assumptions, have mentioned and pointed out its potential ability to organize mediation between actors, in view of setting up their networks, collect their knowledge and expertise that they hold to shape formal territorial capital as we have referred to. In the same approach, the territorial intelligence through a model based on complexity, could show how the ICTs contribute it.*

**Purpose of the Study:** *Our research tend to discuss integration of ICTs by all territorial levels, and their dissemination into social uses because they could represent a real opportunity of interaction among all territorial actors. Our research thus focuses on using official website of communities as resources (information content), on organizing the links between physical territory and its virtual representations, and strengthening, or not, territoriality.*

**Sources of Evidence:** *Because local authorities, in our interest, are cross-cutting projects qualified “of sustainable development”, under process for territorial and political collaborative consultation, with the aim of offering participation to local actors, and holding available knowledge.*

**Main Argument:** *Despite the fact that the approach favored by the territorial intelligence relies on the combination of physical and virtual territories, it is clear, at this precise time, that our research and associated studies show any reality of this kind. And for the future it could be a problem to be solved.*

**Conclusion:** *To temporally conclude this article, we think thus compromising clarification, approval and appropriation by collective partnership of the objectives, sought into the context of territorial cooperation, as mediation of local knowledge. We have to stress that internet web sites of territorial communities surveyed have a low-visibility, weak readability and do themselves at a low level on about using, practicing the social uses of ICTs.*

**Key Words:** Expression, ICTs, Interactions, Mediation, Project, Territoriality.

### Introduction

The deliberations within our 'Information, medium, media, Mediation' laboratory (I3M), are part of a scientific doctoral research contract funding by French regional authority (PACA region) for the 2012-2015 period with the Town Hall of Vitrolles wished to be socio-economic partner. This research, led under the direction of Dr Yann Bertacchini has for objective to analyze how new technologies of communication (ICTs), in a process of territorial intelligence, defined as “An informational and anthropological, regular and continuous process initiated by local actors physically present or remote who appropriate a space resources by mobilizing then transforming the energy of the territorial system in project's ability.” (Bertacchini, 2004) are able to take a dynamic role for implementing a citizen participation in connection with sustainable program deployed by municipalities and inter-communalities level.

We support our research on several projects including the peculiarity lies in the inclusion of territorial actors on defining and establishing the orientations chosen for a concerted territorial development. We are considering three kind of sustainable development project designed by the following expression and acronym: local Agenda 21 (A21L), climate, energy territorial plan (PCET) and the regional global program for innovating action (A.G.I.R.) analyzed through all the territorial communities of the PACA region involved, in at least, one of the 3 projects.

For this, as the first step of this study, we have identified all of the official websites of each territorial community declared to be engaged in, at minima, one sustainable development program. Following this enumeration act, we have conducted their qualitatively and quantitatively analyze for the relevance of their uses (criteria as for example, ergonomics, features, interactive dimension, etc.), quality of the information put around of project implementation at local level and apprehension of the receivers in their understanding of issues and dynamic of the territory concerned. In the first part of this article, we will return to the theoretical basis of our research within the paradigm of the territorial intelligence. Then, we will describe the methodology used in this particular step of research studies and the different criteria used in the construction of the empirical analysis. Finally, we will present the initial results and for intermediary conclusion, we extract the main aspects.

### ***1. Paradigmatic Framework and Methodology Description***

Before presenting the research methodology used for this specific phase of studies, we here shall specify the epistemological framework for our research and outline, the content and the associated assumptions within the paradigm of the territorial intelligence.

#### ***1.1. Paradigmatic and Epistemological Framework: The Territorial Intelligence and the Associated Assumptions***

There are many definitions and contexts in which the concept of social innovation makes sense, both into the field of public action than that of entrepreneurship or by the actors of social and solidarity economy. Social innovation can be defined as “*a local initiative that connects the response to social needs, the ability of participation of stakeholders, in particular excluded groups, governance and access to the resources necessary for the satisfaction of these needs.*” (Hillier et al, 2004 in Richez-Battesti & al, 2012). It relies on groups of actors, existing before either building into the innovation process. It flows as a priority of new arrangements, relationship modes, and modes of participation, modes of life, new organizations, collaborations and cooperation between actors, organizations or communities of the society (Pybourdin, 2010)

Therefore, sustainable development and territorial intelligence are strongly linked around the concept of social innovation, characteristics which are shared. Indeed, sustainable development and territorial intelligence are based on the same issues: searching for a combination of the close, the local, and the distant, global; territorial cooperation with the networking of actors and the confrontation of their expertise (i.e., *expert and lay citizen*) (Maurel, 2012), (Bertacchini & Al, 2012 and 2013); All this in view of establishing an information coupled with a territorial communication process.

Finally, at a time where cultural changes related to the development of technologies of information and communication (ICTs) and new forms of indirect confrontations resulting from this technological evolution are still poorly identified by the actors of the territory (Bertacchini, 2009). Territorial intelligence arises as a real innovation for the local territory (Herbaux, 2007). Our interest in this emerging concept (from 15 years) comes from its most basic analysis on the development of the Information Society and sustainable development (Girardot, 2004). In addition, territorial intelligence can be considered at double side, a program and tools, to the help of sustainable territorial development players. Possibility is also offering to develop territory in its culture encouraging an approach whose objective is to provide to the territorial level to be developed with the '*territorial formal capital*' (Bertacchini, 2004, 2009).

Prerequisite for any endogenous development policy, Bertacchini defined the territorial formal capital as "*a set of values, codes, rules, modalities of interaction and coordination of explicit knowledge in digital documents, recognized and shared by the actors of the territory to formulate and implement a joint local development project.*" (Bertacchini, 2004).

Territorial intelligence arises therefore as a real help on setting up territorial formal capital which implications would be for the commitment and the recognition of local skills in the actions undertaken, acceptance of common rules and procedures by local actors, exchange of expertise recognized actors, premises as well as their recognition and mobilization around the territorial project (Bertacchini, *ibidem*).

As a stakeholder-oriented approach, the territorial intelligence is designed to allow partnerships of stakeholders to better understand their territory;

Implement capacity the citizen, implying to include it in a process of learning by recognition in the projects and local practices through a process of action, awareness, training, initiation, accompanying entitled "*methodological path*" (Herbaux, 2007). Set capacity, the territorial actors are considered beyond simple performers since they have now a power of proposal and access management actions implemented. Their expertise to use can be collected but it really depends on how the local authorities are engaged and managing this collect;

More generally, the objective is to involve local actors and, beyond, the territorial community (Girardot, 2004), by sharing their information in order to create information systems that allow them improving their collective knowledge of territorial dynamics, projects developed by the territory. The success of this objective depends on several conditions: it must not be only that local stakeholders take ownership of ICTs but also to implement in an organized way these technologies because the organizational process will depend on the quality of information collected and produced as well as the cooperation within partnerships of actors.

### **1.2. Empirical Analysis and the Research Conditions**

Our geographic field of research is limited in France to the PACA region (South East France) and its sub territories (*departments in French*): Alpes de haute Provence, Alpes maritimes, Bouches-du-Rhône, Hautes Alpes, Var et Vaucluse. For each of this sub territory we have identified all the local authorities (municipalities and inter-communalities) engaged in, at least, one of the three projects of sustainable development mentioned above.

The AL21 (local agenda) is a territorial sustainable development approach advocated in 1992 to the Earth Summit in Rio de Janeiro, the climate-energy territorial Plan is often to come focusing as device specifically dealing with the fight against climate change and protection of the atmosphere.

Indeed, the national reference framework of territorial projects for sustainable development and local Agenda 21, engaged in France by the "Ministry of Ecology, sustainable development and energy" (formerly the Ministry of ecology, energy, sustainable development and spatial planning), holds five priorities:

- The fight against climate change and the protection of the atmosphere;
- Conservation of biodiversity, protection of the environments and resources;
- Development of all human beings;
- Social cohesion and solidarity between territories and between generations;
- Dynamics of development following responsible production and consumption patterns.

Concerning the AGIR program, it is a regional arrangement launched in 2006 and whose purpose is to financially support exemplary and innovative projects aiming to promote energy savings and renewable energy in order to strengthen the fight against climate change and ensure the economic development of the territory. Just as the articulation between CFEP and LA21, this program, dedicated to the municipal level, can also act in addition with other projects. Interest to focus our research on these 3 devices is that they are all resulting from a voluntary approach (except mandatory CFEP for the territorial communities of 50,000 inhabitants and more) in consistency from a global policy of sustainable development, in particular through participatory processes involved and actively mobilize all local actors (citizens, residents, community associations, etc.).

Furthermore, following the inventory of the territorial communities located into the region engaged in one or more projects, we have implemented a watch monitoring process on Internet. This search stage was designed to obtain the percentage of communities with an official or not website. Subsequently, in accordance with the typology of the web tools developed by Nicolas Vanbremeersch (2009) in his book entitled "*digital democracy*",

we performed a quantitative analysis of uses of these tools by communities into the Paca Region through their website, when one is available. From this, we infer some facts. For the institutional world that makes sense for our study, the communication approach and reporting is the same as that which was practiced offline. There is no change of approach: it merely to make available. The information is *top-down* and the interaction has not yet existence. The web is only used instead of archiving digitized content. We are in media logic where the web is only used as a means of dissemination. There is a real publication but without any publicity. The website has no web link pointing to him and almost no link exists so not in the territory of the web. Without binding, blind, his unpopularity condemn it to oblivion.

Through the reign of internet documentary the expert skill is delivering his knowledge, regardless of its grip by others. The contents of the documentary web derive from the traditional public space finding a new advertising. However, once published on the web, content does not circulate and therefore lacks the potential offered by the Internet in terms of exchanges and interaction. What gives life to these contents are other areas of the web: the Web of Information, the Social web, and the Semantic web we now shall define. So this typology is available in three categories and documentary web has been dropped in favor of the web qualified of "*semantics*":

### **- *The Information Web***

It is not always in an interactive approach, but there is a concern of grip of the information by the receiver. Therefore, the web site becomes further via online text and data available with also video, maps and graphics. However, specificity of this web is the immediacy of information and news, that user can be informed in real time of new content online, new information. In this category, we stop our search to RSS and Newsletter.

### **- *The Social Web***

The expression web 2.0 may appear false and inadequate because early on the Internet contained the social logic of sharing information, discussion or comments directly between individuals. The evolution perhaps comes through emergence of individualism with network breaking with collective design of forums for example dimension; but also standardization of some web tools and the consistency of networks format allowing millions of sites and dialogue between them. The tools chosen for our research are social networks as Facebook and Tweeter.

### **- *The Semantic Web***

Without focusing on software for understanding the content, we want to look at the semantics Web as a tool for greater precision in queries and responses, thus facilitating the task of the user in its collection of information. So let's look at search engines, *folksonomy* (keywords, tags, when you associate a representative to our contribution term so a keyword cloud is formed) but also to pages dedicated to the description of projects undertaken by the community as well as to obtain information on public consultation meetings, participatory processes to collect opinion of population.

## ***2. Communication of Primary Research Results and Discussion***

We now present the key results produced by the end of this step of empirical analysis began with an inventory of ICTs used by local authorities identified as having a website and engaged in, a minima, one sustainable development program.

**Table 1. Census of number of projects initiated by municipalities according to the type of territorial communities and department**

	Inter municipality	Municipality
Alpes de haute Provence	A21L = 2	A21L = 0
	PCET = 0	PCET = 0
		AGIR = 11
Alpes maritimes	A21L = 1	A21L = 11
	PCET = 4	PCET = 5
		AGIR = 8
Bouches-du-rhône	A21L = 2	A21L = 18
	PCET = 6	PCET = 4
		AGIR = 16
Hautes Alpes	A21L = 0	A21L = 3
	PCET = 0	PCET = 1
		AGIR = 14
Var	A21L = 1	A21L = 8
	PCET = 3	PCET = 4
		AGIR = 9
Vaucluse	A21L = 2	A21L = 6
	PCET = 2	PCET = 2
		AGIR = 9

**Legend used in the previous tab 1:** A21L: 21 local agenda, PCET : territorial energy climate plan, AGIR : Paca regional label

Here it is a brief comment of the collected information. At the regional level, in April 2012, we encountered a number of 67 towns bearing this AGIR label, against 46 A21L (local agenda) and 16 CFEP (energy climate).

### **2.1. Quantitative Surveys on Territories engaged into a Sustainable Development Program and First Qualitative Hypothesis**

First of all, we note that all territories (departments in French) concerned within our study, share a commitment of a number of municipalities engaged in, at least, one of the three projects chosen for our analysis. Furthermore, and for all territories (departments in French), except for the Bouches-du-Rhône, the AGIR labeling Act seems to be central compared to the other sustainable development projects. Moreover, at the regional level, in April 2012, we encountered a number of 67 towns bearing this AGIR label, against 46 A21L (local agenda) and 16 CFEP (energy climate).

We put forward the hypothesis of an approach less restrictive in comparison to the implementation of an A21L or CFEP process that involves the phases of shared diagnosis, consultation around the action plan, monitoring and evaluation of the project with all actors of the territory. The comparison between local authorities engaged through a sustainable development program highlights highest CFEP at the inter-communal level while this report is at the opposite for the A21L. The assumption we have taken in consideration is that the legal obligation for the territorial communities of 50,000 and more inhabitants push to implement a CFEP.

However, in general, the inter-municipalities include a larger number of inhabitants than the majority of the municipalities. On the A21L and CFEP linking, it is to underline that according to the provisions of article L229-26 of the Code of the Environment ([www.legifrance.gouv.fr](http://www.legifrance.gouv.fr)): “When these public authorities engage themselves in the development of a territorial project of local Agenda 21 or sustainable development, territorial climate energy plan is the climate component.”

At this step we see through our analysis that this provision is not always respected. On the other hand, may we stress the coherence and relevance of creating a climate dimension within a territorial sustainable development project as the AGIR program, whose main goal is to promote energy savings and renewable energy in order to strengthen the fight against climate change?

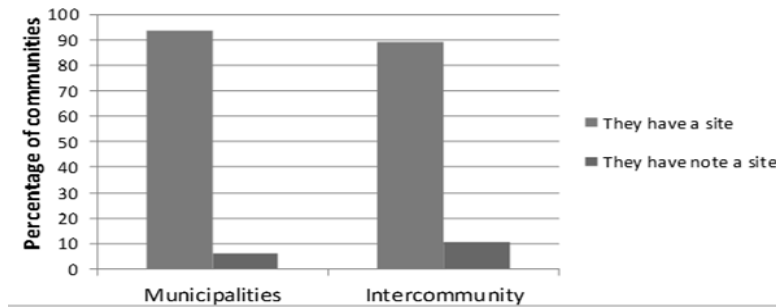


Figure 1. Percentage of the territorial communities of the PACA region with an official or non-official web site

### 2.2. Quantitative Surveys on Territories Using ICT’s and first qualitative Hypothesis

Following the census of 119 territorial communities of the region involved in at least one of the sustainable development program, we also conducted, during three months, a watch on Internet to assess the percentage of official web site dedicated to municipalities and inter municipalities of our study. When the site does exist, we quantitatively analyzed the presence or not of different tools selected on the basis of the previously described categories of Web.

For the Web of Information category our choice fell on services as newsletter, RSS feeds and e-mail or online contact form tab. Concerning, the Semantic Web category we selected Search engine, *folksonomies*, and pages dedicated to the project (s) as well as the process of debate. Finally, for the Social Web category we identified social networks as Facebook and Tweeter. Once our analytical grid completed in function of each selected tool for our field study, we performed a statistical and graphical analysis. We note that 93.9% of municipalities and 89.5% of the inter municipalities rely to this socio-technical system to inform and communicate on municipal action. Therefore, we can say that the use of this technology is widespread across local authorities.

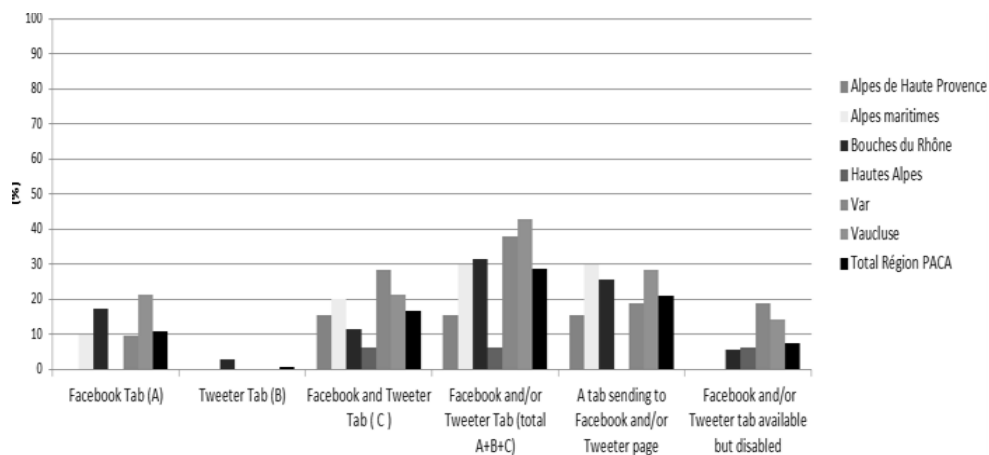
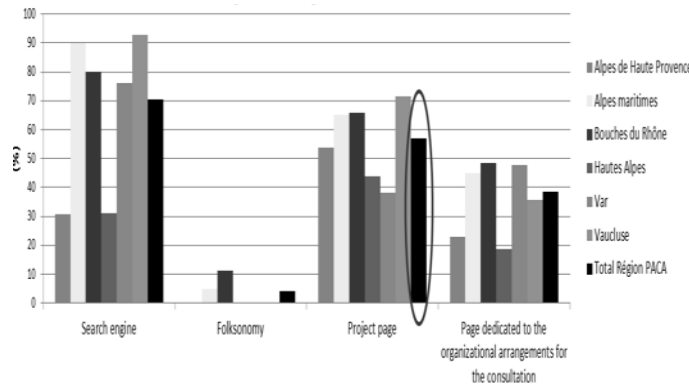


Figure 2. Percentage of the territorial communities of the PACA region using the tool(s) Facebook and Tweeter through their website

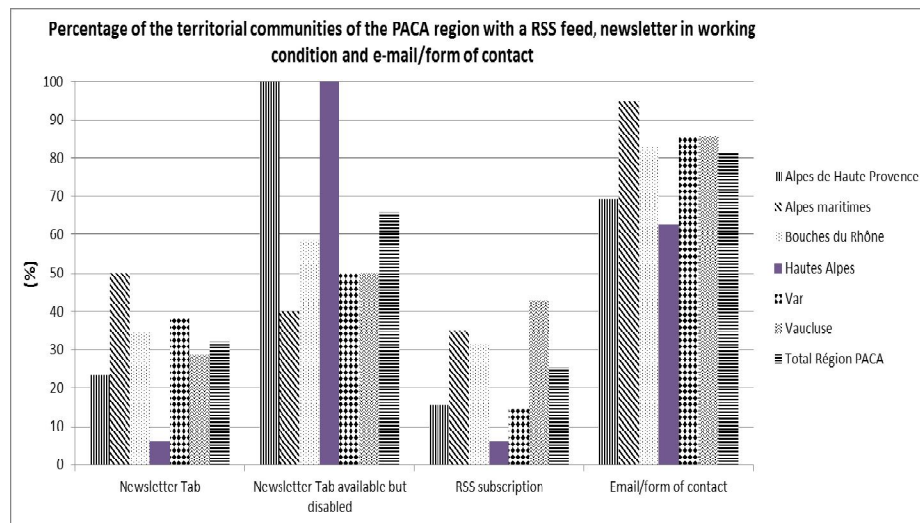


**Figure 3. Percentage of the territorial communities of the PACA region with a search engine, folksonomy, a project page and dedicated to the organizational arrangements for the consultation**

We continued beyond the quantitative analysis on the basis of categories defined previously.

We note that the French South territories (departments in French) named Alpes de haute Provence and Hautes Alpes present local authorities with little functional web sites with tools few mobilized (search engine, RSS feeds, social networks) see nonfunctional or absent: Newsletter, Folksonomy (Figures 3 et 4). Organization of the informational content stated that little explanation dedicated to the project(s) and associated consultation process (Figure 3). Moreover, a certain trends occur also at a regional level since only 4.2% local authorities make use Folksonomy (Figure 3), 65.6% presents a newsletter subscription that does not work (Figure 4) and only 7.6% (Figure 2) reference using social networks (Facebook and/or Tweeter profile).

However, we note that the Search engine function is a service usually offered by all the local web sites authorities (Figure 3) with 70.6% on the whole region and that approximately 58% intend to dedicate a page explaining their project. However, less than 40% of the web site show a page dedicated to collect the expression of secular actors and make available information through spaces for debate and confrontation of opinions (Figure 3).



**Figure 4. Percentage of the territorial communities of the PACA region with a RSS feed and newsletter in working condition**

## **Conclusion**

If we are considering territorial cooperation through territorial intelligence paradigmatic approach and framework, as we shown it in the very beginning of our article, “*as a share process of objectives between all stakeholders in order to involve them into territorial content creation*” (Bertacchini & al, 2012), we have to stress that internet web sites of territorial communities surveyed have a low-visibility, weak readability and do themselves at a low level on about using, practicing the social uses of ICTs. As an aid to the establishment of a *territorial formal capital*, territorial intelligence proposes to reverse or reaffirm the establishment of information channels through networks to be shaped between actors and local communities. Beyond the dissemination of content, the website has the primary and essential particularity on connecting with the other territories of the web (social networks, forum, chat, blog, and other websites of interest) to match and combine communication tools which, beyond the transmission of the message, symbolize intentionality.

Therefore, the communities position, seen through their official website, and the different social uses of ICTs permitted does not only communicate content but especially interfere within the interrelations of actors in the socio-technical system to which they belong to (Agostinelli, 2001). For so, we have conducted a watch on the Internet in order to identify the Web tools used, or not, through the study of the official website of each community. Indeed, at a time of the democratization of Internet which is a daily activity for nearly 87% of Internet users connecting to the Web almost everyday (Médiamétrie, 2012), builds social networks as 77% of Internet users are registered and, among them, 2 in all 3 connect daily (Ibid.). Finally, it has to be taken into consideration the ease and speed of information as one of the main reasons for which individuals connect themselves to Internet (Granjon, Foulgoc, 2010).

At the French regional level, as our research was displayed, barely more than 20% of all websites are positioned on social networks (Facebook & Tweeter tools) and we are still studying their use on a daily basis quantitative/qualitative analysis. If a little more of half the internet web sites (about 58%) propose to dedicate a page to explain their action in a sustainable project, less than 40% provides a page to collect expression of secular actors and make available information on *spaces* dedicated to debate and confrontation of such opinions.

Tools to follow news in real time (needs of population), such as newsletters and Smartphone application, do not work or are little used. In fact, and following our study, there appears to be a gap between ICTs democratization access and the ‘communities’ position on the societal change of practices. To temporally conclude this step of our particular study, we think thus compromising clarification, approval and appropriation by collective of the objectives sought into the context of territorial cooperation, as mediation of local knowledge.

The following question “*Can we use ICTs, in a profitable way into the territory between local actors, to engage then mobilize citizens, local actors, communities, association for action in direction of sustainable development program?*” This is our main purpose in the research we are conducting.

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