HAL
open science

An "On the road" communication in Ghana

Marie Ouvrard-Servanton, Valérie Campillo

SOCIOLOGY OF TRANSLATION AND ANTHROPOLOGICAL ANALYSIS OF COMMUNICATION FOR ICT SUSTAINABILITY

An "on-the-road communication " project in Ghana

Marie Ouvrard [1] and Valérie Campillo[2]

[1 & 2] Aix-Marseille Université, France
Laboratoire des Sciences de l'Information et des Systèmes

Abstract: Based on the actants (Latour) concept as well as the situated action (Suchman), the sociology of translation (Latour) and the anthropology of communication (Hymes) compared to the recommended sharing values of international project management, the implementation and the sustainability of a programme dedicated to socially or geographically isolated populations are requiring specific methods and conditions for reaching informational and cultural accessibility. Combining permanent intention, action and retroaction for moving human mind boundaries through ICTs induce a complex communicational process based on the need of partners, facilitators, locally-recognised leaders or respected individuals as well of the use of updated high technology as the 5th screen which gathers the technical advantages of the four previous screens and the people around an event where every one is acting.

Keywords: sustainability, information accessibility, translation steps, anthropological analysis of communication

Sustainability and Information Accessibility

Since the Rio Declaration on Environment and Development (1), in 1992, the United Nations has committed all nations to sustainability and has been building up the basis and the development of the main aims of sustainability. Then year after year, through conferences and organizations (especially ECOSOC, United Nations Economic and Social Council), the United Nations has been checking the involvement and the realization of such principles and guidelines. At its twelfth session, the Commission on Sustainable Development (2) reviewed inter-agency mechanisms in the context of its multi-year program of work. It means that all UN programs are evaluated in terms of sustainability and all agencies are invited to work together at global, regional, sub-regional and field levels in collective and collaborative ways to ensure synergies and complementarities. The World Congress on Communication for Development held in October 2006 focused on the stream of Communication for Sustainable Development (3). In that stream, communication programs regarding United Nations or NGOs (through ECOSOC recommendations) have to be evaluated through sustainability criterias and have to go through sustainability and communication committee clearances.

As technological means have been developed for reaching geographically isolated populations and as commitments and recommendations have been adopted for socially isolated populations, the general purpose of this study is to consider how these populations could reach information in a sustainable way. Throughout an anthropological analysis of communication, we are searching to clarify the conditions for information accessibility through communicational concepts. We will illustrate the conceptual aspects as well as the necessary conditions for reaching sustainability and information accessibility through an « on-the-road communication » project planed in Ghana for enabling community participation in Highly Pathogenic Avian Influenza (HPAI) risk reduction, combining movies entertainment with the HPAI campaign.

1

**Figure 1 & 2: The "on-the-road communication" -
A 4x4 lorry at work for an AIDS prevention campaign in Yemen**

This information emergency transmission for developing countries is on the way to be implemented by European Organisations, NGOs and United Nations Organisations through the use of the 5th screen (Skacan[1]). In fact, the such called 5th screen gathers broadcasting on a wide screen through satellite access as well as mobile computing abilities. The use of a 4x4 lorry reaches geographically and socially isolated populations. All the messages can be broadcasted in vernacular language by using an instantaneous dubbing system. The Nomadic Dream Machines Team can train technicians all over the world to use the 5th screen 4x4 lorry and maintain the High Technical system updated and working.

Figure 3: The "on-the-road communication" and 5th screen technical concept

As said before, technical aspects have been almost overcome. From our point of view, we need to watch at several concepts which are supporting a specific anthropological analysis (Ouvrard 2005) in order to reach sustainability and information accessibility. These concepts also take into account indeterminate factors of diversity that are present among the various actors involved in the project. We will investigate the "actants" concept (Latour) as well as the situated action (Suchman), the sociology of translation (Latour) and the anthropology of communication (Hymes) compared to the recommended sharing values of project management.

The actants

Through his definition of actants, Bruno Latour allows us to watch communication circumstances in a

---

[1]   http://ecran5.files.wordpress.com/2007/03/5eme-ecran-graphique.pdf

fascinating way. Actants include human and non-human actors. The actors included in a network, as for instance in the « on-the-road communication » project, take shape by virtue of their relations with one another. Nobody and nothing can be excluded from the network of relations. Therefore, in the project, we will include at the same level of impact, influence, ability and acting: the 4x4 lorry, the 5th screen, the movies, all the humans as technicians, local population, local and international experts, the HPAI itself, the chicken ritual, the techniques as well as the information contents, and so on. It is interesting to notice that as soon as an actor-network is engaged in the web of relations, it becomes part of « entelechy », that is a vital force leading to self-fulfilment. If we consider all the relations that could be drawn using the actants concept: the relation between the 4x4 lorry and the local population, the 4x4 lorry and the local or international organisations, the 4x4 lorry and the HPAI, the 4x4 lorry and the chicken ritual, etc. or the HPAI and the local population, the HPAI and the local and international organisations, the HPAI and the chicken ritual, etc., all these humans and non-humans are involved in the project web of relationships. Through their shape and acts they all become part of a situation that constrains them from expressing their abilities in one way or another. This idea becomes a very precious data for the communicational facilitators, whose part is to establish the relationships between all actants, and for success.

Associate humans and non-humans

The fact of associating humans and non-humans gives a specific role to what some could consider as an object. Bruno Latour has shown how Pasteur, in his text presenting his discovery of specific yeast obtained from lactical acid, gave a important role to the ferment and as if the ferment could exist outside of him (Latour). For instance, in our case, we could consider the 5th screen or the 4x4 lorry as actors. As soon as we look at these objects in that way, a simple fact becomes an event: because the 5th screen or the 4x4 lorry are acting as well as human actors, they reveal their roles as non-human actors. In fact when the local population or the international experts are talking about these tools they give them a role even outside them. The technicians and the drivers have called the 4x4 lorry: Ramses II because of the wrappings they had used for fixing broken parts.

The 5th screen concept

The 5th screen gathers the competences of the first 4 screens. We consider the 1st screen as the cinema screen, which is a big screen that can be watched collectively. The 2nd screen is the TV screen that can be watched by a person or a family with broadcast images. The 3rd screen is the computer screen that is mainly individual but gathers computer competencies. The 4th screen is the mobile screen of mobile telephone, which is watched individually with all the satellite connexion devices. Therefore, the 5th screen is a movie screen that can be watched collectively with all broadcast, computer and satellite mobile devices included. As well, it includes a dubbing system for translation in vernacular languages.

The 5th screen associated to the 4x4 lorry becomes a symbolic and real actor. People, who see it, use it or watch at it, can talk about it under different names, according to their beliefs. As we said before the technician call it: Ramses II. The UN communication experts call it: "the on-the-road communication". In the mean time, the audience is just fascinated by looking at the moving broadcast images in the middle of nowhere. Each time it creates "events". How a tool like this becomes a "fetish" is a phenomenon well described by Latour (Latour). In a project associating human and non-human actants, action is not only a competency from human actors, it is also a competency obtained by an association of actants (including human actors, TIC, innovation, training, partnerships). This association is a kind of composition as in the conception of the tool, as in its elaboration and as in its use.

Maintaining relations with actors from different horizons

In "Pandora's hope", Latour (Latour 1999) shows how every researcher needs others. Frédéric Joliot, as a nuclear physician, was the first to elaborate the possible production of an artificial nuclear chain reaction. From 1939, this motivation to produce this reaction came to correspond to a polytechnician's motivation:

Raoul Dautry, who had also become Army Minister at a time when it was necessary to conceive new army tools for insuring national security. The concomitancy of both motivations, a scientific one and a political one, was the basis for demonstrating that "to maintain the minister and the neutrons that where engaged in the same project, to make them act together and discipline them, were not distinct tasks. *Both were absolutely necessary.*" (Latour 1999).

 Added to data and arguments, alliances allow professionals and various disciplines to share interests one to each other and motivation to act together. It allows, the acceleration of the circulation of arguments, data and discoveries. These alliances are situated where *means and actors are mixed up*. Coming back to our "on-the-road communication" programme, *means* as the 5th screen 4x4 lorry and *actors* as local and international experts, local leaders, technicians, national movie association artists and technicians, the village population, and so on, are *all mixed up at a time or at another*. It becomes interesting to put together different motivations and wishes in order to be engaged in the same project, for acting together and disciplining each other and becoming necessary one to each other.

Maintaining the goal of each actor

At the same time, it does not mean that all actors and actants should have the same goal. In *Sociology of Organisations*, Bernoux (Bernoux 1990) takes into account the fact that "men do not accept to be treated as means at the service of goals that managers give to the organisation. Each one has got his own objectives, his own goals". He considers that every actor, whatever is his responsibility level has got specific strategies which are more or less conform as well as antagonist sometimes to other leaders of the organisation.

Crozier and Freidberg (1981) look at an organisation an "a human build-up or a structured human group". Organisation is in perpetual movement and its members, in the mean time, develop their own strategies and weave "regular relationships that are submitted to the moving constraints of the environment", and structure it. Through this analysis, these authors go against the Taylorian idea that aims to master all decisional elements in a known and stable model. In organisations, no decision-making comes from this model because "a human group is in a perpetual evolution, the members' strategies are changing, their behaviours are often not predictable". These elements allow us to take into account the "strategically value" that offer a communication programme and all that is produced through this means: the 5th screen 4x4 lorry and the local, national and international organisations. In that way we give back to each actor participating in the programme, his own involvement, value, motivation. For the anthropologist facilitators, this viewpoint can be very useful in the Highly Pathogenic Avian Influenza (HPAI) risk reduction on-the-road programme in order to observe, to respect and to find the way to maintain relations with actors of different horizons and to facilitate their action together.

The actants exchange and their enrichment together

According to Latour's words, in the Pasteur's story, Pasteur realised a scenario with "*characters who have got a competency which define their performance*". This means that "the ferment" become an actant. Pasteur has to study laboratory "proofs" in which "the ferment-actant" will show what it is able to: "its performance - the lactic fermentation". In order to know what its actant/ferment is able to do, Pasteur (as a director in a play) is going to build up "not edited and unexpected scenarios" in his laboratory for plunge his actant (the ferment, non-human actor) in the unexpected scenarios. In this way, Pasteur shows that:
   1) The yeast is a living organism
   2) The ferment has got a new competency because it can provoke a specific lactical fermentation
   3)   All this contributes to convince his pairs (as they were doubtful regarding Pasteur's discovery at the beginning).

Pasteur's discovery goes through three proofs:
   • The first comes from language and the way of telling facts which transforms them into events as in fairly tails and in myth (Latour, 1999);

- The second comes from non-verbal and non-linguistic components (laboratory tools as: glasses... or yeast, Pasteur himself or his assistants);
- The third comes from the evidence showing that the ferment competence is due to ferment itself and not to scientific ability: Pasteur has just allowed the ferment to reveal itself.

These three proofs constitute, according to Latour, an experience: "an experience is a text about a non-textual situation [...] that authors will submit to the questioning to determinate if [….] there is a true situation behind […] and if the actors and his authors are really doted with a new competence: Pasteur has proved that the ferment is a living thing which owns the ability for creating a specific fermentation as different as the one made in the beer yeast" (Latour 1999).

Through the rhetoric, there is a mutual enrichment of human and non-humans actors.

At the ICT 21 in Valenciennes, in March 2006, where the European experts for sustainable ICT solutions gathered, the 5th screen 4x4 lorry got the "Special price of the Jury". For obtaining this prize, the 5th screen 4x4 lorry was exposed at the entrance showing the Aids prevention programme in Yemen. The developer invited people to see the technological abilities of the "on-the-road communication" tool. The audience and specifically the experts in sustainability realised the technological interest of such a tool for reaching geographically and socially isolated people. The price was obtained on the three proofs described above. The DVD presentation shown was transforming the fact into event, the technological components (specifically the good sound quality) were talking by themselves and the AIDs prevention campaign shown on the screen was revealing the impact of such a tool in countries where the collective sharing of information is part of the culture. And therefore this kind of event gathered thousands of people.

The DVD presentation has been the chosen means for maintaining relationships with the Sustainable Development experts by translating the technical and experimental abilities of the Nomadic Dre@m Machines team in the ICT 21 Sustainable Development language. For reaching that, as Latour shows it with Joliot's example (Latour 1999), the epistemological and ontological questions are carefully and intimately mixed up. This mixing produces effects, as in our case the enthusiasm, awarded by a prize, gives more emphasis to the speech. For Latour, this step of convincing other people and disciplining them is fundamental. At the beginning the experts where looking at the Nomadic Dre@m Project without paying much attention, with scepticism, in an undisciplined and detached way but composing a group without whom nothing can be done. The Highly Pathogenic Avian Influenza (HPAI) risk reduction programme has still not got the entire adhesion from the International Organisations, HPAI and Communication experts groups. A previous AIDS programme in Yemen obtained easily the UNESCO's clearances and had been able to develop for months in this part of Africa allowing not only men but also women and youngsters to reach to AIDS information, also because, for the first time, Nomadic Dre@m Machines had been able to technically show movies *in daylight* on a wide screen. This technical progress gives the opportunity to women and children to watch an information programme as they are constrained to go back home at sunset. Here we can admit the importance of convincing by disciplining the men (the UNESCO programme deciders) and mobilising the things (the 4x4 audio-visual lorry). The same process is used in scientific research as shown in the Pasteur's discovery.

In conclusion, *throughout the event, the proof of experimentation and the process of convincing*, we could say that actors are reaching a better definition of themselves and *an added value is created* (figure 4). We can also notice the symmetry between things produced by humans (the 5th screen 4x4 lorry, the itinerant dubbing system, the DVD presentation for ICT 21 in Valenciennes, etc.) and the way the humans exist in relation with what makes them act (when the Nomadic Dre@m Team works for including the instantaneous and itinerant dubbing system or creates the e DVD presentation for giving legibility and understanding to others as value, etc.). For the actants, the fact of going through the process of convincing gives meaning to their actions and abilities and makes them exist through their actions (figure 4).

Figure 4: Troughout the event, the proof of experimentation and the process of convincing, an added value is created

The situated action

On the other hand, Suchman (1987) founded the "situated action" on observations of interactions between human practice and technical artefact, specifically studying how humans use machines as a photocopier or deal with a constraint like using a canoe. From her hypothesis that these observations are interesting and founded (Relieu 2004), she highlights:

- The importance of taking into account the material, social and cultural context where contextual factors and mechanisms producing mutual intelligibility between actants have got a fundamental part;
- The important part of social interaction as a privileged coordination support for actions with objects (without taking too much into account the spatial organisation);
- The fact of taking into account context elements and action characteristics (with possible errors of categorisation);
- Observation as a methodological tool (with video use for example) and how "the language is intertwined in socially organised activities" implying notions of "internal representations" and "hidden social structures";
- The actors' commentary gathering which is considered as a culturally interesting production even though it does not enlighten the situated organisation of activities.

This methodology gives a fine-grained analysis of the situated action without providing systematic recommendations or prescriptions for conceiving new tools. Now, the question is how to transfer the observation results and the fine-grained analysis of the situated action in order to allow actants, in an "arid" context:

- To achieve their respective goals even though there are distinct;
- To acquire an added value;
- To access a communicative value through a situated action.

The setting of an international program is based on the hypothesis that the program should get sustainable advantages for populations and partners. The fact of having this way of observing, thinking and acting promulgated by "situated action" concept and method, through video registration of interactions between actants (to get, at least, audiovisual documentation on "what has happened" and how actants have acted before, during and after the event) produces four levels of informational results:

- Feedback for technical and human relationships improvement after analyzing (first level);
- Valorization for convincing and proving to experts, founders and deciders (second level);

- New material that can be used for informing in other places, other populations, through new events (third level);
- Audio-visual material for anthropological research or other disciplines (fourth level).

The first NDM experimentation regarding information programme for socially isolated people has given a good basis and material to build up the Pathogenic Avian Influenza (HPAI) risk reduction programme. Gathering a team's abilities, field knowledge and observations, the developer made a first NDM prototype in 2003. This machine, called Infobooth 1, made for United Nations (and financed by DFID) was officially at work in June 2004 before leading a programme on preventive health and on Aids risks all over Yemen. Many videos were taken during this campaign and showing the success of the Yemenite experience. After few modifications, the Infobooth1 is still working for the Health Ministry of Yemen. Even though the Infobooth1 represented a qualitative jump regarding the traditional means for informational campaign, the team had to reflect on the vehicle's bad road abilities. The first level: feedback for technical and human relationships improvement after analysing is reached. The second level can be illustrated as follows: the enormous crowd attracted by the Infobooth1 as shown on videos give a valorisation for convincing and proving to experts, founders and deciders the impact of such a tool.

At the third level, the Yemenite campaign has been the basis to create NDM's added value thanks to the situated action it represents. From this experience, new material as the web sites (in French, English and Arabic), have been created. Many reports have been written in order to sustain different other projects as HPAI risk reduction programme that had to start in Ghana. The 5th screen attended the 2007 International Aid and Trade Exhibition in Geneva (that gathered aid agencies, UN Agencies, Government offices, international development banks) and created an event.

From the Yemenite campaign, no audiovisual material has been directly made and used for anthropological research or other disciplines (fourth level), following the L. Suchman's idea that has founded the "situated action" on observations of interactions between human practice and technical artefacts, specifically studying how humans use machines. This step could have been done in the HPAI risk reduction programme. Getting this rigorous audiovisual material could give an interesting source of information for NDM project and provide a scientific basis for the 5th screen use adapted to socially and geographically isolated people.

The translation steps

Among the links that will allow a group of actants and actions to exist in a situation and to attract the valuable recognition of their actions, the links created with other groups of actants increase understanding outside their own group. These links should be privileged because they help the group of actants to find the way of being understandable outside their own group. In a project management as an international communication programme, the ones that think that actants and actions are recognised only because there are producing contents and internal actions, even though there are "innovative", seem to go nowhere. The other reasoning that consists of thinking that, whatever the programme or the technology are effectively doing, the most important is to negotiate with the various social groups that are involved and to reach a wide extension in the programme, do not go further.

In reality, we could establish that both are necessary at the same time. For being able to talk outside about an ICT programme such as the Pathogenic Avian Influenza (HPAI) risk reduction programme and about its actions as well as reflecting on what it is going on between all the involved partners, it is necessary to go through translation steps and interpretations. The NDM Project Manager in charge of HPAI risk reduction programme had to gather the NDM team's motivation and agreement around this project by translating the different partners' goals and procedures (in that case: United Nations and European organisations). On the other side, she had to go to different meetings and exchanges and to write down various reports finding the words to be understood by all the different United Nations and European organisations partners. According to Latour, the chain of translations has to be done in both ways: *esotherical and exoterical and vice versa* (Latour 1999).

This translation of the situation as an experience does not make the fact more visible but, may be more notable, translating it in an event. It gets a peculiar character in our demonstration because it is going to underline each time that an actant does not get the impression of acting but more to be surprised by what he is doing. As Latour underlines, action is not any more a question of mastering or construction but of "crossings, events, and circumstances". Actants are continuously asking themselves what they are doing (concrete measurable actions), how they are doing (competences, performances that they are developing action after action) and why they are acting (the meaning and the cohesion that they give to their actions as well as the acquired performances). They also give specific attention to the credibility they have regarding themselves through the common references they are using inside the programme, which represent the esoteric translation. On the other side, actants are given a specific attention to the use of "universally know references" in order to be recognised outside. This is considered as the exoterically translation. The earning is the external recognition.

As described in a previous paragraph, the way of telling facts and the questioning from others produces a necessary actants exchange and mutual enrichment. Throughout this rhetorical process, a mutual enrichment of the situation is obtained (that it is transforming in an event and from which actants are earning expertise through the transformation that happened by translating and by questioning the situation). This is the way it becomes a notable event.

Latour defines the translation in this way: "Instead of opposing words to the world, the anthropology of science, by its insistence on practice, has multiplied intermediaries who attract attention on characteristic transformations of sciences... In its linguistically and material connotations, the anthropologist goes back to all the steps and displacements done by other actants who absolutely need the translation for acting. Instead of opposing context and content, the translation steps go back to the work through which the actants modify, displace or translate their various and contradictory interest". (Latour 1999).

It is interesting to see that in the HPAI risk reduction programme the chain of translation has not been properly done. Few members of the NDM team have not been convinced enough to concentrate on actions and to convince other group of actants. On the other side, more or less at the same time, NDM developers attended too many worldwide meetings even though they were very much involved in giving a wide extension of the 5th screen use.

Shared values or anthropology of communication?

In its article "La cartographie des incidences: la théorie", The International Development Research Center (Canada) which has studied the development of international program based on Sustainable Development quotes: « les ententes et les partenariats fondés sur des valeurs communes ont été remplacés par une confiance bureaucratique fondée sur des plans, des budgets et des comptes » (Roche, 1999). They criticize bureaucracy in the sense that they admit it influences the choice of partners and the way relationships are developed with them as well as the conception of the chosen programmes. In that sense, they are contesting the fact that well-written planning documents and well-established reports increase the quality of development as well as managers' influence on results. Therefore, they encourage vision and shared values, involvement, taking risks, innovation and looking for new partners instead of bureaucratic instruments arguing that these instruments are lowering enthusiasm, provoking a loss of goals and avoiding sustainable results.

On our side, we are not discussing the "bad" effects of bureaucracy but we are questioning the fact that we need sharing values and visions. In our example on Pathogenic Avian Influenza (HPAI) risk reduction programme, we are wondering how the international experts that want to eradicate HPAI from earth can share the same vision and values with the Nomadic Dre@m Machines technical team as well as the local people who are killing poultry for ritual and drinking the infected blood. It might be that there are common values or a shared aimed result. But what kind of social and reliable enquiry would be necessary to know if this is really shared?

If we suggest the Hymes' approach (Hymes 1984) that works on the talk ethnography it is because it is based on the fact that language is action, studying its use and variability inside any kind of collectives. He observes and analyses the relationships between speech use, speech as an action and social structures. The language use as well as the communication modes as gesture, mimic, non-verbal expression... "all that we know or do from a language take a place in the spacious whole of knowing and abilities that take parts in all kind of communication" (Hymes 1984). From our point of view, to observe and take into account these communication modes that are created between the various partners in the Pathogenic Avian Influenza (HPAI) risk reduction programme, as creating each time a new speech action that can be audio-visually registered and valued could be the way of linking the culturally different groups acting together in respect with their different goals for reaching the HPAI risk reduction.

In conclusion

Information campaign could become accessible and sustainable, for socially and geographically isolated people, considering that:
- Human and non-human (as the ITC tool as the 5th screen) are intimately intertwined;
- Each actor from various horizons can maintain his own goal as the relationships are maintained;
- The enrichment of the actants altogether occurs in the exchange and the construction of scenarios;
- There is added communicational value given by the situated action;
- The esoterically and exoterically translation steps are necessary;
- The communicative non-verbal modes are the added communicative value created by group acting together.

We have focalised more on advantages and limits of such considerations for HPAI risk reduction campaign in Ghana at an informational level of accessibility as conditions for sustainability. Another main objective could be to focalised more on the impact of combining movies entertainment with informational campaigns and to study the implementation of combined campaigns in « arid » contexts where it is necessary to improve disaster mitigation.

References

1) www.un.org/french/events/rio92/rio-fp.htm

2) www.un.org/esa/sustdev/inter_agency/inter_agency.htm

3) www.fao.org/sd/dim_kn1/kn1_060601_en.htm

Bernoux, P. (1990). *La sociologie des organisation*, Paris : Editions du Seuil; p.138

Crozier, M., Friedberg, E. (1981). *L'acteur et le système*, Paris: Editions du Seuil; p.165-264

Hymes, D.H. (1984). *Vers la compétence de communication* - traduction F. Mugler, note liminaire de D. Coste, Paris : Hatier CREDIF

Latour, B. (1999). *Pandora's Hope: Essays on reality of Science Studies*. Cambridge, MA: Harvard University Press.

Ouvrard, M (2005). *Regards des Sciences de l'information et de la communication sur une organisation – Partenariat Universités/Entreprises dans le domaine des TIC* – Master Recherche en sciences de l'information et de la communication- Aix Marseille Universités

Roche, C. (1999). *Impact Assessment for Development Agencies*. Oxford, Royaume-Uni: Oxfam Publishing

Relieu, M., Salembier, P. Theureau, J. (2004). Introduction au numéro spécial *Activité et Action/Cognition Située*, @ctivités, 1 (2), 3-10. At : http://www.activites.org/v1n2/intro.pdf

Suchman, L. (2004). *Located Accountabilities in Technology Production*. Published by the Centre of Science Studies, Lancaster LA1 4YN, UK, at: http://www.lancs.ac.uk/fass/sociology/papers/suchman-located-accountabilities.pdf