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Free Mobile Media : How to hack telcos cie ?
About some experimentations of interoperability and convergence between mobile and internet by and for creative users.

This article focuses on the possibilities of
mobile media as horizontally convergent media by and for creative users.

We are carrying out ethnographical and ethnomethodological studies on various French's experimentations with users and activists involved in the developpement of "free mobile media".

These experiments are aimed at opening an alternate route for socio-technical innovations in mobile media involving horizontal interoperability between networks (wifi, free VoIP, bluethooth…) and user-oriented content.
This "horizontal mode" of convergent media is exactly the opposite of the telcos strategies based on the vertical distribution of identical contents via different vectors for differents consumer markets, such as videoclips like Hung.Up-Madonna, ringtones, screensavers, etc.
In these two case studies, we as reserchears, have been directly involved in a methodology based on « breaching experiments » (Harold Garfinkel). This "activist ethnographical" methodology consists in adopting activists' ethnomethods (DIY culture, Infowar, hoaxes…) and contributing to techno-social co-developpement (for example creating a blog in collaboration with social actors). So we can summarize our methodological program with this proposition : « Never interpret, always experiment ! »
In the course of this experimentation, we have been able to observe how « the short history of mobile telephony is marked by the shift of the role of users from consumers to active producers - and mobile media are being heralded as a new site for consumption, democratic expression, individualism, citizenship, and creativity » (Gerard Googin, Larissa Hjorth).

Free media mobile : a new front in the global context

The new coalitions of activists on the mobile media front have all come to realize that mobiles across the world, in both South and North, constitute a precious tool for citizen countersurveillance, personal expression and content-sharing.

For many practicing theoreticans of Internet politics, concerned with the issues of access to all the new technologies, it appears that a new front is being opened by the possibilities of interconnecting the ordinary mobile phone with the various online resources available, in other words a deployment of free mobile media modeled after the free software movement, in

both economic terms and in the way users collaborate on the development of technical innovations, as theorized by Eric Van Hippel (Hippel, 2005).

First, a few instances of empirical work: certain debates taking place on IDC (idc@bbs.thing.net), moderated by ex-participants in Nettime, a discussion list devoted to the connections between technique and politics, or reflexions by certain technical development activists involved in the Mobile Active[1], including Ricardo Dominguez, founding member of Act-Up USA and of the Critical Art Ensemble, which once tested methods of "electronic civil disobeduience" such as FloodNet in collaboration with the Zapista (CAE, 1994).

In practice, various projects are being developed in different emerging countries with an eye to convergency and interoperability between mobile terminals and Internet resources. They are based on innovative logics imagined by the users themselves, as analyzed by Jonathan Donner (Donner 2005), in particular beeping or SMS-callback to help users who do not have forfeitary subscriptions to save on the cost of their cards. Among other projects we might mention MobilEd, developed at a secondary school in Pretoria (South Africa) for young people in their mid-teens ; it consists of a platform providing access to Wikipedia via an SMS gateway and a switching center, both of them free (Kannel and Asterisk). The server calls the user back and a synthesized voice reads the article over the phone.[2]

Other experiments, most of them based on this switching center called Asterisk using VoIP (Voice Over IP)[3], enable members of diasporas across the planet to interconnect, offering, for example, phone conferences anywhere in the world for the price of a local call. So too does Blasterisk, produced by activists from Indymedia, and which offers numerous transnational functionalities involving convergency between mobiles and the Net.[4] We may also cite Telekommunisten, specializing in discount phone-calls and meant, in the long run, to create, a "first international" of free phone-communication.[5]

Two French experiments

The first of these, "Blast_Castons le projet Dadvsi"[6], defined as an "autonomous zone of free mobile phoning", was initiated by free software developers and French activists combatting the notion of intellectual property during the parliamentary debates on the Dadvsi law. Based on *Asterisk* (a free VoIP protocol), they are called free with mobile phone, inside the French parliement, and are posted some sounded op-eds, during the vote of the law. They also designed free ringtones and videos 3 G for downloading and it was possible to exchange with them using bluethooth connexions[7].

The second experiment, called "ASULIX" (Augmented Space Universal Local Interop eXchanger), involves testing convergencies based on the interoperability of mobile technologies (wifi, mobile phone, bluetooth…) and some techno social aspects of Web

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[1] (http://mobileactive.org)
[2] http://mobiled.uiah.fi/?page_id=7
[3] http://www.asterisk.org
[4] http://www.blagblagblag.org.
[5] http://www.telekommunisten.net/
[6] i.e. "Let's 'blastcast' the recently passed law called Dadvsi (*Droits d'auteurs et des droits voisins dans la société d'information*) and aimed at extending the national royalties systems to Internet downloading.
[7] http://mobtract.net

2.0 (syndication, reputation, mapping and geolocalisation, podcasting, videoblogging, moblogging, mobtag…)
It is a sort of « Hot Spot Web 2. Mobile » for and by cultural and touristic users, again based on free PaBx Asterisk[8]

Prospects on the mobile media front

We have studied these two experiments by observing exchanges between co-developpers but also via tactics used by activists themselves (hoaxes, infowars) in keeping with the principles of "breaching experiments" as formulated by Harold Garfinkel (Garfinkel 1967).

    1- A continuist socio-economic logic
between the Internet
As all these different experiments rightly claim, they are part of a larger quest for mobile-Internet convergency and the phone, a commnication technology which is more widespread in emerging countries in a logic of socio-technological co-developement, in other words by and for users, an extension thereby of the model offered by the free software movement.

These logics of techno-social innovation and "horizontal" socio-economic development are totally at odds with the "intermedial and vertical" model of convergency offered by telecom operators, who distribute to different market sectors via different media the self-same content (cf. Hung.Up-Madonna on CD, ring-tones for sale, downloadable music videos...) Not to mention making money on the backs of the users' own creative expressions (blogs on mobiles, VoD via various surcharged numbers...)

Two strategies of convergency may be identified today :

The first can be described as "vertical and intermedial". It consists in distributing the same content through different media by associating producers of content (Universal, Virgin, private tv channels like, TF1) with telcom operators like Orange or Bouygues).

A typical example of this strategy is the downloading of ring-tones which netted the music industry 450 million euros in 2005 (Syndicat National de l'Edition Phonographique, january 2006).

The other strategy pf convergency might be termed "horizontal and continuist." It is predicated on the creation of a continuous operational flow of communications between relational and transactional networks. We are therefore talking about a user logic that has developped on the Web (peer-sharing and exchange) through the use of mobile telephony and technical interoperability.

One of the major hypotheses which we hope to test is that interoperability, both between different formats and different protocoles, can be achieved through the deployment of free tools ensuring continuity and convergency between phone networks and the Internet.

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[8]http://lebonplan.retais.fr

2 – *A Front of innovating usage*

Innovation in the new technologies of communication, particularly as concerns strategies of convergency and interoperability, must now take into consideration the logic of usage as the prime mover of its developent.

One the major lessons to be drawn from the history and evolution of the Internet is that users of communications techologies must be regarded as "co-designers" of socio-technical mechanisms. The user contributes to innovation on the basis of his or her own uses, propositions of content, etc. The social and cultural context now taking shape on the Web is one in which there are more authors than spectators, more uploaders than downloaders, or where at least the reversibility of roles is the rule and not the exception.

It seems to us, therefore, that on the basis of these very practices of exchanging data, contents and information coproduced by users, that an implicit model of convergency between mobile telephone and Internet is taking shape according to horizontal modalities, in accordance with a users' logic of interpersonal communication and exchange.

As Eric Von Hippel has put it (Hippel 2005) : "Innovation in the technical development of production, distribution and consumption networks can be constructed horizontally among participants who may be simply innovative users or producers of their own material and who are sufficiently independent to distribute their own innovations as complements to commercial distribution and production. Originating as they do in users' practice, such innovating models are developped in the public interest."

Achieving an efficient continuity of communications, transactions and relational networks will depend upon a pragmatic convergency between techology, usage and contents and will require the cooperation of a great many actors.

3 –*Cultivating confidence in transactions : reputation economies from Web to mobile*

One of the practical lessons to be learnt from peer-to-peer exchanges between innovative users has to do with the rekindling of economies of attention and recognition. Reputation and confidence are of course two factors that serve to endorse transactions (financial or symbolic).

Here, the classical example is E-Bay with its system of confidence-managing to underwrite buyer-seller relations. With the seller's reputation guranateed in this way, transactions that may involve thousands of pounds sterling are made "secure". Securisation may be obtained through technical locks but also through the creation of networks of confidence. Among a community of recommenders, relations of confidence are established between buyers and sellers that are stronger than any that can be hoped for by marketers the world over.

At least this was the diaganosis of the Financial Times (21/12/05) in an article entitled "The capitalism of sharing" and which dealt with the economy of communities developped within the new context known as Web 2.0. According to the writer, this economy prepares market niches and is especially effective in establishing customer fidelity through the confidence networks and reputation sytems which underpin it with a minimum of marketing costs.

The success of sites like E-bay show that confidence proceedures in consumer matters on the Internet are arranged peer-to-peer, in keeping with the historic socio-technical architecture of the network.

This is the case too with US site Digg.com which enables visitors to "digg", i.e.to rate items posted in English on millions of blogs around the world and, if one wishes, to post the item oneself,.

We might also cite the case of Slashdot and its handling of "karma" as it calls reputation management, a site which enables readers to rate the contributors to this or that news site. Contributors to the site, in accordance with the evolution of their "karma", i.e the quality of their contributions, can move up or down in the hierarchy of moderators.

Confidence and reputation appear to be just as important in the mobile domain as they are on the Internet: when users become an integral part of the chain of creation of exchange values, when sharing initiates relationships, the notion of "reputation" tends to complete or even to replace the vertical, expert processes of recognition.

In our particular area of interest (the development of tourism), restaurants and hotels are customarily rated by recognized guide-books. The model we propose to test turns this logic on its head. The architecturing of reputations on the Internet via these different technosocial mecanisms can be "loaded" onto mobile phones.

4 – Spaces in recomposition: augmented spaces.

For a long time, it was believed that the future of the Web lay in the creation of virtual worlds. Today we realise that this is far from true and that most research is directed towards the augmentation of actual realities rather than virtual. Increasingly, the technologies of mobility and geolocation, are turning internauts into "externauts", broadening their social environent by means of electronic traces, annotations, and other data.

As the distinction between the Web and "real life" grows increasingly fuzzy, the development of cartography is one of the caracteristic illustrations of this interesting

movement. Often initiated by organizers of online communities, these practices suggest the possibility of convergencies between these different areas.[9]

It is in this perspective that Lev Manovich has introduced the notion of "cell space" (Manovich, 2005), i.e. a kind of space in which network data joins up with physical space. This mutual spilling over between Internet and the life of the street brings hope that at last the forces born on the Web will begin to colonise the world outside and devlop in broad daylight this new front for mobile media.

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[9] Here we may mention the first 'hack » of Google Maps, by Paul Rademacher. He overlaid two source codes, in accordance with the logic of musical mashup (mixing two complete objects instead of just samplings) the
Google map of the San Francisco Bay area and his own community's site-map of hotels and other places in that same Bay area (cf http://www.housingmaps.com)