City and mobility. Cell phones, post-mass functions and informational territories

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Abstract

This text discusses the social mobility and its changes in the urban space, promoted by the development of communication media resulting from the dynamics of industrialization and from the new era's urbanization. The media remodel the urban spaces, the suburbs, the center, give dynamism to public transportation and make these web-organisms, the cities, more complex.

Key words: urban space, mobility, communication technology.

Resumo

Este texto trata da mobilidade social e suas transformações no espaço urbano, provocado pelo desenvolvimento dos meios de comunicação decorrentes da própria dinâmica da industrialização e da urbanização da era moderna. As mídias reconfiguram os espaços urbanos, os subúrbios, os centros, dinamizam o transporte público e tornam mais complexo esse organismo-rede que são as cidades.

Palavras chave: espaço urbano, mobilidade, tecnologias da comunicação.

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Social mobility, people's relations to urban space, and the means of communication are going through important transformations in the present moment of the information society. The development of the means of communication takes place in the dynamics of industrialization and urbanization of the modern era. The media reconfigure urban spaces, suburbs and centers, make public transportation more dynamic and the web-organisms that we call cities more complex. City and mobility cannot be dissociated from one another. This relation is a constant, but new dimensions emerge with the new digital technologies and telematic networks. The objective of this article is to discuss the relation between media processes and cities, focusing on the new communicational processes that developed with cyberculture, which will be called "post-mass" functions. It will be shown how the emerging social forms of these post-mass functions media, together with mobile technologies (communication networks and devices such as palmtops, laptops, GPS receivers, cell phones, RFID tags, Wi-Fi, bluetooth), create new processes for the informational control of space, in new territories, the so-called "informational territories".

CITY AND MOBILITY

The evolution of the cities took place through the constitution of diverse forms of mobility through material and spiritual networks, as defined by Saint Simon in the 19th century (Musso, 1997; 2003). Such mobility affected transportation networks (both of materials and people), communication networks (disseminating information via letters, telegraphic messages, telephones, televisions, radios), and financial fluxes (seen by Saint Simon as a "sap" that fed the web-organism of the cities). Cities and the media processes that structure them and are their correlates, such as journalism and, later, the audiovisual media, have always existed as flux, exchange, movement, the abandoning of roots) and dissolution of territories (of social relations, information and territories). Cities emerge, historically, as places of mobility and fixation, from the first social organizations around places dedicated to worshipping the dead, the necropoles (Mumford, 1998). In the words of Urry and Sheller, "*cities are mobile and places of mobility*" (Urry & Sheller, 2006, p.1).

Cities developed as "network societies" (in physical, symbolical, cultural, political, imaginary and economical terms). The particularity of the present time is the hegemony of a group of networks – the telematic networks – which have come to integrate, and even "command" (in the case of the cybernetic network) the diverse networks that constitute the urban space and the many forms of social bonds which emerge in this space. The process of increase in the complexity of the "web-organism" is given continuity in the contemporary cybernetic metropoles, the "cybercities" (Lemos, 2004; 2005; 2007). These can be defined as cities where the communication and information infrastructures are reality and the practices which result thereof constitute a new urbanity. This urbanity is called cyberurbe (Lemos, 2005).

We must acknowledge the instauration of a dynamics which promotes the reconfiguration of social space and practices, along with the emergence of the new communication technologies and of the telematic networks. Cybercities can be thought of as emerging forms of urbanicity in the information age. The challenge that presents itself is to create effective manners for communicating in and reappropriating the physical space, to rewarm the public space, to favor social appropriation of the new information and communication technologies and to strengthen contemporary democracy.

Nowadays, wireless technologies are transforming relations among people and the urban spaces, creating new forms of mobility. Cybercities are becoming "unwired cities" (Townsend, 2003) and entering the age of ubiquitous computing, "pervasive computing" thanks to devices such as 3G cell phones, GPS receivers, palmtops, RFID tags, and the Wi-Fi, Wi-Max and bluetooth networks[1]. These metropoles are becoming "wireless" cities, a generalized connection environment, enveloping the user as he moves through the city, interconnecting machines, people and urban objects. In the contemporary cities, the traditional spaces of place (Castells, 1996) are, little by little, turning into a generalized environment of access to and control of information by telematic wireless networks, creating permanent connection zones which are ubiquitous – the informational territories. In the present moment of mobility and wireless networks, we are immersed in what some authors see as a new relation with time, space, and the diverse territories, in the form of time-space compression (Harvey, 1992), disconnection (Giddens, 1991),

dissolution of territories (Deleuze, 1980), liquid spaces (Bauman, 2001), new nomadisms (Maffesoli, 1997). Crises in the frontiers of subjects, identities, geographical spaces, culture, politics, and economy come into play. The sensation, in the current moment of globalization, is one of loss of frontiers, dissolution of territories, but also one of formation of new territories. This has been discussed previously (Lemos, 2006), and it has been shown how the processes of formation and dissolution of territories take place and their relation to mobile technologies.

As stated by Lefebvre (1970, 1986), the urbanness is the soul of the cities, and a new city institutes a new urbanity. It is therefore possible to say that the new physical form of the cities, the cybercity, institutes a new "soul" for those cities, the new urbanness, the cyberurbe[1]. The cybercity feeds and nurtures the cyberurbe which, on its turn, feeds and nurtures the cybercity, in the same way that the dynamics of virtual and actual constitutes reality (Lévy, 1995; Shields, 2003). What is characteristic of the new media forms that are emerging along with the telematic mobility of contemporary cybercities?

MOBILITY AND POST-MASS FUNCTIONS MEDIA

The relation between mass media and cities begins in the 16th century, with the appearance of the opinion, the audience, initially in relation to printed press and, later on, with the development of audiovisual means of communication, such as radio and television. As stated by Gabriel de Tarde, about journalism and the appearance of the audience: "O público só pôde começar a nascer após o primeiro grande desenvolvimento da invenção da imprensa, no século XVI. O transporte da força a distância não é nada, comparado a esse transporte do pensamento a distância[2]" (Tarde, 2005: 10). The transportation of "thought and strength", which will create the networks of the first modern cities, goes through transformations in the 19th century, due to the Industrial Revolution and the mass functions media, and in the late 20th and early 21st centuries, with the arrival of the post-industrial age and the development of the communicative processes with post-mass functions.

If, in the industrial city, the mass media configure the urban space (the press, radios, telephones and televisions were and still are fundamental in defining work and housing relations, the constitution of the suburbs and other urban enclaves), in the contemporary cybercity, one can see the development of a narrow relation between mass functions media (the "classic" media, such as press, radio and TV), and the digital media with new functions that we call "post-mass" media (internet and its diverse tools, like blogs, wiki's, podcasts, P2P networks, social software, and multi-functional cell phones).

The evolution of the binomial expression city-communication follows the development of communication technologies. If the cities of the industrial age constitute their urbanity based on the social and political role of the mass media, the contemporary cybercities are constituting their urbanity based on an intense (and tense) interaction between mass functions media and the new post-mass functions media.

What are mass functions and post-mass functions? When we mention mass functions, we acknowledge the existence of a centralized flow of information, with editorial control over the emission poles being held by big enterprises that contend with each other, since they are funded by advertisements. These enterprises are always in a quest for the *hit*, the mass success, which will result in increased funding and profit. The mass functions media are mostly centered in a national or local geographical territory. The mass media and functions have an important political and social role in the formation of the audience and the public opinion in the modernity. The mass functions are those aimed at the masses, at people who do not know each other, who are not spatially together and who, therefore, have little possibility of interaction. There is no organizational structure in the masses, no traditions or rules either. According to Ortega y Gasset (1962), the mass is composed of the "average man", different from the humanist cultured individual. For Simmel, "as ações da massa apontam diretamente para o objetivo e procuram alcançá-lo pelo caminho mais rápido: este faz com que elas sejam sempre dominadas por uma única idéia, a mais simples possível*"* (Simmel *apud* Wolf, 2005: 7).

The post-mass functions media, on the other hand, operate from telematic networks in which anyone can produce information, "liberating" the emission poles, without the need for enterprises and economic groups to support them. The post-mass functions do not compete against one another for advertisements and they are not centered on a specific territory, but instead they reach in a virtual manner all over the planet. These products are customizable and, in most cases, they perform on bi-directional communication fluxes (from everybody to everybody), different from the unidirectional flux of the mass functions media (from one person to everybody). The post-mass functions media operation is not based on *hits* but on "niches", creating what Chris Anderson (2006) called the "long tail", in other words, the possibility of offering a high number of products which are directed at few people, but which, due to the very structure of the network, are kept available. This way, an author does not necessarily have to join a big hit-producing company to make a living out of his work. Making use of new post-mass functions tools, he can theoretically master

the whole creative process, creating his own community of users, establishing open bonds among them, neutralizing intermediation and interacting directly with a market composed of niches. Internet experiences relative to blogs, record companies and musicians, free softwares, podcasting, wiki's, among others, show the potential of the post-mass functions media. These media insist on three fundamental principles of cyberculture: the liberation of emissions, generalized connections, and reconfiguration of the institutions and of the mass culture industry. (Lemos, 2004, 2005).

Whereas the mass media are informative, the post-mass media go beyond that, creating more communicative processes based on the bi-directional exchange of messages and information between consciousnesses. New communicational tools with non-mass functions, like blogs, podcasts, wiki's, discussion forums, social softwares, do not operate by means of centralization of information, they are not necessarily linked to communication enterprises, they are not limited to just sending information, they are not necessarily linked to marketing and advertisements that pay for the emissions, their emission rights are not granted by the state, and they are not limited to a clearly defined geographical coverage. Differently from the mass media, the post-mass function media allow for customization, publishing and dissemination of information without control from enterprises or state permits. Post-mass functions tools insist on processes of conversation, interaction, communication, in their noblest sense, which accounts for an important political dimension, as it will be shown further ahead.

We must, however, think in terms of functions and not of devices, since mass and post-mass functions are present both in analogical and in digital media. For example, a large internet portal, search engine or journalistic website tries to perform mass functions, while analogical media such as fanzines, flyers and community radio stations attempt to perform post-mass functions, aimed at niches. Consequently, there is at present an enrichment of the communicational landscape due to an increased offer of options of access, of free emission and of circulation in a planetary network.

Nowadays, media which serve mass functions and those which serve post-mass functions coexist in a permanent tension, reconfiguring the cultural industry and the contemporary cities. Blogs are created with post-mass functions and put stress on mass publications made by the journalistic enterprises. These enterprises, on their turn, hire bloggers and, since their

publications are mediated by professionals (journalists), they can investigate and criticize the post-mass "committed journalism", for instance. Mass functions exist on the internet and in the new digital media, such as the large journalistic portals, in the great hubs that concentrate access to the web (Barabási, 2003), in the radios, newspapers and TV stations that disseminate their (mass) content over the web. On the other hand, post-mass functions are now appearing on the radio, the TV and the print media dedicated to "niches", like satellite radios, paid television, and publications for specific audiences, although in these cases the entrepreneurial structure is still the same as for the strictly mass functions media.

We must not think in terms of simplistic dualisms, but instead, in reconfiguration of systems. We can say, for example, that the internet is a media environment in which there are mass functions (web TV, the large portals or search engines) and post-mass functions (blogs, wiki's, podcasts). TV offers mass functions (open TV) and post-mass or niche functions (such as the paid channels). This new, richer (since it offers us an increasing number of mass and post-mass functions) communicational configuration will spawn a crisis and an important impact on the configuration of the new social and communicational relations (copyright crisis, "committed journalism", free softwares, file exchange over P2P networks, etc.). The expanding "post-mass" culture of networks shows the socio-cultural impact of the digital technologies in a mobile electronic territory that is enveloping the whole world. Cyberculture thus establishes a media structure never before seen in the history of mankind (merging mass and post-mass functions), in which, for the first time, any individual is able to produce and publish information in real time, in diverse formats and modulations, and to work collaboratively with others over a network, reconfiguring the cultural industry (Lemos, 2003).

Many analysts state that nowadays there is a crisis of the productive and economic model of the mass culture industry, although this crisis does not necessarily entail its annihilation. There is, consequently, reconfiguration and "remediation" (Bolter & Grusin, 2000). Newspapers make use of blogs (a reconfiguration in relation to blogs and newspapers) and podcasts. Podcasts emulate radio shows while, at the same time, radio stations edit their shows into podcasts. The TV makes reference to the internet, and the internet refers users to television. The TV employs cell phones and

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SMS messages as tools to promote its programs while, in some countries, cell phones play excerpts from TV broadcasts. Bolter and Grusin call this "remediation". It is indeed a remediation in the media sphere, but it also involves reconfiguration of social practices and institutions (organizations, laws). Nowadays, we have the model of mass functions in the cultural industry from the 18th to the 20th century, and the model of post-mass functions, characterized by digital media, telematic networks and the many "recombinant" procedures relative to informational content that have emerged since the 1970's.

What is important now is to ponder the post-mass functions of emission and reception of information while in transit in order to understand what is at stake with the mobile digital devices in the cities. We must understand the cybercity, the cyberurbe and the informational mobility in this new media setting. The forms of emission and circulation of information in the mass media cities were rarefied (it was possible to create fanzines, pirate or community radio stations, but with clear access and production limitations), but even scarcer were the possibilities of emission and circulation of information by the individual while on the move. The industrial city dweller can get access to mass information, but he does not have much mobility to produce and send information. The same way, the forms of interpersonal communication were limited to confinement (home, office, factory), public phones or amateur radio – these last ones already reflected the desire for an instantaneous, mobile and ubiquitous communication.

In the mass communication, the individual can choose what kind of information to receive and how, but cannot have a dialogue since he has little possibility of emission and circulation of information. In most cases, access to information happens through devices (TV, radio), in private spaces (home, office, car), with the exception of printed materials (newspapers and magazines), which allow for reading while on the move, and of radio, which allows for portability and access while in transit. However, there is no possibility of emission of information. The current communicational configuration presents us with new "post-mass" processes which allow us to emit information and circulate at the same time. Informational mobility is the differential of this age.

The development of mobile computing and of the new wireless technologies (laptops, palmtops, cell phones) establishes, in the beginning of

the 21ˢᵗ century, the passage from access through "presential points" (fixed internet connections with cables) to a "generalized connection environment" (mobile wireless internet, cell phones, bluetooth networks, RFID tags) which envelops the user while in transit. The cybercities of the cyberculture are developing nowadays as "generalized personal and mobile access to information environments", becoming an "informational territory".

Zones of control of emission and reception of digital information for individuals who are circulating in the public space are being created in the contemporary cities, increasing the potential of new social practices: real-time contact and informational access (as opposed to the contact in the space shared by the physical bodies of the individuals, in the fluid moments outside the closed daily schedule), simplification of connections (empathic, non-solemn relations), new forms of social and identity reinforcement, and new kinds of self-exposition (YouTube, blogs, Flickr, Orkut). The contemporary cybercities become "communication machines" with new forms of appropriating the urban space – writing and reading the space electronically, using "locative" functions (mapping, geolocalization, smart mobs, urban notes, wireless games), bringing new dimensions to the creation and use of meaning in urban spaces. New forms of control and surveillance also arise in these informational territories.

INFORMATIONAL TERRITORIES

We define informational territories as areas of control of the flow of digital information in an intersection zone between cyberspace and urban space. Informational access and control are based on mobile devices and wireless networks. The informational territory is not the cyberspace, but the moving, hybrid space formed by the relation between electronic space and physical space. For example, the place of access to a Wi-Fi network in a park is an informational territory, different from the physical space of the park and from the electronic space of the internet. By accessing the internet through this Wi-Fi network, the user is in an informational territory that overlaps with the physical (and political, cultural, imaginary, etc.) territory of the park, and in the space of the telematic networks.

The informational territory creates a place, dependent on the physical and electronic spaces to which it is linked. It is, thus, a

heterotopy (Foucault, 1984). The place is configured by social activities that bring about (symbolic, economical, affective, informational) pertaining. The place is the fixation, whereas the space is the opening (Tuan, 2003), since it demands time and experience to come into existence. Alain Bourdin shows that social bonds develop in the construction of spaces of pertaining, of founding spaces. Every social group is, as a principle, associated to a territory, founding the place in relation to the generality of the space. The place is

> fundador da relação com o mundo do indivíduo, mas igualmente da relação com o outro, da construção comum do sentido que faz o vínculo social. Sua irredutibilidade se funda numa diferenciação radical entre a co-presença e a comunicação através dos dispositivos e artefatos... (Bourdin, 2001: 36)[3].

Muniz Sodré (1988) calls our attention to the ideas of territory and place, showing that in ancient philosophy, in Aristotle (in *Physics*), one cannot find an idea of space, but of topos the place marked by the body. The same way, for Martin Heidegger (1964), the (inhabited) place is built, just as man´s way of being in the world. The space is an *abstractum*, while the place is a *topos*. The territory founds a place. The idea of informational territory is linked to this form of identity, creating an "informational place" that is different from the abstract space. A Wi-Fi zone in a square, for example, is a social place where one can find an informational access/control heterotopy.

Every territory is a social place of frontier control, since "*la soberanía se ejerce en los limites de un territorio*"[4] (Foucault, 2006: 27). Informational territories are places where the control of the flow of information in the cyberurbe marked by the overlapping of electronic and physical space is exerted. Beslay and Hakala, for example, use the image of the "bubble" to define this "digital territory". To think in terms of a digital territory allows us to visualize the frontier of the informational flux, and it poses us political questions relative to privacy, control and vigilance.

> *A bubble is a temporary defined space that can be used to limit the information coming into and leaving the bubble in the digital domain. (…) The vision of the bubble is defined to gather together all the interfaces, formats and agreements etc. needed for the management of personal, group and public data*
> *and informational interactions* (Beslay & Hakala, 2005).

3. "The founder of the relation with the individual's world, but equally the founder of the relation with the other, of the common construction of meaning that creates the social bond. Its irreducibility is founded in a radical differentiation between co-presence and communication through devices and artifacts…" (Bourdin, 2001:36)

4. "sovereignty is exercised in the frontiers of a territory"

Thus, planetary information telematic networks, in a concrete relation with urban spaces, constitute new informational territories. These territories are characterized as the interstice, the interface between the telematic networks and the physical networks of the cities and their "place" spaces (Castells, 1996) – streets, cafés, restaurants, bus stops, subways, hotels, squares, etc., creating a generalized access environment in which anyone can, inside their "informational territory" constituted by means of their access passwords, send and receive multimodal information, while in transit. Wi-Fi and Wi-Max internet networks, bluetooth and short range RFID networks, cell phone networks (GSM, CDMA, EDGE) spread around the world, and diverse cities are nowadays implementing and expanding informational territories. This development is the spearhead for the implementation both of networks and of devices for use in the metropoles and the rural areas.

We have then a new form of mobility: the mobility through fluxes of information, through informational territories, exemplified in the possibility of access to, production and circulation of information in real time, which alters and modifies the mobility through the physical spaces of the city. For example, the use of cell phones and localization systems can change the practices of urban transportation. With a cell phone, a user can get information in real time about how long time it will take for a certain bus to arrive at the stop, thus being able to alter his form of "waiting" and create new dynamics of movement in the physical space around this social activity. Thus, informational mobility creates a fluid management of time and, consequently, of space. There is no detachment between the spaces and the related mobilities, but instead, the intersection between electronic and physical space, giving rise to informational territories.

Manual Castells , in a recent article published in *Le Monde Diplomatique*3, shows that the dynamics of the three principles of cyberculture (emission, connection and reconfiguration) can change the political practice and the social relations amid the new technologies of mobility. For Castells, there is a lack of legitimacy in the politics ruled by the mass media. Today, with the new forms of making information public, called *mass self communication* in the words of this Spanish author, new political and social forms arise. The new post-mass functions constitute a never before seen culture of mobility, with social, esthetical, communicational and political implications on world level. For Castells (2006), this new form of communication

> está presente na internet e também no desenvolvimento dos telefones celulares. Estima-se que haja atualmente mais de um bilhão de usuários de internet e cerca de dois bilhões de linhas de telefone celular. Dois terços da população do planeta podem se comunicar graças aos telefones celulares, inclusive em lugares onde não há energia elétrica nem linhas de telefone fixo[5].

5. Is present on the internet and also in the development of the cell phones. It is estimated that, nowadays, there are more than a billion internet users and about two billion cell phone lines. Two thirds of the population of the planet can communicate thanks to cell phones, even in regions where there is no electricity or fixed phone lines.

This new "personal mass communication" practice is constituted by the individual control and the collective sharing of information in mobility with planetary reach and immediate diffusion. These new media formats can create new political practices, since individuals would be able to organize a "critical rebellion". There are real possibilities that they "comecem a agir sobre a grande mídia, a controlar as informações, a desmenti-las e até mesmo a produzi-las[6]" (*idem*). The phenomenon of social mobilization to coordinate trivial and political activities through mobile devices, which Rheingold (2004) calls "*smart mobs*" is seen by Castells as decisive:

> essa onda mobilizadora, apoiada por redes de comunicação entre telefones celulares obteve efeitos impressionantes na Coréia do Sul, nas Filipinas, na Ucrânia, na Tailândia, no Nepal, no Equador, na França... Pode obter um efeito imediato, como em abril passado na Tailândia, com a destituição do primeiro-ministro Thaksin Shinawatra pelo rei Bhumibol Adulyadej. Ou na Espanha, com a derrota, nas eleições legislativas em março de 2004, do Partido Popular de José Maria Aznar[7].

Castells understands very well what I have previously called reconfiguration. This is not about a simplistic opposition between the power of mass media and a "rebellion" associated to social movements by means of new post-mass communication devices, but about a change in the social and communicational practices that offers "à sociedade maior capacidade de controle e intervenção, além de maior organização política àqueles que não fazem parte do sistema tradicional[8]" (*idem*). Among the mobile technologies, the cell phone has been the most important device for technological convergence and for the possibility of effectively exercising this political "rebellion", but also for the constitution of social relations by immediate contact, be it through voice, SMS messages, pictures or videos.

CELL PHONES AND URBAN SPACE

Experience has shown the redefinition of the urban spaces by the informational technologies in many cities around the world, by diverse actions taking place through cell phones, palmtops, and laptops, from the payment of bills and parking lot services, to access to "locative" information in order to learn about a theater's programme or the history of a monument, to access to the menu of a restaurant or the impressions of its customers, just by passing by these places with the devices on.

The cyberurbe, the virtual soul of the cybercities, is being increasingly configured by social practices that arise from this mobility of digital information (exchange of SMS messages, nomadic workers, occupation of connected urban spaces, gaming on mobile devices in the urban space, digital electronic notes, mobile blogs, exchange of texts, videos and pictures through cell phones). An interesting example of this new nomadism taking place through wireless networks and portable technologies is the phenomenon that has been called the high-tech Bedouins in San Francisco. We know that the Bedouins are nomadic peoples originally from the Arabic peninsula that wander through North Africa. They are nomads, but they own a territory, since, as Deleuze says, they follow customary routes, going from one point to another (water sources, for example). But these points exist only to be left behind, and what is really worth is that which is in the middle of the way. Deleuze shows that the life of the nomad is the *intermezzo*.

The new high-tech nomads go from one access point to another. The modern resting point is not the water source, but the coffee shop or its zone of wireless connection to the cyberspace in the public urban space. The high-tech Bedouin territory is not the desert, but the informational territory created by the intersection of the physical space with the cyberspace in the contemporary metropoles. They work and live moving from one wireless connection to the next one. The new Bedouins, equipped with wireless technologies such as Wi-Fi laptops and smart phones, combine physical mobility in the public space with informational mobility through the cyberspace, redimensioning the practices and the constitution of (or in) the physical space. Their objective is not the *intermezzo*, that which lies between two points; it is not to abandon places, but to search for their informational territory from where they connect to the networks. They travel physically between points in order to be able to electronically wander through the cyberspace[4].

Many projects employing mobile technologies have put into a new perspective the appropriation of the public space. Some examples of this will be shown further ahead. As I have insisted, this is about forms of appropriation of urban spaces by means of the use of mobile devices, creating informational territories where the users can recognize other users, make electronic notes about a space, leaving their mark in the form of a text, a picture, a sound or a video, locate or map urban routes or objects, or even play games, having as their background streets, squares and monuments of the urban space.

Project "mobotag. connecting your city with mobile tags"[5], for example, allows any person to add information to an urban space by sending an e-mail. This is the appropriation of the space by "electronic notes", creating a "place" in the middle of the urban space's "void" of meaning. As the project says,

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"Tag any street address in NYC with your mobile phone!. Send a text message to nyc@mobotag.com with your address. Add tag with picture, text, video, or sound". Locative media's practices of making notes are very close to what the surrealists, dadaists and situationists were striving to achieve by drifting and occupying spaces in the cities in the 1950's and the 1960's. They would organize small performances (readings, for example), transforming walking on the public space into an art. These practices, just as the current practices involving cell phones, laptops, GPS receivers or RFID tags, attempt to create forms of appropriation of the increasingly impersonal, cold and rationalized spaces in the cities. Maybe we could think of this new form of "publishing" and "permanent contact" with the other as an appropriation by the "surface", as forms of reading and writing social relations and spaces: an experience at the same time social and esthetic. In the words of Simondon, *"a polaridade característica da vida está no nível da membrana*[9]*"*.

The same way, in the Flagr6 project, the user can send an e-mail from his cell phone with his impressions about interesting places in a city. These places are included in maps and form a free, collective reading of the public space. This is, indeed, a kind of bookmark of the real world. Once again, we see forms of creating and giving meaning to places in the city, as a mark assigned to a location in a map so that other people can visit that location too. Simmel shows how the foreigner is the very image of the urban. The inhabitant of the city is, for Simmel, in a state of fluctuating indifference. In that sense, we may be able to see the surface of the cities as place of meaning in this anthropologic experience of the passer-by, of the *flâneur*, of the situationists, but also of the people connected to mobile devices and wireless networks that mark public places. A place is created amid the indifferentiation of the urban spaces, a place endowed with meaning. That is why the French sociologist Isaac Joseph says that "o território de um ator social ou de um grupo de autores é, além de toda a apropriação, uma região de papéis acessíveis[10]" (Joseph, 1988).

In this same direction, another interesting initiative is the Dodgeball7 project. The system allows users to send SMS messages to lists of registered friends telling them where he is in a given moment, so that people from his friend list who are nearby have the opportunity of meeting him. Once again, permanent contact is sought, creating the link between electronic space and physical space. The same thing happens in project Radar8, in which the registered cell phones are mapped and identified, creating zones of access and permanent contact, indicating where the correspondents are. Since they create and increase the potential of sociability networks, these projects attempt to signify urban space based on permanent contact with individual communities.

9. *"the characteristic polarity of life is on the membrane level"*

10. "the territory of a social actor or of a group of authors is, beyond all appropriation, a region of accessible roles".

The Imity9 project, similar to those just mentioned above, puts people in contact, identifying them by cell phones and bluetooth networks. The interesting point in this case is that the project allows people who had only known each other online to identify their contacts via bluetooth networks, in case they are in the same place by chance. This way, if you are in a bar and a virtual friend (whom you do not know personally) is nearby, the cell phones will recognize each other and you will be able to meet in the real life.

Magnified reality projects by HP, MScapers10 and Nokia11 have systems that allow for navigation through information about the cities just by pointing the cell phone to places or objects. When you point the device, electronic information is attached to the place. Similar projects also use these devices to help people (such as tour guides) to situate themselves and find destinations in the urban space12. This is not just about the writing of spaces by means of notes or reinforcing social bonds, but about expanding the readings of urban space through the superposition of informational layers over the places of public space.

> *The user simply points a cell-phone camera at a restaurant or office building,*
> *and, using GPS coordinates, software associates a hyperlink with the image. In the*
> *commercial world, some museums and tour companies--including one that takes*
> *people around San Francisco--use location-detecting gadgets to guide sightseers.*

Other projects are indicated in the website "*we make money not art*"13 after presentations in the workshop "sound and mobile technologies"14. As an example, we have the works of Atau Tanaka, Guillaume Valadon e Christophe Berger about localization and navigation using wi-fi cell phones in which

> *(…) an interface that seeks to fuse elements of proximal interaction, geographic*
> *localization and social navigation to allow groups of wifi-equipped phone users*
> *to intuitively find friends, network connectivity or new music. (...) Once this spontaneous*
> *private network is established, the two users compare playlists based on*
> *various musical criteria. A song of interest to the first user is then copied using*
> *the phone Wifi connectivity.*

The projects mentioned above make possible the creation of meaning out of notes about public spaces, out of readings of "magnified realities", and the putting of people in "permanent" contact, amid the anonymous environment of the big cities, attempting to create, in the "surface", a membrane, a zone of contact and "access" and create, recreate and strengthen networks of sociability and the appropriation of the urban environment. The "foreigners" of the urban space can have new experiences of living in the space of the metropoles, reinforcing the existence of informational territories, insisting on forms of navigation based on information in the interstice of the electronic space and the public space of the contemporary cities.

M

City and mobility. Cell phones, post-mass functions and informational territories

Definitely, as we free our machines from cords and cables, as the cell phone, bluetooth, RFID or wi-fi networks turn our cities into wireless communication machines, we paradoxically create projects that strive to attain the exact opposite, the creation of territories, anchorage on the physical space, the developing of connections to things, places, objects…

CONCLUSION

The analysis of the urban elements gains strength with the idea of "urban laboratory" developed by the Chicago School in the 1930's. Late 19th and early 20th century sociologists (Simmel, Tarde, Park) discuss three forms of mobility, roughly speaking. The first mobility is that which considers man as a being of locomotion, and the city transforms him into one who experiences everything through his sight, thence the image of the foreigner in Simmel's work, the one who sees everything from the outside. With the modern city, the experience of "listening" (to those who tell something, in the rural areas or the small towns) is turned into that of "seeing" that which is blossoming into a "forest of signs" (Baudelaire) in front of our "eyes".

The second urban mobility is the social mobility and the mobility of the place of dwelling. The inhabitant of the modern city is constantly moving, and may alter his status or social role by means of education, professional instruction, getting wealthier… The third mobility is the one Simmel called mobility without movement, the mobility that creates a mass, the social mobility due to trends, which makes us adhere to what is common and, at the same time, to differentiate ourselves.

Nowadays we could, maybe, as a hypothesis, think about a fourth mobility, informational mobility, as a cognitive ability of sliding through symbolic goods, messages, information. In the beginning of the 20th century, this communicational dissolution of territories was occurring via the mass media: newspapers, radio, TV, magazines, and via the means of interpersonal communication: mail, telephone. Here, the shifting through the symbolic goods took place motionlessly, mostly in private spaces, with no possibility of mass emission. Presently, in the beginning of the 21st century, informational (now telematic and digital) territories are in planetary expansion, using ubiquitous tools and allowing for informational mobility (emission and reception of information) coupled with mobility through the urban space. The examples above show forms of creating meaning, appropriating and establishing contacts through the surfaces of the urban spaces using the technologies of digital mobility. This new informational mobility, the technological mobility (of the devices) may make possible a new way of comprehending, giving meaning to and creating life experiences in the space of the contemporary cities.

1. See the following websites: Carnet de Notes
(http://www.facom.ufba.br/ciberpesquisa/andrelemos/), MuniWireless
(http://www.muniwireless.com), Wi-Fi Net News, WNN
(http://wifinetnews.com/), Smart Mobs (http://www.smartmobs.com/),
Observatório das Cibercidades
(http://www.facom.ufba.br/ciberpesquisa/cibercidades/disciplinas/), Mobile
Communication (http://mobilesociety.ning.com/), Urban Tapestries
(http://urbantapestries.net/weblog/), among others, for updated information
about projects concerning diverse cities and wireless networks around the world.

2. As a side note, it is interesting to remember that the "urbe" was the
ritualistic place from where a city would grow, a place of worship that should be
defended against all odds from invaders. The take the "urbe" would mean to take
the soul of the city, and therefore, to conquer it definitively.

3. August 2006, in http://diplo.uol.com.br/2006-08,a1379

4. For more information about the San Francisco Bedouins, see the *San
Francisco Chronicle* article Where neo-nomads' ideas percolate / New 'bedouins'
transform a laptop, cell phone and coffeehouse into their office at
http://www.sfgate.com/cgi-
bin/article.cgi?f=/c/a/2007/03/11/BEDOUINS.TMP. On this same subject, see
also the Bedouin backpack project, the Wi-Fi Bedouin at
http://www.techkwondo.com/projects/bedouin/index.html.

5. http://turbulence.org/Works/mobotag/"

6. http://www.flagr.com/

7. http://www.dodgeball.com/

8.
href="http://www.celldorado.com/AT/ADS/923303638/index.php?trackid=474
153321&source=webgains&clickid=TFsF2jyyXWQ.

9. http://www.imity.com/

10. http://www.mobilemusicworkshop.org/

11. http://www.technologyreview.com/Biztech/17807/

12. For more details, see Technology Review, "Your Phone as a Virtual Tour
Guide"., in http://www.techreview.com/Infotech/18746/

13. http://www.we-make-money-not-art.com/archives/009528.php

14. http://www.mobilemusicworkshop.org/

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