

apropriations of the (un) common

public and private space
in times of mobility

giselle beiguelman,
lucas bambozzi, marcus bastos
& rodrigo minelli (orgs.)

development and debate: vivo arte.mov and sergio motta institute stimulate production with digital and portable media

The Vivo arte.mov - International Mobile-Media Art Festival encourages conscious and critical use of portable technologies with the perspective of people acting more effectively in their communities and social reality on the basis of building new models for collaboration and distribution. The third festival broadens the event's field of action by holding exhibitions and symposiums in Belo Horizonte and Sao Paulo, and extends its reach to all five regions in Brazil.

The São Paulo stage of the Vivo arte.mov is being held jointly by Sergio Motta Institute and the São Paulo state government's Secretary for Culture. Sergio Motta Institute is a nongovernmental organization working to promote the creative use of technology and the dissemination of innovations. Since 2000, the Institute has conducted several activities in the area of digital culture and creative art: the Sergio Motta Art and Technology Award, the workshop on Recombining Territories, the Technology Connections University Festival and HTTPVideo, HTTPTags and HTTPSom online festivals.

For three days in Belo Horizonte and two in Sao Paulo, participants will be discussing strategies for networked dissemination and access to information on mobile media, and the expected convergence between existing networks and physical space, technology and developments in their various social aspects.

The geographically distributed format of this year's festival extends its scope to consolidate it as a forum for ongoing discussion and research into the audiovisual context, mobility culture and the perspectives of using these media for artistic expression.

contents

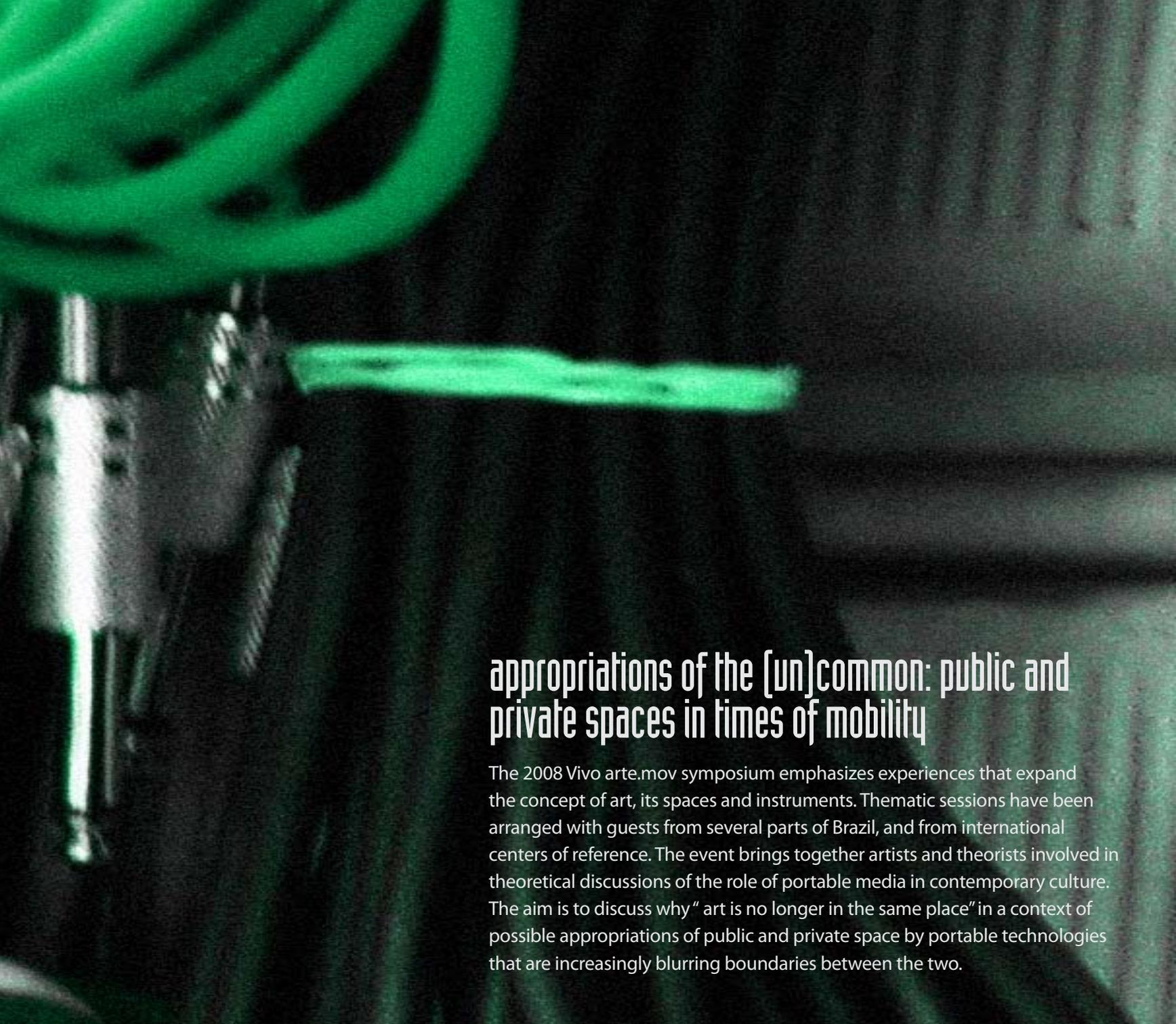
| | | |
|----------------------------------------------------------------------------|---------------------|-----|
| Symposium presents intensive debates with Brazilian e internacional guests | Renata Motta | 04 |
| What the myspace generation should know about working for free | Trebor Scholz | 06 |
| WiFi Hog: from reaction to realization | Jonah Brucker-Cohen | 10 |
| Discontinuous Landscape | Fernando Velázquez | 15 |
| Interview with Régine Debatty | Marcus Bastos | 18 |
| Blast Theory in Santa Tereza | | 26 |
| Examining technological space | Fábio Duarte | 35 |
| City and Mobility | André Lemos | 40 |
| Videoman | Fernando Llanos | 58 |
| Mobile Media: friends or friendly enemies? | Matrha Gabriel | 61 |
| The hybronaut: a protonaut of the future | Laura Beloff | 74 |
| for a critical use of the distributed | Lucas Bambozzi | |
| and open potencial of mobile communication systems | and Rodrigo Minelli | 83 |
| Urban Screens | Mirjam Struppek | 89 |
| mem_ando | Raquel Hogan | 99 |
| Brandscapes, Buyology and Artvertising | Giselle Beiguelman | 104 |
| Specters and Tragedies | Guilherme Hujawski | 109 |
| No spaces in specific places or how the content | Brett Staulbaum | |
| is not the form in locative media theory | and Cícero Silva | 112 |
| Bios | | 124 |
| Symposium Programme | | 127 |

Symposium presents intensive debates with Brazilian e international guests

Sergio Motta Institute views mobile technologies as strategies and media that are upscaling our ability to communicate, create, connect and produce. In a world activated by a number of different information and communication technologies, Internet and mobile phones have been highlighted as they reach the most distant parts of the planet. Not only have these devices revolutionized the ways in which we work, organize, and create art, they also pose the potential to change ways in which initiatives taken by social and cultural institutions intervene in a range of communities.

The symposium on “Appropriation of the (un) common: public and private space in times of mobility” is part of the São Paulo stage of the 3rd Vivo arte.mov - International Mobile-Media Art Festival. Partnership between Vivo arte.mov festival, Sergio Motta Institute and São Paulo state government’s Secretary for Culture led to our holding two days of intensive discussions with several local and international guests posing ideas and asking questions on the basis of a perspective of critical and conscientious use of portable technologies. Sessions took place in the auditorium of the Brazilian Museum of Sculpture (MuBE) in São Paulo, which also supported the initiative.

This ebook covers the main contents of the symposium and aims to ensure broader public access to the discussions that took place around the following themes: strategies for network broadcasting and access to information using mobile media, and expected and actual convergence between networks and physical space, and the development of social technologies in their various aspects. As a contribution to ongoing debates on the culture of mobility, the publication is freely available as a downloadable file.



appropriations of the (un)common: public and private spaces in times of mobility

The 2008 Vivo arte.mov symposium emphasizes experiences that expand the concept of art, its spaces and instruments. Thematic sessions have been arranged with guests from several parts of Brazil, and from international centers of reference. The event brings together artists and theorists involved in theoretical discussions of the role of portable media in contemporary culture. The aim is to discuss why “art is no longer in the same place” in a context of possible appropriations of public and private space by portable technologies that are increasingly blurring boundaries between the two.



what the myspace
generation should know
about working for free

by trebor scholz

If you agree with Paolo Virno's and Maurizio Lazzarato's theory of "virtuosic performance" and "the act of being a speaker" as the new immaterial labor (of the North), then yes, the sociable web is the new "factory without walls." I, for one, don't sign off on the fucked up naturalization of the exploitation of labor that is so dear to capitalism. Where are the people who care if big profits are made of their distributed creativity? Most participants are not conscious of their embrace of market-based behavior.

The most central sites of the World Wide Web create massive surplus value and small startups are frequently bought out by the Walmarts of the Internet (NewsCorp, Yahoo, Google) the very moment that they attract sufficient numbers of page views. People spend most time on the sites of these giants and not in the "mom and pop stores." Almost 12 percent of all time spent by Americans online is spent on MySpace.

Nicholas Carr pointed out that forty percent of all web traffic is concentrated on ten websites (www.sina.com.cn, www.baidu.com, www.yahoo.com, www.msn.com, www.google.com, www.youtube.com, www.myspace.com, www.live.com, www.orkut.com, and www.qq.com).

Most of these sites owe their popularity to the wealth of content generated by the visiting net publics that spend significant amounts of time on these very, very few sites thus creating wealth for a handful of corporate owners. What pulls people in?

In a recent interview with Forbes Video Network, Jay Adelson (CEO of Digg.com) was asked "What's going to keep people to come back?" Adelson responded: "Community is what really keeps people coming back. These people are passionate about what Digg has done for them. The user experience they get from being part of that community is only getting better each day."

Attention translates into concrete monetary value and community is the product. Crude offline capitalism is replicated online, much against the hopes of early cybernetics and the linked back-to-the-land, countercultural aspirations of the late 60s and early 70s that Fred Turner is writing about.

The image shows a screenshot of a Myspace user profile. At the top, the Myspace logo is visible with 'Brasil' underneath. To the right is a search bar labeled 'Atalhos do usuário'. Below the logo are navigation links: Home, E-mail, Perfil, Amigos, Música, and Vídeo. The profile header for 'Tragedy and Glory' features a profile picture of a person in a dark room. To the right of the picture, the user's bio reads: "A dream of a thousand cats..." followed by gender (Masculino), age (25 anos de idade), and location (London, New York, São Paulo, Brasil). Below the bio, it says 'Último Login: 5/12/2008'. Underneath the profile picture, there is a status 'Humor: ocupado' with a smiley face icon, and options to 'Exibir Meu/Minha: Imagens | Vídeos'. At the bottom, a section titled 'Contatando Tragedy and Glory' contains several interactive buttons: 'Enviar Mensagem', 'Adicionar Como Amigo', 'Mensagem Instantânea', 'Adicionar A Grupo', 'Enviar a Amigo', 'Adicionar Entre Favorites', 'Bloquear Usuário', and 'Classificar Usuário'.

MySpace: by publishing content on the site, the user gives his work for free, transferring practices which are typical of the commons to a private sphere

The dynamic being used may hold much less true for peripheral websites in the concentric hierarchy of the participatory web. The online “mom and pop store” has a much more benevolent ratio of participant benefits versus the company’s running costs. And then there are also the two or three non-profits like Archive.org and Craig Newmark’s initiatives holding up ‘Fort Hope.’ They are, to be sure, not dominating the read/write web.

The immaterial, “affective labor” of net publics produces data. Contributors comment, tag, rank, forward, read, subscribe, re-post, link, moderate, remix, share, collaborate, favorite, write; flirt, work, play, chat, gossip, discuss, and learn. They fill in profiles: 120 million people shared detailed personal information with NewsCorp, for example. 18 million students shared such details in their Facebook profiles with Yahoo. They share information about their favorite music and clubs. They are not shy to list the books they are reading and the movies they are watching. They detail their sexual orientation and postal address complete with hometown, phone number, and email address. They share pictures, educational history and employment. Profiles, even if only visible to their buddies (and well, Yahoo), they list their daily schedules, general interests, and friends.

Digg.com: collective content agregator, that classifies online publications according to its users votes

It seems obvious that all this channeled networked sociality represents monetary value. Post-dot.bomb, the Google zars would not buy a very young video website like YouTube for the price of the New York Times Company if there would not be a clear monetary value.

The screenshot shows the Digg.com homepage. At the top, there is a navigation bar with the Digg logo, links for 'Join Digg', 'About', and 'Login', and a search bar labeled 'Search Digg...'. Below this is a category menu with options like 'Technology', 'World & Business', 'Science', 'Gaming', 'Lifestyle', 'Entertainment', 'Sports', and 'Offbeat'. A secondary menu shows 'Popular' and 'Upcoming BETA' tabs, along with 'News', 'Videos', 'Images', and 'Customize' options.

The main content area is titled 'News, Images, Videos' and features a 'Most Recent' filter. The first article is 'Discover the best of the web on Digg' with a sub-headline 'Everything on Digg is submitted and voted on by people like you. Take the tour to learn more!'. Below this are three featured articles:

- 109 diggs**: **Will Anyone Give George W. Bush a Job?** from newsweek.com. Summary: 'Given recent history, George W. Bush has reason to think he might be able to monetize his presidency. Bill Clinton reported income of more than \$90 million between 2000 and 2007. But, book publishers and speaking agents express little interest in what Bush has to say—and not just for political reasons.' (Political Opinion). Bukowsky made popular 8 min ago.
- 81 diggs**: **A New Way of Saving Endangered Elephants: Freeze Their Sperm** from sciam.com. Summary: 'In what could be an important step toward stabilizing the world's population of endangered Asian elephants, German researchers say they've hit on a way to freeze elephant sperm without destroying its viability.' (Environment). tbhurst made popular 9 min ago.
- 177 diggs**: **Sacramento Cyclist Hides Vicodin in "Crack"** from nbcbayarea.com. Summary: 'Stopped for not having light, police find man was sitting on more than his bike. You fill in the blanks!' (People).

On the right side, there is a 'Digg Upcoming' section with a 'RECOMMENDATION ENGINE' graphic showing a Venn diagram of 'YOU' and 'DIGGERS LIKE YOU'. Below it, it says 'NEW! Get Recommendations based on your Digging history'. At the bottom right, there is a 'Top in All Topics' section with items like '1479 Ultrarnd in Paradise [PIC]' and '1388 Wow, thats a LOT of snow.'.

The dicey ethics related to property issues and exploitation of labor of *the core of the sociable web* becomes apparent if we look at Yahoo's privacy policies for Facebook.

"Facebook may also collect information about you from other sources, such as newspapers, blogs, instant messaging services, and other users of the Facebook service through the operation of the service (e.g., photo tags) in order to provide you with more useful information and a more personalized experience."

That is a dream come true for any market researcher. But it does not stop at bizarre privacy policies, Yahoo also claims rights over the content on Facebook:

"By posting User Content to any part of the Site, you automatically grant, and you represent and warrant that you have the right to grant, to the Company an irrevocable, perpetual, non-exclusive, transferable, fully paid, worldwide license (with the right to sublicense) to use, copy, publicly perform, publicly display, reformat, translate, excerpt (in whole or in part) and distribute such User Content..."

The picture of net publics is, however, complicated by the fact that participants undeniably get a lot out of their participation. There is the pleasure of creation and mere social enjoyment. Participants gain friendships and a sense of group belonging. They share their life experiences and archive their memories. They are getting jobs, finding dates and arguably contributing to the greater good.

The scale and degree of exploitation of immaterial labor is most disturbing when looking at the highest traffic sites. The sociable web makes people easier to use and this dynamic will only be amplified by the increasing connection of mobile devices to the big social networking sites.

Trebor Scholz's profile at Facebook: research topic and everyday use superimposed



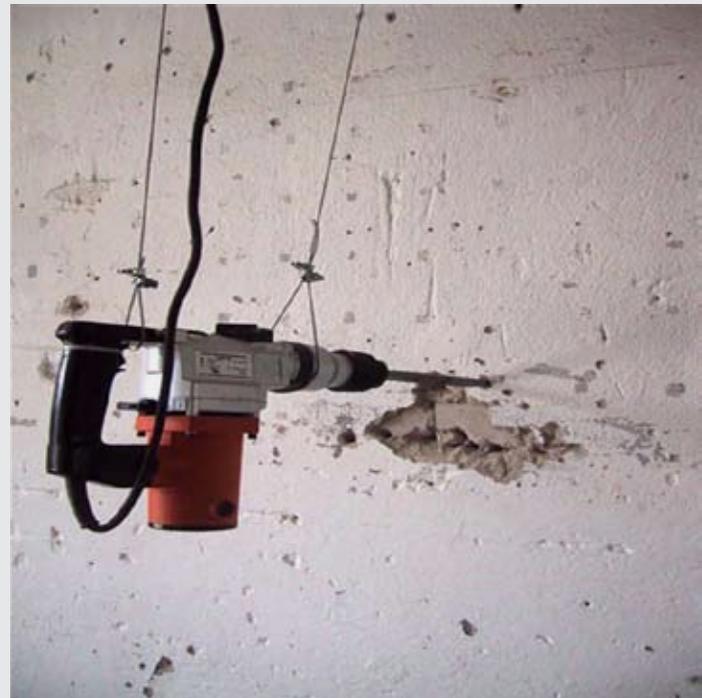
wifi hog: from reaction to realization

by jonah brucker-cohen

When technologies are first introduced, hype usually follows. The hype naturally dissipates over time, but when news begins to spread about how people are using the technology, the hype machine begins to resurface. When I first heard about wireless internet (or 802.11b) back in early 1999, I ignored it. This was a technology that seemed very far off, as no computers were yet equipped with wireless receivers (except a few Personal Digital Assistants (PDAs)). I heard about people using the technology in classrooms and hospitals, with very particular applications that seemed too particular for any mainstream adoption. A few years later, wireless internet (now affectionately called “Wi-Fi”) began to resurface as reports of projects and public community networks began to sprout up. Wireless was becoming cheap, pervasive, and simple to implement.

After hearing about the hype and projects, I began to notice something else that was happening in and around wireless nodes and their deployment. In August 2002, Slashdot ran an article about “Starbucks vs. Personal Telco Project (PTP)”, a battle that was quietly taking place in Portland, Oregon’s Pioneer Square. This was a challenge over public obstruction of wireless space, where corporate signal was out-blasting the pre-existing community signal. PTP had two 2 T1 connections with off the shelf routers setup providing free wireless access to anyone in the square. A few months later, Starbucks who partnered with T-mobile, set up in-store satellite Internet access that broadcasted on Channel 1 within the store and around the square. Channel 1 is the default connection found by most consumer wireless cards. As a result, since Starbuck’s signal was stronger and its connection speed was faster than PTP, the once free network that pervaded the park had to close down. The struggle over claiming ownership of public spaces with wireless nodes was in full swing. On a trip to the NYC Wireless headquarters last year, I heard a story about how Verizon (a major telecommunications company in NYC) had started to put high-power wireless access points (APs) on the tops of all of their pay phone booths in the city. These blanketed every block of the city and were only available to customers of Verizon’s DSL service. NYC Wireless had set up a free node from their office which was meant to reach the

Alerting Infrastructure!: a web counter controls a power drill that progressively erodes the walls of the cultural institution in which Jonah Brucker-Cohen’s work is implemented



street below, but Verizon's corner payphone node was interfering with it. The problem was further reaching than I thought.

In 2003, I began working on a project called "Wifi-Hog" that was a direct reaction to the claim of ownership that corporations and individuals were placing on public wireless space. The project consisted of a laptop connected to a Portable Video Jammer (PVJ), and some custom circuitry that communicates to software on computer. The software was comprised of a packet sniffer (such as Carnivore) and wireless stumbler (such as NetStumbler which allows the software to find open networks) which monitors incoming packets from an open node. The idea was to only allow traffic originating from the Wifi-Hogger's IP address to access the network, otherwise the PVJ is switched on, blocking others from connecting to the open node. Since most Wi-Fi networks operate on the un-licensed 2.4 GHz band, jamming this spectrum is not illegal. There are over 100 websites that advertise and sell the PVJ, so finding one was relatively easy.



Wifi-Hog is a tool that enables control over a specified network by someone who is not the network's administrator and looks specifically at what happens when these seemingly open networks are made exclusive and competitive. Since these networks exist as private, public, and corporate monitored services, there is also confusion about rights ownership over networks in public spaces, thus Wifi-Hog is specifically reacting to the lack of an "Acceptable Usage Policy" of wireless networks. As mobile technology has entered public space and brought private conversations and interactions along with it, an interesting rift was forming between what is deemed acceptable usage. In a sense, Wifi-Hog exists as a tactical media tool for controlling and subverting this claim of ownership and regulation over free spectrum, by allowing a means of control to come from a third-party.

As mobile and wireless devices become more ubiquitous, free and public wireless nodes have gained high penetration. Free nodes are popping up in public parks, airport terminals, libraries, schools, and other venues worldwide. In addition to sanctioned spaces for the nodes, private nodes without encryption are leaking from offices and houses onto city and rural streets. Activities that exploited and actively sought out these networks began to materialize. Some examples include the WARchalking and WARdriving phenomenon (where you search for open nodes on city streets and mark their location with chalk) and artist interventions like "Noderunner"

and Blast Theory's "Can you see me now?" which integrate urban street players with wireless connectivity. As the networks grew, especially in dense urban spaces, signals from private, public, and commercial (or paid) nodes began to interfere with each other. This spectrum overload brings up even more questions about how jurisdiction of signal is defined and who has precedence over others.

Looking specifically at free wireless access points, Wifi-Hog is also a reaction to the public spaces they inhabit. Wifi-Hog is a personal tool to enable both private interaction in public space as well as social obstruction and deconstruction of shared resources. The idea has some historical precedent in the area of property acquisition prior to the introduction of state-controlled zoning laws, when at the time land was a public resource that had to be regulated due to misuse and territorial disputes. An example of this type of territorial dispute occurred the United States in the late 19th century. The Homestead Act of 1862 provided that unoccupied public land be transferred to a homesteader after five years of residence. This was an act sanctioned by the US government to create a system of land grants to encourage settlers to develop the then uninhabited West. In effect, the Homestead Act was a pay off for settling in the region.

My aim with Wifi-Hog was to investigate how wireless networks could fall into this predicament since they can leak or pervade from private to public spaces. Imagine if you had lived on the land for 3 years, it was still in the public domain, but you had invested your life into it, and someone came along and fenced off the land with a barrier you could not penetrate. In this case you do not have any legal right to the land, but you still feel as if it is yours since it has been in your custody for 3 years. This is a scenario closely linked to Wifi-Hog's premise that a public wireless network maybe be partially owned or controlled by someone, but it can nevertheless be taken away and controlled. This containment issue might also allow for third parties to disrupt or interfere with them. The project is intended, thus, to send a clear message to groups attempting to claim ownership over a public space by demonstrating that their network can be easily jammed and controlled by others. An example of its use might be for an individual to use Wi-Fi Hog to disrupt a corporate signal and let a weaker, but free node exist in the same space. This signifies a loss of control by providers and sparks a challenge to their "land-grabbing" attitudes.

Since the project was introduced, most of the reaction from the wireless and media arts communities has been negative. This mostly stems from misunderstandings of why the project exists and how it was presented. Most people were upset that I was "advertising" the PVJ as something that could disrupt all of the progress and work that had been done to create open networks. My focus at first was to disprove the fact that wireless was leading us into a "utopian" world where networks would be everywhere and people would work harmoniously beside each other. I see this as a simplistic view that fails to see the conflicts of ownership and the complex integration and

Car Phone: a phone call to a toy car functions as a remote control



use of wireless in public spaces. Some thought that my project created rifts in the "community nodes" that existed such as London's Consume.net or NYC Wireless's wireless parks, since I was promoting a disruptive tool. From a discussion on the NYC Wireless list, some comments about the project were made evident by an anonymous poster:

"If I remember the way NYC Wireless, etc. started out, the very act of putting up public wireless nodes was to exert territoriality - we were claiming the public parks as free Wi-Fi zones, and betting that these would deter pay providers from locating there. To a large degree this has turned out to be an accurate prediction. We were also trying to re-contextualize networks within local places, grounding them in real urban communities rather than having them exist in some kind of an abstract non-geographic cyberspace. I have to agree that this project doesn't seem to be terribly sophisticated, and is very reactionary. It is a yes/no proposition, without any selectivity. You might just as well just be climbing atop the maintenance shed in Bryant Park and plugging / unplugging the antenna lead." (August 2003)

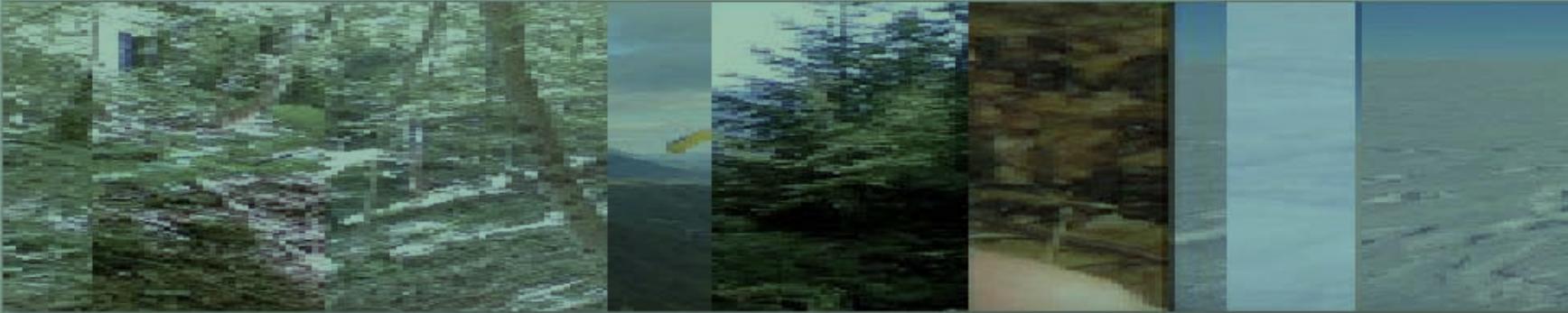
Despite the mixed reactions and confusion surrounding the point of the project and its execution, the problem it addresses remains important. As spectrum overcrowding becomes more common in cities, the conflict between for-pay and free nodes will reach a critical point. Companies will have to enforce strict delineation of their signal strength so that free networks cannot impede on their business models and vice versa. Projects like WiFi-Hog are clear and critical reminders that wireless networking is still a young technology that displaces architectural and social boundaries. This distinction is important for the future of wireless and the communities that support its development.

WiFi Hog: device blocks wireless networks to release control of the spectrum

References

1. Slashdot, August 2002 (<http://yro.slashdot.org/yro/02/08/200431202.shtml?tid=98>)
2. NYC Wireless (<http://www.nycwireless.org>)
3. WA Rchalking (Wireless Access Router) (<http://www.warhalking.org>)
4. NetStumbler (<http://www.netstumbler.com/>)
5. Noderunner (<http://www.noderunner.com/>)
6. Blast Theory: "Can You See Me Now?" (<http://www.canyouseeme.now.co.uk/>)
7. Carnivore, (<http://www.rhizome.org/carnivore/>).
8. Consume.net (<http://www.consume.net/>)





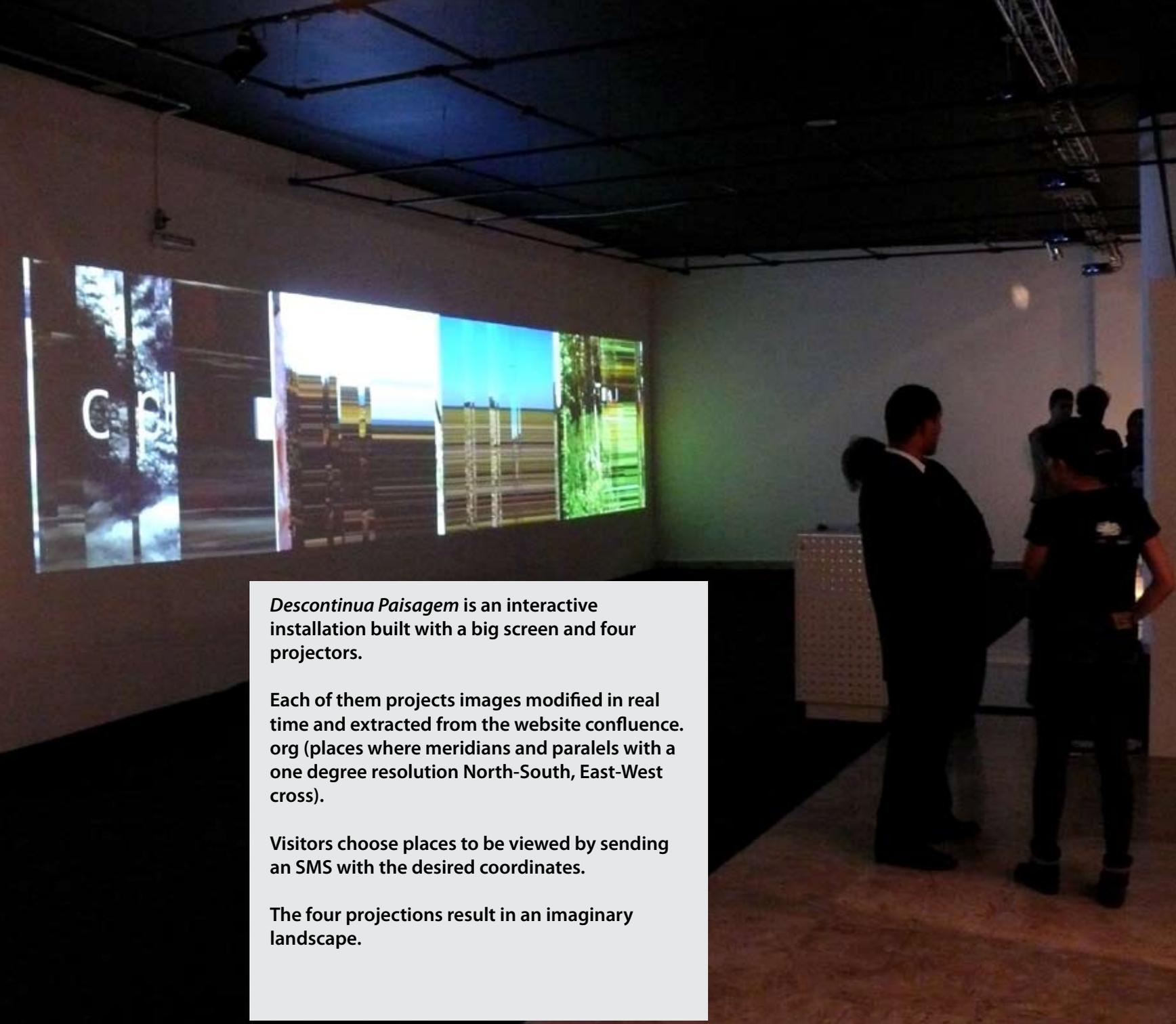
descontinua_paisagem

Descontinua_Paisagem
by Fernando Velázquez & Juliá Carboneras

discontinuous landscape

by fernando velázquez
and juliá carboneras

0.5 0. 0
metro 2 read stop rate \$1 time \$1
jit.qt.movie 720 240

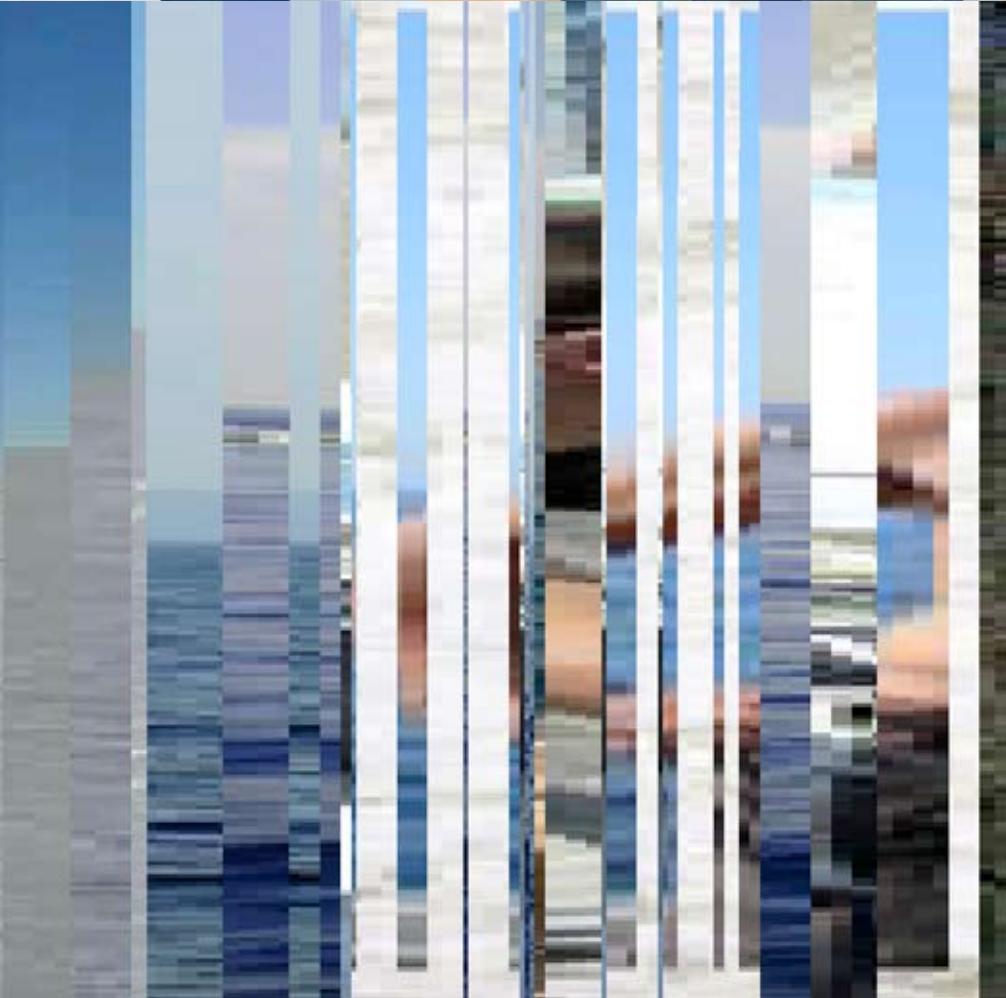


Descontinua Paisagem is an interactive installation built with a big screen and four projectors.

Each of them projects images modified in real time and extracted from the website confluence.org (places where meridians and parallels with a one degree resolution North-South, East-West cross).

Visitors choose places to be viewed by sending an SMS with the desired coordinates.

The four projections result in an imaginary landscape.



The site confluence.org promotes the collective mapping of earth, by asking people to visit confluences, or latitude and longitude integer degree intersections (with a GPS device) and take pictures of these places facing the cardinal points. The participants also must take a photo of the GPS as a testimony of their visit. Together with the images, the site publishes a story of the journey made by the participant to reach the place being searched.

To interact with the work, participants send a SMS with the coordinates of the place they want to view. For example, 19S 45W corresponds to a place in the state of Minas Gerais. To facilitate public understanding, A4 printed copies of the world map were made available as well as assistance from monitors.

When the SMS reaches the system, it locates the intersection in the site's database and edits a sequence of images that are sent to the screen. Simultaneously, the system answers the SMS by sending a story posted by the visitors to the chosen place.

Four participants can interact with the work at the same time.



interview with
régine debatty

by marcus bastos

Besides the well-known blog “We-make-money-not-art” what are your projects? Could you introduce the blog, and eventually other works, to the local audience and explain how they relate with the universe of mobile / portable media?

We-make-money-not-art is a blog through which i share with readers my adventures in the world of art, architecture, critical design and anything that takes my fancy. It started in 2004 but it was very different at the time. I had just discovered the existence of media art and the blog was a way for me to archive anything i could find online about media artists, interaction designers, their works and the events related to that field. As time passed, i started being invited in several places around the world. I got to meet the people i only knew through their websites and i participated to the events i could only get a glimpse of through internet before. As a result the blog took another turn and now i only write about works and events i have seen and experienced. It’s probably for the best as i must confess that when my blogging life was 100% virtual, i have more than once snubbed a project just because it looked dull on a webpage or got enthusiastic about another that looked awesome online but total crap in real life.

Another element that changed a lot is that i am now writing more and more about contemporary culture in general. After some time i realized that media art should not be isolated from its context, that it is art indeed and that focusing solely on media art in my blog would be similar to putting it inside a ghetto. Media art needs to be out there, accepted by the contemporary art world too (although i must admit that i enjoy the cheerful and relaxed atmosphere of a media art event much more than any money-heavy and high-brow contemporary art fair).

So what am i doing beside the blog? Well, i wish i could afford to dedicate all my time to the blog but one has to eat and buy fancy shoes, right? So i write for art magazines, i curate art shows and right now i’m entangled in one of those awful consultancy jobs i do once in a blue moon for some tech company (well, actually it’s a very famous mobile phone operator). I always find consulting for this kind of people

we make money not art: the blog has become an obligatory reference to everyone interested in digital culture

we make money not art

art

RESIST



sponsored by:



quite tiresome. I'm at ease with the world of art but with the suit guys it's totally different. Some of them see me as a woman who will be able to point them to a couple of young and poor artists whose ideas they will use/exploit to create 'the killer application'. It always takes some time to convince that even if i were that kind of messiah for them, things aren't as easy and smooth as they look.

The last part of your question was about the way my activities relate with the universe of mobile / portable media. Actually this blog wouldn't exist without mobile media. A few years ago i had no knowledge of the existence of media art, i was working in the world of cinema and audiovisual. I met this guy, Max, who was doing artistic performances with mobile phones. At the time i had no idea that people could do anything vaguely creative with phones. I started getting interested, spent time online looking for other artists, designers and hackers who used technology in an unexpected way and opened a blog to archive all my findings. It was nothing more than a personal archive, a place to store the information i was gathering. But then people started reading it, writing me and linking to it on their own website. Then one day, someone from Nokia got in touch with me and asked me to come and give a workshop about what artists and hackers were doing with technology. He had the feeling that his colleagues (designers, sociologists, etc) at Nokia needed to have another view on the technology they were developing. That consultancy actually went quite well, they were all very curious and open-minded and, best of all, they give me loads of money (well, at least that seemed a lot to me at the time) so i decided i'd quit my job and dedicate all my time to blogging, living as long as possible off the Nokia treasure. I added some advertising and 4 years on i'm still there.

Did Web 2.0 killed the journalism star? How do you see initiatives such yours in a context in which online information gains more and more credibility, specially among specialized audiences?

Oh, no! i don't think it killed journalism. I used to work as a journalist and nowadays i also contributes to art magazines. There are just two different things and i feel that they go hand in hand quite well. Nowadays, you see some journalists writing a blog for their usual newspaper and some bloggers being offered a job as a journalist.

Probably the most priceless lesson that blogs have given me is that being personal and laid-back doesn't have to be an heresy. Actually, when some editor asks me to write a column for a magazine, a chapter for a book or a text for a catalog, that's always what they request: the intimate, spontaneous and personal voice they hear on my blog. They don't want the blogger's point of view, nor do they want the expert's or the journalist's. What they ask for is the point of view of the blogger who also happens to be an expert in the field. Or maybe it's the other way round.

Gone are the days when academics, journalists and critics would dismiss the reliability of blogs (although i've recently had some dire surprises). Yes, there are some bloggers who are indeed inaccurate, ill-mannered and unscrupulous. But we all know of journalists who are paid by what the english call the "gutter press" to be just as unprofessional.

Most widely-read bloggers are conscientious, precise and incisive. They have to. There is something similar to peer review that ensures that a blogger will do his or her job properly. It's called the comments. If you write something even slightly fallacious, there will always be a better-informed reader out there who will be ready and sometimes even delighted to correct you. Actually there is something comforting in the knowledge that you can update an entry at any time, i can watch the story you've posted on the blog and say "I have the power to rebuild you". Besides, you can feed your readers with generous helpings of lies every single morning if you want. Technically, there's nothing in the administration system of a blogging platform that will prevent you from publishing untruths but readers are no fools either, if they find a lack of respect for veracity or some half-cooked thinking on your posts, they will just stop visiting your blog. And without readers, a blogger is little more than a vox clamans in deserto, an unsold stack of magazines at the newsagent.

Now to respond your question about the more specialized audience. I don't know. On the one hand it is nice to have both and compare. But there are nuances and i'll take two fields i know quite well to illustrate my point of view. First there's the world of beauty products. I used to buy all the women magazine and would go straight to the articles about skin care. Two years ago i noticed that i had totally stopped buying them. Not because i'm into more serious matters (alas! no!) but because i discovered beauty forums where women exchange their experiences and opinions about the new face cream. And it makes a world of difference: none of them has been send a basket of free products from a company in order to pretend that it is the best label to splash on. Forums might be messy but, gosh! it is so liberating to read honesty associated with the world of cosmetics.

Then of course the other world i know quite well is art. I need to have both the opinion and views of a glossy art magazine and the one of the blogger. They might have been both to the same opening but they will often come back with a different perspective. I feel freer as a blogger, i write about what i like and that's it. There is no sponsor that pushes the editor in chief to print an article about a certain artist or event.

I do have a soft spot for paper, though . Maybe part of the reason for that is that i'm already too old to get used to reading fluvial essays on a luminous screen. But I also love listening to the sound of the pages as i turn them



Debatty: *blogger* in times of instantaneous web celebrities

hastily, i love scribbling notes in margins, marking corners, i like archiving magazines by colour and i like the clean and fresh space they leave in my apartment when i finally decide to throw the whole lot away, i like creative typography, beautiful images spread on two pages, i like touching the surface of the paper and smelling a new issue as i open it. And best of all i can kill mosquitoes with magazines. You can do that with a laptop too of course but that would not be very smart.

I feel more like a 'star' as a 'journalist' than as a blogger. It starts with the little things that make your existence easier. For example, I can't count the number of times i arrived at the press accreditation booth of a major art event, presented myself as the editor of we-make-money-not-art blog and was looked upon with compassion because bloggers, sorry Madam, but bloggers, they don't count as press, so you should queue over there, like the other visitors, thank you very much Madam. Only then would i unleash Plan B and casually mention that i also have a column on this posh British art magazine and, abracadabra, i'll get the red carpet treatment. That's the way it goes these days, especially in Europe, no matter the quantity and quality of the audience who reads you on one medium or another.

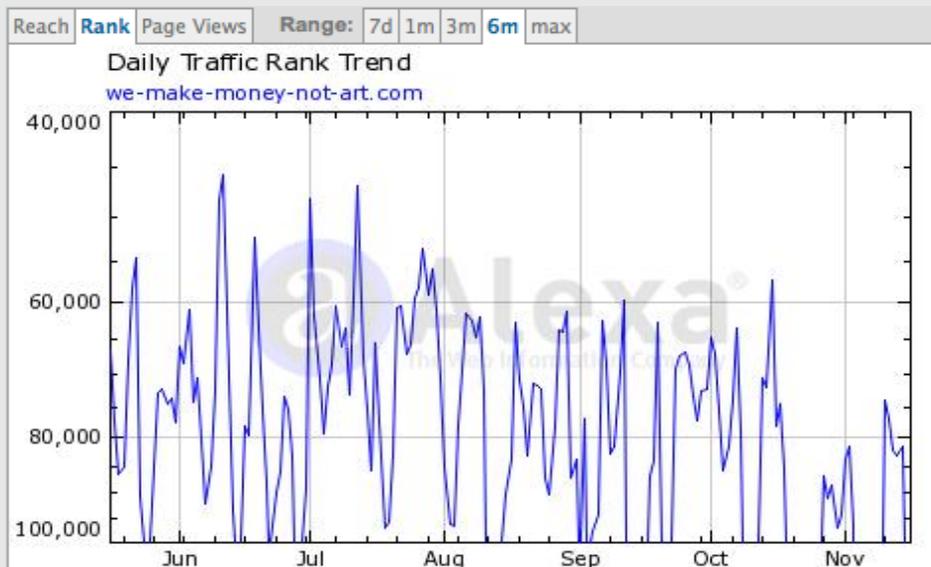
From the perspective of a critic / curator, how do you see art developed with technologies created by corporations and, thus, strongly tied to their agendas? Is it possible to be critical on that context? How?

Yes, yes and yes. I'm not sure which kind of art work you are alluding to in your question. Do you mean those artists who are commissioned installations or performances by big corporations? I've seen some of them go with the flow, do whatever was asked to them at the condition that it respects their integrity. With the money they've earned they will then make works that are meaningful to them. That's ok by me. In many cases however, some artists manage to gently subvert the work commissioned and introduce a streak of critique into it.

If you mean artists using a corporation-made device or technology for their own purpose, i cannot see what prevents artists to be critical of it anyway. It is true that these tech come with an agenda but it is also true that artists have a way to throw away the user's manual and re-purpose that same technology.

You moved from documentary to blogging. How do you see the immediate (but briefer) way of producing information typical of the web, when compared to other (and supposedly more 'dense') media? What are the pros and cons of both, from your perspective?

Writing for the printed page (or making a documentary) comes with a very different rhythm. I used to cherish the immediacy of the blogs, the possibility to publish on the fly. This can't happen with magazines, i'll visit an exhibition and my review will only be printed three months after. I had to learn to rely on more than the sheer joy of the freshness, to take my time, adopt a more poised pace and deploy strategies that will make reading about an exhibition that closed one month ago still worth everyone's precious time. On the other hand, i wonder if i'll ever get used to the fact that paper won't allow me to hyperlink directly to websites of artists, new terms or events. I keep reading that the technology which



*we make money not
art traffic, as tracked
by Alexia.com*

allow to do just that will be part and parcel of our daily life very soon (and outside of Tokyo), but i'm impatient. I can't wait to see the day when i'll be able to click on a paper magazine to check out how wikipedia defines the obscure art terms that journalists keep throwing at my ignorance.

That said, i take a lot of care in writing my blog posts and sometimes it is even more consuming than penning something for a magazine. But what i love the most about blog is that i am allowed to make errors (readers will correct me immediately), i can publish bad pictures i've made of an installation (instead of waiting for days for a hi-res image from the press office and that image won't be what i was hoping for) and readers won't complain. You're allowed more flexibility on a blog.

You travel a lot and write about a lot of things that are happening on the contemporary art scenario. What artists / projects would you include in a dream exhibition (no budget limits, place of your choice, etc), chances are you were invited to curate it? Why?

I would select artists who have a very activist discourse. I'm quite cynical about artists who believe they will change the world by showing a 'critical' piece in an art gallery only a certain group of people will ever enter. But i do believe that artists who engage directly with the public, whether it is right in the street or via a scandalous online action, have a chance to make people stop and reflect.

Of course when i have to think of it like this, almost on the go, names come to my head but maybe not the ones i would select after a long and thoughtful month of preparation.

Trevor Paglen, because he is so charismatic and his books and conferences appeal to the art sphere, the activists, the geographers.... even my dad who doesn't give a damn about art or activism. Apart from his books and exhibitions he also has great ideas that bring his work out there in the street.

Paglen's project 'CIA Rendition Flights 2001-2006' explores the practice of extraordinary rendition. John Emerson (another brilliant activist and artist) designed the map that visualizes the movements of aircraft owned or operated by known CIA front companies in order to reveal the relationships that have been forged between the United States and other countries in the name of the 'war on terror.'

Back in 2006, Paglen and Emerson installed a huge billboard displaying the map of the rendition flights on 6150 Wilshire Boulevard, in Los Angeles.



Santiago Cirugeda: Construye tu casa en una azotea

Santiago Cirugeda. Because his home town would not authorize him to build a playground, Santiago Cirugeda obtained a dumpster permit and installed a playground that looked like a dumpster. He also built and occupied a rooftop crane that passersby believed was there only to move building materials, on you tube is a video in which the architect uses Playmobil toys to demonstrate how to build a temporary flat in your rooftop. The solutions he proposes are cheap, fast, accessible to everyone and the key ingredient is to find out the gaps in administrative structure and official procedures, to intervene where the law falls short. Santiago's team can even provide free (as in free beers) consulting in legal and technical issues.

Santiago has often been labeled as a "guerilla architect", "a subversive artist", "a urban hacker". Yet, his method and process involve that he also had to become an expert in law. He lives in Seville, Spain and he believes in the power of acting locally. What i believe is that if only he'd give a damn he would be one of those starchitects who grace the cover of glossy magazines.

Otto von Busch is an artist, a critical fashion theorist, a haute couture heretic. His work takes a critical and political stance on design and in particular on the fashion system and its networks. By organizing workshops and distributing free booklets, he demonstrates in a very approachable way how to critically hack and re-form the operating system of modernity and the industrial modes of production.

The Bijari group who jump happily from corporate work to interventions in the street. I love their lightness and sense of humour.

Natalie Jeremijenko builds bridges between the technical worlds and the art world like no one else. She is an artist but also an engineer. Her background includes studies in biochemistry, physics, neuroscience and precision engineering. She has kids release robotic dogs in public parks to sniff the area for traces of contamination, she lets loose remote-controlled robotic geese and plants genetically identical trees to make us reflect on the impact that techno-social change have on the world we live **in**.

Brooke Singer's work blurs the borders between science, technology, politics and arts practices. She works across media to provide entry into important social issues that are often characterized as specialized or opaque to a general public. She showed the potential perils of RFID technology well

before i knew of their existence, Santiago Sierra. I'd let him propose any works he wants. Except his most recent series of Shit photos.

I like the way his interventions punch you so hard in the stomach that you can't ignore what he's trying to tell you.

All these artists don't preach, they don't judge, they set themselves the mission to provide us with the tools to take our fate into our own hands. There is also beauty and elegance in what they create.

There are of course many more artists i'd love to add to the list. But i'll end with three names, none of them is doing anything anything remotely activist but i can't resist the seduction of their art.

Natalie Djurberg, she creates the most wonderfully cruel and sexy clay animations i've ever seen.

Marcel Dzama mixes fairy tales with terrorism, jazz-era nostalgia, sexual perversion and cruelty. Gabriela Fridriksdóttir's work is eerie and poetic. Dark and fascinating too.

Device created by Preemptive Media to measure atmospheric pollution. The group, formed by Brooke Singer, Beatriz Costa and Jamie Schultz combine art, activism and science on their projects



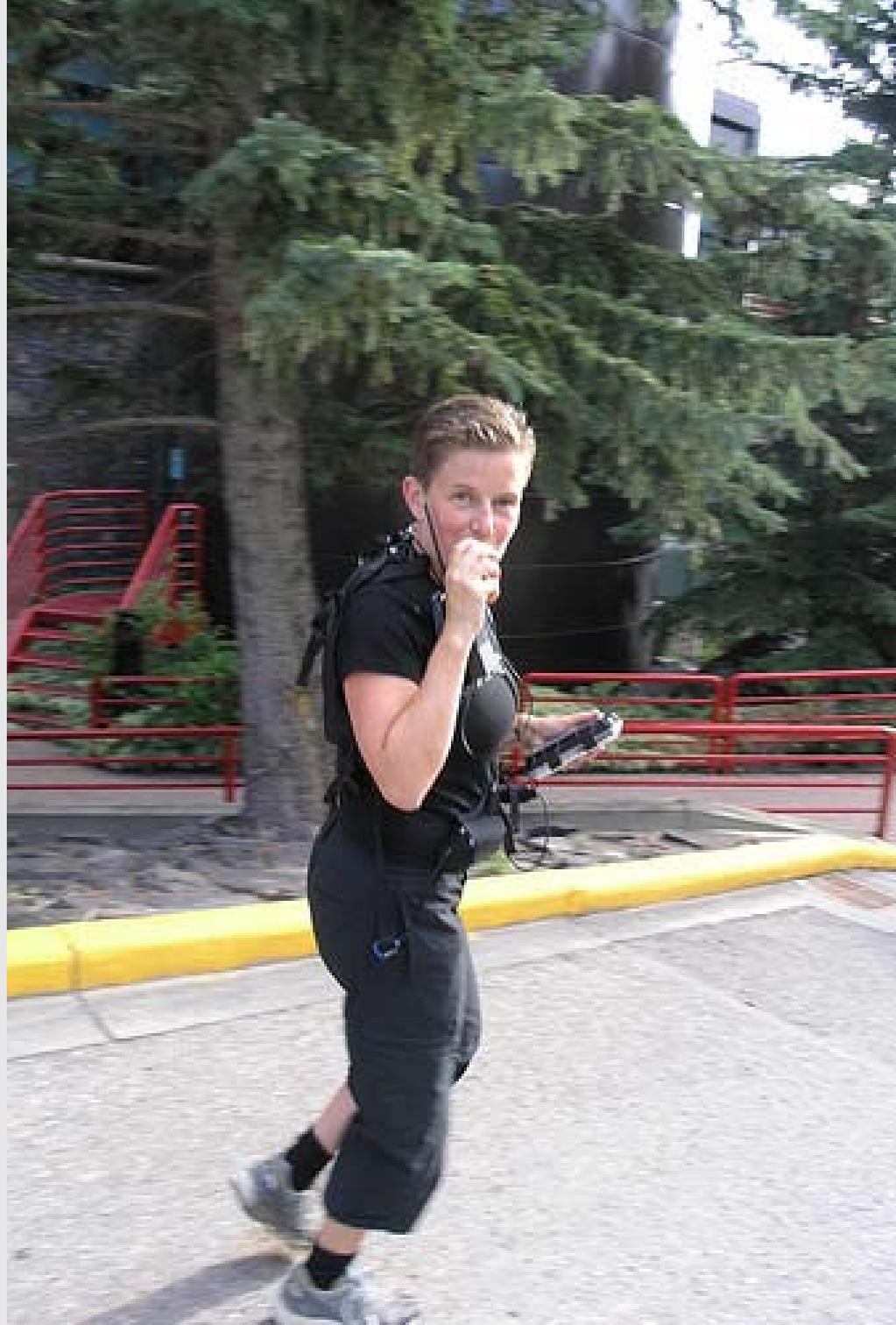


Can You See Me Now? is a mixed-reality chase game created by the British group Blast Theory. Games take place in real time over a certain period of time in a previously agreed area of a city and simultaneously in an online virtual environment connected to the streets through geolocalization technologies. At the third edition of *Vivo arte.mov*, a location game that won the Golden Nica award for interactive art at the 2003 Ars Electronica will be recreated in a version staged especially in the Santa Teresa district of Belo Horizonte.

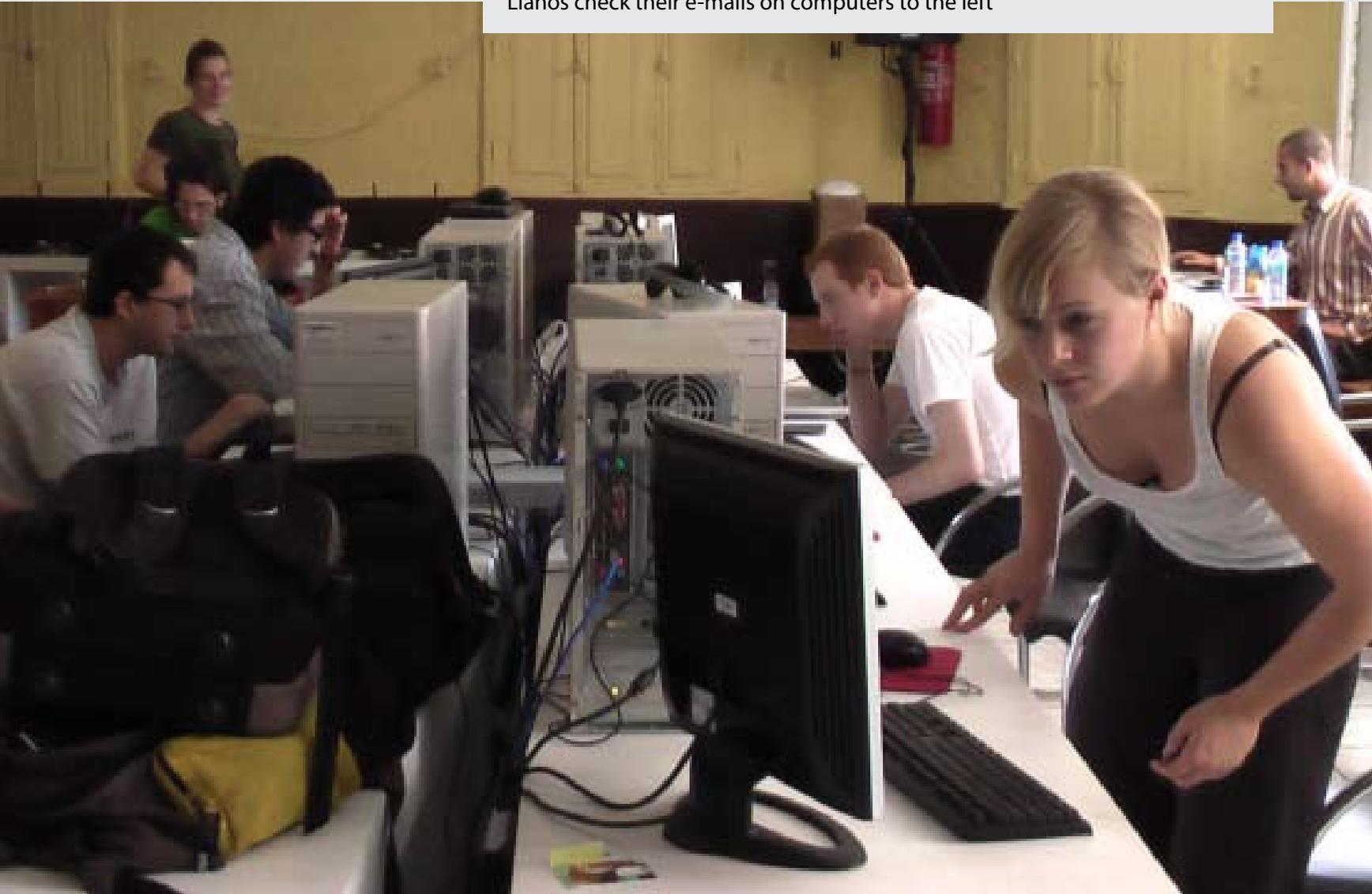
For three days, locals will be able to take part in the game or watch it. In *Can You See Me Now?*, an interface that combines palms and GPS is used by runners who collect information to guide them as they move along the streets of the district. At the same time, another group is on three Internet terminal chasing them as they navigate through the virtual world. The conversation from both groups may be heard mutually on walkie-talkies that function as audio tunnels between physical and virtual reality.

One aspect of *CYSMN?* highlighted by Blast Theory itself is that it is part of an increasingly ubiquitous context that portable devices facilitate, which results in broader democratization of the technology than offered by personal computers. The group says it is fascinated by the penetration of cell-phones among poor users, residents in rural areas, young people, and in other layers excluded from consuming new technologies prior to the appearance of these devices that sell for less than PCs but are equally multi-functional, especially taking into account the cost-benefit ratio and the fast rate of evolution so that portables can perform many of the tasks that computers do, but with the added advantage of mobility.

It is precisely this aspect of the game that should be appreciated in the version staged in Belo Horizonte. The Santa Teresa district is well-known for its flourishing cultural life and for preserving characteristics from back in the 1960s, as well as growing crime and violence in the region and gradual substitution of the houses that formerly predominated in the region by low buildings. Moreover, the history of the neighborhood refers to crossings between spaces: many of the immigrants who came to Belo Horizonte settled in Santa Teresa. One of the characteristics of mixed reality is precisely that of allowing remote sharing between distant spaces, in a procedure that may be seen as a kind of migration without real traffic. Thus the past of convergence between cultures due to migration acts as a kind of memory avant la lettre of the intersection between spaces that is typical of situations in which computer networks are overlaid on urban space.

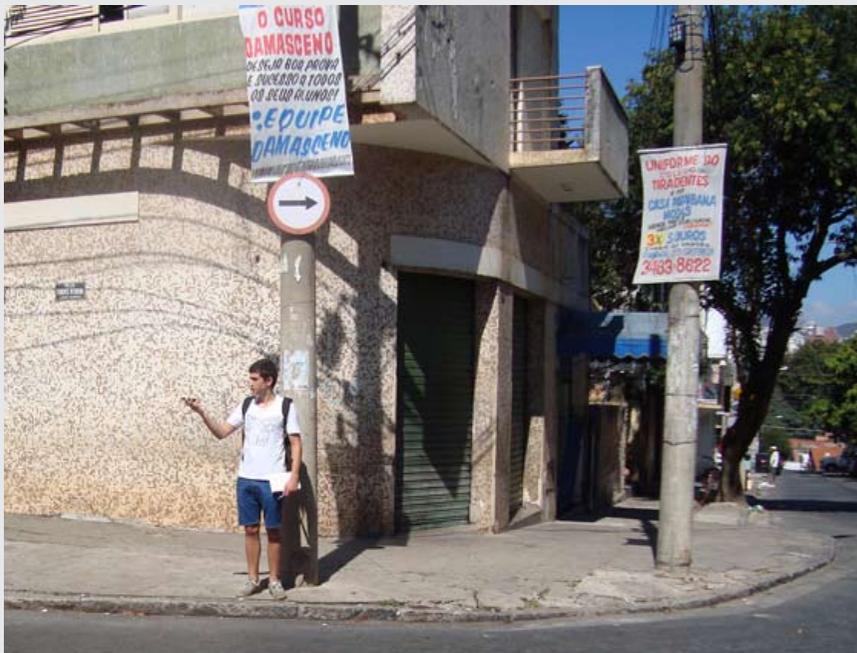


The “Sobrado” bar, on the corner of the Rua Mármore and Rua Adamina, was used as HQ for the Belo Horizonte version of *CSYMN*?. In the picture, members of Blast Theory test the connection and make the final preparations: at the back, wearing green t-shirts, Ju Row Farr and Dick Eton; on the computers at the right, from back to front, Simon Johnson, John Bowers and Kirsten Engelmann check equipment that will be used by the online players. The space has also worked as a gathering point during the setup of *Arte.Mov*: while the Blast crew fine tune details of the gig, Jonah Brucker-Cohen and Fernando Llanos check their e-mails on computers to the left

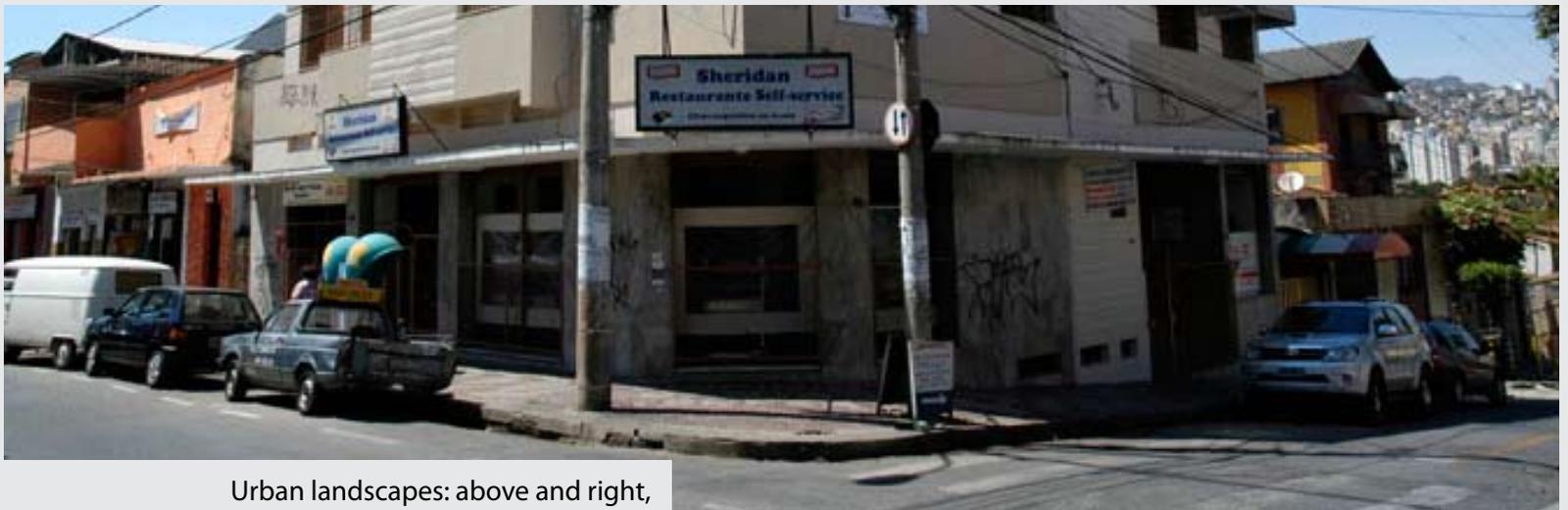




Room full of machines and people: online players try to escape from Blast Theory runners. The sensation of mixed reality is intensified by the fact that the runners on the street can be seen through the windows of the bar, in a effect that adds an unexpected visual layer to the audio feed making the voices of players present in the room and augmenting the effect of shared space by adding an element of concreteness to the virtual 3-D space



Virtual landscape: on the left, Erick Ricco takes pictures of Santa Tereza to help build the 3-D environment created for the game.



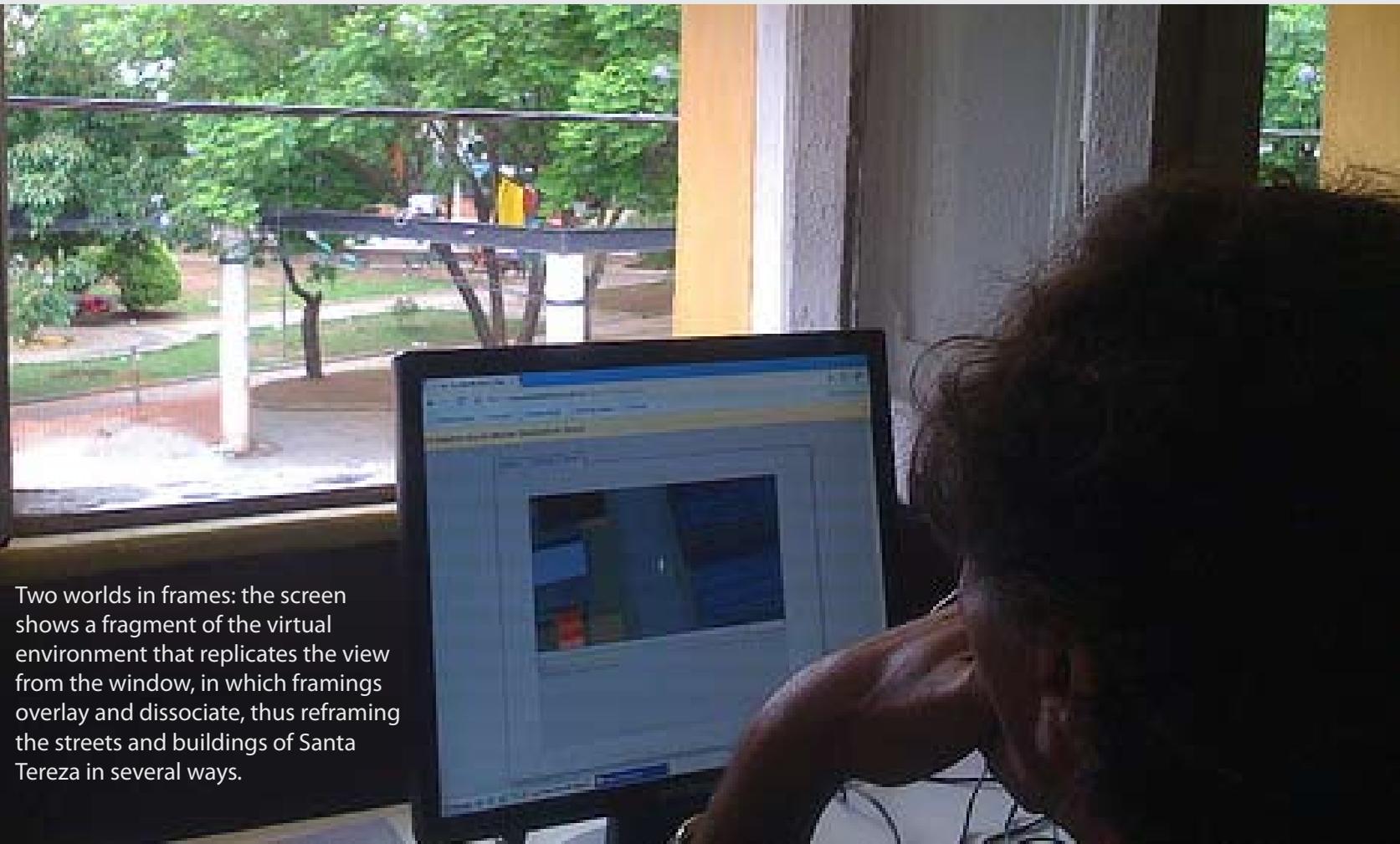
Urban landscapes: above and right, façades of buildings typical of Santa Tereza.

The *CYSMN?* base near an elementary school, stirred the curiosity of students, who became constant presence during the three days of games

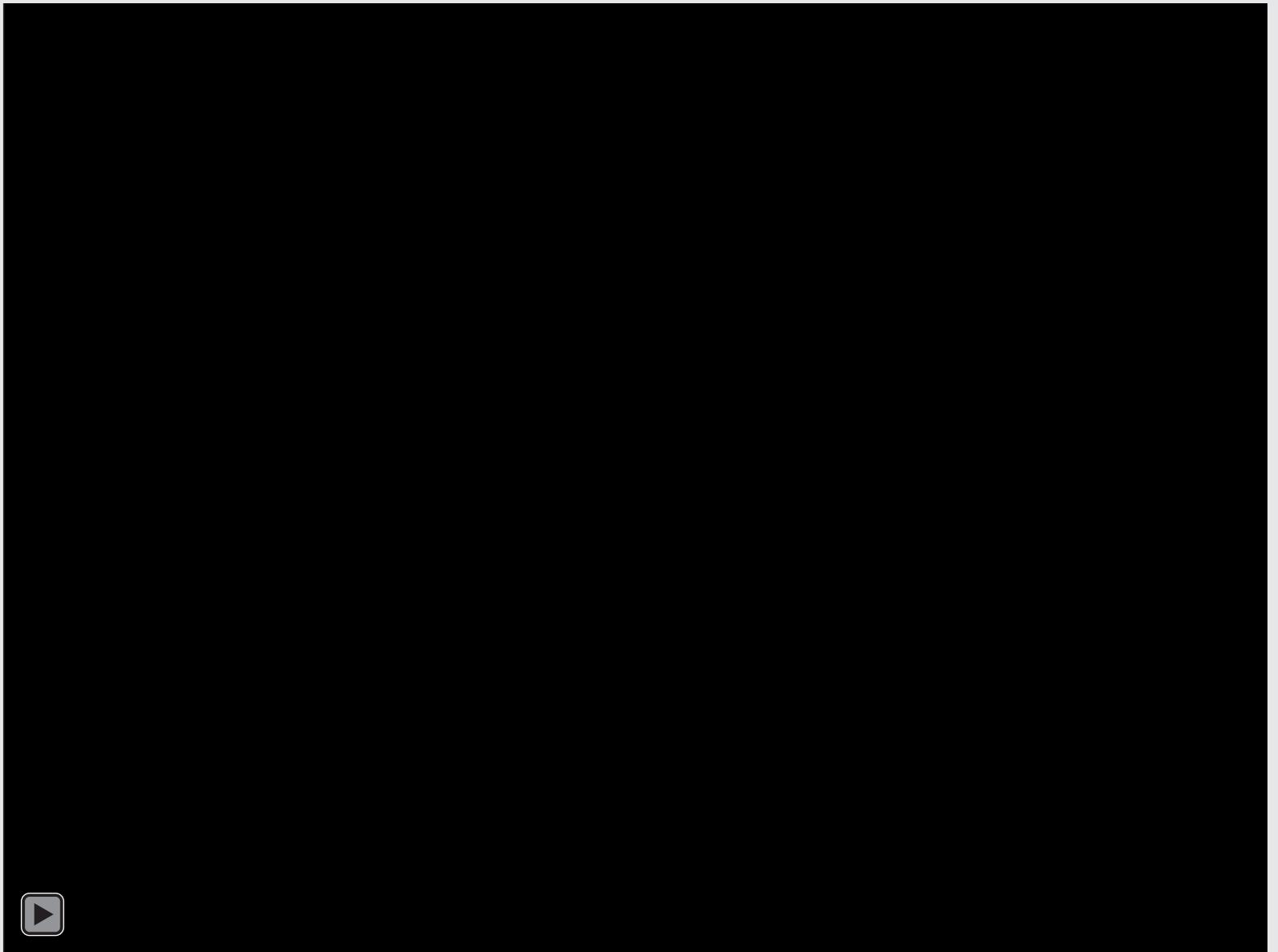




Non-verbal sharing: Blast Theory players caught bystanders' attention with their special clothes and loads of equipment; the language barrier did not stop them talking to curious people who approached them, particularly when they walked through a square named Duque de Caxias.



Two worlds in frames: the screen shows a fragment of the virtual environment that replicates the view from the window, in which framings overlay and dissociate, thus reframing the streets and buildings of Santa Tereza in several ways.



[click here to watch the documentary on Santa Tereza version of Can You See Me Now?, created specially for the third edition of Vivo Arte.Mov](#)

examining technological space

by fábio duarte



Thinking about space

Human existence implies its placement in space – whether its existence is material or imaginary. But what is space, briefly? One of the best systematizations of this concept was posed by the geographer Milton Santos, who defined it through the relationship between systems of objects and systems of action, in which the two fundamental elements are fixed features and flows. Apprehending these elements involves intellectual, cultural and sensory characteristics, which in turn are altered in their predominance and intensity depending on the situation.

The apprehension of the spatial elements of the place where we are reading this article involves object and action systems other than those that configure our dreams. Therefore there is no ontological or universal space, but there are different spaces that are determined by the qualities of their fixed features and flows that we apprehend in a sensory and intellectual manner.

My aim here is to discuss ways in which the technological extensions of our senses intervene in spatial apprehension of the city - a multi-sensory and multi-signic universe. I will therefore start with a project called IO_dencies from the Knowbotic Research group, which I have been involved with since it began, that precisely poses the challenge of putting together the sensory and intellectual filter that we apprehend and understand as urban space.

Space and language

Edward Hall was one of the first to systematically examine how cultural differences underpin the ways in which we feel and apprehend space. He drew attention to the cultural construction of selective filters (2) determining which sensations will be apprehended and which discarded. What is filtered creates what we take to be our space. This type of cultural construction of space embraces both external stimuli and the biological data and cultural values of individuals or groups. The way in which we apprehend space also determines part of our psychological self.

But note that the process of acquiring knowledge of any phenomenon necessarily involves its being organized in language. In the case of space, non-verbal languages take precedence. So we see that space is apprehended through cultural filters; and such filters are assembled through languages. Language, as an intellectual matrix separate from nature and the materiality of phenomena, is to a certain extent a reducer of the completeness of phenomena; on the other hand, it creates structures for thinking that enable investigation and knowledge based on a certain phenomenon to be extended to other similar ones.

The world is always apprehended by our sensorial devices or their technological extensions. Edward Hall himself cites the example of a blind person, that apprehends the space with 4 senses, in a area of limited radius; but any sighted person can broaden this circle to reach the stars. Flaubert one wrote that the more powerful the telescope, the more stars there would be. Therefore, technological mediation (which

also involves different forms of language) is closely related to our spatial apprehension skills, and may transform the way in which we feel, locate and understand space.

Space and technology

Many discussions have noted the transformations of spatial qualities resulting from changes in man's technological extensions. Information technology, particularly with virtual technologies, is a powerful instrument of these changes (3).

Transformations in our ways of apprehending virtual spaces and the sensations they convey to us point to a radical change in what we understand by space in the modern world. This applies to cities too, although the great majority of planners and architects have failed to detect them.

Changes in our ways of apprehending space based on digital technologies have taken two paths.

One is epistemological, in an attempt to understand how immersion in virtual environments leads to altered spatial perception when we are in this universe. A universe that has its own exclusive flows and fixed features.

Another is the terrain on which distinct technological universes merge, where we are unable to separate different systems of objects, actions, technologies or languages. This is where we may find two spatial matrices in dialog and even altering each other. This is when pedestrian, automotive, televisual and digital cities weave networks that are both combined and conflictive at times.

Faced with these informational fabrics holding together contemporary cities, urban planners are lost. But the cultural filters that will compose our spatial experience in the near future will be built precisely from this fabric.

Our spatial apprehension has led to the inclusion of our five senses and their technological extensions for a number of centuries. We are constantly operating on the terrain on which different sign systems are circulating and mixing. These dialogs between languages are conducted through interfaces. Therefore interfaces should not be seen as thin films of boundaries between intended specificities of each world (objects / phenomena and their signs), but as Siegfried Zielinki suggested (4), we should see interfaces as conceptual instruments and models with which we may move across these universes of differentiated languages.

This is a striking concept in the work of the Knowbotic Research group, which involves technology, art, architecture and science, and in the creatively tensed area where informational and geographical spaces interpenetrate. Interface instruments and concepts are the knowbots that the group sees as bodies of knowledge, agents that move between material and informational territories, contaminating one another, and requalifying both.

Knowbotic's works always lead to the construction of interactive technological environments centered on relations between users and environment mediated by intelligent machines, such as computers and other electronic devices. Users' actions are reflected in the environmental whole, just as the environment's own modifications modify users' spatial apprehensions.

Urban machine : IO_dencies

Knowbotic's works gain complexity and new conceptual, artistic and technological challenges as they move to focus cities, aiming to discuss what they call the "technological notion of urbanity" (5).

Cities are viewed on the basis of Félix Guattari's concept of machinic, in which the idea of the machine moves away from the mechanistic view of being harnessed to the materiality of technological instruments and is situated in the "order of knowledge rather than practice" (6). Machine is seen as creative mediation between man and environment. "Machinic" is thus a system of agencement of what is possible, a field of virtualities. Guattari, by way of example, notes that a heap of stones is just a heap of stones, whereas a wall is a proto-machine, because it has "virtual polarities", such as inside and outside, top and bottom (7).

I recall a dialog between Marco Polo and the Great Khan in Italo Calvino's Invisible Cities:

"Marco Polo describes a bridge, stone by stone.

"But which is the stone that support the bridge?" Kublai Khan asks.

"The bridge is not supported by one stone or another," Marco answers, "but by the line of the arch that they form."

Kublai Khan remains silent, reflecting. Eventually, the Great Khan adds: "Why do you speak to me of the stones? It is only the arch that matters to me!"

To which Polo retorts: "Without stones there is no arch" (8)

**Dialogue with Knowbotic
South: datascape built
with information about
the Antarctic**



The bridge would be a proto-machine for Guattari, who identifies some of them, such as capitalist machines, musical, visual arts, religious and the "urban mega-machines". Here I recall Lucrecia Ferrara (9), who saw cities, these "urban mega-machines" as always being the fruits of language processes and representations of a universe broader than themselves.

These technological instruments do not only change how we represent space, they completely change what we call space. For centuries we have seen vision and its characteristic representations as privileged instances of spatial apprehension. Christian Huebler of Knowbotic always emphasized that the groups proposal is precisely to exchange visibility for presence. Digital media would not be used to see or represent the city imagistically, but would enable people to use informational interfaces to mark their presence in this agencement of urban signs.

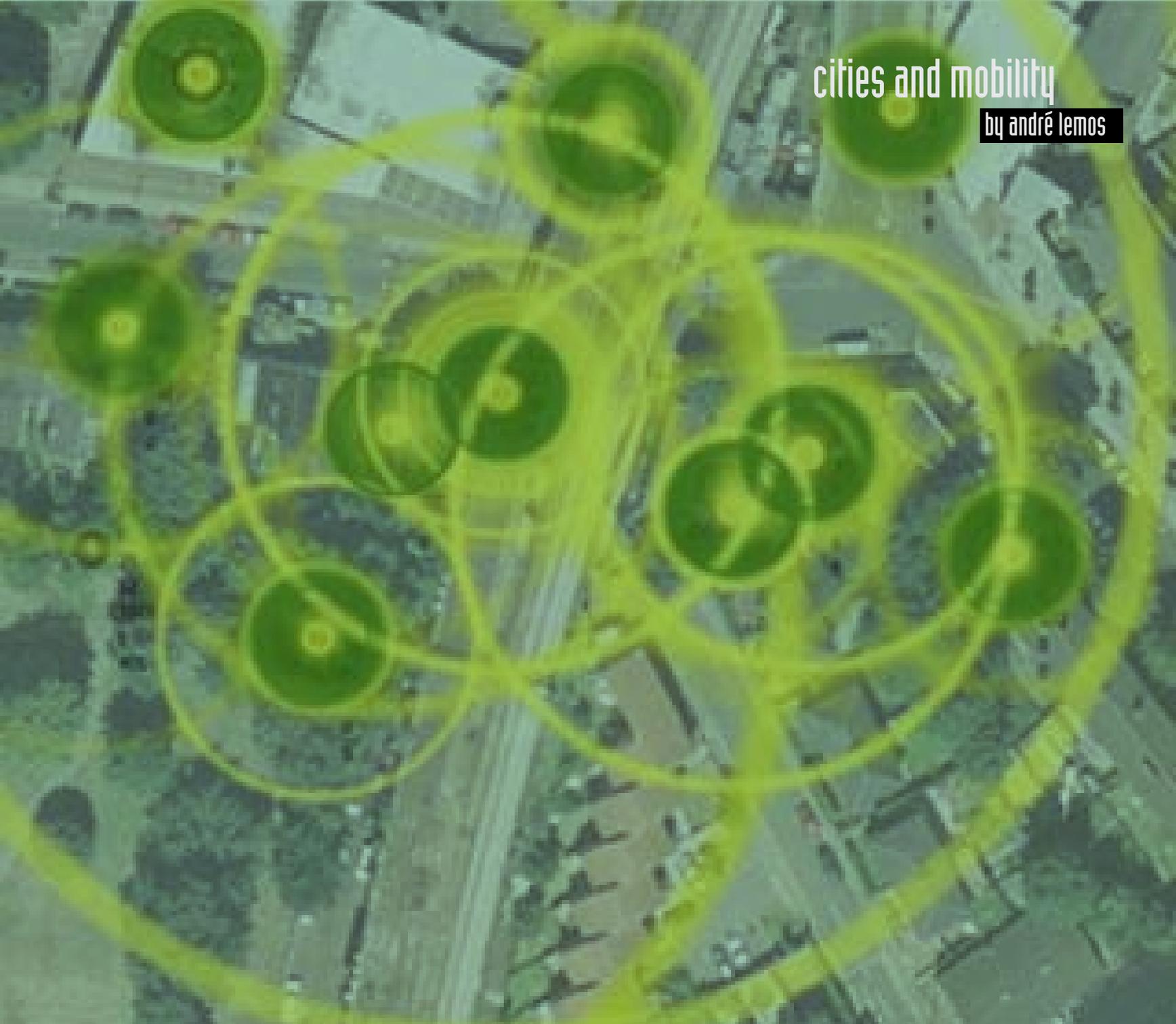
Interested in the artistic potential of electronic media, always valorizing the creation of intelligent agents able to move in environments nuanced by different languages, Knowbotic Research initiated its project *IO_dencies* (10) by focusing major urban centers such as Tokyo, São Paulo, Venice, etc.

IO_dencies: São Paulo

Knowbotic Research see cities as urban machines, with the growing presence of mediatic agents energizing them – but the latter are usually disregarded in urban representations.

These representations were info-graphically processed to build a dynamic digital environment. For the initial construction of the digital field, architects and urbanists in São Paulo fed the database with photos, drawings, videos, sounds, and short theoretical or poetic texts representing fragments of the city. To each of these elements the editors linked key words arranged in the visual field of the computer screen, that could be accessed to pull up the images, sounds and texts. All the editors and any viewers interested could intervene in the positioning and motions of these words on the screen over the Internet. Algorithms calculated the number of times that each word was accessed, direction moved in proximity to other words, and they transformed these calculations in fields of force and flows, that started to act as agents intrinsic to the system, or knowbots.

In this digital environment on the Internet, online users from anywhere in the world could visualize urban flows or position centers of attraction that modified its trajectory, or redirect them by intervening directly in the vectors. The movement of flows depended on the active presence of operators of graphic signs.



cities and mobility

by andré lemos

Cities evolved by creating different forms of mobility through material and spiritual networks, as Saint Simon noted in the 19th century (Musso, 1997; 2003). This mobility uses transportation networks (for material bodies in motion), or communication networks (disseminating information in a wide range of formats: mail, telegraph, phone, television, radio), mobility of financial flows (Saint Simon saw them as “sap” feeding network-organism, the latter being cities). Cities and related structure-building mediatic processes - such as the press and subsequently the audiovisual media - have always been flows, change, displacement, derooting and deterritorialization (of social relations, information and territories). Historically, the city emerged as a place of both mobility and fixation or settlement, ever since the first social organizations were set up as places for worshipping the dead, the “necropolises” (Mumford, 1998). In the words of Urry and Sheller, “cities are mobile and places of mobility” (Urry & Sheller, 2006, p.1).

Cities developed as networked societies (physically, symbolically, culturally, politically, economically and terms of imagination). Our contemporary particularity is the hegemony of a certain set of networks: telematic networks, which now join - or even «command» (cybernetics) the different networks constituting urban space and the different forms of social binding that emerge thereof. The process of complexification of the organism-network continues with contemporary cybernetic metropolises, or cybercities” (Lemos, 2004; 2005; 2007). The latter may be defined as cities in which communication and information infrastructures are now a reality, with their related practices posing a new urbanity. I have referred to this urbanity elsewhere as “cyberurbe” (Read, 2005).

***Sensity*, mapping
project developed
by Stanza**





We must, then, recognize the establishment of a new dynamic that has reconfigured space and social practices as new communications technologies and telematic networks have emerged. Cybercities may be thought of as emerging forms of urban life in the information age. The challenge is to create effective ways of communicating and reappropriating physical space, while breathing new life into public space, favoring social appropriation of new communication and information technologies, and strengthening contemporary democracy.

Wireless technologies are now transforming relations between people and urban spaces, thus creating new forms of mobility. Cybercities are becoming “unwired cities” (Townsend, 2003). These cities are moving into the era of ubiquitous, intrusive computing (“pervasive computing”) based on devices and networks such as 3G cellphones, GPS, Palms, RFID labels, and wi-fi, wi-max, and Bluetooth1 networks. Metropolises are becoming “unwired” cities - generalized connectivity environments involving users in full mobility, interconnecting machines, people and urban objects. In contemporary cities, traditional places of space (Castells, 1996) are gradually becoming generalized environments for access and control of information through wireless telematic networks, creating zones of ongoing and ubiquitous connectivity, or informational territories.

In the current phase of mobility and wireless networks, we are immersed in what some authors see as new relationships with time, space and the different territories. These are forms of space-time compression (I) (Harvey, 1992), disembedding (Giddens, 1991), deterritorialization (Deleuze, 1980), liquid spaces (Bauman, 2001), or new nomadisms (Maffesoli, 1997). Boundary crises come into play here in relation to subject, identity, geographical space, culture, politics, the economy. Current globalization prompts a sensation of loss of frontiers and deterritorialization, but there are also new territorializations. We have discussed this issue previously (Lemos, 2006), showing how territorialization and deterritorialization processes develop with mobile technologies.

As Lefebvre notes (1970, 1986), urbanity is the soul of cities and a new city in turn leads to a new urbanity. So the new physical form of cities, the cybercity, leads to a new «soul» or urbanity, the cyberurbe (2). The cybercity feeds into and creates the cyberurbe, which in turn feeds into and creates the cybercity ; as virtual and actual dynamics constitute reality (Lévy, 1995; Shields, 2003).

What are the characteristics of the newly emerging mediatic forms with telematic mobility in contemporary cybercities?

Mobility and Media - post-mass functions

The relation between mass media and cities arose in the 16th century as public opinion was formed, initially through the press and subsequently through audiovisual media such as radio and television. In relation to the press and the formation of public opinion, Gabriel de Tarde notes that public opinion

could not start to emerge until the development of the invention of printing in the 16th century. Transporting force over distances was nothing compared with this transporting ideas over distances (Tarde, 2005: 10). Transporting “ideas and force” over distances, which was to create the networks of the first modern cities, scaled up in the 19th century with the industrial revolution and mass media, and in the late-20th and early 21st-centuries, with the postindustrial age and the emergence of communicative processes with post-mass functions.

In an industrial city, the mass media configure urban space (printing press, radio, telephone and television were and still are crucial to define relationships for work, housing, constituting suburbs and urban enclaves). In the contemporary cybercity, however, we see close relations developing between media with mass functions (classical» media such as printed paper, radio and TV), and digital media with what we shall call the new post-mass functions (the internet, and its different tools, such as blogs, wikis, podcasts, P2P networks, social networking software, and multi-functional cellphones). The city-communication relationship evolved as communication technologies developed. Whereas the urbanity of cities in the industrial age was based on the social and political role of the mass media, the urbanity of contemporary cybercities is based on intensive (and tense) interaction between mass media and the new media with post-mass functions.

Mass and post-mass functions differ in the t former involves a centralized flow of information, with major corporations controlling editorial policy of broadcasting stations and competing among themselves, since they are financed by advertizing. To ensure their advertising budgets, stations are constantly looking for a hit, a mass success that will bring in more advertising money and profits. Mass media are usually centered in a national or local geographical territory. Media and mass functions play an (important) social and political role in forming the public and public opinion in modernity. Mass functions are those directed at the masses, at people who do not know each other, who are not spatially joined and thus have little chance of interacting. For the masses, there is no organizational structure, or tradition, or rules. Ortega y Gasset (1962), the typical member of the mass is an average man , unlike the cultured humanist man. Simmel notes that all mass actions avoid detours and attack their aims by the shortest route. So they are always dominated by one single idea, and by as simple an idea as possible. (Simmel quoted in Wolf, 2005: 7).



The train: one of the means of transportation that will create networks between the first modern cities

Post-mass media in turn are based on telematic networks in which anyone can produce information, not bound by a broadcasting station, without there necessarily being backed by companies or economic conglomerates. Post-mass functions do not compete with each other for advertising budgets and are not centered on a specific territory, but are virtually located around the planet. The product may be personalized and usually insists on bidirectional communicational flows (everybody to everybody), unlike the one-way (one-everybody) flow of mass media. Rather than hits, post-mass media are directed at niches, creating what Chris Anderson (2006) called the long tail, or the possibility of offering innumerable products that may be kept available - although bought by very few consumers - given the structural properties of the web. This means writers do not necessarily have to turn out lots of hits to live off their work. With new post-mass functions and their tools, they can hypothetically master the whole creative process, set up a user community, build links among themselves, neutralize intermediaries and interact directly with a niche market. Internet experiences involving blogs, recording studios and musicians, free software, podcasting, wikis, and other actors have shown the potential for post-mass media, which foreground three fundamental principles of cyberculture: freedom to broadcast, generalized connectivity, and the reconfiguring of the mass cultural industry and its institutions (Lemos, 2004, 2005).

Rather than be informative, like mass media, post-mass media create more communicative processes through two-way exchange of messages and information between minds. New communicational tools using non-mass functions, such as blogs, podcasts, wikis, discussion forums, or social networking software, do not function by centralizing information; they are not necessarily associated with communication companies, not limited to just sending information, not necessarily associated with the advertising and marketing that pay for broadcasting, do not have government concessions

or licenses, and are not limited to a specific geographical coverage. Unlike mass media, post-mass media enable users to customize, publish and disseminate information without its being controlled by companies or government concessions. Tools used for post-mass functions highlight processes of conversation, interaction and communication in the best sense of the terms, with an important political dimension, as we shall see below.

However, we must think in terms of function rather than device, since both mass and post-mass functions are present in both analogical and digital media. For example, a major internet portal or search-engine or journalistic website may pursue mass functions, while analogical media such as

Wi-fi networks: connected computers on public space



fanzines, flyers and or radios may pursue post-mass or niche functions. Therefore our communicational landscape is now enriched by more options for accessing, freely broadcasting and circulating on planet-wide networks.

Media pursuing mass and post-mass functions now exist side by side and are reconfiguring the culture industry and contemporary cities. Consequently, blogs arise with post-mass functions but energize mass publications such as journalistic companies. The latter then go on to hire bloggers and as publications mediated by professional (journalists), may gauge and critique post-mass citizen journalism, for example. There are mass functions on the internet and in new digital media, such as the major journalistic portals, large hubs that concentrate network access (Barabási, 2003), radios, and newspapers and TVs that broadcast (mass) programs on the web. In the same way, post-mass functions are now emerging on radio and TV and in printed publications with niche initiatives, such as satellite radio, pay-TV, printed publications for specific publics, although the business structure in these cases is still the same as that of the media that pursue only mass functions.

We should see these phenomena in terms of system reconfiguration rather than oversimplified dichotomies. For example, we may describe the internet as a mediatic environment that performs both mass functions (TV over the internet, or major portals or search engines) and post-mass functions (blogs, wikis, podcasts). Television can have mass functions (open TV) and post-mass or niche functions (pay-TV channels). This new and richer communicational configuration offering us evermore mass and post-mass functions is going to cause crises and have major impact on configuring new social and communicational relations (copyright crisis, citizen journalism, free software, P2P-network file swapping, etc.). The growing culture of post-mass networks shows the sociocultural impacts of digital technologies on mobile electronic territory now extending planet-wide. Cyberculture therefore brings in a mediatic structure (with mass and post-mass functions) without precedent in the history of humanity. For the first time, any individual may produce and publish information in real time, using different formats or modulations, and may add data or collaborate with others on networks, thus reconfiguring the culture industry (Lemos, 2003). City and mobility. Cellphones, post-mass media functions and informational territories

Several analysts have shown that the productive and economic model of the mass culture industry is now in crisis, but will not necessarily be wiped out. There is a process of reconfiguration and remediation (Bolter & Grusin, 2000). Newspapers are making use of blogs (a reconfiguration in relation to blogs and newspapers) and podcasts. Podcasts emulate radio programs and radio stations publish their broadcasts in podcasts. Television refers to the internet, the internet to television. Television uses promotions via cellphones and SMS and cellphones carry parts of TV broadcasts, in some countries. The American authors Bolter and Grusin (2000) use the term remediation to refer to this reconfiguring. Indeed there are remediations in the sphere of the media, but there are also reconfigurations of social practices and institutions (organizations, laws). We have now had a culture industry based on the mass-function model from the 18th through to the 20th century, whereas the post-mass model that has risen since the 1970s

is characterized by digital media, telematic networks and various processes of recombining informational content.

The key point here is to look at the post-mass functions of mobile transmission and reception of information in order to see what is involved in the use of digital mobile devices in cities. We shall then be able to examine the cybercity, the cyberurbe and informational mobility within this new mediatic context. In mass-media cities, there were few ways of transmitting or circulating information (you could circulate fanzines, start a pirate radio, or a neighborhood station, but the latter were clearly limited in terms of access and production), and there were even fewer ways of broadcasting or circulating information for mobile individuals. Citizens of the industrialized city may receive mass information, but they do not have much mobility for producing or transmitting information.

Likewise, forms of interpersonal communication were limited to confined spaces (home, office, factory), or to public devices (public telephones) or amateur radio ("citizen band"), which were already reflecting an urge for instant, mobile and ubiquitous communication.

subjects involved by mass communication may choose the type of information and how they will receive it, but there is no dialogue since they have little chance of broadcasting or circulating information. In most cases, access to information was provided by devices (TVs or radios in private spaces (cars, homes or offices), except for printed media that could be read on the move, such as newspapers or magazines, or radio, which features portability and access while in motion. However, there was no way of sending information.

Post-massive media: portable devices are individual objects



Today's communicational configuration poses new post-mass processes that enable us to transmit or circulate data while moving. Informational mobility is today's differential.

With the development of mobile computing and wireless technologies (laptops, palms, cellphones), the early 21st century poses a transition from access through fixed point of presence (internet over cables or wires), to a generalized connectivity environment (mobile wireless internet, cellphones, Bluetooth networks and radiofrequency (RFID) labels), that involve fully mobile users. Cybercities and cyberculture are now being constituted as "generalized environments for mobile personal access to information", constituting "informational territory". In contemporary cities there are now areas featuring control of transmission and reception of individuals' digital information while they are mobile and in public spaces, thus potentializing new social practices: real-time contact and informational access (rather than space shared between bodies, fluid time outside a closed agenda), banalization of connections (empathetic, non-solemn, lay relationships),



new forms of identity-related and social reinforcement, and new kinds of self-exhibition (YouTube, blogs, Flickr, Orkut). Contemporary cybercities are becoming communicating machines based on new ways of appropriating urban space - writing and reading space electronically through location functions (mapping, geolocalization, smart mobs, urban annotations, wireless games), bringing new dimensions to the use and creation of meaning in urban spaces. New forms of control and surveillance in informational territories are emerging too.

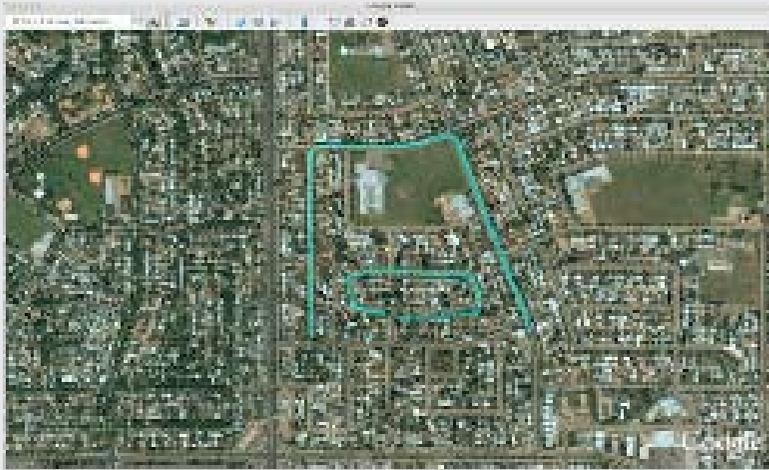
Informational territories

By informational territories we mean areas for control of digital information flows in a zone of intersection between cyberspace and urban space. Informational access and control are based on mobile devices and wireless networks. Informational territory is not cyberspace, but mobile hybrid space formed by the relation between electronic space and physical space. For example, a wireless point of access to wi-fi networks in a park is informational territory quite distinct from a park as a physical space or the internet electronic space. When accessing the internet by this Wi-Fi network, a user is in an informational territory that is interwoven into the physical (and political, cultural, imaginary, etc.) territory of the park, and the telematic network space.

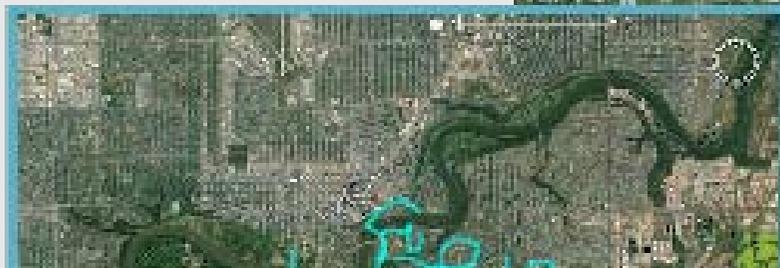
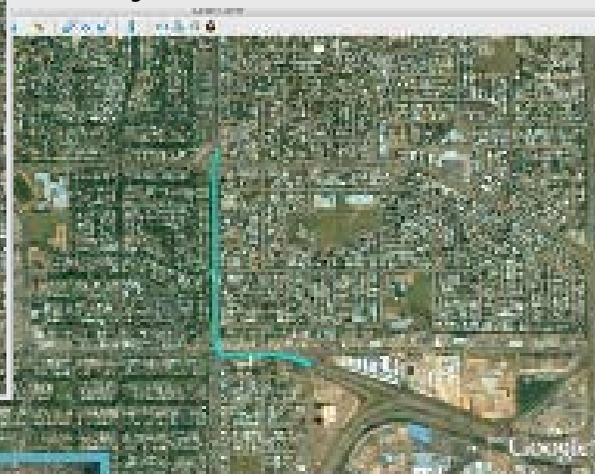
Informational territory creates a place, depending on the physical and electronic spaces related to it. Informational territory is therefore a heterotopia (Foucault, 1984). A place is configured by social activities that create belongingness (symbolic, economic, affective, and informational). A place is fixation while space is opening (Tuan, 2003), since it needs time and experience to be constituted. Alain Bourdin shows that social bonds arise from the construction of territory of belonging, as a founding space.

All social groups are, in principle, associated with a territory that grounds the place in relation to space in general. Location or place grounds relations with the individual's world, but also their relations with the other, and the shared construction of meaning that creates the social bond. Its irreducibility is based on a radical distinction between co-presence and communication through devices and artifacts... (Bourdin, 2001: 36). Muniz Sodré (1988) draws attention to the notions of territory and place, while showing that ancient Aristotelian philosophy had no notion of space (in *Physics*), but there was *topos*, a place marked by the body. Similarly Martin Heidegger (1964) notes that place (inhabited) is constructed as Man's way of being in the world. Space is abstraction while place is *topos*. Territory grounds a place. The notion of informational territory is related to this form of identity, creating a informational place that is distinct from abstract space. A wi-fi zone in a square, for example, is a social place that shows a heterotopia of informational access / control.

All territory is a social place for control of borders, since sovereignty is exercised within the bounds of a territory" (Foucault, 2006: 27). Informational territories are places in which there are controls of the information flow in the cyberurbe marked by imbrication of electronic and physical spaces. Beslay and Hakala, for example, use the image of bubble to define this digital territory. Thinking in terms of digital territory enables to visualize the frontier of informational flows and poses political questions relating to privacy, control and surveillance.



SUR-VIV-ALL, by André Lemos: GPS reading of the Margaret Atwood's book "Survival"





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 and Hakala, 2005).

Therefore planet-wide telematic networks in substantive relation with urban spaces constitute new informational territories. We characterize the latter as interstitial, like the telematic and physical network interface of cities and their spaces of << place (Castells, 1996) – the street, cafés, restaurants, bus stops, subways, hotels, squares, etc., Creating a generalized access environment in which, when within their informational territory constituted through their access passwords, anybody may send or receive multimodal information while mobile. Networks for wireless internet, wi-fi and wi-max, Bluetooth and short-range RFID, cellular telephony (GSM, CDMA, EDGE) are spreading all over the world and several cities are now implementing and enlarging informational territories. This development is today the leading edge of implementation of both networks and devices for use in metropolises and rural areas.

So this a new form of mobility: mobility through information flows, informational territories that change and modify mobility over the physical spaces of the city, such as the possibility of accessing, producing and circulating information in real time. Using cellphones and location systems may change ways of organizing urban transportation.

A user with a cellphone may get real-time details of a bus schedule, and change their way of <<waiting , and create new dynamics for motion in physical space around this social activity. So informational mobilities give rise to fluid management of time and therefore of space too. There is no decoupling between spaces and correlated mobilities, but intersection between electronic space and physical space, creating informational territories.

**Overlaid landscapes: mobile networks redesign cities
by superimposing physical and virtual**

In a recent *Le Monde Diplomatique* article (3) Manuel Castells shows that the dynamics of the three principles of cyberculture (transmissions, connection and reconfiguration), may modify political practice and social relations amid the new mobility technologies. Castells talks of the lack of legitimacy of politics commanded by mass media. Today, with new ways of publishing information that Castells calls mass self-communication, or personal mass communication, new political and social forms are emerging. The new post-mass media functions constitute a culture of unprecedented mobility, with global implications socially, aesthetically, communicationally and politically. Castells (2006) notes that this new form of communication is present on the internet and in the development of cellphones.

It is estimated that there are now more than one billion internet users and some two billion active cellphones. Due to cellphones, two thirds of the planet's population are able to communicate, including in places where there is no electric power, or land lines for conventional telephony.

This new "personal mass communication" consists of individual control of information with collective sharing while mobile, global reach and immediate broadcasting. These new mediatic formats may lead to new political practices since individuals would be ready to stage a critical rebellion. There are real possibilities of their "starting to take action in relation to the major media, by controlling, refuting or even producing information" (ditto). Castells sees a decisive phenomenon in the use of mobile devices for social mobilizations in everyday events or for political activities, which Rheingold (2004) calls smart mobs: this vogue of mobilizing, supported by communication networks on cellular phones, obtained impressive effects in South Korea, the Philippines, Ukraine, Thailand, Nepal, Ecuador, France... It may obtain an immediate effect, as it did last April in Thailand, with the removal of premier Thaksin Shinawatra by King Bhumibol Adulyadej. Or in Spain, with the defeat of José Maria Aznar's People's Party in the March 2004 legislative elections.

Castells clearly understands the reconfiguring mentioned above. It is not about a simple contrast between mass media power and "rebellion" associated with social actions by means of the new post-mass communication devices, but a change in social and communicational practices that offer "society more ability for control and intervention, and more political organization for those who are not part of the traditional system" (ditto).

Of all the mobile technologies, cellphones have posed most technological convergence and the opportunity to effectively exercise this political "rebellion", but also to constitute social relations through immediate contact, whether through voice, SMS, photos or videos.



Warchalk: chalk on the floor marks free accesswi-fi nodes



**Geolocalization:
maps are now part of
everyday daily life**

Cellphones and Urban Space

Experience shows informational technologies redefining urban spaces in several cities around the world with a wide range of initiatives taken through the use of cellular phones, palms and laptops, from paying for parking space, or settling bills, to accessing location data, seeing what's on at a theater, or learning of the history of a monument, to accessing the menu at a restaurant, or its users' impressions, on just passing by these places with devices activated.

The cyberurbe, the virtual soul of cybercities, is increasingly configured by social practices emerging from this digital mobility informational (exchanging SMS, commuters and nomadic workers, connected occupations of urban spaces, games on mobile devices in urban space, digital electronic annotations, mobile blogs, exchanging texts, videos and cellphone photos). An interesting example of this new nomadism using

wireless networks and portable technologies is the phenomenon of what have been called the high-tech Bedouins of San Francisco. The Bedouin are nomadic peoples from the Arabian peninsula originally and today found in North Africa. Although nomadic, they do have territory, since, as Deleuze notes, they follow customary routes and move from one point to another (wells, for example). But the points are only there are to be left behind, and what counts is what it is between the points. Deleuze thus shows that the nomad's life is in the intermezzo.

Today's high-tech nomads are moving from one point of access to another. Today's stop-off points are wells but coffee shops or their wireless connectivity zones, whence they access cyberspace while in public urban space. The high-tech Bedouins' territory is not desert, but informational territory created by intersections of physical space and cyberspace in contemporary metropolises. They work and live from one wireless connection to another. The new Bedouins are equipped with wireless technologies such as wi-fi laptops and smart phones, thus combining physical mobility in public space with informational mobility through cyberspace, and rescaling the practices and constitution of (in) physical space. Their aim is not the intermezzo between stop-off points, or leaving places behind, but pursuing their informational territory whence they connect to the web. They move between points physically to be able to move through cyberspace electronically (4).

Several mobile-technology projects have been deployed in relation to the appropriation of public space and a few examples follow. As I have pointed out above, this involves ways of appropriating urban spaces through mobile devices to create informational territories in which users may recognize other users, electronically notate a space, leaving a marker text, photo, sound or video, locate or map routes or urban objects, or even play games, with the backdrop of streets, squares and monuments in urban space.

The “mobotag project for connecting your city with mobile tags” (5), for example, enables anybody to send e-mail attaching information to an urban space. This involves appropriating space through “electronic annotation”, creating a “place”, amid the “void of meaning in urban space. As the project states: “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”. Here the annotation practices used with location media are very similar to those sought by the surrealists, Dadaists and Situationists who occupied spaces in cities in the 1950s and 1960s. They staged small performances (such as readings), to make moving in public space an art form. These practices, like current ones using cellphones, laptops, GPS or RFID labels, attempt to create ways of appropriating spaces in cities that are increasingly impersonal, cold and rationalized. Perhaps we may see this new way of publishing ” and making “contact permanent ” with the other as appropriation on the “surface”, as ways of writing and reading social relations and spaces: as experience that is both social and aesthetic at the same time. As Simondon noted, “the characteristic polarity of life is at the level of the membrane ”.

Similarly, the Flagr (6) project enabled cellphone users to send an e-mail with their impressions of interesting places in a city. These places appear on maps and start to compose a free collective reading of public space. In fact, what is involved here is a kind of bookmarking of the real world. Once again, we see here ways of creating and lending meaning to for urban places, like a sightseeing point placed on a map for others to see too. Simmel shows that the stranger is a typically urban figure. Inhabitants of cities are in a state of fluctuating indifference, says Simmel.

André Lemos’ initial GPS experiences: a map of the route from his house to Facom, the Communications Faculty at Federal University of Bahia



In this sense, perhaps we may see the surface of cities as a places of meaning in this anthropological experience of the passer-by, the flâneur, or the Situationists, but also of those who are newly connected by mobile devices and wireless networks that mark public places. It does create a place, somewhere endowed with meaning amid the indistinctness of urban spaces. Hence the French sociologist Isaac Joseph stating that “the territory of a social actor or a group of authors is in addition to all the appropriation, a region of accessible roles” (Joseph, 1988).

Another interesting project in this sense is Dodgeball (7). The system allows a user to send SMS texts to a list of registered friends telling them where he is at a certain time. So people on his or her friends list who are nearby may have the opportunity of meeting him. Once again, permanent contact is sought, making the connection from electronic space to physical space. The same applies to the Radar project (8), which maps and identifies registered cellphones, creating access zones and permanent contact zones, and showing where correspondents are located. In order to create and potentialize sociability networks, these projects attempt to signify urban space on the basis of permanent contact with individual communities.

Imity (9) is similar to the two previous projects in that it puts people in contact by identifying them through Bluetooth and cellphone networks. An interesting aspect of the project is that people who have only been in touch online, and who happen to be in the same place, may identify each other on Bluetooth networks. So if you are in a bar and a virtual friend (whom you do not know physically) is nearby, your two cellphones will recognize each other and you may meet up personally, in real life.

HP, MScapers (10) and Nokia (11) have augmented increased reality projects whose systems enable users to navigate information in cities by just pointing their cellphone phone at places or objects. By pointing the device, electronic information is copied to the location. Similar projects use these devices to assist people (such as tourist guides) to orientate in urban space (12). What is involved is not only writing spaces using annotations or reinforcing social bonds, but enlarging the reading of urban space by overlaying informational layers on places in public space.

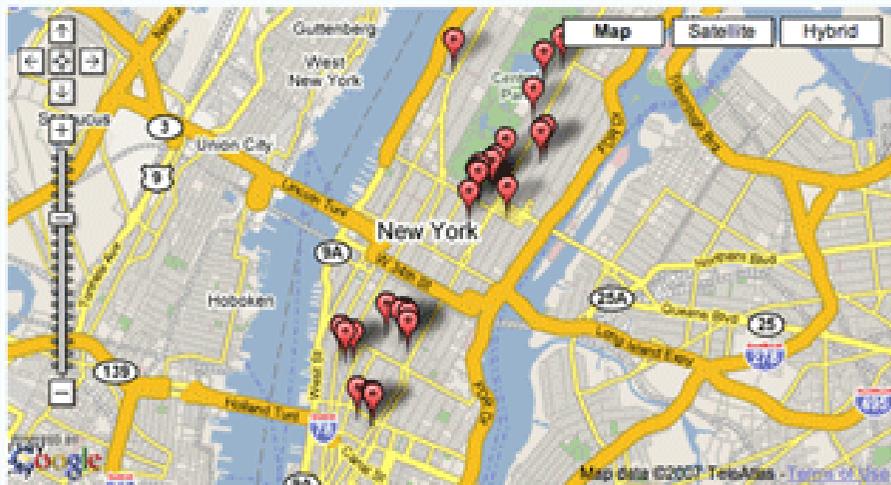
The user simply points a cell-phone camera at a restaurant or office building, and, using GPS coordinates, software associates a hyperlink with the image. In the commercial world, some museums and tour companies--including one that takes people around San Francisco--use location-detecting gadgets to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

Other projects are referred to on the “we make money not art” (13) website, based on papers presented at a workshop on “sound and mobile technologies” (14). Examples are the studies by Atau Tanaka, Guillaume Valadon and Christophe Berger on using wi-fi cellphones to locate or navigate 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

Share cool places from [online](#) or right from your [mobile phone!](#)

Featured Map

[Create a new map -](#)



Flagr: the territory of the high-tech traveler is not the desert, but the informational territory

we are creating projects that attempt to do precisely the opposite through territorialization, anchoring in physical space, connecting things, places, objects...

Conclusion

The analysis of urban society took on momentum through the urban laboratory notion developed by the Chicago School in the 1930s. In general terms, sociologists in the late-19th and early 20th centuries (Simmel, Tarde, Park) talked about three forms of mobility. The first type of mobility sees Man as a being for locomotion, and the city makes him into that which experiences everything by looking, hence Simmel's figure of the foreigner, who sees everything from the outside. The modern city exchanges the experience of hearing (people telling others things in small towns or rural areas), for that of seeing, now opening in a forest of signs (Baudelaire) before our eyes».

The second urban mobility is that of social mobility and place of habitation. The inhabitant of the modern city is constantly moving and may change status and social role through education, professionalization, enrichment... The third is what Simmel calls mobility without displacement, mobility that creates a mass, social mobility through fashion that prompts us adhere to shared features but at the same time

musical criteria. A song of interest to the first user is then copied using the phone's wi-fi connectivity.

The projects mentioned above enable users to create meaning through annotations of public space, readings of augmented realities and to put people in touch permanently, amid the anonymous environment of major cities, attempting to create, on the surface, a membrane, a contact and access zone, and to create, recreate and strengthen networks of sociability and appropriation of urbanity. The foreigners of the urban space can have new experiences of living the metropolises space, reinforcing the territories informational existence, insisting on navigation forms for information in interstice of spatial electronic and of the public space of the contemporary cities.

Definitively to the extent that we are unplugging wires and cables from our machines, to the extent that cellular telephony, Bluetooth, RFID or Wi-Fi networks make our cities into unplugged and wireless communicating machines, paradoxically,

differentiates us. Perhaps we may hypothetically now pose a fourth form, i.e. informational mobility as a cognitive ability of moving through symbolic assets, messages, information. At the beginning of the 20th century this communicational deterritorialization took place through mass media : newspapers, radio, TV, magazines, and through interpersonal media: mail, telephones.

Here, the displacement by symbolic assets was usually immobile, in private spaces, without the possibility of mass broadcasting. Today, in the early 21st century, informational territories (now telematics and digital) are expanding all over the world, using ubiquitous tools and enabling informational mobility (transmitting and receiving information) coupled with mobility through urban space. The preceding examples show forms of creating meaning, appropriating and establishing contacts through surfaces of urban spaces using digital mobility technologies. This new informational mobility, technological mobility (of devices), may facilitate a new way of understanding, lending meaning and creating shared lives in the space of contemporary cities.

1. See the sites Carnet de Notes (<http://www.facom.ufba.br/ciberpesquisa/andrelemos/>), MuniWireless (<http://www.muniwireless.com/>), wi-fiNet 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 other, for updated details of projects involving several wireless cities and networks around the world.
2. In passing, let us note that the “urbe” was the ritualistic place from which arose a city (of the heroic founders), a place of worship to be protected against invaders at all costs. To take the “urbe” was to conquer the city’s soul; thus to conquer it definitively.
3. August 2006, at <http://diplouol.com.br/2006-08,-1379>
4. (For more on San Francisco Bedouins, see the San Francisco Chronicle: Where neo-nomads’ ideas percolate / New ‘bedouins’ transform a laptop, cell phone and coffeehouse into their office <http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2007/03/11BEDOUINS.TMP>. On this subject too, see the Bedouin backpack project, Wi-Fi Bedouin <http://www.techkwondo.com/projects/bedouin/index.html>.
5. <http://turbulence.org/Works/mobotag/>

**F2C: universal connectivity
changing economic
and social foundations**

F2C: Freedom to Connect
March 30 & 31, 2009 - Washington, DC

MuniWireless

Subscribe via rss or e-mail

Home Applications WiMAX City & County WiFi Networks Regional News Resources About Us

Citywide WiMAX, Wi-Fi, municipal wireless and broadband news Legislation and Public Policy

Hot Topics

[AT&T](#) [wifi](#) [iphone](#) [philadelphia](#) [google](#) [broadband](#) [sprint](#) [fcc](#) [europe](#) [citywide wifi](#) [rfp](#) [earthlink](#)
[apple](#) [clearwire](#) [france](#) [paul kapustka](#) [california](#) [Sidecut Reports](#) [WiMAX](#) [municipal wireless](#)

Latest News

Make the Case for Municipal Wi-Fi

6. <http://www.flagr.com/>
7. <http://www.dodgeball.com/a>
8. href="http://www.celldorado.com/AT/ADS/923303638/index.php?trackid=474153321&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/>

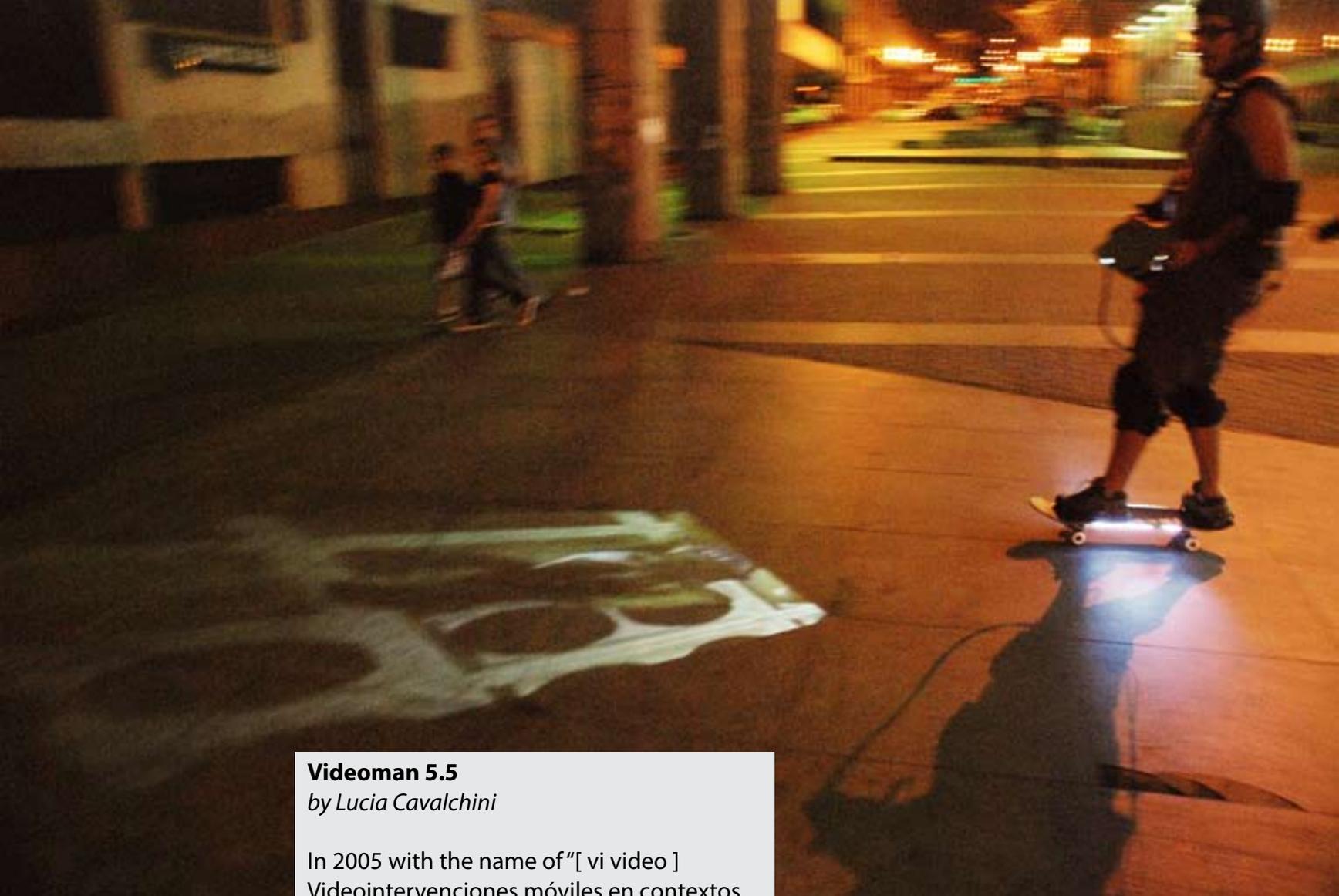
REFERENCES

- ANDERSON, C. (2006). *A cauda longa: do mercado de massa para o mercado de nicho*. São Paulo: Campus.
- ANSAY, Pierre & Schoonbrodt, René (1989). *Penser la Ville. Choix de Textes Philosophiques*. Brussels: AAM editions.
- ASCHER, François (1995). *Métapolis: ou l'avenir des villes*. Paris: Éditions Odile Jacob.
- AURIGI, Alessandro & GRAHAM, Stephen (1998). *The crisis in the urban public realm*. In *Cyberspace Divide: Equally, Agency and Policy in the Information Society* (.D. Loader, ed.). London: Routledge.
- BARABÁSI, A-L (2003). *How Everything is Connected to Everything*. Plume
- BARNET, B. (2005). *Infomobility and Technics: some travel notes*. In: *CTheory*, vol. 28, n. 03, 27/10/2005, <http://www.ctheory.net>
- BATAILLE, G. (1949). *La Part Maudite*. Paris: Minuit.
- BAUMAN, Z. (2001). *Modernidade líquida*. Rio de Janeiro: Zahar.
- BESLAY, Laurent & HAKALA, Hannu (2005). *Digital Territory: Bubbles*. in *Vision Book*, http://europa.eu.int/information_society/topics/research/visionbook/index_en.htm
- BOLTER & GRUSIN (2000). *Remediation: Understanding New Media*. MIT.
- BOURDIN, Alain (2001). *A questão local*. Rio de Janeiro: DP&A.
- CASTELLS, M. (1996). *The Rise of the Network Society. The Information Age: Economy, Society and Culture* (volume 1). Oxford: Blackwell Publishers.
- _____ (2006). *A era da intercomunicação*. In *Le Monde Diplomatique*. <http://diplouol.com.br/2006-08,a1379>.
- COOPER, G.; GREEN, N. et al. (2002). *Mobile Society? Technology, distance, and presence*. In *Virtual Society. Technology, Cyberbole, Reality* (S. Woolgar, ed.). Oxford: Oxford Press.
- DE TARDE, G. (2005). *A opinião e as massas*. São Paulo: Martins Fontes.
- DELEUZE, G. & GUATTARI, F. (1980). *Mille Plateaux. Capitalisme et Schizophrénie*. Paris: Les Editions de Minuit.
- FOUCAULT, M. (1979). *Microfísica do poder*. Rio de Janeiro: Graal.
- _____ (1984). *De Outros Espaços*. In *Architecture, Mouvement, Continuité* (trad. Pedro Moura; available at <http://www.rizoma.net/interna.php?id=169&secao=anarquitectura>)
- _____ (2006). *Seguridad, Territorio, Población: Curso en el Collège de France: 1977-*

- 1978, 1e. Ed. Buenos Aires: Fondo de Cultura Economica.
- GIDDENS, A. (1991). *As conseqüências da modernidade*. São Paulo: Unesp.
- GRAHAM, S. & MARVIN, S. (1996). *Telecommunications and the City*. London: Routledge.
- HARVEY, David (1992). *A condição pós-moderna*. São Paulo: Edições Loyola.
- HEIDEGGER, M. (1964). *Être et Temps*. Paris: Gallimard.
- JOSEPH, I. (1988). *El Transuente y El Espacio Urbano*. Buenos Aires: Gedisa Editorial.
- ITO, M. (2004). *A New Set of Social Rules for a Newly Wireless Society*. In *Japan Media Review* (17/07/04) in <http://www.ojr.org/japan/wireless/1043770650.php>.
- KATZ, J.E. & AAKHUS, M. (2002). *Perpetual Contact. Mobile communication, private talk, public performance*. Cambridge University Press.
- LEFEBVRE, H. (1986). *La production de l'espace*. Paris: Anthropos.
- LEFEBVRE, H. (1970). *La Révolution Urbaine.*, Paris, Gallimard.
- LEMOS, A. (org) (2005). *Cibercidade II. Ciberurbe. A cidade na sociedade da Informação*. Rio de Janeiro: E-Papers.
- LEMOS, A. (org) (1964). *Cibercidade. As cidades na cibercultura*. Rio de Janeiro: E-Papers, 2004.
- LEMOS, A. (org) (2007). *Cidade Digital*. Salvador: EDUFBa.
- LEMOS, A. (2004). *Cibercultura e Mobilidade*. in LEMOS, André (org). *Comunicaciones Móviles*. In: *Razón y Palabra*, n. 41, October /November 2004. Mexico.
- LEMOS, A. *Cibercultura. Tecnologia e Vida Social na Cultura Contemporânea.*, Sulina, Porto Alegre, 320p.
- LEMOS, A. (2006). *Cibercidade*. Entry in the "Critical Dictionary of Globalisations", available at the website of Groupe d'Etudes et de Recherches sur les Mondialisations, at www.mondialisations.org.
- LEMOS, A. (2006). *Ciberespaço e Tecnologias Móveis: processos de Territorialização e Desterritorialização na Cibercultura*. COMPÓS, Baurú, SP, June 2006.
- LUHMANN, N. (2001). *A improbabilidade da Comunicação*. Passagens, Vega, Lisbon.
- MAFFESOLI, M. (1997). *Du Nomadisme. Vagabondages initiatiques.*, Paris, Livres de Poche.
- MARTINO, L. (2001). *De qual comunicação estamos falando*, in Hohlfedt, A., Martino, L, França, V, *Teorias da Comunicação. Conceitos, escolas e tendências*. Petrópolis, Ed. Vozes, 2001, pp.11-25.
- MEYROWITZ, J. (2004). *Global Nomads in the digital veldt*. In: *Revista Famecos*. July 2004, PUC-RS, Porto Alegre, pp. 23-30.
- MUMFORD, L. (1998). *A cidade na História*. SP, Martins Fontes, 4th edition.
- MUSSO, P. *Critique des Réseaux*. Paris, PUF, 2003.
- MUSSO, P. *Télécommunications et philosophie des réseaux.*, Paris, PUF, 1997.
- SASSEN, S. (2001). *The Global City*. New York, London, Tokyo. New Jersey, Princeton University Press, second edition.
- SCHRAGE, M. (2003). *Wi-Fi, Li-Fi and Mi-Fi*. In, *Technology Review*, vol. 106, no. 6, August, p.20.
- SHIELDS, Rob. (2003). *The Virtual*, Routledge, London and NY.
- SHIELDS, Rob. (2005). *The Virtuality of Urban Culture: Blanks, Dark Moments and Blind Fields*. Revised version of "Die Wirklichkeit der Städte", *Soziale Welt* 16: Baden-Baden, Germany: Nomos Verlagsgesellschaft.
- SIMMEL, G. (1998). *La tragédie de la culture*, Paris, Rivages.
- SODRÉ, Muniz. *O Terreiro e a Cidade. A forma social negro-brasileira*. Petrópolis, Vozes, 1988.
- TOWNSEND, A. (2003). *Wired / Unwired: The Urban Geography of Digital Networks*, PhD dissertation, MIT, September.
- TUAN, Yi-Fu. (2003). *Space and Place. The Perspective of Experience*. University of Minnesota Press, Minneapolis/London.
- URRY, J. & SHELLER, M. (2006). *Mobile Technologies and the City*. Routledge, London and NY.
- WOLF, Mauro. (2005). *Teorias das Comunicações*. São Paulo, Martins Fontes.



videoman
fernando llanos



Videoman 5.5

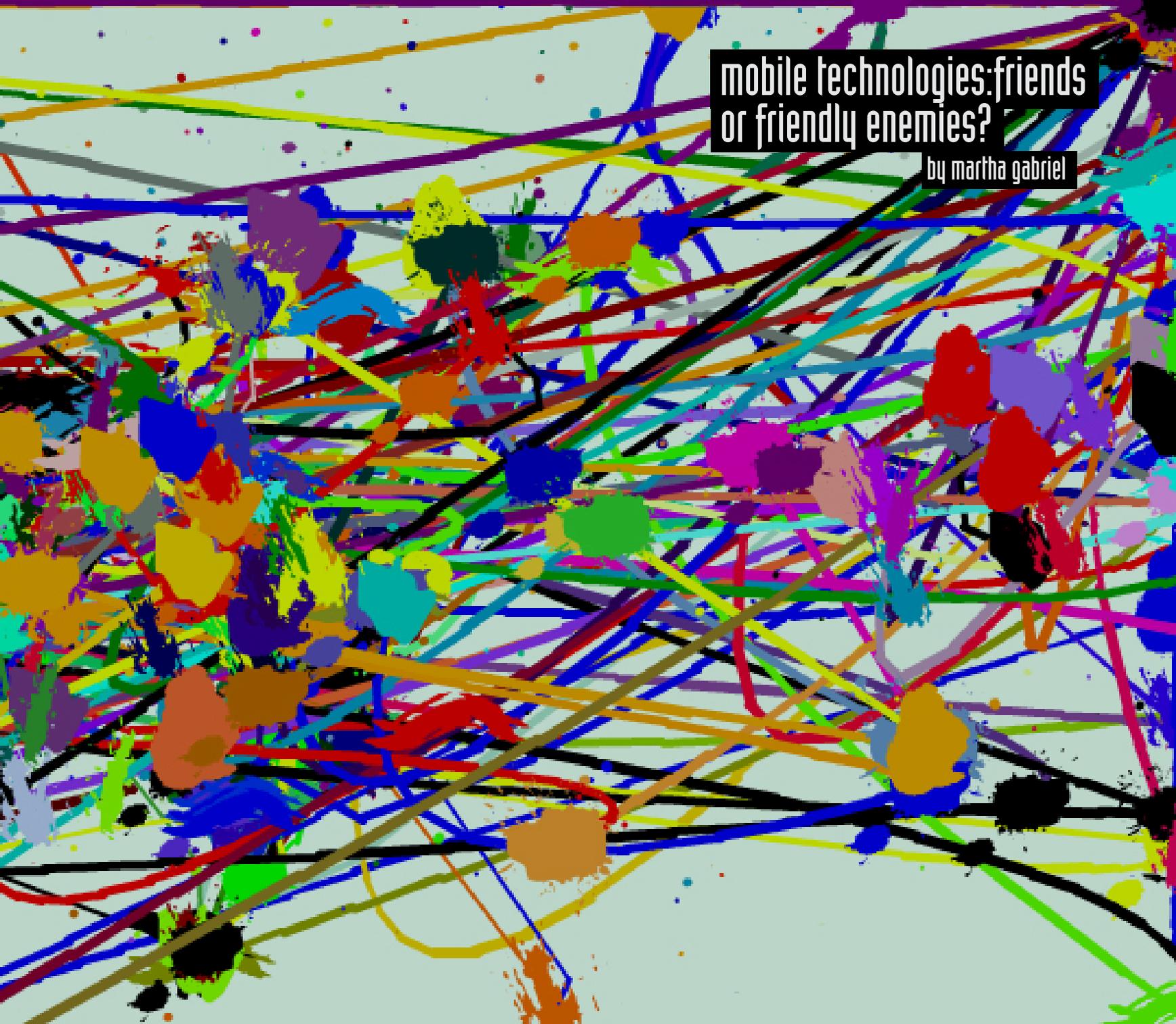
by Lucia Cavalchini

In 2005 with the name of "[vi video] Videointervenciones móviles en contextos urbanos específicos", in the city of Porto Alegre, Brasil, Fernando Llanos executed his first interventions using technology as a mediator of interactive communicational processes. He confronted and involved people with video projections using a closed circuit to records their reactions.



Videoman is a mediatic and nomadic superhero. He crosses spatial and virtual borders. His luminous rays project onto any surface; walls, objects, windows, people. He intervenes in every kind of scenery: markets, squares, airports, stadiums, monuments, medieval tunnels, restaurants, etc. His public sometimes is a crowd leaving a soccer game, others only some lonely latebirds that wander through the night.

This superhero continuously updates himself, and the media he uses to disperse on his videos - paths change every time the project is presented on a new context. To the arte. mov festival, a patineta, modified for the occasion, served as motor of the action that, by a digitalization process of the public space, open creative holes on the tissue of urban landscape many times too closed, surveilled and preconstructed.

The background of the entire page is a complex, abstract composition of numerous thin, overlapping lines in various colors (red, blue, green, yellow, purple, black, orange) and irregular, colorful splatters and blotches. The overall effect is one of chaotic energy and interconnectedness, suggesting a network or a complex system.

mobile technologies: friends or friendly enemies?

by martha gabriel

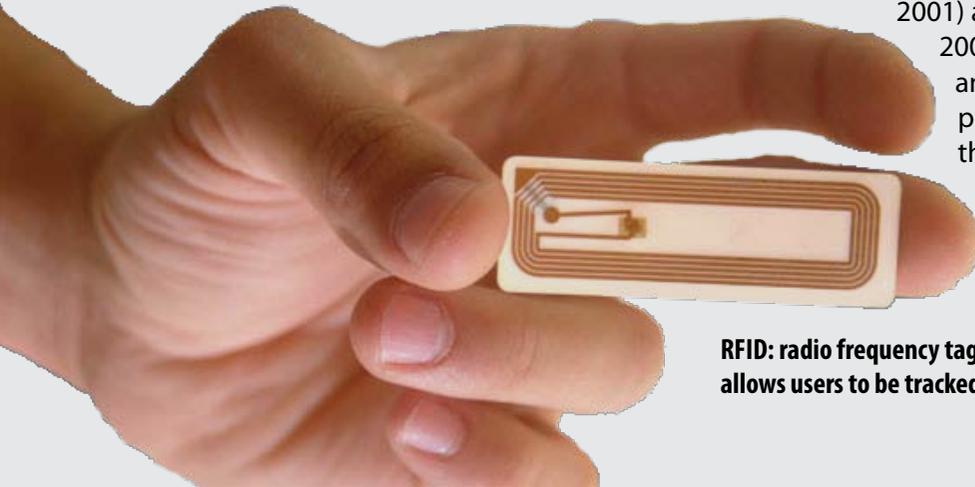
“The Web is over. Now comes the next big thing, growing out of the primordial soup of wireless and wired networks, gadgets, software, satellites and social changes created over the past decade.” (Maney, 2004).

The dream of being online all the time, always connected (to the internet) is coming true as broadband spreads, both for computers – due technologies such as ADSL, ISDN – and mobile devices – using technologies such as 3G. Although broadband has not yet reached everywhere in the world, recent improvements in technologies and networks will tend to make it really pervasive in the near future.

The web is the first piece of a bigger network facilitated by wireless broadband connections, GPS (Global Positioning System) and RFID (Radio Frequency Identification Tag) tags. These technologies combined mean that ubiquitous computing is rapidly becoming a reality. We can see many examples of ubiquitous computing in Greenfield (2006): smart buildings, smart furniture, smart clothing, smart objects, networked street signs, self-describing soda cans, gestural interfaces, RFID tags embedded in everything from credit cards to the family pet.

Ubiquitous computing is almost imperceptible, but is everywhere around us and has increasingly been affecting our daily lives as it spreads quickly. The lure of being connected all the time – to the web, e-mail, social networks, maps, etc. – without giving up mobility is driving the massive popularity of smartphones. Many years ago, in 2002, Fogg had already noted that “People don’t adopt mobile devices, they marry them” (Fogg, 2002, p.192). It is predicted that within a few years, mobile internet devices will surpass notebooks (Shilov, 2008).

Hendrik Willem Van Loon once said that “The arts are an even better barometer of what is happening — in our world than the stock market or the debates in congress”, and this may be confirmed by the many artworks now experimenting with our emerging technological context. As early examples of artworks dealing with ubiquitous computing we could mention the game “Can You See Me Now?” (Blast Theory, 2001) and “Head” (Beloff, 2004), both presented at Art.Mov 2008 Exhibition (www.artemov.net). These two interesting and innovative artworks provide an experience of the power of connectivity, mobility and sharing since these things have become available. Among other artworks



RFID: radio frequency tags controversially allows users to be tracked

that deal with the possibilities of location, “Locative Painting” (Gabriel, 2007) – also presented at Art.Mov 2008 - uses low-tech resources, such as zip-code numbers for experiments in positioning without using GPS hi-tech capabilities.

We see that art not only deals with technologies that create new possibilities but is also inspired by the context emerging from those technologies.

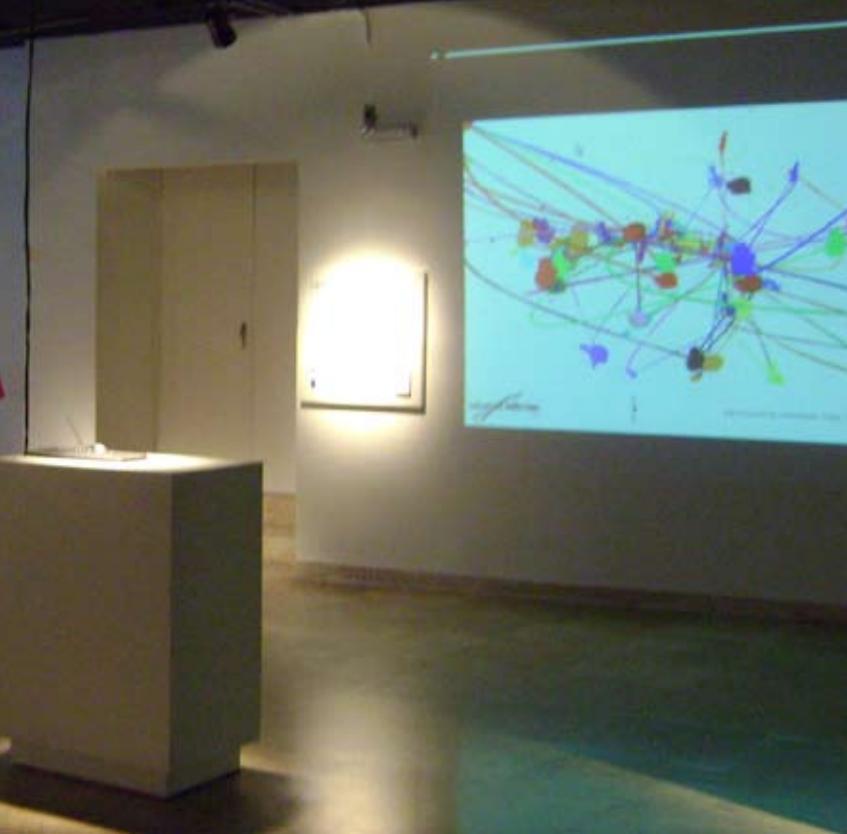
Another example I would like to mention here is my in work-in-progress Crystal Ball Project – an on-line crystal ball showing images (collected from Google Images – <http://images.google.com>) for the top 10 trends on Twitter (<http://www.twitter.com>). The goal is to create awareness about what is going on in the world (through Twitter trends) at any given time and how quickly it is changing, in the same way as a Crystal Ball. Also, the idea is to show how people in social networks (including here all human beings connected to any social network, even if it is a circle around a fireplace) affect each other, even without being aware of this (as with Twitter trends – no one can control them, but everyone can help create them). A Twitter channel allows people to interact with a work. The recent artwork “Sensitive Rose” (Gabriel, 2008) explores the potentialities and poetics of mobile tags (QRcodes) mapping desires in a codified compass.

Friends or Friendly Enemies?

The capabilities of the emergent mobile-pervasive-computational context are limitless. The combination of all technologies and media available nowadays can create a range of possibilities ranging from simple SMS message exchanges to complex LBS (Location Based Services) actions so that data reaches us at the right time, in the right place. The ease of using new devices combined with all sort of possibilities create a very seductive, alluring, technological scenario.

We cannot deny the utility and potential of these emerging technologies. However we should be aware that at times they may seem to be our friends but instead function as friendly enemies in disguise. The more appealing they are the more dangerous they can become, acting much like the famous siren song of the Odyssey. Any technology may pose risks, and this is nothing new. The question here is whether people are aware of those risks and how they can affect their lives. Anbody knows that a car is a wonderful way of transportation but can also kill people; that fire is required to improve life but can also destroy things. But are people aware of the risks of using the web, GPS, Wi-Fi, social networks, search engines, and all the other new technologies? Are people media literate? We suggest that, in many cases, they are not.

People often get very uncomfortable in front of a surveillance camera, and may be unable to act naturally. However, the same people often are not bothered by carrying GPS devices, which are fancy and friendly but may be much more invasive than the much-feared surveillance cameras. Do they know who is tracking them via GPS? Following the same line of thought, how many people using free wireless connections in public areas are aware of the real risk of having their device hacked? Adding to that, most



Locative Painting

people enjoy being able to share files (music, location, pictures, etc) with friends nearby using Bluetooth. But how many will actually turn off their Bluetooth connections afterwards? How many of them are being constantly exposed without noticing?

Just as there are artworks experimenting with the technological context, there are also artworks that explore awareness of this context. A very interesting artwork, the “Loca: Set To Discoverable” (Evans, 2006), explores awareness of risk of using Bluetooth. “The work enables people to question the networks they populate, and to consider how the trail of digital identities people leave behind them can be used for good or ill” (Evans, 2006).

Beyond the personal level, the use of mobile technologies may also and particularly affect society as a whole. The articles “Terrorist ‘tweets’? US Army warns of Twitter dangers” (Breitbart, 2008) and ‘New Technology’ Enabled Terrorists in Mumbai Attacks” (Marketing Vox, 2008-1) describe how mobile technology has been used by terrorists to cause damage and pain. Other reports also show that people have organized manifestations very quickly in the most recent US presidential

elections using Twitter and mobile devices (Marketing Vox, 2008).

We believe that all technologies related to ubiquitous computing affect our lives, whether they benefit us or not. However, for several reasons that will be discussed later in this work, there is one of these technologies that permeates all the others – searching. We use search engines on desktop computers and mobile devices in order to find information and people on the web, social networks, GPS systems, or any other on-line system or network. Although each technology would deserve a special research about their potentialities and risks, this is beyond the scope of this paper. We are suggesting here that searching is a very determinant aspect of our contemporary lives, therefore we will now focus on this.

The research on searching below was used as the foundation for the development of the web artwork “Digital Oracles” (Gabriel, 2006).

The Search Era

The continuous growth of the web and its consequent increasing complexity make it very difficult for humans to find the information we need. In the current context, several factors combine to lead us into

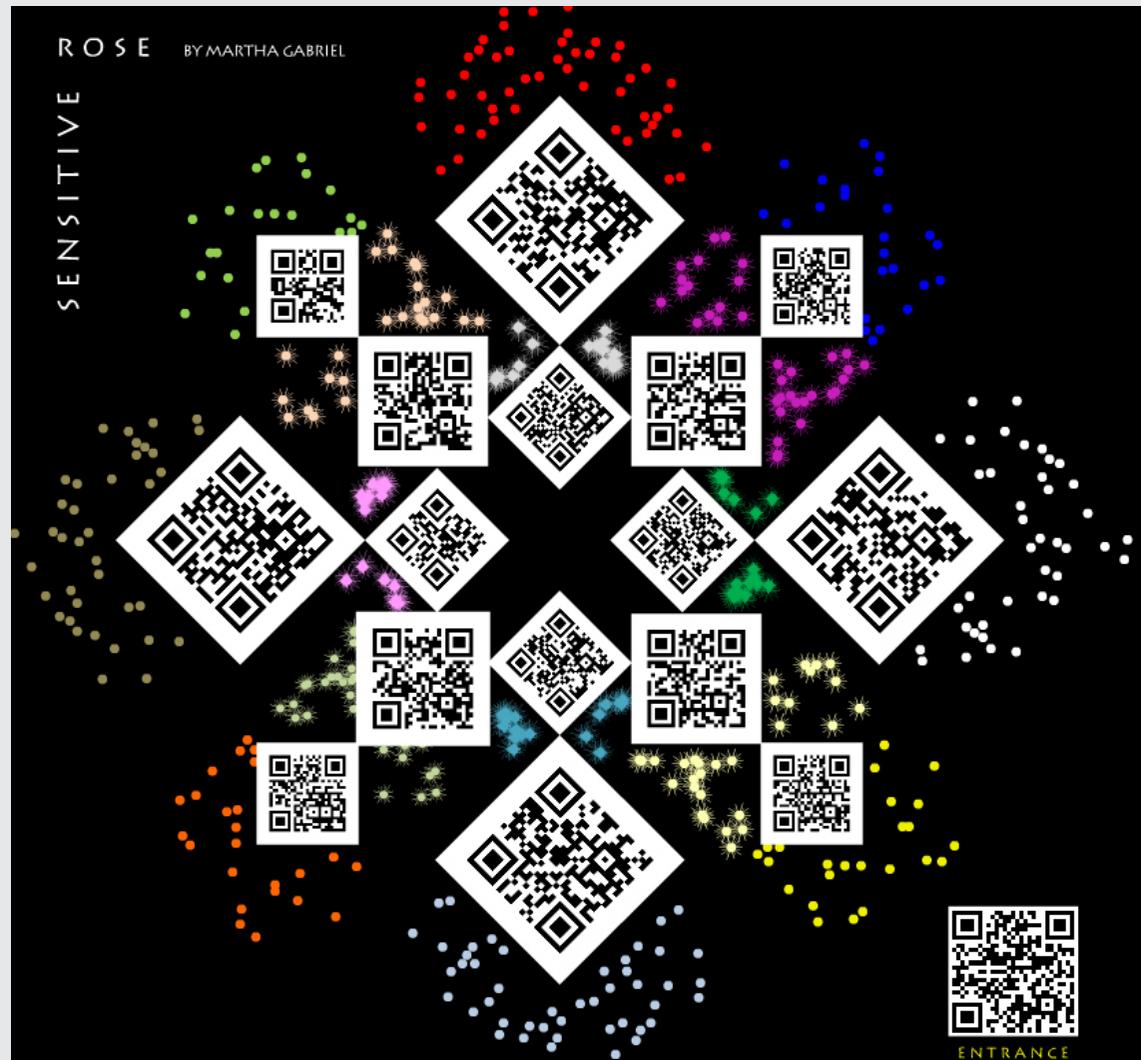
a Search Era: a) the Web 2.0 platform (O'Reilly, 2005); b) the Long Tail phenomenon (Anderson, 2006); c) the Paradox of Choice (Schwartz, 2005); and d) on-line computer pervasiveness.

Firstly, due the ease of publishing and sharing content on the Web 2.0, theoretically everybody can publish on the Web. While this is good since it means freedom for many people, on the other hand it raises the problem of multiplication of content at vertiginous speeds. Adding to that there is usually no control over the quality of the huge content published. Hence the need for filtering and validation thus creating a fertile environment for search engines. Secondly, due the nature of the web where there are no physical limitations for display and storage, we have the Long Tail phenomenon proving an infinite range of options at all times, instead of just a few of the most popular ones. The coexistence of everything at once again poses the need for filtering and validation. Thirdly, according to the Paradox of Choice, when the options for choice increase we feel distressed instead of feeling free and happy to choose. Therefore, search engines with filters may enhance the choice scenario. Finally, improvements in on-line connectivity (broad band accessibility, mobile smart phones and PDAs, GPS, etc.) potentialize the convenience of searching – anywhere, anytime.

Therefore, we are increasingly experiencing the Search Era, where search engines (such as Yahoo, Google, etc.) are in daily use all over the world to help humans find pathways and information in the endless computational nodes and routes of the web.

The ability of showing paths and information is the essence of an oracle (Abrão, 2000). Since the times of ancient Greece or Rome, oracles have been used

Sensitive Rose



to help with choices, pathways and decisions. Offering answers, information, often making suggestions about what we are looking for, and helping us to make decisions, search engines on the web take on the role true 'digital oracles'.

Digital Oracles

Since the first search engine emerged in 1994 – Yahoo! (2005) – many others have appeared and disappeared, culminating with the actual reign of Google, launched in 1998 and now considered the largest, most popular and most widely used search engine available on the web (Jacks, 2005).

Search engines are undeniably successful. In 2004, 84% of online Americans already used them, and 87% said that they got the information they needed in most cases (Fallows, 2004). In 2005, 'searching' became the second most popular activity in the internet, after only the e-mail (Rainie, 2005). The search engines most often used are Google, followed by Yahoo!, MSN Search, Ask Jeeves and AOL Search. The use of search engines will tend to overtake e-mail in the future.

The search options on the web are countless and irresistible. There are always some interesting things to be found. From simple isolated word searches to whole paragraphs of text, advanced boolean searches, measure and currency conversions, idiomatic definitions, calculators, images, satellite image visualizations, etc – these are just a few examples of what can be obtained from digital oracles. In addition, there is the option of search your own computer (desktop), as offered by Google Desktop.

From the undeniable utility and importance of these digital oracles – without which our access and penetration capabilities on the web would be very restricted – there also derives the great power they exert over us and society as a whole. From the moment we use such engines and believe in the results we obtain, listening to their voices, we confer power and credibility on them.

In the same way that people used oracles in ancient times and subjected themselves to their power – often determining the fate of whole nations we suggest here that today's digital oracle users are also submitted to their power. But while the ancient oracles' divine or mystical power was known to their users, people today may think they are in the control of their searches without realizing their power. Although search engines are digital rather than spiritual or divine entities, their 'advices' may be as powerful as or even more so than that of the ancient oracles'.

According to one author (Rainie, 2005), people are using online search engines more intensely: the more experienced a user becomes on the web, the more he/she uses those engines. Therefore, we could say that digital oracles increasingly tend to exert more influence over people since more of us are becoming web users over time, and we are becoming more experienced over time.

Avatars
wandering
through
Second Life



The Digital Oracles' Power

The power of an oracle in determining our paths and choices is closely related to the confidence we have in them. In ancient times, the divine power attributed to oracles guaranteed credibility for their answers. On the internet, the belief that we are getting the right answers to our queries is the power that endorses digital oracles. We might add that the power of search engines is amplified by two important factors that did not apply to ancient oracles – availability and ease of use, in other words, convenience. Unlike the ancient oracles, we are just one click away from a digital oracle and its answer is immediate and clear, with no need for the decoding required for the “vague and uncertain expressions, subject to several interpretations” given by the ancient oracles (Abrão, 2000, p. 222).

The role of search engines in our everyday lives (especially Google) has become so strong that in 2006 “google” became a verb in the Merriam-Webster’s Collegiate Dictionary (Lombardi, 2006):

Pronunciation: \ gū-g l\

Function: transitive verb

Inflected Form(s): goo-gled; goo-gling \-g(-)lɪŋ\

Usage: often capitalized

Etymology: Google, trademark for a search engine

Date: 2001

: to use the Google search engine to obtain information about (as a person) on the World Wide Web

Perhaps the recent movie “Meet Dave” (20th Century Fox, 2008) expresses the role Google plays for most people today: extra-terrestrial beings use Google to learn about humans and the Earth, which suggests that one could get any information in the world and answers to all questions by just using Google.

However, despite the unquestionable availability and ease of use provided by the search engines, other features related to the credibility we attribute to them and the power they detain are not always so clear

and transparent for all users. Do we know exactly 'where' engines search for our queries? Are we really getting the best answers from them? To what extent do those answers 'influence' our lives and society as a whole? How is this influence exerted, if it exists? What level of privacy is there while we are 'talking' to such oracles? What about the ethical level? Those are some obvious questions posed by the growing use and popularity of digital oracles grow.

Those questions involve several fields of study and we certainly could not answer them here. However, the intension of this paper is to present some analysis that may help us reflect in the hope of reaching a higher level of awareness of our social and technological context, in which searching is definitely taking on a very important role.

Behind the Oracles

The indexable web is the part of the web that has already been indexed by search engines, and the visible web is the part of the web which is 'visible' for the search engines, i.e., the part that can be indexed. However, considering the web as a whole, there is also the deep web which is much bigger with an estimated 500 billion pages (Bergman, 2001). The deep web or 'invisible' web refers to the contents of databases and other systems the search engines cannot track. Studies show that the indexable web has approximately 11.5 billion pages today. Google indexes 76% of them, and 69% of the visible web, leading the ranking of search engines (Sullivan, 2005). Therefore the digital oracles search only about 2% of the web rather than the web as a whole. This limitation is pershaps not known to all users.

Furthermore, the question involving 'where' answers are obtained – i.e., the database universe searched by digital oracles – goes beyond the size of the web. Search engines can also determine what can be added to their databases or not. The criterion for using this kind of filter may have good intentions, but in any case this is yet another type of power they may have. Cases such the elimination of the German

Digital
Oracles

Digital
Oracles

PERGUNTE:

para

escolha um oráculo

Google
AOL Search
Cade?
eXcite
Ask

buscar

privacidade

BMW website from Google's database (Doria, 2006), or Google's censorship of China (Estadão, 2006), evince these two capabilities of digital oracles – the power of 'erasing' or 'eliminating', in the BMW case; or 'controlling' and 'filtering', in the case of Google in China. These powers may determine who 'lives' or 'dies' in online life, and will certainly tend to have far-reaching consequences in offline society as well as the later increasingly on information provided by search engines.

It is interesting to notice that even a person that is not a search engine user on the web can be affected by them in a society where they exert influence. An example of that is when we are not found on the web. It brings to the surface an important existential issue: If we are not found, or if we are not included in the database, then do we really exist in that society? Probably there are several different currents discussing this theme, but we surely can say that the digital oracles' influence and power can go beyond the realm of the people that use them, reaching the society and external elements to them too.

Another power, maybe the biggest power search engines have, is determined by the habits of their users: they don't read much beyond the first page of results provided as answers for their query, or search. According to (Greenspan, 2002), in 2002 more than half of internet users abandoned their searches after the two first pages of results, and more than three quarters of the users trust search engines. In 2004, iProspect (2004) shows that those numbers tend to remain the same, and 81.7% of internet users rarely read beyond the third page of results. Those users' habits make the first page of results extremely important because to be or not among the Top 10 results in a search may determine the website surviving and success or its failure. Not ranking among the first results listed in a specific search may mean 'not to exist'. We may call this phenomenon as the 'Top 10 dictatorship', and due to that, more and more people and companies strive to discover techniques for search engine positioning optimization in order to apply to their websites in the attempt of putting and keeping them on the top. These techniques are called SEO (Search Engine Optimization) and since no search engine reveals its positioning criteria and rules, these techniques are usually got empirically by logical analysis and trial and error.

Do the SEO techniques work? They surely do. I have been applying them for the past years with success in all websites I am involved with. Several success SEO cases are frequently reported, such as in (Intrapromote, 2005).

At this point, if we realize that people can modify the order of search results and eventually the results themselves presented by the search engines, we could wonder, after all, which is the real level of reliability in the answers we get for our searches. Can everything be manipulated? Not everything, but it is important to be aware that the control of the process is not only on the search engines hands, and that external intentional influences are possible up to certain level.

Focusing a little bit on influences, although each search engine has its own share of specific and loyal public, according to (Compete, 2006), Google detains the largest market share and preference and rules

the actual web with an increasing range of associate products. Each new item launched by Google increases its power and penetration in such a way that recently many have compared it to the almighty Microsoft (Mills, 2005). The concern about Google's dominance and its quick expansion in few years has inspired in 2004 the creation of the movie EPIC 2014, which suggests the media extinction in the future by Google (Sloan, 2004) & (Sloan, 2005).

Going beyond the speculation about the future, actual and legitimate questions about privacy regarding search engines have pulsed on the press. A ZDNet.com article entitled "FAQ: When Google is not your friend" presents a summary of the privacy vulnerabilities regarding the use of searching engines, including Google, and how users' information and search history are collected and can be used even against them (McCullagh, 2006).

Information is power, really. However, in the moment we use search engines to get information that will bring us some kind of power, we are also giving information back to them, and so, giving them power too.

Conclusions

The analysis and questions posed here aim to instigate reflections on the use of mobile technologies and searching in particular as a process determining our choices. In this sense, we believe it is appropriate to compare these engines to ancient oracles.

Of course, the influence the search engines exert over people and societies depends on several factors, including digital inclusion level – of people and societies. However, just as digital inclusion is growing, so is searching.

There is no denying the need for and importance of search engines – without their assistance, our abilities to access and penetrate the web would get very restricted, and thus our power to access all available information and knowledge. We must remember, though, that information transfer among users and oracles is mutual. While we are using search engines, power is growing at both ends – always.

The presence of digital oracles in our lives will tend to grow irreversibly. Their popularization and expansion has been a constant in recent years, comprising even other services and functionalities. However, we are looking at just the tip of the iceberg. There must be constant questionings and reflection as to the size of this iceberg, to what extent it may affect our lives, and where it will tend to drift in our ocean.

New studies and technologies have developed and several have the potential to take up some of questions raised here. This is the case of the new ways of meta-searching or presenting search results, such as those in Kartoo (Kartoo, 2008), Webbrain (Webbrain, 2008) or Llorcs (Llorcs, 2008), which may minimize the impact of the 'top 10 dictatorship'. Semantic search is another new frontier that may

change the scenario.

Despite the speculations and trends we have been pointed to for the future, we hope that ethics will predominate on the web and in the evolution of search engines, and that indexed information reaches the entire universe of information available, and that searches present refined aspects focused on users, as human beings, constantly obtaining better answers. Whether this will be the case, or whether EPIC 2014 will come true depends on the web itself, its users, and its oracles.

Twentieth century scholars and intellectuals used to worry about the influence and power of television and advertising in society. Today, we suggest that we should pay attention to search engines as one of the main influential and powerful factors in the world.

References

- 1 COG. 2005. Don't say 'search engine'-say 'Google'. (<http://www.1cog.com/searchengine-statistics.html>), accessed on jan.10.2006.
- ABRÃO, B. S. & COSCODAI, M. U. (org.). 2000. Dicionário de Mitologia. São Paulo: Ed. Best Seller.
- ANDERSON, C. 2006. The Long Tail: Why the Future of Business is Selling Less of More. US: Hyperion.
- BELOFF, L. 2004. Head. (<http://www.realitydisfunction.org/head/>), accessed on dec.17.2008.
- BERGMAN, M. K. 2001. The Deep Web: Surfacing Hidden Value. (<http://quod.lib.umich.edu/cgi/t/text/text-idx?c=jep;view=text;rgn=main;idno=3336451.0007.104>), accessed on 7.jan.2009.
- BERGMAN, M. K. 2007. The Murky Depths of the 'Deep Web'. (<http://www.mkbergman.com/?p=343>), accessed on dec.9.2008.
- BLAST THEORY. 2001. Can You See Me Now?. (http://www.blasttheory.co.uk/bt/work_cysmn.html), accessed on dec.17.2008.
- BREITBART.COM. 2008. Terrorist 'tweets'? US Army warns of Twitter dangers. (http://www.breitbart.com/article.php?show_article=1&id=081025182242.js2g2op8), accessed on nov.8.2008.
- COMPETE INC. 2006. Compete, Inc. Redefines Search Engine Loyalty In New Report. (http://www.compete.com/news_events/pressRelease.xtp?id=95), accessed on feb.25.2006.
- DORIA, P. 2006. O Poder de apagar a BMW. (http://www.link.estadao.com.br/index.cfm?id_conteudo=6447), accessed on feb.13.2006.
- ESTADÃO. 2006. Google se adapta à censura chinesa. (http://www.link.estadao.com.br/index.cfm?id_conteudo=6286), accessed on feb.1.2006.
- EVANS, J. et al. 2006. Loca: Set To Discoverable. (<http://www.loca-lab.org/>), accessed on oct.28.2008.
- FALLOWS, D., RAINIE, L. & MUDD, G. 2004. Data Memo on Search Engines. (http://www.pewinternet.org/PPF/r/132/report_display.asp), accessed on mar.15.2005.
- FOGG, B. J. 2002. Persuasive Technology: Using Computers to Change What We Think and Do. San Francisco: Morgan Kaufmann. Book also available on-line in Google Books at (http://books.google.com.br/books?id=aSfvNuUJNoUC&dq=fogg+persuasive+technology&printsec=frontcover&source=bn&hl=pt-BR&sa=X&oi=book_result&resnum=4&ct=result#PPP1,M1), accessed on oct.24.2008.
- GABRIEL, M. C. C. (2006). Digital Oracles. (<http://www.digitaloracles.com.br/>), accessed on apr.1.2008.
- GABRIEL, M. C. C. 2007. Locative Painting. (<http://www.locativepainting.com.br/>), accessed on dec.10.2007.
- GABRIEL, M. C. C. 2008. Sensitive Rose. (<http://www.sensitiverose.com/>), accessed on nov.19.2008.
- GOOGLE. 2008. Google Web Search Features. (<http://www.google.com/help/features.html>), accessed on may.5.2008.
- GREENSPAN, R. 2002. Search Engine Usage Ranks High. (http://www.clickz.com/stats/sectors/advertising/article.php/5941_1500821), accessed on aug.10.2005.
- GREENFIELD, A. 2006. Everyware: The Dawning Age of Ubiquitous Computing (Voices That Matter). Indianapolis: New Riders Publishing.
- GULLI, A. & SIGNORINI, A. 2005. The Indexable Web is more than 11.5 billion pages. (<http://www.cs.uiowa.edu/~asignori/web-size/>), accessed on aug.10.2005.
- IDG NOW. 2005. Filme sugere a extinção da mídia pelo Google. (http://idgnow.uol.com.br/AdPortalv5/InternetInterna.aspx?G_UID=75CF1797-33964A97-9316-3F11E174A1FC&ChannelID=2000012), accessed on oct.12.2005.

INTRAPROMOTE. 2005. Search Engine Marketing Case Studies: Intrapromote Client List Success Stories. (<http://www.intrapromote.com/case-studies.html>), accessed on feb.20.2006.

iPROSPECT. 2004. Search Engine Users Attitude. (<http://www.iprospect.com/premiumPDFs/iProspectSurveyComplete.pdf>), accessed on may.02.2005.

iPROSPECT. 2004-1. Search Engine Marketing Ethics – Adhere to the Highest Standards. (http://www.iprospect.com/premiumPDFs/ethics_white_paper.pdf), accessed on may.2.2005.

JACKS, M. 2005. The History of Google – Searching the World. (<http://www.work-at-home-net-guides.com/articles/history-of-google.html>), accessed on dec.10.2005.

KARTOO. 2008. KartOO metamotor de pesquisa. (<http://www.kartoo.com/>), accessed on apr.1.2008.

LLORCS. 2008. Llorcs – an easier way to search the internet. (<http://www.llorcs.com/>), accessed on apr.1.2008.

LOMBARDI, C. 2006. Google joins Xerox as a verb. (http://news.cnet.com/Google-joins-Xerox-as-a-verb/2100-1025_3-6091289.html) accessed on apr.01.2008.

MANEY, K. 2004. Next big thing: The Web as your servant. (http://www.usatoday.com/tech/webguide/internetlife/2004-10-01-cover-web_x.htm), accessed on apr.1.2007.

MARKETING VOX. 2008. Terrorists May Twitter, Army Says. (<http://www.marketingvox.com/terrorists-may-twitter-army-says-041675/>), accessed on oct.28.2008.

MARKETING VOX. 2008-1. 'New Technology' Enabled Terrorists in Mumbai Attacks. (http://www.marketingvox.com/new-technology-enabled-terrorists-in-mumbai-attacks-042360/?utm_campaign=newsletter&utm_source=mv&utm_medium=textlink), accessed on dec.10.2008.

Mc CULLAGH, D. 2006. FAQ: When Google is not your friend. (http://news.zdnet.com/2100-9588_22-6034666.html?tag=nl.e539), accessed on feb.10.2006.

MEDIA AWARENESS NETWORK. 2008. What is Media Literacy?. (http://www.media-awareness.ca/english/teachers/media_literacy/what_is_media_literacy.cfm), accessed on dec.10.2008.

MILLS, E. 2005. Google builds an empire to rival Microsoft. (http://news.zdnet.com/2100-9588_22-5875433.html?tag=nl.e589), accessed on sept.21.2005.

MORVILLE, P. 2005. Ambient Findability: What We Find Changes Who We Become. US: O'Reilly Media, Inc.

O'REILLY. 2005. What is Web 2.0. (<http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20.html>), accessed on nov.25.2006.

RAINIE, L. 2005. Search engine use shoots up in the past year and edges towards email as the primary internet application. (http://www.pewinternet.org/PPF/r/167/report_display.asp), accessed on dec.10.2005.

SCHWARTZ, B. 2005. The Paradox of Choice: Why More is Less. US: Harper Perennial.

SHILOV, A. 2008. Mobile Internet Devices to Surpass Netbooks – Analyst. 200 Million Ultra Mobile Devices to Ship in 2013. (http://www.xbitlabs.com/news/mobile/display/20080924223443_Mobile_Internet_Devices_to_Surpass_Netbooks_Analyst.html), accessed on nov.8.2008.

SLOAN, R. & Matt Thompson. 2004. Epic 2014. (<http://www.robinsloan.com/epic/>), accessed on dec.10.2004.

SLOAN, R. & Matt Thompson. 2005. Epic 2015. (<http://www.albinoblacksheep.com/flash/epic>), accessed on oct.12.2005.

SULLIVAN, D. 2005. New Estimate Puts Web Size at 11.5 Billion Pages & Compares Search Engine Coverage. (<http://blog.searchenginewatch.com/blog/050517-075657>), accessed on aug.10.2005.

WEBBRAIN. 2008. Webbrain – The smartest way to see the web. (<http://www.webbrain.com/>), accessed on apr.1.2008.

WIKIPEDIA. 2008. 3G. (<http://en.wikipedia.org/wiki/3G>), accessed on nov.8.2008.

WIKIPEDIA. 2008-1. RFID. (<http://en.wikipedia.org/wiki/Rfid>), accessed on nov.8.2008.

WIKIPEDIA. 2008-2. LBS. (http://en.wikipedia.org/wiki/Location-based_service), accessed on nov.8.2008.

WORLD WIDE WEB SIZE. 2008. The size of the World Wide Web. (<http://www.worldwidewebsize.com/>), accessed on jan.7.2008.

YAHOO!. 2005. The History of Yahoo!. (<http://docs.yahoo.com/info/misc/history.html>), accessed on jul.10.2005.

Glossary

ADSL (Asymmetric Digital Subscriber Line) - technology that enables rapid transfer of digital information through regular telephone cables.

ISDN (integrated services digital network) - standard for digital telephone lines which allows high-speed data transfer.

3G is the third generation of tele standards and technology for mobile networking, including services like: wide-area wireless voice telephony, video calls, and broadband wireless data, all in a mobile environment (Wikipedia, 2008).

GPS - Global Positioning System. Technology that allows locating the geographical coordinates of a device that uses it.

RFID – Radio Frequency Identification Tag. An RFID tag is an object that can be applied to or incorporated into a product, animal, or person for the purpose of identification and tracking using radio waves. (Wikipedia, 2008-1).

QR Codes – Quick Response Codes, are two-dimensional bar codes that can be decoded while scanned by mobile devices.



the hybronaut, an early protonaut
of the future - on wearable
technology as cultural artifacts

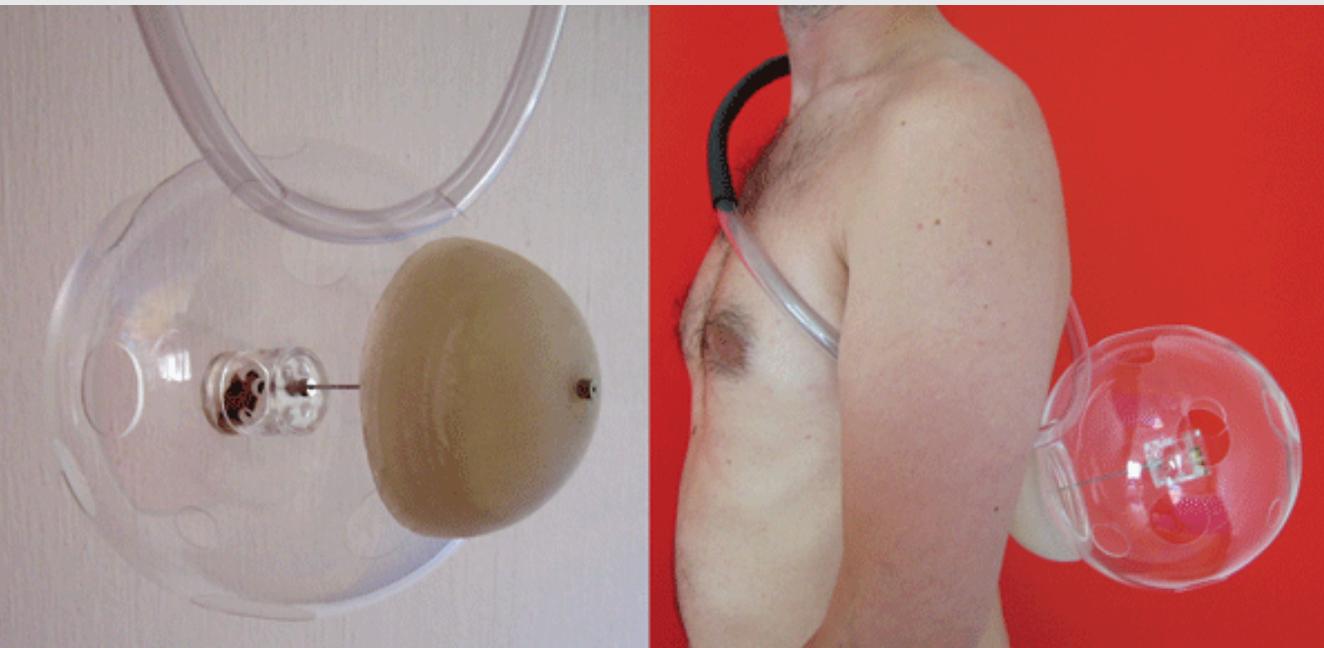
by laura beloff [2046]

During the late 20th century and the first decades of the 21st century in the Western world, communication technologies changed fairly rapidly. This change brought about conversions from fixed place telecommunication technologies, such as fixed phone lines, to mobile telecommunication technologies that were based on a combination of wireless cellular networks and traditional phone lines, and later on satellite systems.

Throughout the several preceding decades numerous technical developments were innovated which decreased the size of electronic components. These developments impacted the appearance of various other mobile technologies in addition to mobile phones and PDAs. For example, impacted were portable battery-operated radios and televisions, various mobile audio-players with storage capacity, GPS devices that hooked up to satellites in transmitting geographical position data, and portable small-size computers.

Further, the expansion of the so-called small footprint technologies caused an intense period of research and development into wearable technologies. Small gadgets that were earlier portable gradually disappeared into clothing or were designed to become discreet parts of clothing and/or ergonomically attached to the body.

These kinds of wearable technologies were used in many workplaces, especially when remote network access was necessary. Correspondingly, among the techno-believers and techno-supporters at that time, it was fashionable to wear small jewelry-like gadgets or garments embedded within technological components, such as LED-matrixes or toy-like applications, which commonly had only single functional designs.



The Head: Laura Beloff's work explores the potential of wearable computing

From the commercial sector, the military and the health industry were the main proponents of the wearable technology development during this time frame, resulting in a wide variety of health-monitoring systems and support for healing processes worn on the skin, as well as various military applications that primarily focused on data transmissions between the command centers and remote foot-soldiers.

In short, one could say that the majority of wearable applications and devices developed from the 1990s through to the 2020s were intended to be either functional or fashionable, and in many cases they aimed at being both. The apparent attitude toward technology reveals the expectation that technology needed to be useful and provide a service, and in many instances to be fully integrated in the everyday life (wearable) with a fashionable appearance or design.

However, a thorough investigation of the field during the latter part of the 20th and the first part of the 21st centuries reveals that there also appeared distinguishable approaches to wearable technologies that would not quite fit into the above mentioned two categories.

These additional works, or projects, were often categorized under the umbrella of 'art' with few occasional exceptions, and they seemed to have emerged primarily as cultural rather than as functional artifacts. These artistic wearables were not mere software programs developed for existing commercial devices, neither were they aiming at further development of the devices nor their functionality. Rather, they seemed to comment on or even ironize society's desires and projections about the nature of technology itself. These works were often cumbersome. For example, they were strongly visual, large in their size, and could possibly have been quite uncomfortable for a long-term use.

It is hardly possible to claim that these kinds of artistic wearables, which clearly were not following a supposed requirement to become more fashionable, nor supporting the presumed claim about disappearance of technology, would have had anything to do with the fashion.



Tunnel between Helsinki and Tokyo, created by Laura Beloff and Japanese design students



**Seven-league boots :
cybernetic revisiting common
practices in fairy tales is one
aspect of Belloff's work**

Art-historian Anne Hollander (1975) claimed the following about what we wear: "(d)ress is a form of visual art, with visible self as its medium. ... Dressing is always picture making, with reference to actual pictures that indicate how the clothes are to be perceived." According to Hollander, clothes make not the man but the image of man.

If one considers fashion and garments on a body with a tradition of visual culture based on a picture creation, then it seems that these artistic wearables created during the first decade of this century were using a similar type of method by following the traditions of visual arts and picture making. In spite of that, most of the wearable technologies at the time were scrutinized and valued for the functionalities that they offered rather than other messages they possibly conveyed.

Fashion as picture making, as claimed by Hollander, is based on an argument that we in the Western world dress according to images that surround us. Fashion is creating an image of the clothes with the body derived from other images surrounding us, images from photography, cinema, advertisements, visual arts and culture in general. According to Hollander, fashion has often imitated or followed images already in existence, for example, styles used by movie stars on screen. The changes in the visual culture affect fashion, as well as vice versa.

One could claim that the practice of designing artistic wearables can be seen as an aspect of picture making within visual culture. But in contrast to the tendency of imitating existing images, like Hollander argues about fashion, these artistic wearables were actually producing novel images. They did not follow the tradition of representation in the visual arts; rather, they presented the public with new vital and live imagery that was aimed at pointing out issues (i.e., comments and/or irony) relating to emerging technologies.

If one analyses these artistic



Remote eye: in *The Head*, pictures triggered by SMS document the path of the object through physical space

wearables within the arts, one can trace a trajectory of works from history forward, which seem to follow a similar line and which apparently have been ignored by the academic research, as Susan Ryan noted in 2008. According to Ryan “serious art in the form of clothes, presented on the body (as opposed to on a wall, for example), emerged in the 1950s and 1960s alongside the art world’s interest in body (body art) and also in time-based art forms, like performance and video.

Artists such as Atsuko Tanaka (*Electric Dress*, 1959) created wearable works that could be worn or “hung.” Technological wearable works such as the above-mentioned Japanese artist Tanaka’s *Electric Dress*, or works by Austrian artist Walter Pichler for example, “*The Small Room and TV-Helmet*” (*Portable Living Room*) from 1967, can only be understood as cultural products with no apparent or purposeful function. Pichler has said that these two works were meant to be cynical and critically humorous, as they addressed the thematic of television and isolation cells, revealing the isolation in a very overdrawn way.

During the late 1960’s Pichler used the term “*Prototype*” to describe his works. The term, according to Pichler suggests a kind of “lab work, a vision, free research or something from which something could later emerge.” Pichler and Tanaka are just two examples among several others that have addressed the body and wearability, and some of them additionally addressed technology.

Many of the wearable projects from the early years of 21st century were generally considered as conceptual and/or technical prototypes. The designers were concentrated on testing and inventing new materials and solutions for implementing the hard electronic parts into soft materials.

Considerable effort was invested in developing reactive surfaces or alternative displays on garments, which could then be fed by data. While (textile/fashion) designers were primarily working with physical materials and physical computing, the wearable computing field was focused on augmenting reality with digital data through the use of various wearable or mobile devices. Large parts of all the projects were produced as prototypes for various practical solutions.

In contrast, the artistic wearables during this time could be seen as prototypes of a different kind. One could say that they were constructed as conceptual prototypes, which were critically investigating the



Electric Dress, by Atsuko Tanaka

meaning of wearable and mobile technologies. The works were often ironic and rejected purposeful functional approaches; they were “something from which something could later emerge” as Pichler had stated few decades before.

Today in 2043 it has become evident that the (human) body is now achieving a state in which all the rest of the desired physical, cognitive, emotional and visual functions can be embedded under the body’s skin. In hindsight, the previously developed wearable technologies that had once focused on functionality as a primary concern, and which were considered necessary at the time, were clearly a temporary phase and is now more or less obsolete.

However, the artistic wearables from that time frame, which originally did not serve any clearly specified functions seem to now —currently— present us with an intimate perspectives that express the attitudes, fears and desires towards technology of the time. Looking back, these works were not concerned with the idea of improving the human body, but rather they were investigating technology, mobility and wearability as a cultural phenomenon in the society. Many of the works seemed to test out, the current (at the time) possibilities of technologies and their impact on the society and everyday living. Historically, these works naturally differ considerably from what we understand today as artistic or cultural wearables.

My own artistic works, of which many took on an artistic wearable form during the first decade of the 21st century, were primarily focused on investigating few aspects about technology, art and everyday life, hybrid space being one of them, and wearable as an artistic and cultural artifact was another. The topic for several of my works was focused on the idea of actually wearing a space.

The beginning of the 21st century was still a time when the physical space and the virtual space were primarily considered, or at least treated, as separate. My interests evolved around ideas to investigate ways to exist in the continuously connected space differently from what the commercial sector offered, which was based on offering useful functions mainly through the use of telecommunication technologies. I was very interested in a concept of the user walking around with a kind of a porthole, or an entrance point, to the virtual space. This made the user exist in the threshold of the two spaces in the hybrid space. At the time I considered the idea of

continuous hybrid space as left unnoticed due to the restrictions in the possibilities of its use and the existing functional expectations towards technology.

During those years of working with wearable technologies, I developed a concept of the “Hybronaut”. The Hybronaut evolved from the need to have a term, which contains the user and the wearable equipment as a single entity instead of considering them separately. As the name indicates, the Hybronaut is a space traveler roaming in hybrid space and developing alternative ways to use, perceive, and exist in the hybrid space.

My artistic works took a form of quite peculiar-looking wearable devices that were (in the most cases) networked and open for public access via mobile phones or Internet. When a user put on the wearable device s/he became the Hybronaut who was presence simultaneously in a physical environment and also in a virtual space. This “shared presence” and “heightened awareness” about the constant connectedness were emphasized in the Hybronaut works. The elements of shared presence and heightened awareness were the “functional” or technical focus in the works, which were not merely aimed at for the users but also intentionally designed in pointing out

**Hybronaut: being of body
and knobs transforms
man into flesh and
cables cyborg**



these issues to the general public. These experiences were achieved through the peculiar shared visibility, which raised curiosity and fostered interaction between the (temporary) user and the general public. In one sense one could say that the Hybronaut was a user turned into a performer who was pointing out to the public his/her private investigations concerning the shifting notions of space, presence, the real and the virtual.

All these concepts were becoming very concrete and obvious with the wearable technologies, although in hindsight, the main stream of the development during the 21st century continued being focused on functional approaches, and paid hardly any attention to wearables as cultural artifacts, which was specifically my interest in them. Standing part from this and offering new directions in theory and practice, the original concept known as The Hybronaut was (and continues to be) presented as a kind of a protonaut of the future who was prototyping the artistic and conceptual approaches to wearables and to hybrid space.



Personal Digital Assistant

General Positioning System

This claim was put forth and supported, for example, in texts by Steve Mann, and Sabine Seymore.

WEISER, M. & BROWN, J. S. (1996) *The Coming Age of Calm Technology*. Xerox PARC.

Mark Weiser predicted that technology will gradually become invisible and disappear into environment and clothing.

HOLLANDER, A. (1975) *Seeing Through Clothes*, New York, Avon Books.

RYAN, S. E. (2008) *What is Wearable Technology Art?* IN RYAN, S. & LICHTY, P. (Eds.)

Intelligent Agent 8.1

BREITWIESER, S. (1998) *A conversation with Walter Pichler*. IN BREITWIESER, S.

(Ed.) *Prototypen/Prototypes 1966-69* PICHLER. Vienna, Generali Foundation.

For example artists like: Alfons Schilling, Rebecca Horn, Krzysztof Wodiczko, Stelarc, Lucy Orta, etc.

BELOFF, L. (2035) *Early Wearable Art In Retrospective*, The 27th Consciousness Reframed

conference Proceedings. Pyongyang.

Hybrid space is a concept, which was defined among others by Adriana de Souza e Silva. At the time I was very keen on her definition, which stated that physical and digital spaces merge into hybrid space via their simultaneous social use.

DE SOUZA E SILVA, A. (2006) *From Cyber to Hybrid: Mobile Technologies as Interfaces of Hybrid Spaces*. Space and Culture, Sage Publications.

For an average user it was possible to access the virtual only via functional devices and tasks, such as mobile phone calls, Internet access via mobile phones, or other portable devices. The hybrid space existed for that moment of executing the task, the other time it was not noticed, although it was continuously available. Towards the end of the first decade various social software applications became very popular, also in mobile devices. This developed further the idea about hybrid space as continuous space, nevertheless the tasks were still mainly purposeful and functional and accessed via typical commercial mobile device.



for a critical use of the
distributed and open potencial of mobile
communication systems

by lucas bambozzi
and rodrigo minelli

*“Every form of art must become science and every science must become a form of art.
Handwritten note found amongst Hegel’s notes (1795).
unknown author.*

Hegel’s aesthetics proposes a vision of art as a sort of “symptom” of society. In this sense, art or works of art, appear disconnected from history and make their own development visible. In this sense, we can say that art is a manifestation of culture, of the world view, the manner through which men conceive being in the world and provide the “spirit with self-consciousness”.

To understand art nowadays, it’s necessary to have in mind a process in which the convergence between means of communication and artistic practice plays a fundamental role; art made with current technical instruments, proposing a reflection on the world that forms and involves us and the responsibilities of its construction, supposedly collective.

If on one hand distributing information becomes more complex, on the other hand technologies developed for this purpose open countless expressive and communication possibilities. The transformations occurred as a result of digital means have affected the most visible layers of the cultural production. And surely one of the most noticeable fields is the audiovisual production. From digital cinema to video and homemade photos, the procedures of this type of production change in a way we could not conceive a few years ago.

It’s not only about a simple change of means and manners of doing things. We have to observe the subtle or unsubtle consequences of changing thought and the fruition of languages involved in new forms of expression. Having said that, it’s important to draw attention to the need to understand audiovisual practices as a whole, as possibilities of the artistic expression today, inserted in the reality and context of a “machinic imaginary”, represented, diffused and permeated by all kinds of machines and devices present in our daily lives.

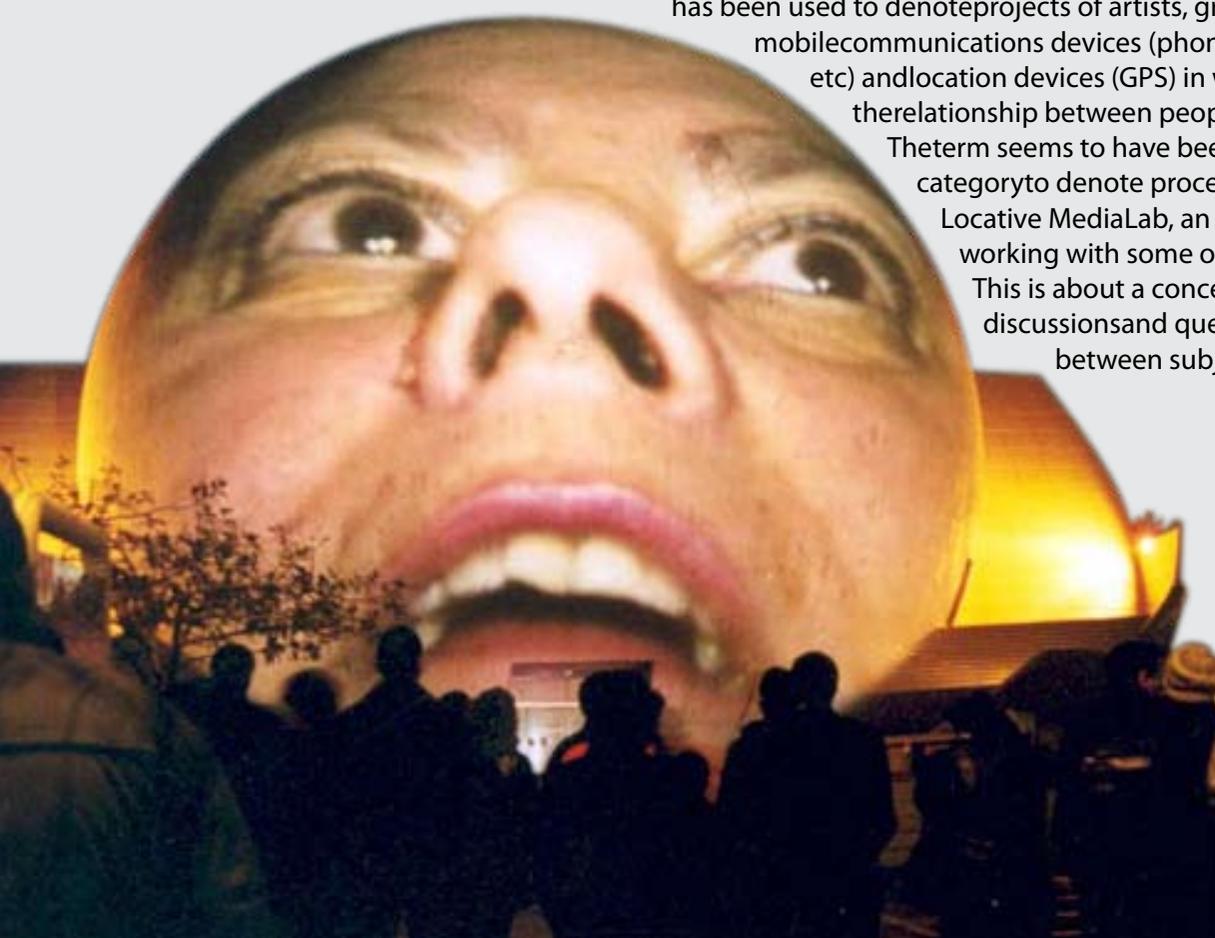
When, in a few years’ time, we look at last century’s as well as the early years of the twenty-first century’s audiovisual productions, we might not recognize any similarity with what we are experimenting in terms of production and fruition of works of this nature. Probably the formats and genres known today, as well as the means and media used for distribution today, will be no more than works of historical and cultural interest.

Dead media, obsolete techniques, lost thoughts, “things of the past”. The inevitability of technological advances that promote a previously not seen mobility shakes skepticisms and empties questioning about the potentialities of cell phones as cinematic tools or vehicles for artistic expression. In fact, practices, subsidized or spontaneous, have shown us that there is a world of possibilities yet to be explored –sometimes even disappointingly.

But the question remains unanswered: how can these basically individual and small devices be used for more collective collaboration practices? The answers must come from the works themselves, from individuals or groups that use these hybrid, globalizing and wireless (and somewhat speedy) networks for the proposition of questions related to sensitivity and expressiveness.

The functioning of networked “locative” systems has been pointed out as one of the most interesting aspects of mobile technologies. Establishing networks is seen as a solution to the sharing of activities and encounters as a replacement for typically urban, time-consuming and energy-consuming spaces. They are a model of a supposedly protected environment (not to say “controlled”), where quasi-utopian ideals of sharing, productivity and accessibility to information expand. These mediated relationships are among the most visible layers of networks and can be both fertile and exploratory, depending on the hands and minds that operate them.

In this context, some concepts arise: location-based systems, “Locative Media” – a term that has been used to denote projects of artists, groups or activists that use mobile communications devices (phones, laptops, palmtops, etc) and location devices (GPS) in works that seek to explore the relationship between people and the space where they live. The term seems to have been coined by Karlis Kalnins as a category to denote processes and works originated at the Locative Media Lab, an international network of people working with some of the technologies mentioned. This is about a concept that seeks to encompass the discussions and questions that arise about the relationship between subjectivity, consciousness of location





Merzbau 1 - Kurt Schwitters

and the construction of culture. In a context that seeks to explore new and old communication models, the formation of communities and the exchange of experiences; it is a name for the ambiguous and ubiquitous form of technological infrastructure that rapidly develops.

As a result, many people quickly want to associate the examples of locative media with a series of high-tech experiences that would include the concept of augmented reality (the overlapping between reality and virtual reality), the concepts of “ubiquitous computing” (everywhere) and “pervasive computing” (equipment integrated and immersed in society). These systems appear in the form of urban games, space-based narratives, performance and network sharing as well as device-specific applications.

However, it's worth remembering that the arts that use spatial relations have a long and rich history – like Kurt Schwitters' transfigured apartments and his Merzbau, Frederick Kiesler's environmental sculptures, Robert Smithson's geographical interventions and even Gordon Matta-Clark's architectural deconstructions – the supposed novelty of projects based on specific locations (behind the locative media idea) seems to be expressed in the way they perceive the concept of media with a view to including people themselves as well as space and its constitutive elements (streets, buildings, antennas, roofs, trees, posts, etc), besides intrinsic geopolitical elements.

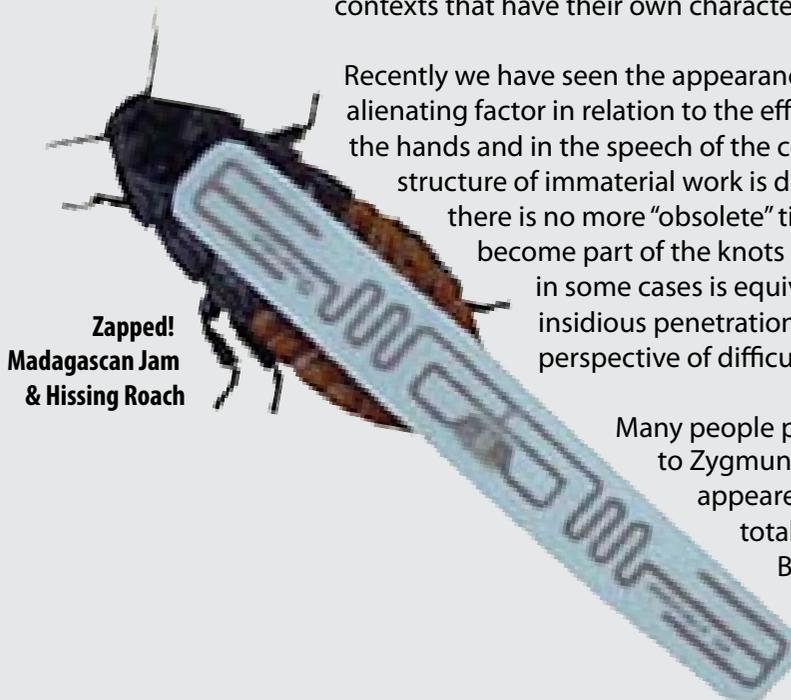
In a more recent context associated with public places or specific locations we would mention Krzysztof Wodiczko's Homeless Vehicle (New York, 1988) or giant scale projections planned for large urban centers; Rafael Lozano-Hemmer's Body Movies (2001-2006) or Under Scan (2005-2006), respectively developed for facades of large buildings and public squares; and a more radical approach involving more recent mobile systems, Antoni Abad's Canales, potentialized channels of communities via cell phone (2003-2007); Preemptive Media's project Zapped! Madagascan Jam & Hissing Roach, conceived as a way of equipping cockroaches with RFID (Radio-Frequency Identification) tags with the purpose of causing jamming in stocks of chain stores like Wal Mart. Each one of these projects focuses on a specific context, extracting from certain conflicts their essential drive, offering evidence of political and strategic geographies immersed in the cities. In this sense, it may be more interesting to notice how the locative media concept is also related to the new dimensionality of the site-specific idea that introduces “site” as a space for immaterial possibilities but points to effective spaces.

The locative site-specific idea would therefore update a “context-specific” vision, like the use of technology to serve as an “interface” for non-technological contexts. This interface would bridge gaps and failures and would not serve as a separating instance. It’s a point of view that allows us to think of some devices in a less demoniac or fetishistic way; as a system that penetrates (in a transparent way) into real situations, producing connections in the public and social environment, allowing the critical flow of questions that permeate a specific context. This kind of “interface” would allow forms of consciousness to come to the surface, serving as an instrument of the public/user in a way to integrate them into the urban space – in a more optimistic concept. Not being the content, it’s a proposal of minimum mediation and of elimination of obstacles. They would function, from Julio Plaza’s point of view, as models of interstitial vehicles, “shared boundaries”. The subtle aspect of this definition would be exemplified by a trivial question: does using an iPod/MP3 player while wandering through the city connect or disconnect citizens from the reality around them? Does it empower or soothe the perception of surrounding realities?

The locative concept that ultimately interests us is not a slogan like anywhere, everywhere, anytime. Ultimately, locative here has nothing to do with “this” or “that” specific technology, but with the organization of elements at play in a work in relation to locations and strategies which are specific. Which context do these elements point to in terms of mobility, transit, impermanence, “time & space shifts”? What is expected of an art with the possibility of functioning in a network? What has this network generated? What really matters in this concept is the fact that it encompasses confrontations with contexts that have their own characteristics, including real spaces and their conflicts.

Recently we have seen the appearance of a critical thought that points out networks as one more alienating factor in relation to the effective participation in the construction of public life. Once in the hands and in the speech of the corporations that technically make them feasible, an exploratory structure of immaterial work is devised, many times beyond all boundaries. Life is continuous work, there is no more “obsolete” time for reflection or working off-line. The typical network user has become part of the knots and decision points that constitute a company’s strategies, which in some cases is equivalent to a full-time collaborator or in a constant state of alert. The insidious penetration of the Internet into all the interstices of our lives constitutes a perspective of difficult acceptance.

Many people perceive our current society as a dystopia (specially according to Zygmunt Bauman’s point of view in *City of Fears*, *City of Hopes*) that appeared in the place of a model anchored somewhere between the totalitarian regimes of George Orwell’s *1984* and Aldous Huxley’s *Brave New World*. This new dystopia is configured in a world of flows where social and collective action networks are irreversibly disintegrated as a side effect of the growth of a type of evasive



Zapped!
Madagascan Jam
& Hissing Roach

and tricky power. The potentially distributive and open character of wireless communication systems, for instance, has not been confirmed as expected from a more critical viewpoint. The course of history took an opposite direction from that of Bertold Brecht's expectation for example, having in mind that radio and television broadcasting have become consolidated not from many to many but from a few to many. There's nothing left to do but wait and see where these conflicts are heading.

No, we'd better understand them in the light of current uneasiness and make them more transparent, more permeable to experimentation, possible subversions of meaning and new uses. Questioning and experimenting with new forms, unpredicted uses for these technologies that insist on turning us into "spies of ourselves and of one another", not only producing more (art) media, but doing it critically. Once more, always, maybe.

Body Movies



The image features a large digital screen on the right side, displaying a close-up of a person's face with reddish-brown hair and a serious expression. The screen is set against a background of ornate, classical stone architecture, including a column with intricate carvings and a relief sculpture of a figure in a niche on the left. The overall lighting is dim, with a blueish tint, suggesting an indoor or nighttime urban setting.

urban screens: the urban potential of public screens interaction

by mirjam struppek

The Redefinition of a Growing Infrastructure

Public space is the city's medium for communication with itself, with the new and unknown, with the history and with the contradictions and conflicts that arise from all those. Public space is urban planning's moderator in a city of free players. (1)

Prof. Wolfgang Christ(2000)

Within a time frame of about ten years, experimental (interactive) media installations and performances have gained recognition as new art forms in public space. Artworks explore the interconnectedness of public space, interaction, and new media. Urban Screens investigates how the growing infrastructure of dynamic digital displays in urban space, currently dominated by commercial forces, can be utilized in this context and broadened with cultural content. The research project wants to network and sensitize engaged parties for possibilities of using the digital infrastructure for contributing to a lively urban society. The integration of current information technologies supports the development of a new digital layer of the city in a fusion of material and immaterial space, redefining the function of this growing infrastructure. Interactivity and participation will bind the screens to the communal context of the space and thereby create local identity and engagement. How can the growing digital display infrastructure appearing in the modern urban landscape contribute to this idea of a public space as moderator and as communication medium? The mobilization of digital technology and a growing digital culture have changed the urban communication environment. In the context of the rapidly evolving commercial information sphere of our cities, various new digital display technologies are being introduced into the urban landscape: daylight compatible LED billboards, plasma screens exposed in shop windows, beamboards, information displays in public transport systems, electronic city information terminals, holographic screen projections, or dynamic and intelligent surfaces, integrated into architectural facade structures.



Allianz Arena, Munich

As McQuire has put it, “The migration of electronic screens into the external cityscape has become one of the most visible tendencies of contemporary urbanism.” (2) Considering this already existing digital infrastructure, it is a great challenge to broaden the use of these “moving billboards,” as Lev Manovich calls them in his vision of an Augmented Space (3), instead of flooding urban space with new techno-objects.

So far one of the main targets of this infrastructure is to manage and control consumer behavior. We are not far away from the implementation of technology that makes it possible to cover buildings with large flexible planes of moving images, networked and controlled from one central location but making use of site-specifically collected consumer data. Display systems already start to detect our behavior and adjust to our consumer preferences.

Paul Virillio sees the new, developing “pervasive architecture-style” of screens covering high-rise-facades as “Electronic Gothic.” (4) He refers to the narratives of Gothic church windows, which were aimed at effecting people’s moral behavior. Immersion and its effects on the audience will also be increased by the “perfect” incorporation of screens in the architecture of the urban landscape. interactivecity.struppek. urbanscreens.

How can the use of these screens controlled by market forces be broadened and culturally curated? Initiatives such as Locomotion, Going Underground, Strictly Public, Outvideo, the 59th Minute and Transmedia :29:59 (5) are pioneering in their use of commercial outdoor displays for screenings of video art.

New balanced alliances are needed that challenge city authorities and regulators, architects, advertisers and broadcasters, as well as cultural curators, artists, and the citizen as producer – joint cooperations to shape the future development of the “screen world” in a sustainable manner, considering the danger of visual and technological pollution of urban space.

The range of screens in urban public space

Urban Screens are defined as various kinds of dynamic digital displays in urban space that are used in consideration of a well balanced, sustainable urban society – screens that support the idea of public space as space for creation and exchange of culture, or the formation of a public sphere through criticism and reflection. Their digital and networked nature makes these screening

Lisbon, Macao





platforms an experimental visualization zone on the threshold of virtual and urban public space.

The Broader Context of Urban Screens Urban public space – understood as open, civic space – is a key element in the development of European urbanism. In this role as space for representation, culture, and encounter through trade, exchange and discussion, urban areas have always been a place that is rendered alive through various interactions.

Referring back to the old concept of the Greek Agora, urban public space is a unique arena for exchange of rituals and communication. A constant process of renewal and negotiation challenges the development of urban society. The architectural dimension of urban space has played an important role in providing a stage for these interactions.

Moreover, the architecture itself functions as a medium, telling narratives about the city, its people, and the represented structure of society. Its inhabitants can read the reoccurring social interactions and the way the space is populated in a participatory process. The whole urban structure is becoming the crystallization of the city's memory over time. Yet, the vanishing role of public space as place for social and symbolic confrontation and discourse has been much discussed in urban sociology over the last century. Sennett, Häussermann, and Bott, in particular, have pointed out how, since modernization, individualization and a growing independence from place and time seem to have destroyed the old rhythms of the city and therefore its social systems. We currently face a transitional period of the restructuring of social networks and discover new relations among people and places in a globalized world that is threatened by diffuse and complex fears of instability and lack of strong local roots. This situation has resulted in various experiments with new types of relations, supported by developing new media tools.

In its early stages, the Internet was discovered as new, alternative public sphere. The rediscovery of a civic society is tied to the inherent structure of the Internet, which is strongly based on cooperative exchange and shared engagement through the openness of systems. The population of virtual spaces – virtual cities with their chat rooms, MUDs, and experimental spaces

for creating alternative identities – has been continuously growing. Now we are looking at various experiments with community in the growing field of social computing – peer-to-peer networks, friend-of-a-friend communities such as Orkut or Friendster, and, more recently, mobile communities connecting mobile phone users. We also find participatory experiments in content creation within the mailinglist culture and wiki and blogging systems, serving an increased need for self-expression. Now these explorations of virtual worlds have merged with the rediscovery of urban public space, the recent popularity of locative media being one indicator of this development.

In parallel, an “event culture” has evolved in the real urban space. Guy Debord already foresaw “the society of the spectacle” in 1967, and his critique of a society “in which the individuals consume a world fabricated by others rather than producing one of their own, organized around the consumption of images, commodities, and staged events” (6) should be taken seriously.

In the growing international competition among cities, the focus often is on tourism or the citizen as consumer. City marketing and urban management strategies are applied to create a vision of “creative cities” that are in fact not necessarily supporting the inhabitants’ creative use of the city or their creative contribution to a lively urban culture. Cities are engaged in a struggle with a “feeling of placelessness” caused by the spread of international architecture and branded shops. In fact, screens also tend to look the same everywhere, so intelligent agent 06.02 interactivecity.struppek.urbanscreens.02there is a need to consider the locality as well as site-specificity of the content in order to prevent further disconnection of the perception of our urban space from the actual locality.

Flare
Kinetic Membrane
Facade



In order to maintain the social sustainability of our cities, it is important to take a closer look at the livability and use of urban public space and the rediscovery of a civic society. The information platform www.interactionfield.de gives an overview of numerous interactive media projects, assessing their potential for urban society in terms of: Promoting interaction, fearless confrontation and contact with strangers

Promoting formation of public sphere by criticism, reflection on society Promoting social interaction and integration in the local neighborhood Supporting understanding of the current development of our high-tech society Supporting conscious participation in the creation of public space (7)

Urban Screens can be understood in the context of a reinvention of the public sphere and the urban character of cities, based on a well-balanced mix of functions and the idea of the inhabitant as active citizen instead of properly behaving consumer. Virtual spaces alone cannot function as spaces for exchange and production of identity.

The Character of Urban Screens

In connection with the ephemeral yet open character of the digital information world, Urban Screens asks for a new urban language with its own dynamic signs and symbols, formed through active participation from various players. New interactive technologies and networked media offer more possibilities for the visual programming of these digital surfaces through the interplay of new display technologies, broadcasting tools, database and content management systems, and sensor technology. Linda Wallace sees "the internet as a delivery mechanism to inhabit and or change actual urban spaces." (8)

Daisy World Media Facade



Through the the Internet and other digital networks, digital content has become more fluid, being, at least in theory, available anytime, anywhere, produced for the audience of the new global village.

Could large outdoor displays function as experimental "visualization zones" of a fusion of virtual public spaces and our real world? Can we localize the huge flows of information through these screens, and can these zones in fact play a more active role, more active than just providing the canvas on which the digital world is rendered? What characterizes Urban Screens is a connection to the locality of the static nature of the new screening infrastructure.

In contrast to the mobile screens integrated in phones, PDAs, laptops etc., which display content for an individual, Urban Screens focuses on the public urban audience, on joint and

widespread reception of media content. The growing embeddedness in screen systems, accessibility of information via Internet, mobile devices, etc. augments the respective urban space's "situatedness." Levels of locality and globality vary, ranging from the local neighborhood screens with symbols and signs on a city level to trans-urban networks of screens enabling new "glocal" interconnectivity.

Visions of New Content and Use

The first steps in broadening the commercial advertisement content of large digital outdoor screens focused on the transfer and slight adjustment of TV features to the new circumstances of public viewing. Soon we might have TV broadcast stations specialized in urban public space and its local community.

The experiments done by BBC in collaboration with Philips and local City Councils in various cities in the UK could be considered a forerunner to these TV broadcast stations. They coordinated outdoor movie-screenings, the collective watching of soccer-games, and special City-TV news channels. (Fig. 3) Preferably set up in key locations, in a setting for a wider audience, these screenings in memorable places could support identification with local culture through joint experiences. A local memory could indeed develop, if the screens were used as a means for maintaining and supporting a rich and complex local culture.

There has been a growing interest in connecting screening infrastructure with cultural institutions that preserve and produce digital content or video art. Cultural centers and institutions such as the Schaulager in Basel and Austria's Kunsthaus Graz have started, in a more experimental style, to officially integrate screens in their architectural facades, so that they function as an extension of their archives into public space.

The Australian intelligent Centre for the Moving Image uses the nearby public screen in Federation Square, Melbourne. The Creative Industries Precinct (Australia's first site dedicated to creative experimentation and commercial development in the creative industries, located on the western fringe of Brisbane's Central Business District) integrated three screens in its complex of buildings to address different audiences. One of the screens will be used to support the development of a new

Concrete Lochblech Led



local community in the vicinity. The above mentioned BBC project of Public Space Broadcasting on community screens collaborates extensively with local art institutions.

The orientation of the three screens at the Creative Industries Precinct, sketch by Peter Lavery. A new audience can be reached on their daily routes by bringing content into outdoor public space. Connecting Urban Screens amongst each other could enable new mechanisms for creating and maintaining relationships between cross-cultural organizations and their audiences. Connected screens could also serve as exchange platform between the inhabitants of various cities.

A repeatedly suggested idea for using these screens is to enhance the connectivity of remote communities through shared visual displays that utilize videoconferencing. These connections between remote spaces reflect the relativity of the terms “close” and “remote” in a globalized world and an increasingly transnational lifestyle. Hole In Space(1980), one of the early projects of this kind connected the people walking past the Lincoln Center for the Performing Arts in New York City with people in the Broadway department store in Century City (LA) through life-sized television images. The project Hole in the Earth(2003-2004) linked the audience in Rotterdam with people in Indonesia on the other side of the world through screens, camera, and microphones in an installation resembling a well. (Fig. 5)

In Russia, China, USA, and South America large networks are currently developing on a city as well as national level. Screens become a key element in the government, regional, and urban informational infrastructure. Figure 5. Opening of the installation Hole in the Earth by Maki Ueda, Rotterdam, December 2003. structure due to their ability to easily convey and spread content in local spaces.

The appeal of a local environment obviously is a highly subjective matter, but a sophisticated social interaction and information network in a local neighborhood could play an important role in the perception of locality, supporting a feeling of security. By connecting large outdoor screens with

**Galleria Department
Store, Seoul**



experiments in online worlds, the culture of collaborative content production and networking could be brought to a wider audience and serve as an inspiration.

Interactive screens integrated into urban furniture similar to a blackboard for comments, stories, conversations, could also help to circulate and access data, serving and strengthening the local community and its small-scale economy.

In 1997, Philips already was involved in a large research project called LIME(Living Memory), which integrated a local exchange platform into café tables and other urban furniture. Following this early example, various projects aimed at further developing the idea of interactive community boards and supporting the information exchange in a local community are currently being produced. (9)

**Dexia Tower,
Bruxelas**

In an attempt to address issues of fear in urban spaces, Rude Architecture implemented a network of Chat Stops equipped with interactive video technology, enabling communication between people waiting at different bus stops. If they desired, people could start a “video conference” with others waiting somewhere else. By means of communication with other inhabitants, the boredom of waiting could be alleviated through conversations, and subjective feelings of safety could potentially be increased. The project applies video communication instead of video surveillance – voluntarily and transparent, but at the same time entertaining.

The mobile phone can also be utilized as information transmitter. Various artists have rediscovered the idea of the urban dialogue in the form of speaker’s corners and intelligent agent 06.02 interactivecity.struppek.urbanscreens.05have been experimenting with the use of SMS for public expression. The project Storyboard by Steffan Caddick used a mobile Variable Message Sign situated in public space to display submitted SMS text. Will the next step be to connect the “blogosphere” to Urban Screens? What strategies will prevent misuse and encourage high-quality submissions?

Involving an urban audience in experiments requiring participatory planning and making use of the participatory tools of new media is a great challenge. Screens in public spaces could function as mediation board between the community and the local planning department and serve as a public display for the exchange of ideas.

Jeanne van Heeswijk’s project Face Your World– which took place in Columbus, Ohio, in 2002 – gave children on a bus access to a multi-user computer game allowing them to redesigning their communities as they envisioned them. (Fig. 6) At three bus stops, the creations were displayed on special screen sculptures presenting the results of the game to the urban community.





**Bix Media Facade,
Kunstauss Graz, Austria**

As van Heeswijk put it, "It's about the way people look at the space around them. With everything being privatized now, people don't view the community as their own any more." (10) In this case, digital media were utilized as interaction catalysts for the participation and engagement of young people in a local community.

Conclusion

Content needs to be coordinated with new visions of how, when, and in what specific locations screens can be integrated in the urban landscape and its architecture. The balance between content, location, and type of screen determines the success of the interaction with the audience and prevents noise and visual pollution. Furthermore, we need to understand how the growing infrastructure of digital displays influences the perception of our public spaces' visual sphere.

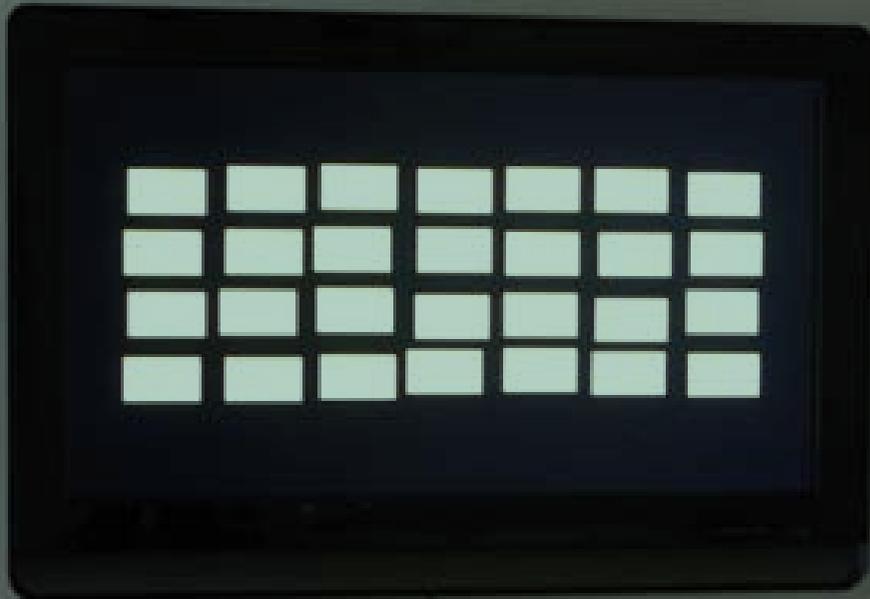
Whenever we integrate a medium into the city's public space, we need to assume responsibilities regarding the sustainability of our urban society. Public space is the glue that holds urban society together. It is time to shape future directions of the developing "screen world" in a sustainable manner. It is time to develop more creative visions for alternative, socially oriented content for various types of Urban Screens and to avoid a focus on technology. Other forces than merely commercial interests should drive the attempt to shape the future development of the emergent "screen world." (11)

References:

- (1) W. Christ, "Public versus private Space," IRS international symposium, Die europäische Stadt - ein auslaufendes Modell?(Erkner bei Berlin, Germany, March 2000).
- (2) S. McQuire, "The Politics of Public Space in the Media City" in Urban Screens: Discovering the potential of outdoor screens for urban society, First Monday Special Issue #4(February 2006), <http://www.firstmonday.org>
- (3) Lev Manovich, "The Poetics of Augmented Space" (2002), http://www.manovich.net/DOCS/augmented_space.doc
- (4) P. Virilio, "We may be entering an electronic gothic era" in Architectural Design - Architects in Cyberspace II, Vol. 68 No. 11 / 12(Nov. / Dec. 1998), pp. 61-65.
- (5) For a list of artistic screening events and initiatives see <http://www.urbanscreens.org>
- (6) S. Best, D. Kellner, The Postmodern Turn(Guilford Press: New York, NY, 1997), p. 82.
- (7) For a detailed description of these developed categories see <http://www.interactionfield.de>
- (8) L. Wallace, "Screenworld" in Material media, artefacts from a digital age (2003), <http://www.machine-hunger.com.au/phd/pdf?>
- (9) E. Churchill et al. "Multimedia fliers: information sharing with digital community bulletin boards" in Huysman, Marleen et al. (eds.) Communities and technologies (Kluwer, B.V.: Deventer, 2003), pp. 97-117.
- (10) van Heeswijk cited in J. Gentile, "Exhibit to unite community,"The Lantern Issue 6/27/02, Arts Section (2002), <http://www.thelantern.com>
- (11) For a detailed article presenting various Urban Screens projects, see M. Struppek, "The social potential of Urban Screens" in Screens and the Social Landscape, Visual Communication, Vol. 5, No. 2(Sage Publications, June 2006), pp. 173-188. i

memo_ando

lea van steen e raquel kogan





memo_ando

Instruções

digite o número da peça que deseja abrir

aperte  para enviar

(o botão do meio - enter)

repita a operação

até encontrar todos os pares

Jogo de memória :

monitor esquerda - celular controle remoto/fone de ouvido

memória do jogo : monitor direita

Latin. memorandus, a, um- something to be noted, gerundive of memora-re to mention, remember, remind, celebrate, or in colloquial language, 'narrate, tell'; see memor, worth remembering, memorable.

memo_ando is a memory game using a cellphone (Nokia N73) as its remote control. The aim of the game is to find all pairs formed by videos of mouths saying short sentences by various authors



Instructions for the game:

1. Use the cellphone to select the desired number in the attempt to match pairs on screen 1. Try doing this until all figures have been matched with their peers.

2. When a pair is found, its image takes up the entire screen of monitor 1, with the video of the complete sentence.

3. If you make a mistake, there's no problem: any mouths chosen that do not form pairs are part of a looped video on screen 2

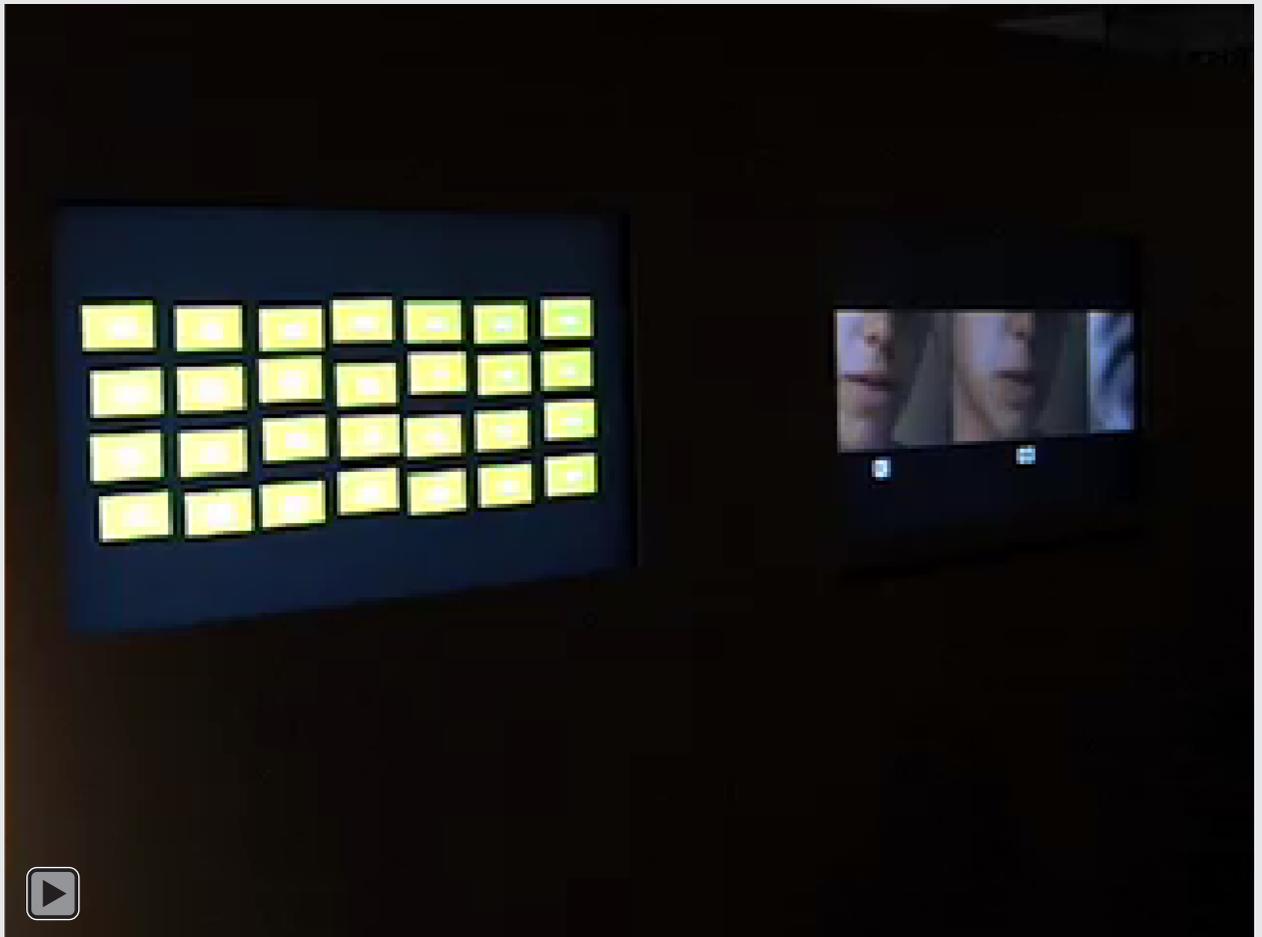
The videos show mouths saying short sentences, one after the other in the sequence chosen by all the players on screen 1, thus building a game-memory that depends on the interactors



memo_ando makes use of past experience (sentences by various authors, read by various people) whilst performing a new experiment (a looped video being made in real time to connect these sentences), using a computer to manage these two actions.

The choices made by interactors act and lead the development of the game, made up from superimposed layers, moving from hand to hand.





[Click to watch a video on the project](#)

Technical specifications:

1 Computer with Windows XP / Intel Core 2 Duo processor 2.4 or 3.0 GHz / 2 GB RAM / installed net framework 1, 2 and 3 and visual studio C + + express 2008 runtime

1 nVidia GeForce 5200 dual view video card

2 x 42"LCD monitors or 2 projectors (with support for 729p if they are HD) with DVI input

2 acrylic domes with speaker for directional sound reproduction



brandscapes, buylogu and artvertising
(Spaces for promoting, producing and circulating
new-media creative work in Brazil)

by giselle beiguelman

An annually recurring feature of the scene in São Paulo is that the city becomes awash with electronic music and multimedia-art festivals toward the end of the year. Repetition there is, but the right to be different is upheld too, and events are getting 'bigger and better' each year. In the week we held the symposium on 'Appropriation of the (un) common' (27 and 28/11/2008), a look through the cultural inserts and entertainment guides circulating in São Paulo led to the impression of an "overbooked new-media weekend".

Nokia Trends, Claro Filmes and Vivo arte.mov all opened the same weekend. Three events taking place at the same time in a city the size of São Paulo is no great surprise of course. There are always hundreds of events taking place at the same time in a megacity bigger than many a European country.

But as the names of the festivals indicate, all these events are staged by companies involved in mobile telephony (devices in the case of Nokia, operators in the case of Claro and Vivo). In this context, relations between promoting, producing and circulating cultural work are apparently elements (necessary evils perhaps?) of advertising and marketing events.

On the basis of these examples, one might conclude that there is a direct relation between art produced for new media and corporate marketing. But that would be overly hasty, although not entirely unfounded. To think is to generalize, as we learned from Borges and his story of Funes, the Memorious, one of his saddest characters. But generalizing without thinking is no less dangerous, as we learned from that other Borges character who sought to plot maps on a scale of 1:1.

So I would suggest a more careful appraisal of the situation to avoid being caught in a Borgean trap. Leafing through the same inserts and cultural guides in the week of the symposium, the "cultural spaces" insert in the daily Folha de São Paulo highlighted four venues showing Brazilian art, both modern and contemporary, the history of cultural journalism and "alternative" exhibitions.

The four - all freely accessible to anybody - were Centro Cultural Banco do Brasil, Centro Cultural FIESP, Itaú Cultural, and Centro Cultural São Paulo. The first is run by Banco do Brasil, the country's biggest public-sector bank. FIESP is the Industry Federation of the State of São Paulo, and an icon of the economic power of the richest state in Brazil. Itaú is the biggest financial conglomerate in the southern hemisphere. The only public institution mentioned in the weekend entertainment listing was Centro Cultural São Paulo.

However my point is not the disparity between public and private spaces- after all, the privatization of every field of life is a worldwide process and a defining feature of neoliberalism- but the relationship between cultural circuits, financial capital and the major telecoms. This seems typical of the Brazilian context, particularly in the case of Sao Paulo, and symptomatic of the way in which the city has been globalized to become the "battleground" described by the philosopher Nelson Brissac:



Sao Paulo has become a battlefield. A war emerged for the occupation of entire urban areas, for the infrastructure control, the institutions and the public spaces. The city is converted into an archipelago of modernized enclaves – with its corporate towers, malls and closed condominiums – surrounded by vast abandoned areas, vacant lands occupied by itinerant populations. Street vendors take the streets, slums continuously fill the available spaces between the highways, homeless communities install themselves under viaducts. As an informal tide, they overflow everywhere, conquering the interstitial spaces. It is a no-man's land, an area of conflagration. A terminal landscape where modern constructions coexist with survival devices. War-machines cross these urban deserts. Street vendors' tents occupy the sidewalk. Camped groups on the crossings; under the viaducts. Popular malls appear in financial districts. Entire populations invade empty buildings in downtown and lands in city's periphery. It is a new economy, a new occupation modality of urban territory. (Brissac, 2002: 11)

This new way of occupying territory involves a view of public space as threatened area that we must protect by fencing in parks and bullet-proofing cars (Bambozzi: 2006, p. 28), while converting urban spaces into real “brandsapes.”

“Brandsapes” occupy “archipelagos of modernized enclaves” and arise from the externalization of corporate identities demarcating “demarcating culturally independent sites where corporate value systems materialize into spatial experiences.” (Klingmann, 2003: 3). Good examples of this are Sony Plaza in Berlin, Times Square in New York, or Avenida Paulista and Avenida Berrini in the case of Sao Paulo.

The confounding of brands with spatial experience is marked by the need to introject corporate values through new strategies other than traditional publicity in the form of advertisements. These strategies respond to the economic transformations of the 21st century, marked by huge growth of consumption and the threat of commoditization given the difficulty of making distinct products either technically or operationally.” (Reis, 2007)

As Reis notes, the logic of using names and labels to differentiate brands has imploded and traditional formats of mass-media advertising are replacing economic wars with “aesthetic” ones to target the conquest of subjectivity by “colonizing perception,” in an attempt “to shape values that will guide consumers’ actions and choices.”

“Brands thus become abstract machines effectively oriented toward the production of meaning, imperative enunciations, signs that mobilize and capture consumers’ attention, affections and memories.” (Reis, 2007).

The efficacy of this process of “colonizing sensibilities” is clearly seen in the way in which corporations are transforming counterculture slogans into advertising copy and banners for their own “cause.” This makes one of today’s most profound political and cultural issues a “battle of language” which is reflected in the absorption of the hacker vocabulary of the 1990s, Do It Yourself, file sharing and social networking for example - by the discourse of companies such as Facebook, YouTube, Flickr, or MySpace (Bazzichelli, 2009). It is also seen in the emergence of new “sciences” such as neuromarketing, or “buyology”, which aims to find the buy button in our brain and press it. (Blakeslee, 2004, Lindstrom, 2008: 35).

These operations work by domesticating the senses and shaping them to models and rules of conduct, appropriating the dynamics of nomad networks in an attempt to sedentarize them, like the apparatus of capture in relation to war machines that Deleuze and Guattari talk of in *A Thousand Plateaus* (1997).

This “battleground” is nowhere to be seen in Brazilian artistic production, especially new-media art. The current configuration of the circuits producing, promoting and exhibiting cultural work here may well be related to the incipience of art projects that have the ability and stamina of institutional critique.

It is true that activism has lost its edge all over the world, with rare exceptions such as the actions of Yes Men . It is being replaced by discourse in defense of minority identities rather than a focus on structural policy issues. This may be the outcome of a trend deeply rooted in American tradition - New York’s role in the geopolitics of the arts market cannot be ignored - to shift from public to private domains, culminating in what Martha Roesler has called “the artistic version of multiculturalism.” The worst of this redirecting of activism is its inability to take a holistic view. Identities constituted by money and class, and their links to other identities are forgotten. (Stallabrass, 2004: 20-21) However, not even this light version of activism is found in Brazil, which is strange to say the least, for a country that boasts the world’s largest Orkut community, has over half its population using mobile phones (and we are talking about a country of almost 200 million inhabitants), and accounts for the largest slice of the blogosphere. (Bambozzi 2006: 36)

“Strange” racks up to “scary” in light of the confounding of free and public - or external area and common good - that is increasingly recurrent in the stance of the best known creative artists in this

field. What lies behind the increasingly tame nature of the arts in Brazil and the new media in particular? It is their almost incestuous relationship with proprietary media and dependence on financial capital, I am afraid, which is so explicit it verges on the pornographic.

Echoing Amsterdam's Sandberg Institute, but reversing its response as in a mirror image, the time has come to ask what it is that we are doing among works designed to be exhibited in the sort of spaces and institutions we are occupying: is it art or advertising?

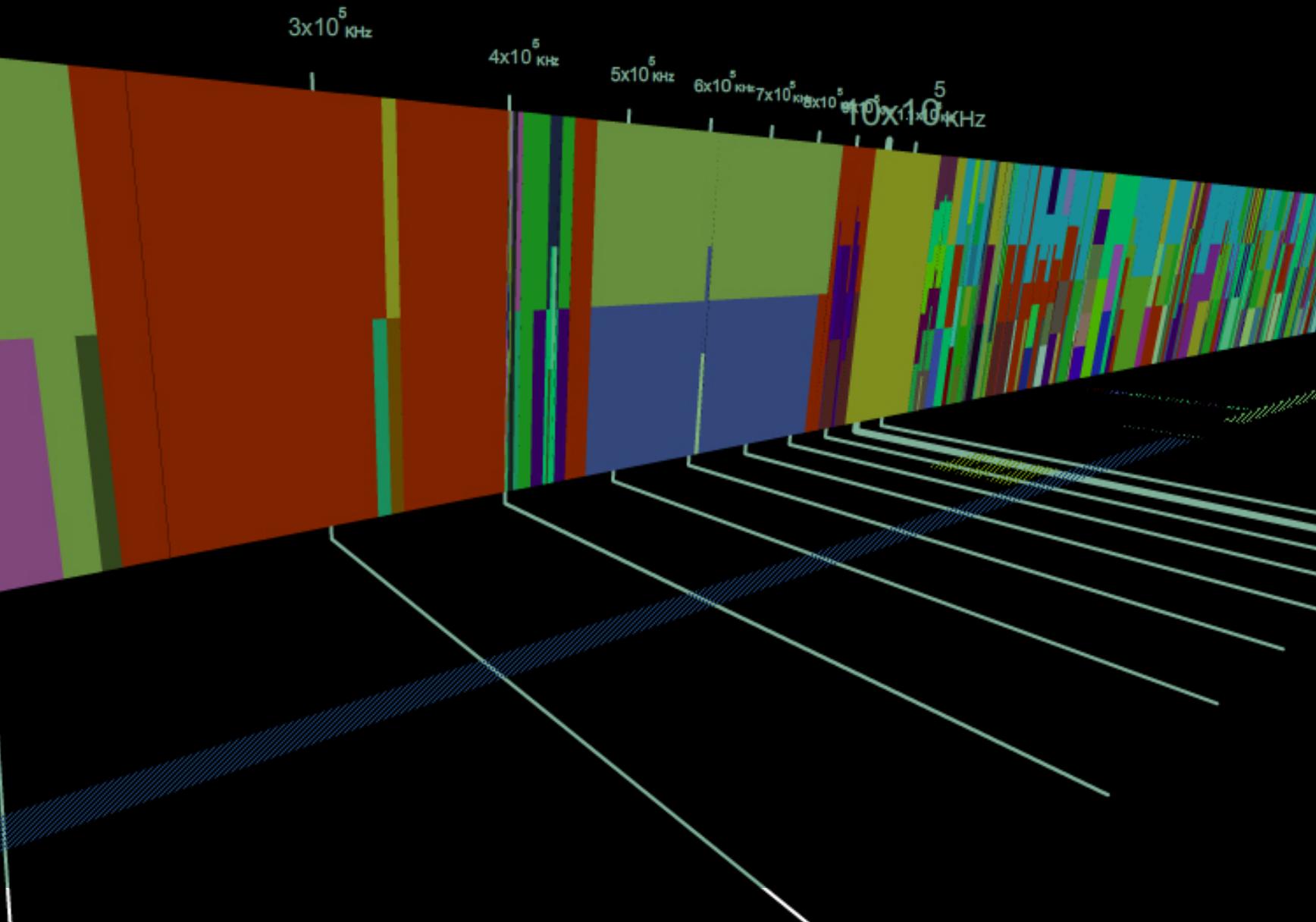
I sincerely hope we shall not respond on the same lines as the Sandberg, which stated, complacently to boot: "We call it Artvertising, and we see it as a work of art. It reflects our contemporary society, in which we live among logos and the idea of the logo has evolved into a lifestyle, a neighborhood strategy and a business model."

REFERENCES

- BAMBOZZI, L. (2006). "Interfaces Expandidas: Conexões Críticas". Territórios Recombinares (Arantes, P., Canetti, P. and Motta, R. organizers.). São Paulo, Instituto Sergio Motta, pp. 26-43. PDF version available at: http://www.premiosergiomotta.org.br/diversos/d_548. Accessed 16/01/2009
- Bazzichelli, T. (2009). "A Reflexion on the Activist Strategies in the Web 2.0 Era. Towards a New Language Criticism". Vector b, 22. http://virose.pt/vector/b_22/bazzichelli.html. Accessed 16/01/2009
- BLAKESLEE, S. "If Your Brain Has a 'Buy Button,' What Pushes It?". The New York Times, October 19, 2004. Available at <http://www.nytimes.com/2004/10/19/science/19neuro.html>. Accessed 16/01/2009
- BRISSAC, N. (2002). As Máquinas de Guerra contra os Aparelhos de Captura - Uma fotonovela sci-fi. Available at: <http://www.pucsp.br/artecidade/novo/publicacoes/index.htm#maquinas>. Accessed 16/01/2009
- DELEUZE, J. and GUATTARI, G. (1997). Mil Platôs – Capitalismo e Esquizofrenia. Trad. Peter Pál Pelbart and Janice Caiafa. Sao Paulo: 34 Letters, vol. 5
- KLINGMANN, A. "Brandscapes." 2003. Available at <http://www.klingmann.com/pdf/BrandscapesStadtWirtschaft.pdf>. Accessed 16/01/2009
- Lindsdrom, M. (2008). Buyology – Truth and Lies About Why We Buy. New York: Broadway Books.
- REIS, A. (2007). "Marcas e Mundos Virtuais". Trópico, 07/05/2007. Available at: <http://p.php.uol.com.br/tropico/html/textos/2860,1.shl>. Accessed 16/01/2009
- STALLABRASS, J. (2004). Art Incorporated – The Story of Contemporary Art. New York: Oxford University Press,.
- TISSELLI, E. (2008). "thinkflickrthink": a case study on strategic tagging. Available at: http://motorhueso.net/text/thinkflickrthink_pdf.pdf Accessed 16/01/2009

specters and tragedies

by guilherme kujawski



Complacency is apparently spreading in the field of technological arts. The absence of critical feedback is seen in “Telefonías” by the Argentinean artist Mariano Sardón, for example, which is now being shown at Espacio Fundación Telefónica in Buenos Aires. “Telefonías” is a conceptually and technically impeccable work that connects to the old Juncal telephone exchange, located near the exhibition building in Buenos Aires, and still crammed with live analogical trunk lines. Sardón built a system interfacing this exchange with two water pumps connected to hundreds of colored plastic tubes. Any call made in Buenos Aires transmits an electric pulse and a certain quantity of water is pumped through the tubes. Digital pulses are “reified” into palpable analogical pulses. This has to be the most original system ever devised for visualizing data.

However, while conceptually and technically impeccable, the work has shortcomings in political terms. The installation’s representational play on the dialectic between historical /analogical and futuristic / digital poses between-the-lines exaltation of the privatization of ENTEL, and the benefits of neoliberalism for telecommunications to boot. Getting Telefónica to commission the work must have involved next to no effort (as the title suggests). This is an example of permissive indulgence that infinitely extends the principle of an antiquated binary dialectic, the negation of the negation. It is a pity to recognize the magnificence of Sardón’s work while associating it (in strictly political terms) with the projects of Leni Riefenstahl, a wonderful artist and unrivalled aesthete who made absolutely original films but ultimately served the interests of a party that almost wrecked all Western philosophical thought. The historical and aesthetic contexts are different, of course, but the principle is analogous.

Telefonías
Mariano Sárdon



The question is: what is the size of the comfort zone, for both backers and practitioners of mobile location and transmission art? Or for directors of regulatory agencies (FCC, Anatel, etc.)? Or for consumers of technological art and digital culture? Are they perhaps suffering from psychopathologies? More specifically agoraphobia (fear of being in crowded public places) or acoustophobia (fear related to noises). In the case of agoraphobia, we have only to connect the Atlas of Electromagnetic Space project by José Luis de Vicente Irma Vilà and the Bestiario group (led by Santiago Ortiz), to feel hemmed in by a strange feeling of being stifled in a vast area measured by inexhaustible magnitudes, such as frequency, indicating number of cycles per unit of time. This system for visualizing information not only displays commercial allocations for each of the frequencies, but also shows the many artistic projects that make use of them. One argument posed by supporters of private property in the Ether may be summarized in this fallacy: if many devices emit different signals (Bluetooth, wi-fi, etc.) at the same frequency, at the same time, at the same power and in the same region, there is interference, in other words the tragedy of commons (in short: too little pasture and too many cattle). In fact this shows that the only means

of avoiding congestion is to attribute “owners” of channels the right to “talk louder” at a specific frequency, silencing other transmitters that may wish to send signals on the same frequency.

But the problem is just is not in the scope of regulatory agencies, legislators and technocrats. In these artistic practices, one finds the problem of acoustic phobia, an excessive fear of noises, of whatever type. These practices also seem to take place inside a bubble, in an anacoustic zone, a part of the atmosphere where particles are very distant from each other, so that sound is not conducted. In the artistic field, the perfect example is BuBL Space, by Arthur Elsenaar and Taco Stolk, a GSM signal scrambler that creates a “bubble of silence” around a connected cellular device so that nobody within a radius of three meters can call it. To those interested in artworks using non-licensed bands, free103point9 is a repository of “transmission art” and there are several projects on the lines of “Somalian pirates in the Hertzian ocean”.

Agoraphobia moves the belief that there is a technological ontology that cannot be contested or recreated; acoustophobia speaks of an urge to be isolated. A remedy or antidote (it would be better to use the Hegelian term *Aufhebung*, or overcoming) is perhaps to be had from those responsible for technical objects, hardware or software. Note that there is a technique yet to be widely exploited called Software-Defined Radio (SDR). In short, this is a communication system that takes tasks usually solved by hardware and transfers them to software. So several people may transmit signals on the same frequency, modulation and channel, because the program detects clashes and transfers signals to the nearest available frequency. Signals ask for permission, apologize, warn of sudden transfers, etc., like people in a busy street. This completely changes the concept of the radio spectrum as a “scarce resource”, like an area for grazing cattle, or a dam.

What has SDR been used for in the arts? Not much, apparently. Tom Gnaws, one of the leaders of free103point9, tried to find an artist researching SDR but was unable to so, not even at Radia, a massive network of European radios focusing on “radio art”. The way forward is to show metaphors for what could be done, such as the Social Fiction group’s psycho-geographic project Walk. This is a transposition of the SDR concept to the urbe, in which the city is hardware and pedestrians are software. Each group is given a piece of paper with instructions such as: turn left at the first street ; turn right at the second street; turn left at the third street. If a group accidentally comes across another group in the same area, they switch instructions to avoid a collision. This is the ideal representation of how communication may take place in a non-centralized manner based on multiple coordinations among the agents involved.



BuBL Space - Arthur Elsenaar



No spaces in specific places or
how the content is not the form
in locative media theory.

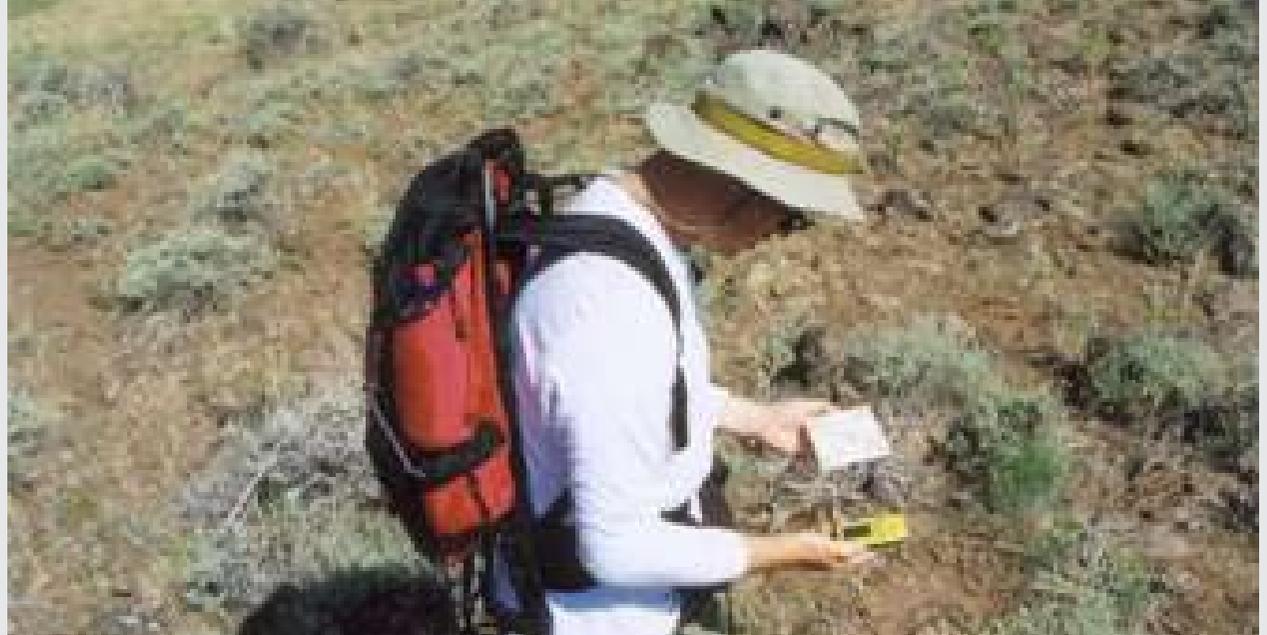
by brett staulbaum and cícero silva

There are two kinds of anti-content argument that can be situated against location aware media. The stronger of the two arguments simply does not hold: that being the literal interpretation of “anti-content” as being in opposition to the computational visual, sonic or haptic dimensions of user interface. To make such a claim would be speculate about a location aware media without any user interface whatsoever, which would be a contradiction to the use of discrete state electronics in locative media altogether. But worse, it would in fact contradict the more important contemporary meaning of representation to artists today, the idea that model based processing instantiated in socially distributed media is the non-visual computational representation that is most relevant representational issue in the 21st century. On the other hand, the fact that for many digital artists, the production of visual content using social media, in this case, mobile devices, means that the society is moving from a kind of formal comprehension of the digital to a process based interpretation of the contemporary societies. As an example, we can use Lev Manovich’s approach from his latest book *Software Takes Command* (online at www.softwarestudies.com, 2008), when he suggests that “software is the engine of contemporary societies”, we can assume that artists are aware of this imperative and mandatory statement and are trying to deal with this meanings in times where location is not something detached from the subjective perception of the places in the world, i.e. from the representation of what the world is from a cartographical point of view.

It is now well understood that pre-industrial societies such as those found in Micronesia had impressive socially distributed representational-computational systems for navigation, without using modern computational machinery at all. That representational-computational systems “compute” in a medium of a small-scale, non-industrial culture without machinic computation is now obvious to us. Culturally distributed representational computation sans any machinery is understandably an ancient biological activity of humans, if not many other species. What is new after the 20th century is how discrete state computers, machines of silicon and fiber-optic communications networks that are increasingly Hertzian, wireless and mobile have mediated, penetrated and altered socially distributed human computation. Not only has this happened through instantiating new and increasingly mobile communications channels between individual humans, it has also enabled processing that takes place in discrete state computers over large data sets to be as geographically distributed as human communication channels have become, and for these to become part of our cognition. The science fiction vision given to us by *Star Trek: The Next Generation* of “the Borg”, a species of cyborgs intimately embodied with their computers and networks is a feat accomplished, digital and discrete state computation penetrates our bodies obviously through mobile phones and ear buds, but also less obviously as it mediates all productive human endeavors, including networks of food production and water delivery.

So instead of taking the bait and arguing against content in location aware media, the weaker claim we will make is an argument regarding the relationship between location aware media and the ontology of its representation: some of which is superficial (image representations) and some of which is deep and computational (model based processing of data). Ultimately one could summarize this case as one that puts formal exploration of the computational medium and its relationship to geophysical space (which still seems an unfinished project) over the delivery of traditional media content based on location. What

**Brett Stalbaum
navega com seu GPS**



we are seeking to specify is a clear relationship between computational representations and their role in enabling movement that would allow location aware media to escape its present moribund state, freeing us to explore uncharted territory beyond location triggered narrative representation. This contradiction of the most common uses of locative media, including artistic representation in the form of video, image and audio which in turn often support some notion of narrative, is intended to challenge the present authors as much as our readers. After all, as the authors of the HiperGps platform for distributed narrative, we are acutely aware of this contradiction! But at the same time, we have a strong desire for location aware practices in the computing in the arts area to exceed the present assumptive frames that surround them, assumptions which most often focusing on the social and the narrativeii, or on the internet of thingsiii.

One of the main reasons that we are saying that digital location is moving us towards a complex definition of what is locative is that content, in the way the we define it: a narrative, a structure, a measure of the meanings and the concepts that we create to understand the way that our world is formed, has changed to a comprehension of the background, of the process that forms the meanings, to the implications of what is forming the structure, to the politics of the space and the relation between the physical world and the representations that we have from it since the creation of maps and cartography.

One of the projects developed to discuss this content issue in locative media is the Paintersflat.net, developed by Brett Stalbaum and Paula Poole. In this project, the medium that makes you move defines the meaning and the perception of the territory in which the user is. In one of the experiments created by Stalbaum and Poole, it was developed a bot extracted from a game algorithm that created a “trail” in a desert. After that, the artists followed this “virtual” trail in the real world, crossing the desert in order to achieve the goal designed by a virtual algorithm. This is a indication that the process (algorithm) can

be the art form itself, not the results that we can have from having an image produced by this walking moves in the desert. The representation of the trail designed by the computer for the artist to follow is a way of put the concept of representation itself as something that is not anymore a simple thing that “represents” something for somebody, but something that can change the way that we perceive our environment and also the way that we see each other and know the things around us and, in Stalbaum and Poole’s case, the desert that they were walking through.

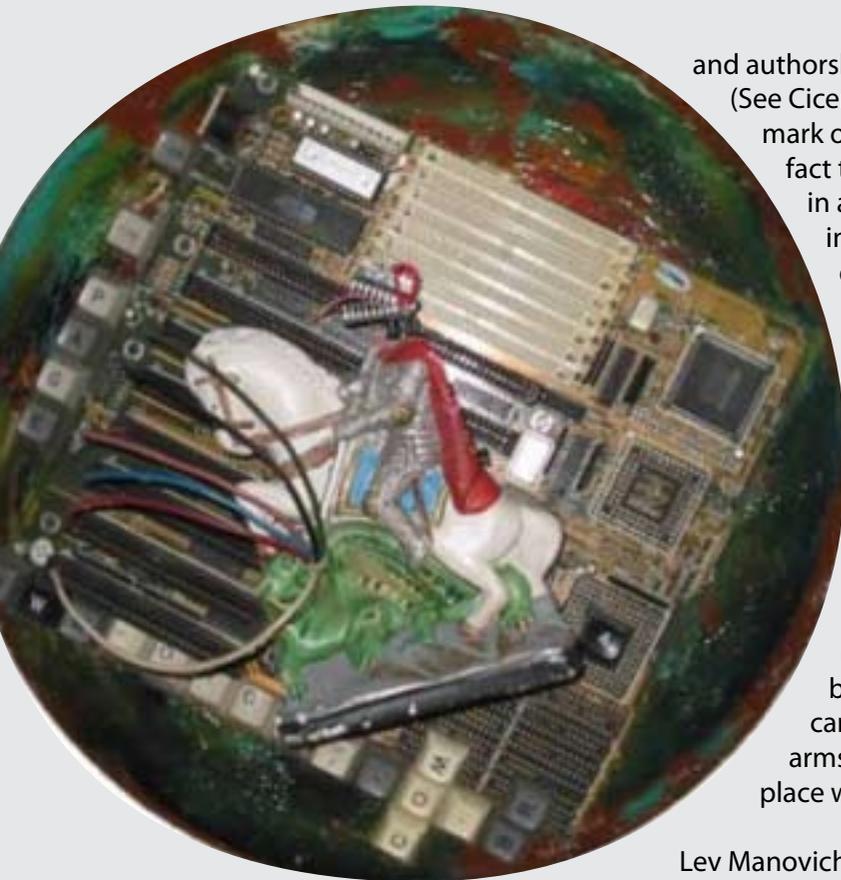
One thing that we also need to say is that no computational system lacks an interface (representation). As said before, for Micronesian sailors the computational representations are socially encapsulated, observed by numerous individuals who execute shared understandings over shared environmental data read directly from the actual environment in which the navigation takes place, coordinated by the most experienced navigator. Recent computational navigation encapsulates the representations needed to navigate as digital data that is processed via formal logic: a GPS device provides a computer interface instead of the master navigators or sextants and charts. But all require complex knowledge distribution and the execution of instructions over representations. Above it is the representations and algorithms that allow navigation to take place that need to be placed over content.

The provocative title is then, especially for visual artists newly taking up such media, intended to call attention to the poorly understood problem of the status of content qua location in the networked and computational locative arts.

The trajectory of the image toward the invisible and the active

The simultaneously networked and located image (often in real-time) is certainly a new kind of image produced by computationally mediated visual culture. Websites like Flickr and Youtube facilitate the addition of location metadata to images and video, for example. But this is no cause to confuse the located image as the primary focus of location aware media. To do so would be a rather conservative approach to the complex issues at hand, treating the still image and the moving image as the very definitions of “media” shunts the possibility of a new media that is truly new, not just a location enhanced old media. By the conclusion of this essay, we hope to have specified the parameters of what that new media really is, and why it is wholly different from what is perceived as media today, including the “locative media” meme. In order to motivate this, I will situate a few of the ideas about the contemporary status of the image that current artists hold and discuss.

A brief review of what is well understood includes Walter Benjamin’s early 20th century thinking on the mechanically reproduced image. Important though they are, the issues surrounding mechanical reproduction of the image is long obviated by a very different beast: the computationally generated image. Thus Benjamin can be understood as art history with only a distant relationship to the contemporary situation, and dismissed. Similarly Baudrillard’s image without an original can be so consigned, as it is now becoming clear that the chain of possession in a remix culture is not without its points of origin



and authorship no matter how obscure or even unknown the point of origin is. (See Cicero Silva's work *Plato online: nothing, science and technology on the mark of authorship*). All we are left with after postmodernism is the bare fact that originality is differently visible and differently consequential in a remix culture, not that it does not exist. And of course, issues of interpretation have been explored in abundance since 1960s semiology, yet for the purposes of this writing will be considered as well understood and peripheral to the core issue at hand. Finally, naive views on the image still persist in abundance. The digital vs. analog debate still bumbles along. Subtle comparative aspects of technical image quality produced by different devices, a topic of minor cultural importance, occupies a major amount of discussion topics, in particular in photography. This is especially the case surrounding the resolution of image capture devices (cameras), remaining a common topic for beginning photographers, hobbyists and consumers under the sign of image quality. Most of this conversation is well worn and tiresome, but there are interesting problems emerging at resolutions that are beyond (or nearly beyond) the capabilities of the analog to the digital conversions that cameras are capable of. Photographers obsess over the megapixel arms race in the dynamic consumer and professional camera market place while output devices outpace them at a steady clip.

Lev Manovich (2005) and Jane de Almeida (2008) have produced speculations about 4K cinema, situating it as a new kind of image with its own unique effects.

4K cinema at a resolution 4096x2160 (8,847,360 pixels and competitive with 70mm cinema) and multi-tile displays at immensely higher resolutions (such as the HIPerSpace wall at UCSD/CALIT2 at 286,720,000 pixelsiv) certainly do produce a new kind of image worth watching, and as both writers point out, one that is particularly well suited to scientific data visualization and other images generated from data and algorithm. Input devices (traditional cameras) face severe technical challenges and in the case of still cameras may never catch up with the resolution of output devices such as multi-tile displays. But in the new medium we are trying to outline, this is a realm of imaging far removed from the tiny screens of the typical portable devices that constitute location aware media's most visible enabling devices. Big data and scientific data visualization is a divergent and unrelated issue to handheld media, and while an important new image, it is not the one to be examined here. Although, we are tempted to point out that where computation and location do intersect, the human eye can look at what is there, mediated only by evolutionary prehension which we can simply call unmediated. How small mobile screens might interact with big data is a space for much consideration, and ultimately we hope to show what kind of image they do have in common.

At the turn of the millennium Lev Manovich situated new media as metamedia, simulating and encapsulating old media while artists (including programmers and DJs) explored the unique possibilities of digital media.

Jordan Crandall has perhaps done more than any other critic to decode the epistemological (and sexual) implications of the militarized image. For Crandall, images move away from the concerns of perspective, move up to a God's eye view and become about tracking, both surveilling trajectories, and even literally having trajectories such as the images returned from the cameras of smart bombs. This metaphor for the transfer of the power from the cinematic gaze to ubiquitous, decentralized surveillance is both unsettling and thrilling. We will argue that location aware media can in theory take this development full circle and deliver a positive return of the trajectory from the sky to the site of body under an expanded conception of the image. This deserves closer examination.

tracked
tracker
trajected
trajector

The arrival of the ERM made saw the invisible arrival of the invisible and strangely much more powerful image. OOP - the marriage of data and code to process it was a big deal. The protocol according to Gal-
lowsay is a protocol of control. Now that protocol connects to a cloud or Grid of non-discrete computing that is wireless. The new image - the grid, the cloud, we can say that Crandall saw this coming.

Not only does this image remain invisible, it is still an anathema to many artists (even within the computing arts) and will likely enlighten, frighten, and surprise us. At the end of the day, the invisible images operating under under algorithmic control are tightly coupled with with the body, its location and its trajectory. Artists should explore this image before it is finished exploring us.

Narrative, Locative media versus Location Aware

Wikipedia may be unreliable, nonauthoritative, and suffer systemic "hive mind"vi bias across a large number of topics, but for the purpose of capturing the mimetic zeitgeist of emerging discipline areas, its hivey, collaborative nature comes as close to producing reliability as we could hope for. This is further verified by the world's leading ontologist: the google internet search engine currently lists that wikipedia page as the number one hit for "locative media"vii. Thus, it is safe to assume that the following definition is at authoritative in a collective sense:

"Locative Media are media of communication bound to a location. They are digital media applied to real places and thus triggering real social interactions."viii

This we will refer to as the normalized authoritative definition of locative media. Is this the limit of locative media, a meme that emerged only in the past ten years, somewhere in the confluence of ubiquitous computing and the significant influence of Marc Tutters and Karlis Kalnins?^{ix} We will argue here that it is not, claiming that the normalized authoritative definition is so narrow that that the conceptual blind spots are necessarily numerous. We speculate that exciting new territory and interesting unexplored possibilities exist, and will propose an agenda that seeks to move beyond the influential and important early phases of this new media. In the process, we will first parse some bits of the genealogy of the current definition, including examining some interesting rear garde polemics surrounding it. Following that, we will look at narrative practice, examining its intersections with the normalized authoritative definition and examining some alternative practices. To that we will add some other speculative thoughts based on inspiration and frameworks drawn from the history, theory, and practice of conceptual art. In no place in this essay will we pretend to offer a comprehensive solution. Our goal is merely to define the problem and imply that there is work left to be done.

But before exploring these issues, let's wave the butterfly net and see what memes we can pull out of the air. Mapping and map hacking. Spatially tagged hypermedia and geo-annotation. Location aware story telling. Web 2.0 mashups using the Google Maps API. Neogeography. Google Earth competing with ArcGIS, spreading the software metaphor of geographic data layers from the professional realm into the consumer realm. Cast in virtual tourism, turn-by-turn in-dash GPS systems, and the waypoint merging with the vacation photo in the form of geotagging on websites like Flickr.^x Or even less exciting, consider the banal dream of wireless marketing: a consumer's mobile phone, fully aware of the user's geographic coordinates, chirps and delivers an electronic coupon for a nearby coffee shop, into which they stroll like a Pavlovian dog salivating a conditioned response to steamed milk. Certainly this is one of the most quotidian platitudes of recent ecommerce, but its activist other is also worth calling out. The latter stems from the cultural imagination of the sociologically engaged artist: the possibility of yet another technology or platform such as the Sony Portapak, community access television, the personal computer, and Webs 1.0 and 2.0 that will inevitably revolutionize the social as the means of production and distribution become more ever more democratically distributed. And of course, the artist imagines themselves standing there, producing their own narrative, a different content for the same systematic assumptions, hoping to stimulate a different interaction that the social engagement involved in purchasing a cup of coffee. Indeed, now 43 years since Nam June Paik supposedly used an early Portapak to videotape the Pope's visit to New Yorkxi, we can see the art/activist ideological trope playing out in much the same way: the democratization of the content expressed through use of the medium allows potentially socially transformative media content to challenge dominant commercial content, thereby "[T]riggering real social interactions" in competition with the social interactions already taking place in a consumer economy. These many tropes - mapping, geoannotation, geolocative services, and the implications of locative media for artistic agency within the domain of the social - can be said to explain how we so rapidly came to a relatively calcified understanding the new location aware media.

The activist trope may be a regularly occurring one in the artworld. Lev Manovich points to concerns with new technology's role in promoting "better democracy" as one of the ideological tropes typically accompanying the emergence of any new medium.^{xii} We have our radio stations, they have theirs. We have our television stations, they have theirs. We have our web sites, they have theirs. Now we have our own location aware media, and we hope to be as successful as the socially transformative agents of critical opposition who came before us.^{xiii}

Whether or not an optimism regarding the utopian or democratic potentialities of a new technology (or in this case, a new configuration of existing technologies) is a recurring trope (flowing from photography through Web2.0), concern with autonomy and opposition are prima facie apparent in the collective classification of locative media by contemporary artists and scholars. The social is the sign underlying its initial conception, with artists trying to be the balance against locative media's inverse revolutionary influences: dependence and compliance in a consumer culture. For example locative media wikipedia entry discusses a text by Ben Russell from 2004^{xiv} in which he finely parses many of the social claims that can be made on behalf of the new area of practice, including public participation in the development and use of new technologies, the emergence of communities of interest, and the political issues of surveillance and control. In 2005 Galloway and Ward clearly enumerate the many political issues inherent in locative media: "Where does the technology originate? How is the project funded? Who gets to use these technologies to create cultural 'content' or artefacts? Who gets to set the rules of engagement? What are the power relations at play? What shape can resistance take?"^{xv} In his essay "Locative Dystopia 2" Drew Hemment speculates a subtle and sophisticated answer to such questions, finding that "Loca-

Drew Hemment instala um dos dispositivos de Loca: set to discoverable



ative Media's political moment might not be despite its complicity in mechanisms of domination but because of it, residing in the acceptance of the paradox and occupying the ambiguous space it creates, creating a site of resistance by working from the inside."^{xvi} Similar obsessions are clearly stated by most commentators, and in most artist project descriptions. But what is less examined is that by adopting a position of opposition, the artists enter a binary argument and adopt the very assumption that locative media technology is a communications technology. For artists the goals are different than the marketers: to be used in expository artistic expression and critical or sociological pedagogy seeking to mediate behavior as opposed to expository marketing and capitalist manipulation of the consumer. But locative media is too rarely seen as anything beyond this, for example as a medium with specific formal qualities that are poorly understood and in need of formal exploration.

Interestingly, the second google hit for locative media is an essay by one of the aforementioned founders of locative media, Marc

Tuters. At first glance, the essay would seem to propose getting beyond current conceptions of locative media, inasmuch as its title is "Beyond Locative Media". But in fact, "Beyond Locative Media" is a defense against a rear garde action by prominent critics such as Coco Fusco, Jordan Crandall, Brain Holmes and Geert Lovink, who variously criticize the cartesian foundations of the medium itself, or the "decorative" artworks that function more like trade-show demos, or the unavoidable fact that like the internet, the Global Positioning System is a U.S. military technology with an irrevocable imperialist taint. These are all in fact completely reasonable (if sometimes predictable) critiques that locative media artists must answer. Tuters graciously accepts this, but responds via Frederic Jameson and Gilles Deleuze that artists must maintain an engagement with the media in order to have any hope of situating the contemporary subject in the context created by new technology, and to be in position to develop tools of resistance. Putting aside whether this is actually a direct response to any the specific critiques offered xvii, we want to call attention to how the political trope simply rises again in Tuter's response to the political criticism of locative media as a political medium. Tuter's makes essentially Habermasian claims about the ability of locative media to communicate rational knowledge in the public sphere. Ester Polak's MILK project is highlighted in support of this, an evocative multimedia and geographic mapping of the path of milk en route from cow to cornflakes. In other words, the political moment of locative media is to be found in visualizations made possible by the "Internet of Things", thereby expanding the public's understanding (and presumably political response) of the structure and distribution of material wealth. In other words, it is the locative variant of the profound cultural influence of documentary cinema on recent world history, or less sarcastically positively modeled on Donald Kuspit's severe critique of "Gallery Leftism" in which the artist calculates "to occupy a certain position, in the artworld... having a socio-political effect in the world". xviii

What amazes us is the locative whirligig of assumption of political efficacy or some related role generally. Not that we consider this desire negatively in any way, on the contrary we sometimes tilt at the same windmill. Nor that we wish to actually analyze the actual political efficacy of any media. But we are concerned over the continual overreaching claims by artists that their work is a strong mediator of political opinions through the mechanism of the viewer consuming the artist's representations. The filmmaker Michael Moore may have provided the most notable recent example of what we are trying to get at here, in that his great films have not been politically transformative, functioning instead to reinforce already polarized points of view. The number of people who think that *Bowling for Columbine* (2002) is an anti-gun film is simply astounding! Well known political artist/prankster who sometimes goes by the name Mike Bonanno recently recounted a story from the Yes Men's "Yes Bush Can" bus tour in 2004 in which they performed "identity correction" by presenting themselves as members of the Bush Campaign team, complete with a campaign bus! At one stop, while giving one of their absurdly over the top pro-bush speeches, Mike noticed that almost everyone listening to them were either angry detractors or enthusiastic supporters. One man, a European, was able to read them for the politically provocative pranksters that they are, which in the final analysis was worrying to "Mike". Certainly there are at least contemporary questions about art's ability to communicate, let alone persuade.

Anti-mapping

How are we to parse these? We may need to peer back a bit further, to seek a model that reveals a productive distinction that might extend the range and depth of locative media practices, breaking it from some of its present stasis.

A very similar pattern can be observed in the historical development “net art” practices back in the Web 1.0 1990’s, a recognized period in computer art history that the present author was part of. The first wave of 1990’s net art projects were interested in Web 1.0’s abilities to represent information, identity, narrative, and function as a distribution channel for art practices focusing on online communication as the mechanism of individual creative expression and collective social engagement. The web was a communications channel for artists with a message and they used the media exactly as it was designed to be used. But it was not long before a smaller group of artists, mostly based in Europe, began to resist the more obvious approaches to and applications of the world wide web, questioning the formal aspects of underlying medium itself, treating the internet conceptually, hacking it, breaking it, and making it do things it was never intended to do.

Examples seem necessary at this point. We might point to artists like Judy Malloy, Abbe Don, Mark America and others associated in one way or another with digital story telling or hypertext story telling in the late 1980’s and throughout the nineties. Following in a well laid tradition of hypermedia development instigated by Ted Nelson in the 1960s and 70s, these artists created stories and poetry delivered by emerging hypertext technologies that would finally crystalize in hypertext transfer protocol. In every sense, these accomplishments

For many of these artists, the web was a place to perform and to forge spaces of temporary autonomy, not a place to gaze at glowing messages or produce glowing messages to gaze at. And when we think of today’s geospatial web in this context, we can see that notions more closely mapping to the former social applications of communications and representation abound, while notions of exploring the conceptual depth and unseen potentialities of the medium are rarer. We might define the two approaches as art using neogeography and locative media and art of neogeography and locative media. xix

There is a poorly understood relationship between data and location is obscured by our narcissism, our desire to see ourselves reflected in the high tech mirror. This is why we map. Many of the alternatives for locative can be revealed in widely misunderstood relationships between the virtual and the real. We can say that maps doesn’t reveal us something, they command our view. The next step maybe is analyze why Google has decided on May of 2008 change his product policy from “Google and Maps” to “Google on Maps”, showing us that they are aware of this turning point related to the power of the representation and the control of the spaces by virtual means, i.e. by the old but still valid concept of “map”.

The issues are complex, and in the process of teasing the relationships we will also examine the current-

ly accepted definition of “locative media” that seeks an escape into the the political by stimulating social interaction. What we need now is speculate routes of escape.

It is not the engagement with maps that is interesting, it is engaging with place.

Notes

iEdwin Hutchins, *Cognition in the Wild* (Cambridge, Massachusetts: The MIT Press, Feb 1995) ISBN 0262082314, pg 65

iiThe Wikipedia definition is ample proof: “Locative media are media of communication bound to a location. They are digital media applied to real places and thus triggering real social interactions.” http://en.wikipedia.org/wiki/Locative_media, accessed December 18th, 2008.

iiiTuters, Marc, and Varnelis, Kayzys, “Beyond Locative Media” http://networkedpublics.org/locative_media/beyond_locative_media, accessed December 18th 2008.

iv See Jane de Almeida’s article Eight million pixels in 4K images about the 4K technology online at <http://www.scribd.com/doc/6414595/Oito-Milhoes-de-Pixels-em-imagens-de-quatro-quilates-4K-Eight-million-pixels-in-4K-images> and at <http://www.calit2.net/newsroom/release.php?id=1332>

vSuch devices (GPS devices and mobile phones, increasingly one and the same), are enabling technologies most visible at the presentation layer. Mobile phones commonly connect to the wireless internet functioning as the data transport layer to business logic and data access layers running on much more powerful machines. It is important to bear in mind that these layers are tightly coupled enablers of what happens at the handset.

vihttp://en.wikipedia.org/wiki/Criticism_of_Wikipedia, accessed 1/24/2008

vii<http://www.google.com/search?q=locative+media>, accessed 3/30/2008

viii**bid.**

ixThe names of these artists now so thoroughly and properly associated with coining the term that a reference is hardly required.

xThe photo sharing site Flickr.com added geotagging on August 26th, 2006. <http://blog.flickr.net/en/2006/08/28/great-shot-whered-you-take-that/>, accessed 3/30/2008

xiA claim which is interestingly challenged by Tom Sherman on the iDC email list, *The Premature Birth of Video Art*, Mon Jan 8 22:40:56 EST 2007, <https://lists.thing.net/pipermail/idc/2007-January/000949.html>, accessed 2/24/2007

xiiManovich, Lev, *New Media from Borges to HTML*, N. Montfort, N. Wardrip-Fruin eds., *The New Media Reader* (MIT 2003), page 19.

xiii We write this in California in 2008, as the United States is coming to terms with massive scale of its failure in Iraq, a war that was only politically possible after a neo-conservative led imperialist marketing campaign, (depending heavily on talk radio), in the 1980’s and 1990’s was able to convince the American people that the only mistake we made in the Vietnam war was conceding defeat.

xivThe article is sourced to the TCM online reader (<http://locative.net/tcmreader/index.php>) which is not an active link as of at least 1/15/2008. The quote from the unnamed text: “Locative media is many things: A new site for old discussions about the relationship of consciousness to place and other people. A framework within which to actively engage with, critique, and shape a rapid set of technological developments. A context within which to explore new and old models of communication, community and exchange. A name for the ambiguous shape of a

rapidly deploying surveillance and control infrastructure.”

xv Galloway, Anne and Matthew Ward. 2005. “Locative Media as Socialising and Spatialising Practices: Learning from Archaeology”, *Leonardo Electronic Almanac*, Volume 14 issue 3, June-July 2006, http://leoalmanac.org/journal/vol_14/lea_v14_n03-04/gallowayward.asp (accessed 3/31/2008).

xvi Hemment, Drew, “The Locative Dystopia 2”, 2004, http://www.drewhemment.com/2004/locative_dystopia_2.html accessed 3/31/2008

xvii We think the above mentioned critics might take the retort as non sequitur argument with which they likely agree.

xviii Kuspit, Donald “Gallery Leftism” *Vanguard* 12, 9, November 1983, pg 24

xix While at CADRE in the late 1990s, I, Brett Stalbaum, developed the notion of “Art on the net” vs “Art of the net” to distinguish these poles.

bios



BLAST THEORY: Internationally known as one of the most innovative users of interactive media with work combining Internet, live performances and digital transmission, this group led by Matt Adams, Ju Row Farr and Nick Tandavanitj explores interactivity and relationships between social and political aspects of these technologies.
More details: <http://www.blasttheory.com>

GISELLE BEIGUELMAN: Works online and lives on Google.
More details: <http://www.google.com/search?q=giselle+beiguelman>

GUILHERME KUJAWSKI: Technology journalist, science fiction writer (author of the novel *Piritas Siderais*) and cultural producer. Formerly technology editor of *Carta Capital* magazine (2000-2002). Currently designs and organizes art and technology events for Itaú Cultural Institute, and edits its *CIBERCULTURA* review of art, science and technology.

JONAH BRUCKER-COHEN: Artist and researcher from Ireland, fellow of Eyebeam OpenLab in New York. His work is focused in *Deconstructing Networks*, which includes projects posing critical challenges and subverting network interactivity and experience perceptions .
More details: <http://www.coin-operated.com/>

LAURA BELOFF: From Finland, creates digital wearables to generate programmable and participatory structures. Technology works combine media ranging from video to fabric, or sound to sculpture, including organic materials. Many of her works look at global society and attempts to adapt to complex technology worldwide as it becomes increasingly mobile.
More details: <http://www.realitydisfunction.org>

LUCAS BAMBOZZI: Media artist and researcher, works with video, installation, interactive projects, audiovisual site-specifics and performances. Has shown work at international exhibitions in more than 40 countries. A founder of *Vivo arte.mov*.
More details: <http://www.lucasbambozzi.net> <http://www.comum.com/lucas>

MARCOS BOFFA: A founder of *arte.mov*, cultural producer, holds a diploma in Public Cultural Policies from the University of Bourgogne (Formation International Culture, 1995-96). Artistic director of *Sonar Sound Sao Paulo* (1994), *Festival Motomix* (2006) and *Eletronika* festival of new musical trends (since 1999). On the jury of *Transmediale* international digital culture festival in Berlin (2006).

MARCUS BASTOS: Professor at PUC-SP. Directed short films *Mais Radicais* (2008) and *Radicais Livre(o)s* (2007) and the interactive video *Interface Disforme* (2006).
More details: <http://marcusbastos.net/>

MARTHA GABRIEL: Writes on art and technology and has spoken at conferences in the US, Europe and Asia. Author of *Marketing de Otimização de Buscas na Web: Conceitos, Técnicas e Estratégias*, Ed. Esfera, 2008. Curadora do Upgrade! São Paulo.
More details: <http://www.martha.com.br>

MIRJAM STRUPPEK: Urbanist, researcher and consultant, chair of the recently founded International Urban Screens Association (IUSA) and member of the Public Art Lab in Berlin. Background in Environmental and Urban Planning. Has lectured in many countries on experience of urban space and the public sphere, and its transformation and acquisition through new media.
More details: <http://www.interactionfield.de/>

RÉGINE DEBATTY: Founded the blog [we-make-money-not-art.com](http://www.we-make-money-not-art.com) hosting work on intersections between art, design and technology. Worked as reporter and made documentaries for radio and television networks in Europe. Has written for leading art and design publications; acted as curator for international exhibitions and symposia on the arts, hackers and (ab/mis) use of design and technology.
More details: <http://www.we-make-money-not-art.com>

RENATA MOTTA: Architecture degree and doctorate from FAU-USP. Director of the Sergio Motta Institute and coordinator for its Art and Technology Award.
More details: <http://www.premiosergiomotta.org.br>

RODRIGO MINELLI: A founder of arte.mov, holds a doctorate in Communication and Semiotics from PUC-SP, and a master's in Sociology of Culture from UFMG. Professor of video and new technologies at UFMG's media department and visual/media arts coordinator for its winter festival. Along with research and experimentation in electronic art, has acted as curator, consultant, professor and video director.

TREBOR SCHOLZS: Media artist and theorist with interests in theory, the arts and education, and founder of the independent research network Institute for Distributed Creativity (iDC). Has shown at exhibitions such as the Venice Biennale, São Paulo Biennial, and SP-FILE. Has spoken at dozens of festivals and conferences, written on media art, networks, education and participative cultures for many periodicals, and contributed essays for several books. Professor and researcher at the Media Studies Department, State University of New York in Buffalo.
More details: <http://www.collectivate.net>



symposium program
apropriations of the (un)common

Date: 27/11/2008

Location: MuBE Auditori um

Time: 19h30 to 21h30

Mixed Realities: expected convergence x actual convergence

Guest artists for the exhibition O lugar da arte em deslocamento discuss the major developments in the field of mixed reality, in which network systems distributed in space build the so-called "Internet of things" by intertwining bodies and cities with virtual layers modifying them.

Speakers: Fernando Llanos (Mexico), Laura Beloff (Finland) and Nick Tandavanitj | Blast Theory (United Kingdom)

Mediator: Lucas Bambozzi

Discussants: Fabrício Muriana e Claudio Bueno

Date: 28/11/2008

Location: MuBE Auditori um

Time: 15 to 16h15

Art and mobile media: creative and critical perspectives in Brazil

What kind of production are new media facilitating? Artists nominated for the location arts section of the 3rd arte.mov present their projects and discuss their creation and production, thus contextualizing and problematizing the course of portable media works in Brazil, while sharing and discussing critical perspectives.

Speakers: Cícero Silva, Fernando Velázquez, Martha Gabriel e Raquel Kogan

Mediator: Marcus Bastos

Date: 28/11/2008

Location: MuBE Auditori um

Time: 16h30 to 18h

Mobile medias: research, circuit, promotion and prospects

May the use and growing popularity of technology favor common and distributed goals in society? Critics and curators related to institutional and independent art circuits discuss the contexts for researching, showing and promoting mobile media works, including strategies for politicizing discourses and radicalizing aesthetics in relation to emerging brand cultures.

Speakers: Giselle Beiguelman, Guilherme Kujawski, Lucas Bambozzi e Mario Ramiro

Mediator: Marcos Boffa

Date: 28/11/2008

Location: MuBE Auditori um

Time: 19h to 21h30

Resizing public space and accessibility: social technologies networked

What is the nature and relevance of knowledge facilitated by the use of network technology? Is mediated public space making the city more expressive? For whom? Critics and curators acting in the debate on the technology - public space discuss how contemporary networks accentuate the fuzziness of the public-private distinction as they build contexts that are socially inclusive but at the same time increasingly interconnecting surveillance schemes.

Speakers: Fabio Duarte (Curitiba), Mirjam Strupeck (Germany) and Régine Debatty (Belgium)

Mediator: Rodrigo Minelli

Discussants: Priscila Arantes e Nacho Durán

INSTITUTO SERGIO MOTTA Chairman: Luiz Carlos Mendonça de Barros
Vice Chairman (Advisory Board): Wilma Motta
Secretary: Maria José Tenório de Paiva

PRÊMIO SERGIO MOTTA DE ARTE E TECNOLOGIA Institucional Relations: Wilma Motta
General Coordination: Renata Motta
Artistic Direction: Giselle Beiguelman
Project Coordination: Camila Duprat Martins
Production Coordination: Luciana Dacar
Production: Aline Minharro Gambin
Blog Editor: Marina Gazire
Administration: Sadao Kitagawa

E—BOOK Organization: Giselle Beiguelman, Lucas Bambozzi,
Marcus Bastos e Rodrigo Minelli
Editorial Coordination: Renata Motta
Produção Editorial: Camila Duprat Martins e Luciana Dacar
Texts: Texts originally published at the online magazine of the Vivo Arte.Mov Festival, with
exception of "brandsapes, buylogu and artvertsing", de Giselle Beiguelman, "For a critical use
of the distributed and open potencial of mobile communication systems", by lucas bambozzi
and rodrigo minelli, and "espectres and tragedies", by Guilherme Hujawski
Proofing: Marília Sales
English Version: Thomas Nerney
Graphic Design: Marcus Bastos
Design Assistant: Karina Montenegro