UBICOMPUTACIONAL ART: URBAN ENVIRONMENT AND EMERGENT NARRATIVES

TIAGO LUCENA

This paper explores the art in Post Desktop Era and we propose the term Ubicomputational Art with a new field in Cyberarts for study of junction between Art + ubiquitous computing. The ability of urban environments to add information is also exploited in the art in some collaborative practices. We intend showing some mob applications created like an artwork that allow the user tell stories about place in a new open narrative porpoise.

// UBIQUITOUS LIFE CREATING ONE UBICOMPUTACIONAL ART.

Mobile computing, pervasive and ubiquitous computing are the phases that computing platforms are suffering and will change the how we perceive, share and create information.

The ability of urban environments to add information is exploited in the art in some collaborative practices how construction of maps, mobilization (flash mobs) and interventions in virtual metropolis. We started our journey between this relations: city/mobile technologies by participating in some Collaborative Cartographies, flash mobs and wireless or mobile games or location-based games. All these categories use the technical infrastructure of computer and social networks at the intersection of space virtual and physical. In this field of research, we include our interesting to emergent narratives topics remapping the space of the city by adding new layers of data/information.

This research growing up a new collaborative space of LART _ Art and Technoscience Laboratory (coordinate by Dra. Diana Domingues) in intersection between Art and Software Engineering, Automative, Eletronic, Energy at Universidade de Brasília/ Gama campus. A new space opened at Gama Campus where engineers works together artists in a transdisciplinary methodology pointed by Ivan Domingues, philosopher (2005).

The research about cities environments and arts started in the topic of Arts plus ubiquitous computing systems. We propose the term of Ubicomputacional Art, with a new Field in cyberarts for study of junction between Art + ubiquitous computing. The term of "ubiquitous computing" was proposed by scientist Mark Weiser, in 1991, to designate a profound change in computing platforms. These changes inaugurate other models of computing, where computers are effectively integrated into the environments in all daily practices beyond the uses and behaviors desktop metaphors machines. Weiser used the word ubiquitous, (which means something that is or can be in everywhere, omnipresent) to describe a kind of "computing without computers" (WEISER, 1995). "In his telling, desktop machines per se would largely disappear, as the tiny, cheap microprocessors that powered them faded into the built environment. But computation would flourish, becoming intimately intertwined with the stuff of everyday life" (GREENFIELD, 2006, p. 11).

The Ubicomp dawning as a phenomenon in informatics researches e undoubtedly will bring changes in how we deal with things day by day. The data contained in virtualized and Cloud Computing, the mobility of wireless devices and interconnections between things through a structure many networks are

other important features such research and have been observed by us in studies concerning the Mobile Art and the Locative Media Arts (Lucena, 2009). We continue this research, raising the possibility that the matter now in the Art Ubicomputational is not only the "mobility" (as it exists in events before the creation of cell phone and its appropriation in art), or wireless connection equipment (laptop, mobile, palm tops) as we suggested before, but the "invisibility" of them. For Weiser "Even the most powerful notebook computer, with access to a worldwide information network, still focuses attention on a single box. By analogy with writing, carrying a super laptop is like owning just one very important book". (1991, p.20). Thus, we approached the Ubiquitous Computing to understand a new art form that rearranges the forms of connection, access to information and the concepts of portability and mobility.

We believe that with these new computing platforms (which includes transparent interfaces, mobile and portable devices , sentient objects and tangible bits) inaugurates a new phase of art. The term Ubicomputational Art is not just the sum of art with ubiquitous systems but also a new mode that is born and a new paradigm for thinking about the relation of art, science and technology.

//ARTS + COMPUTERS

The uses of computational platforms in arts is contemporany with the emergence of electronic computers in the 1950s. The brazilian artist, Waldemar Cordeiro, was one of the pioneers in this kind of art. The computational art works with computational algorithms, which are commands given by the developers to machines that perform the calculations. These productions sought to exploit the potential in the creation of worlds and synthetic images, the possibility of interaction (at different levels of man-machine), the contacts and dialogues established through human-machine interfaces.

The creative process of creation in Computational Art found himself constantly linked with the arrives of graphic interfaces, which somehow facilitated the work of the artist. The tolls of the computer has opened new kinds of art works and share this works for people using networks. The digitization of data, display screens and the ability to interact with them have added significant changes in the artistic process. We are in diverse experiences, accompanied by persons connected away from us, due in large part, interfaces and technological mediations that put us in the same (cyber)space. In this perspective we followed many telepresence, remote actions and at distance art practices. Indeed with the arising of telematic infrastructure the artists trying to connect the so long places as possible. Now, the artists is looking to the space of connection opened by mobile phones, notebooks and other portables devices to see something and tell about places near where they are.

With the artistic practices that use the ubiquitous computing, it has been clarified so that the means of production change significantly the results of the stylistic art. We propose a look at these events and artistic products, emphasizing the elements that differ from the Computer Art or Code Art. Anyway we have to propose new theories to explain this production in contemporary art. Then follow the directions of Manovich (2001), that to understand the logic behind the new media came of Computer Science.

For us, this new platforms for interaction between man-man and man-machines, has opened new pratices of creation in art using the potential of collaborative works in virtual networks.

// BEYOND THE MOBILITY

The use of cell phones in every daily pratices is reconfigure our daily experience, putting us in constant contact with friends, family and work´s topics. The fact that we can be

connected with everyone, anywhere and hours (not to mention the places where the systems telecommunications cover), makes it possible for us different ways of organizing everyday life. The relations characterized by the ubiquitous network grows in spheres of family, social relationships, work, social services, entertainment, based on selective network (Castells, Qiu; Ardevol and SEY, 2007, p. 126).

The cell phone is today the best example to illustrate how computers came to desk to habit our pockets. This movement is important to create the good conditions for ubiquitous computing in a pervasive world. We believe that mobile phones will act as the remote-control of the others objects placed in our homes, in a dialogue between machines. With the m2m communication, Humans will also interact, conscientaly or inconscientaly, with a data space around us, machines will transfer information. "Cyberspace is in everywhere" said William Gibson (2007).

Apparently invisible, computers are "populating" the homes, offices, streets in smart environments, pockets and in many other portable technologies. Reserved in rooms in 50s, computers today keep the relation: many computers for one person. Now the computer and the room are the same thing.

In dealing with the computer in the Post-desktop Era will not do so only through the manipulation of data through the screens of monitors. The mouse and keyboard still stand between man and machine. In Ubicomp, computing will become so intuitive and transparent that its interface will deal with data without having the awareness of such action. The computer "disappear" and goes to the "peripheries".

Weiser points out that the disappearance is a fundamental consequence not only of technology but also of human psychology. When we look at a street, the author quotes, information just evil deeds "without consciously performing the act of reading." This feature has been called various names (compiling, tacit dimension, visual invariants, horizon and ready-to-hand) by computer scientists, psychologists and philosophers. We prefer to use the term of John Seely Brown of PARC that calls such as the quality of being in the "periphery".

Works in art, that work in these lines of investigation illustrated by Rheingold (2002) could be also include as expoents of Ubicomputacional Art, :

1. Information in places;
2. Smart Room: ambient that feel the presence of the person and answer for it;
3. Digital Cities: urban places are able to add digital information in places to help people to walk, to access information about places, services, new practices of e-government, m-government;
4. Sentient Objects: add information and communication ability in physical objects;
5. Tangible Bits: manipulating virtual world by physical objects and
6. Wearable Computing.

The ability of urban environments to add information is exploited in the art in some collaborative practices how construction of maps, mobilization (flash mobs) and interventions in virtual metropolis. Colaborative Cartographies, flash mobs and wireless or mobile games or location-based games use the technical infrastructure of computer and social networks at the intersection of space virtual and physical. In

this field of research, we include our interesting to emergent narratives topics and the concept of the Urban Mixed Realities worked by Rod McCall (2008) and his group.

The readings on the relationship, between physical and virtual space, is also important the concept of Cybrid (Hybrid + cyberspace), proposed by architect Peter Anders (1999).We follow Diana Domingues (2008, p. 6) when she says that the "qualities the environment using a mix of computers and interfaces that take action in co-existing in space and material digital space, in physical space and data space. "For us, the focus of the research of artists and scientists in the ubiquitous world is in the mix of technologies to places. These include so many devices cell phones, palm, notebook computers) and vehicles (SMS, GPS, MMS, e-mail) "that are no longer limited to rooms and offices with fixed equipment, put the computer the periphery by the possibility of locate and to be located. Are the mobile and locative technologies that alter sense of place, time, space "(p. 5).

As background to our work we can localize some location-based games and wireless mobile games. The proposal to link to content in places began deposed our interest in investigating other examples in history of the arts. It read in this relationship between art and the city the work of international Situationists and various other interventions / performances that call poetically attention to the places.

// THE MOB APPLICATION: TAKING THE URBAN SPACE AS A SHARED SPACE FOR PEOPLE TELL STORIES

The user-generated content is configured as a trend in the use of digital communications technologies and information. There are several sites, computational tools and platforms that allow users to create, share and comment on content created by other users.

The participation reaches high levels with the incorporation of mobile phones the computer network. Armed with mobile devices, which can be compared to laptops, people have the sense of presence and enhanced participation by means of tools that allow you to upload any content to the cyberspace from anywhere. The mass self communication (Castells, 2006) are the concept related to production decentralized, and no generalized "mediators."

No less interesting was followed by the incorporation of art and media that also allow the viewer's participation in the process of artistic enjoyment. Something that had already been appointed from a participatory art movement, with various demonstrations that used sensors, cameras and objects to the viewer to touch, feel the art-experience. The interactive art, opened especially after the use of computational resources from the 60's, puts the viewer and the work as a spectator to participate in building the image, the creation of audio effects in a variety of experiences and conditions: multimedia installations, webart, gameart among others. With the rise of cellular proposes a kind of Art in Mobile Media, which has received other names as Mobile Art and Art in locative media. More precisely in the use of mobile devices, many of these demonstrations did not invite the viewer to only trigger pre-recorded images and sounds, but to send images and sounds created by themselves providing geolocated data, being "followed" and "follow" other users in finding information.

Relations characterized by the ubiquitous network are given in the spheres of family, social relationships, work, social services, entertainment, based on selective network (Castells, Qiu; Ardevol and SEY, 2007, p. 126). In art, think about the marriage between participation of users sharing experiences and experiences with the constant connection and mobile afforded by telematic networks. Thus, the aim of

this report is to present the process of creating a mobile application called AQI! The Project Emergents Narratives in Urban Mixed Life: Creating computing platform (mobile app + site) to create / count stories about cities was born of questions and seeks to participation and interaction of users in generating subjective content for mobile interfaces and tools that facilitate sharing information. It has as its central objective the construction of a platform, composed of mobile application AQI! plus site, for individuals to create, share and visualize stories. A geolocated story where the user lives. The project is open to the creative use of stories and lets users fiction are also created. They are user-generated content in ownership of tools that can be exploited in building social communities and networks. The stories are visible encouraging participation and collaboration with another user. The content published may be text, image or video.

The mobile application AQI!, developed as part of this project was built on the Android platform in the Java language and uses the Google Maps Android API, which displays the same geolocated data displayed on the website. The design is user-centered, to create a comfortable interface for any operator (Saffer, 2010). The data are retrieved in XML and HTML server using HTTP. The application also lets you send data directly to the server. By suffirng on the Web, other users can participate using the website created to access and creation of content. The website was developed in PHP and JavaScript, using Apache webserver and PostgreSQL as the database manager. In addition to providing the public information about the project, enables the visualization of geolocated data by Google Maps API and provides an interface to these data for use in mobile app.

This creation of "worlds counted" and stories that encompass the context and the use of mobile phones to tell stories, tries to generate narratives by people in diverse locations, furniture, has as reference "Free the Monsters of Manchester." The project consists of a "campaign political action" by the monsters who lived in the area covered by the City of Manchester long ago, in the industrial revolution but are now "Trapped beneath the tall buildings made of bricks and stones and cement." Manchester residents are invited to take part in the campaign, choosing a place in Manchester, wondering what kind of monster would ever have lived there, and putting the monster in place using the system Anywhereblogs. Users are reminded that: "Monsters are released as soon as you conjure" (Wilson and Hales, 2008). Once a monster is imagined and written about He was found by the people, then it exists and is as real as any part of Manchester. The monsters released are tagged on Google Maps.

In the spatial movements of mobile phones across the cities realizes that the connectivity of the device itself replaces the stereotype of the Internet connected to the PC front, sedentary at home. Some examples in mobile art the displacement of virtual character is only performed with an equivalent shift in space physical performed by the user / player. So these games do not even require only physical movement of the players they are also tools to meet people, make eye contact with others and the appropriation of examples urban fabric as a board.

The same principle is proposed in the AQI! the creative use of GPS, which allows the application accurately identifies the approximate location where it is found. Thus, when designing narratives in the urban environment, to enable urban environments to make available information. The use of virtual maps and geo-located platforms (GPS) allow become "discoverable" the viewer and creator of the narrative. In addition, another important precedent was with the workshop given in the city of Passo Fundo - RS, called Narrative cybrids, mobility technologies and urban life mixed coordinated by Diana Domingues. Where workshop instructors were allowed to think and create stories that emerged in the exchange of SMS, MMS walks in the streets and in meetings with local residents and city in the

State. An interesting quality of the AQi! is given the possibility that people can, and create stories, report the problems of their city, dissemination on the world wide web and collaborating with others in the construction stories. AQI is one mobile application for Android based devices versions 1.6 or higher. Models equipped with GPS and compass. Connected to Internet through the network 3G or wireless plans. It is intended for any user interested in share some event of his life in a particular location or create a story about a particular place, showing new possibilities to the relation between urban spaces and opened narratives. Users can create their stories through the use of the web, and from the phone itself. Stories are shared and open to collaboration with other users. In addition, anyone can comment, quote and build together with others in a process collaborative writing stories.

Integrating arts experiences and biomedic engineering at Brasilia University, acting in LART we proposed the collaborative project called CidadePathia (something like Pathos of the City). This conceptual project will be a intelligent system in u-health (ubiquitous health) that select some biological data from citizens from Brasilia. The system select some data from users using biomedical sensors and mobile phones, this information will be upload to one map that allow people, urbanists and health professionals to see where and when some diseases appear. Of course, combining some of these biomedical data we can know if the citizens are stress, calm or having heartbreaks. For now, is just one project that follow the ideas from AQI! In this kind of integration between intimate or documental stories with urban space.

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