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Original Citation:

Availability:

This version is available <http://hdl.handle.net/2318/140878> since 2016-01-26T17:12:56Z

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UNIVERSITÀ DEGLI STUDI DI TORINO

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Interactive Media in Urban Spaces

This is an author version of the contribution published on:

Questa è la versione dell'autore dell'opera:

[ScreenCity, issue 2, 2013, 2281-1516]

The definitive version is available at:

La versione definitiva è disponibile alla URL:

[<http://screencitylab.net/journal/issues/93-scr-2.html>]

Abstract

In this particular moment of cultural evolution, from mass media to digital media, the space factor is gaining a considerable relevance: especially the relationship between mediated and physical space is of particular interest because it recalls the archetypal figure of the labyrinth, and at the same time it involves the latest technologies of communication, from the various forms of digital gaming to the augmented reality.

The connection between interactive media and urban space is now physiologic, and the scenery is becoming even more interesting because it encourages experimentation in new forms of communication and expression. Particularly, the most advanced art forms provide very interesting examples of interactive use of urban spaces as places of imagination, fiction, emotion.

Keywords

art, creativity, digital, interactivity, game, labyrinth, locative, media, mobile, space, storytelling, urban

Introduction

The relationship between interactive media and urban space is a typical example of convergence. In the field of media and cultural studies, the concept of convergence is becoming increasingly broad and pervasive, moving away from both the generic and essentially technological meaning of earliest formulations (the "digital convergence"), both from the cultural meaning assumed in the theory of Jenkins (2007) where the focus was on the social components of digital experience and on the user generated contents.

Today, the concept of convergence presents its most interesting aspects for the way it approaches the relationship between mediated and physical space, between conceptual representation and real mapping: current newmediologic studies got rid of the old negative interpretation of text/space relationship, which focused on the concepts of de-localisation, de-territorialisation, de-spatialization, etc., (Meyrowitz 1985), in order to open the way for an integrated vision of cultural and communicative processes that take place on both land: virtual and real.

The metaphor of the network, which represents a map full of texts and meanings, brings symbolically together the development of digital media and the articulation of territorial spaces, either functional networks on which human actions are developed. In addition, the widespread use of mobile communication devices has made a further step towards the deep connection between the mediated space and the real one.

Consequently, digital media can be taken today as a key to approach the understanding of new urban landscape, as they introduce a new vision of the text/space relationship: as a matter of fact, in digital media "texts become spaces", as they become viable and practicable (eg in hypertexts and video games); and - on the other side - "spaces become texts", as they become readable and writable (eg in media walls and in geotagging) (Lughi 2013).

Labyrinth and Games

The relationship between text and space is very old. Probably the oldest example of a space that becomes text, and vice versa, is the labyrinth (eg, the labyrinth of Knossos, who gives life to the story

of Ariadne and Theseus): the labyrinth is a spatial network inside which a number of possible narratives is developed, generated by the paths taken by the characters within a defined space.

It's easy to see the labyrinth as a factor of junction between textual dimension and spatial dimension. In the age of the industrial media, urban space is seen as a physical and psychological maze, a place where the anxieties and concerns related to the dimension of the sprawling metropolis come to life, and where the media are born precisely as tools to face and manage the difficulties of metropolitan life (Gamba 2009).

Walter Benjamin (1982), in his labyrinthine work on *Passages in Paris*, has seen - on the basis of the intuition of Baudelaire, but from a sort of "pre-postmodern" point of view - the metropolitan space as a place where the flâneur does, with his wanderings, a peculiar textual activity.

Later, in the age of digital media, the Network (a real labyrinth) becomes the functional and cultural model underpinning the development and spread of game culture, both in its initial forms, more related to pulp culture (video games), and in the more mature forms where "serious games" become a real tool for professional training, for business and economic simulation, for new ways of learning and knowledge .

Interactive Media

The conceptual model of the labyrinth, and its variations related to the technology of digital gaming, lead directly into the theme of interactivity, which indicates the capacity of a medium to receive and reprocess an input coming from a user.

Inside the interactivity paradigm, the text is able to receive an input, perform calculations, and return an output: in other words the text - which was only *visibile* until the age of mass media - in the last quarter of the Twentieth Century becomes *practicable, accessible, reactive*. This transformation of the textual space from simply *visible* to *viable* and *playable* represents the decisive turning for the birth of interactive media.

Interactive media are closely linked to the birth and development of ICT, as they require the existence of algorithms that can interpret inputs of users and return a personalized answer. However, from the point of view of the recent history of the communication processes, interactive media have gradually freed from their close ties with professional computers, with the consoles dedicated to video games: they got rid of the very idea of a stand-alone activity linked to a specific location in a given space (the computer on the desk), in order to reach instead the dimension of the agile and dynamic paradigm what is known today as "mobile/locative".

The "Mobile/Locative" Paradigm

The "mobile/locative" paradigm represents in cultural and communicational patterns a big change, due to the growing importance assumed by the presence of the physical body (*embodiment*) in a defined space (*location*), within a context characterized by a set of social practices and aims. In this paradigm shift, the presence of the body and of the space is essential for several reasons: first, it reconfigures the traditional patterns of human computer interaction, which were based on static situations and on idealized users; secondly, it changes the concept of interface, carrying it out from the computer screen in order to project it in the real world thanks to new miniaturized sensor technologies (ubiquitous computing, tangible computing); and finally, as a result, it states the

importance of the social context and of the mobility as regards the design and interaction projecting of techno-mediatic artifacts.

Strongly influenced by the idea of space is also the so-called "internet of things", the ubiquitous computing (Dourish, Bell, 2011) which results from a progressive weakening of the idea, of the image, and even of the very substance of the computer as a reference point for ICT: the computational and transmissive capacity of new devices, thanks to the industrial miniaturization processes and thanks to increased processing and memory power, is now transferred into objects even smaller and aimed at specific tasks.

In this sense we talk about a "third wave" of ICT: after the age of the mainframe and that of desktop, is opened now the season of *ubicomp* (ubiquitous computing), characterized by even smaller, powerful and specialized computational gadgets, skilled to integrate into our lives: mobile phones connected to the network, GPS devices, wireless, widespread home automation. A transformation that is not only technological, but requires a new economic, social, political and cultural approach, insofar as it requires to rethink the relationship with the space and with the identity construction itself.

The embodiment and the mobile/locative paradigm are leading towards a new hybrid aesthetics, which redefines human, cultural, natural, technological environments, and proposes a deep reconfiguration of the relationship between them in terms of complexity, interdependence, contamination (Borries et al. 2007).

This hybrid and unstable ground, somehow disturbing but also fascinating, is the challenge to which mediology must now answer, since it goes beyond the secular diarchy on which Western culture is based, the opposition/alliance between writing and painting, between verbal and iconic language.

Urban Space

The mediated spaces in the city become increasingly interactive, because they contain media products which are able to react to the behavior of people: more and more cities are filled of vision devices, establishing close relations between media perception and territorial location (Gasparini 2012). The phenomenon has one of his first demonstrations in the not so futuristic scenery presented in *Minority Report* (S. Spielberg, 2002), where the main character was recognized by some advertisement posters that automatically presented him with personalised commercial offers; and again in 2003, when a billboard of Coca-Cola installed in London, Piccadilly Circus, had inside a weather station, and emitted different messages depending on the weather: on a windy day, the letters were moving, on a rainy day, drops appeared on the board, etc. .

In the summer of 2013, the Foursquare Social Network, in partnership with Samsung, has launched an application called Time Machine, which allows the user to trace the visited places: pubs, hotels, restaurants, train stations, shops etc., building a hybrid tool, something between a map and a timeline, that detects and visually represents all user navigation in the area.

Communication technologies are changing the face and the functional structure of the city, innovating in a disruptive way every aspect of city life. *Smart City* is the umbrella-term that represents - often in a confused way - the need to redefine the "citizenship" in urban environments in order to put the user at the center of the changing processes, in order to understand the dynamics that arise from urban nomadism in the mediated cities (Ratti 2013). Through the communication technologies and the proliferation of miniaturized sensors, cities are becoming powerful data generators (about energy consumption, mobility flows, waste management, health care, education processes, etc..), but these data need to be interpreted, understood, shared, metabolized in the social context. We need to understand what are the new forms that characterize the public and private spaces under the pressure

of the growing presence of the media; it is necessary to understand whether these forms can give some smart indications in order to transform the cities not only in an intelligent way, but also in a human one. In this picture, the urban media system no longer appear just as tools to visualize and interpret big data, but as a strong generator for the new urban aesthetics.

Storytelling and Urban Art Games

Games, labyrinth, interactivity, mobile/locative media are the elements that extend the cultural revolution of the network even into physical environments, where they offer the possibility to reconfigure social relationships through new practices of vision, perhaps even adventurous and unpredictable. An entire territory to explore, where Digital Creativity can lead to forms of *locative art* (Ekman 2012) that retrieves the so far disconnected experiences of pervasive computing, site-specific installations, place-based storytelling, geo-tagging and interactions in urban areas.

Urban culture and media are complementary, the image of the network and the image of the city overlap, recovering the concept of *non-place* out from its fenced size (airports, shopping malls, etc) in order to amplify and extend it to every mediated urban experience. For this purpose, contemporary art has set itself the task of recovering the social dimension of the urban life, building a picture of the artist that fits perfectly with the psychological and social skills required by postmodern condition: flexibility, anxiety, uncertainty, nomadism.

Carrying out the creative skills from the narrow field of art, transporting them to the physical location in urban areas, extends the possibilities of aesthetic experience in the same way that hypertext has widened the field of narrative possibilities beyond the limitations of linear and sequential writing. The typical features of hypertext - the granularity of the experience, that is potentially re-aggregated in different shapes; the active role of the reader, who determines the course of history; the birth of an open authorial model - are characteristics that, if applied to the field of urban storytelling, expand the image of the network from the exclusively mental or representational field, in order to build a new hybrid experience, a sort of presence-navigation that explores the social body of the living city.

An example of this hybrid approach to urban experience, characterized by a textual fragmentation seeking new forms of aggregation, is *Komplex . 28* by Mariano Equizzi, an integrated project of multimedia experience that mixes participatory technologies such as augmented reality (Communication Strategies Lab 2012) with literary and filmic references that constantly evoke the nomadic uncertain of the urban experience:

“... it's also a graphic novel, a digital graffiti operation, a radical story about occult powers linked with advanced technology. The "pages" of this book are hidden in the architecture of Turin through augmented reality; it's a cryptocasting. The reader-gamer is like a Paul Auster character that will move like a nomad in Turin searching for traces of this secret tell.”

The real city and the imagined one overlap into a synthetic experience, where the city itself with its mediated forms and metascreens gives life to the emotional interface of the project.

The nomadism becomes the key for the interpretation of these forms of urban art games, where the aesthetic experience merges with forms of gaming activities placed within an urban space historically full of social, political, emotional significance.

Conclusions

These experiments represent aesthetic and experiential forms closely related to the contemporary. Not only because they have a necessary technological ground, which is closely linked to the development and diffusion of mobile devices and with the forms of cross-media communication, but also - and perhaps especially - because they recover the sense of social presence in urban areas, face the theme of reuse of cultural heritage, promote vital forms of street and public art, evoke the flow of smart mobs that run through the physical and mental spaces of the young generation (Rheingold 2002): in their fragmentary complexity, they are the global reinterpretation, in terms of fiction, of the contexts in which everyday life takes usually place.

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Biographical Note

Giulio Lughi is Associate Professor of Sociology of cultural and communicative processes in the University of Turin. He studies the impact of new technologies in the humanities. Trained in literature, linguistics and semiotics, has worked since the early 90s about culture and technology, digital media, digital creativity, interactivity and narrative forms.