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Interweaving the Digital and Analog Lives of Cities: Urban Sensing and User-Generated Cities

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1 ABSTRACT

A research process lasting from 2009 to 2012 has conceptualized, designed and implemented multiple tools and strategies to experiment novel forms of technologically-supported urban interaction. The goal of this process has been to understand the rituals which have started to shape contemporary citizens' perception and performance of urban public and private spaces. An ethnographic approach has been used to gather insights about these emergent rituals, affecting the ways in which people have transformed the ways in which they work, learn, relate, consume, travel and entertain themselves in the city.

With the active collaboration of public administrations, organizations, citizen groups, tourist operators and research teams these practices have been enacted in the cities of Rome, Turin, Trieste, Cosenza, London, Berlin and Hong Kong for variable amounts of time. Engagement and results have been formally gathered, observed, processed and measured, allowing the research team to both explore the current scenario and envision new ones.

Real-time content harvesting from social networks, natural language analysis, geo-referencing/geo-coding/geo-parsing technologies, expert systems and ubiquitous technologies such as smartphones, custom electronic devices and conceptual consumer products have been employed to explore the ways in which people are and will be able to: perceive and understand their urban surroundings; access services and information; co-produce knowledge and distributed intelligence; collaborate in the creation of shared projects and city-governance practices; create and maintain peer-to-peer infrastructures for connectivity, commerce, services and culture.

This paper will present the initial analysis – including previous research taken into account in the fields of urban sensing, citizen science, urban planning, urban infrastructure management, urban environment perception and more –; the methodologies, both shared and project-specific, used to conceive, design, implement the prototypes and to measure their effects; the reports about each project in the aforementioned cities, including their usage on-the-field as well as elements of urban and digital ethnographic observation and user experience analysis; a description of a scenario for further research and for the production of service and product concepts, some of which are already in-progress, in the areas of the arts, culture, tourism and city administration.

What emerges is the opportunity to create multi-layered interactive landscapes in urban contexts which allow city dwellers to communicate, collaborate, govern their city, exchange knowledge and information, consume, entertain themselves, produce and distribute services.

2 INTRODUCTION

2.1 What is a map?

In current times we are often exposed to the opportunity of looking at satellite images or to global views of our planet.

With no earthly frontiers left to discover, it is possible and appropriate to step back to assess a few of the fundamental questions which form the foundation of the ways in we see and experience space.

What is a map?

Maps are metaphors: abstract, scaled models of space that, in some of the many possible ways, relate to "real" space according to one or more approaches.

A map is an abstracted model of space to aid in understanding spatial relationships and better decision making (MacEachren, 1994; Kraak & Ormeling, 1996).

ISBN: 978-3-9503110-4-4 (CD-ROM); ISBN: 978-3-9503110-5-1 (Print)
Editors: Manfred SCHRENK, Vasily V. POPOVICH, Peter ZEILE, Pietro ELISEI

Furthermore, the Humanities focus on a more critical point of view, stressing context. For example in the structuralist approach exemplified by Norman J. W. Thrower, in 1972, in which he states that "the map is a sensitive indicator of the changing thought of man".

Both definitions, as well as the many others which are available, stress the fact that no map is ever neutral in the representation of a space. They, are, in fact, an abstraction of space produced by its interpretation in terms of a set of goals set forth a-priori by the subject making the map, to support decision making processes, to highlight a certain set of features of the territories being represented, or to share specific knowledge an information about them.

This idea is related to the one which sees a map emerging as a result of a specific mental model according to which we represent a territory.

For example Kevin Lynch suggests the possibility of creating a map as the result of “both of immediate sensation and of the memory of past experienced [that] is used to interpret information and to guide action”. This concept of map allows for both a sense of emotional security and a deeper human experience: knowing where one is in space makes one feel secure, happy and situated.

In “The Image of the City” Lynch's focus emphasized the connection of this state of well-being with concept of “knowing the place”, going beyond the to idea of the utility of way-finding and point-of-interest services, and highlighting, instead, the opportunities for individual and cultural growth brought on by this condition of knowledge and perception.

For Lynch it was not of primary importance to know the exact whereabouts of a certain place or location, but, rather, to have a distinct sensation of a specific place, a story to tell, a memory or information to share. He saw the city as an incredibly complex time-based media, as a potentially dis-harmonic symphony of prodigious proportions in which millions of people collaborated in playing their score, their own vision and perception of space, both influencing and being influenced by others by acts of diffused micro storytelling (e.g.: giving a direction; narrating a memory...). Including the suggestive and radical possibilities exposed by authors such as Debord and de Certeau, in which perception of space became performance of space, to suggest its critical usage and reinterpretation.

This is, basically, what a map is: a way to express what we perceive of a territory, coming from memory, narrative, cognition, sensation, possibility, opportunity, or availability of information, statistics, services.

A way to experience, perceive and perform the territory.

2.2 Interweaving the digital and analog lives of cities

It is from this idea that we can imagine analyzing the ways in which contemporary's wide, accessible and ubiquitous access to all sorts of digital media have radically transformed the ways in which human beings relate, learn, work, consume, entertain themselves and collaborate.

Among the most influential factors which contribute to this transformation is the availability of digital tools, devices and frameworks which have direct impacts on our perception of space at individual, social, collective and cultural levels.

The “Curious Rituals”[1] project is aimed at identifying “gestures, postures and digital rituals that typically emerged with the use of digital technologies”. The project's approach is remarkable in understanding these “rituals” as “the results of a co-construction between technical/physical constraints, contextual variables, designers intents and people’s understanding”. They are seen as a possibility to “envision the future of material culture”, as a way to be able to observe those practices which constitute the present of the ways in which we are influenced by the digital objects around us, and to infer those ones which will constitute its (near) future.

In is possible to imagine extending the “ritual” approach to go beyond the areas of industrial and application design, to include all the domains in which the digital and analog parts of our lives interweave with each other.

[1] Found ad http://curiousrituals.wordpress.com/about/

It is possible, thus, imagine to prepare a methodology which allows us to observe and research the practices (the rituals) by which human beings in a diverse set of contexts have learned to use certain kinds of technologies to substantially transform their experience of public and private spaces.

In doing so, we must show how these digital technologies act at the level of transcoding (Manovich, 2001), by being able to communicate through interfaces establishing crucial boundaries among our reality and the digital. There is a definite decay in this perceived boundary, a turn towards a more permeable membrane, through which digital information flows out and human information flows in, respectively enhancing our lived experience and structuring and organizing data around biological, evolutionary and cultural patterns.

The concept of variability is, according to Manovich, just as fundamental, as it implies both the possibility for this information and its flows to be recombined, enriched and reassembled in multiple ways.

This is one of the main connections that link historical changes in media technologies to social change.

The possibility to construct systems in which a multiplicity of points of view can be freely expressed by allowing people to produce digital content that can be, in turn, recombined and reassembled (curated) to contribute to other people's view on the world perfectly fits the logic of post-industrial society (Zook & Graham, 2007).

These two features, transcoding and variability, together with the wide availability and accessibility of digital tools and devices (such as smartphones) which allow users to ubiquitously produce information in real-time, merge to describe a scenario in which many of the rituals of our daily lives can be seen to revolve around the possibility to experiencing our urban lives through the contributions of the expression of a multiplicity of points of view.

We can, thus, imagine multiple types of digital tools and devices which are conceived to allow people to generate information about their urban surroundings in a multiplicity of ways – both intended and to be created by city dwellers themselves through the availability of accessible tools – that can be harvested – in real-time or offline – to create a novel form of spatial infrastructure: a multi-author, emergent, non-linear, ubiquitous, polyphonic, multi-layered narrative of the city which can be used by multiple types of stakeholders to explore the visions, imaginaries, desires and emotions of people to gain better, more informed insights which can help shape urban policies and architectural practices.

2.3 Ethical and methodological issues

The frameworks that we're dealing with assume the possibility of being able to disseminate – with the population and around the city – a number of devices, sensors and visualization tools which are able, on one side, to harvest user generated data and, on the other side, to make it available for further elaboration to those services – created by administrations, organizations, companies and autonomously by citizens and other types of city dwellers – that allow people to conceive novel ways to perceive their urban environment: to collaborate; to become more aware and active in using energy and natural resources; to learn and exchange knowledge; to promote well-being.

A number of ethical and methodological issues open up with this kinds of practices. Here we wish to briefly address them.

2.3.1 Privacy and control

The scenario in which a system of some type is able to capture masses of data related to the behavior of its users can become dangerous in terms of the possible breaches in people's security an privacy.

The information regarding the fact that User X is at a certain location and stuck in a traffic jam can conveniently be used to promote alternative paths or the usage of public transportation. But it can also be used to harvest information about the user's habits, the paths he/she follows every day to go to work, the places he/she goes to to have fun, where he/she goes shopping, etc.

This is something that already happens with credit cards, store carts and with the CCTV cameras disseminated along our public spaces, and awareness about these mechanisms, on both their positive and negative uses, has been promoted all along the research.

In the research presented in this contribution, specific care has been given to this kind of problem, using multiple tools and approaches: the possibility for anonymity; clear, transparent interfaces and procedures that

allow users to understand the exact ways in which their data is used, and to conveniently block usages which they don't agree on; opt-in strategies, more than opt-out ones; full transparency and disclosure; and more.

2.3.2 The risks of semplification, the loss of complexity

Statistics are not „real life".

The fact that 48 % of the population of the city i live in has used, in the past 24 hours, the word „sad" in one or more of the content they published on social networks doesn't necessarily mean that 48 % of its citizens are „sad".

This kind of problem is typical of the algorithmic systems that aim at being able to interpret user behavior in some way, to extract information about emotions, behavioral patterns, sentiment, relational structures etc.

In is due to a number of causes: the extreme difficulty for these kinds of systems to interpret things such as irony, sarcasm, poetics, etc; the lack of further contextual information; and more.

Furthermore, statistics can be built according to different strategies to obtain different results, and they can be performed to varying levels of detail, aggregation and granularity, in ways according to which specific phenomena may become less evident, of disappear altogether.

To address this issue we have focused on a number of different strategies.

First of all, the complete transparency and availability of data and information.

All collected data and information has been publicly released, in real-time, using open licensing strategies and by providing users (institutional, administrative, corporate as well as citizens) those tools which can be conveniently used to gain access to them: dashboards, APIs (Application Programming Interfaces, openly available software programming libraries which allow users to develop their own applications and elaborations the data), extraction tools, etcetera.

Secondarily, but not less important, by working on the territories (by performing workshops, lectures and entire projects, anywhere from communities to full enterprises or organizations) to suggest possible usage scenarios for this kind of data and supporting the autonomous development of the tools which they perceive as being more useful and effective: to collaborate, work together, learn and exchange knowledge, to support novel forms of welfare and well-being and, in general, to truly become active, more informed and aware, agents in the governance of their city and in the promotion of the well-being of their communities.

Third, by providing mechanisms for wide accessibility and usability of this information, allowing even non-experts to be able to interpret, if not use, the available knowledge through easy to use customizable visualizations and interactive systems.

In this way, whenever we have been able to, we have supported the creation of entire urban ecosystems, more than the emergence of single initiatives, in which hierarchical and a- hierarchical strategies combine and co-exist a the level of p2p (peer-to-peer), by allowing for the existence and free, accessible, manifestation of a multiplicity of – even dissonant – voices and points of view.

Our approach, thus, is that of going beyond the service-based approach: to use urban sensing as an anthropological opportunity instead of a series of packaged services and bureaucratic/administrative tools.

2.3.3 The industrialization of human experience and narratives

Strongly connected to the previous issue, is the one that sees the emergence of a tendency to industrialize the availability of Open Data and, as an extension to that, the products of human experience and narratives.

Starting from the latter, it is not a mystery that, whenever we use the web to subscribe to social media services, such as Facebook or Twitter, we are not adhering to a „free" service but merely joining one which we pay for with the possibility, for the service providers, to use our personal data to support their business models. In this way, businesses are able to use the things we say every day, the information about the places we have visited and the media (video, images, audio) we have produced to sell anything from marketing data, user behavioral patterns up to, in the more serious cases, to information about the political alignment of users.

On the other side, the wide spread of the Open Data movement – that global tendency which is seeing more an more organizations changing their approaches towards the ownership of the data they produce or collect

through their institutional or business activities – is experiencing the rise of a trend which sees the emergence of these new practices of transparency and disclosure as a mere opportunity for the development of business, administrative and bureaucratic processes.

The two issues meet at the point where it is becoming progressively clearer that the focus on most organizations dealing with social media and Open Data is really more on the possibility to develop new business models than on the promotion of the wider opportunities which become globally available through these practices, both at cultural, anthropological levels, and at the level of developing a true, global process that is able to support people in becoming active, aware agents of their times.

Everything points in this direction: from the lack of a true cultural, diffused approach to people's education on the matters regarding their participation to social networks, allowing for the de-facto privatization of the digital ecosystem of people's relationships and information; up to the reduction of the processes of Open Data to a mere sequence of transactions at business, administrative and bureaucratic levels, without addressing the cultural and anthropological dimensions of these types of operations.

In our approach we tried to assess these two issues by doing the exact opposite.

We have focused on the educational, cultural and anthropological dimensions of these processes, using technologies as an opportunity to develop the imaginaries and visions of people (students, citizens, activists...) to try to promote their own possibility to envision ways in which they will be able to collaborate to become active, aware agents of their times.

In the specifics: we have focused in using engaging, exciting tools to suggest the possibility to build emergent, polyphonic, ubiquitous, non-linear narratives of the urban environment, to be used to construct community driven tools dedicated to the promotion of well-being, welfare, wise and effective usage of energy and of natural resources, collaboration, knowledge sharing and, more in general, to promote new tools which are able to suggest novel forms of perception in the urban environment and of diffused, p2p city-governance.

3 METHODOLOGY

A formal methodology has bees developed and refined over time and across the various iterations of the projects dealing with Urban Sensing.

The first phase of each project begins from a context analysis, from an anthropological point of view, and on its desired impacts on the urban ecosystem. The contextual analysis can assume many forms, from scenarios involving surveys, to more advanced techniques involving user observation and co-participation.

The result of this phase, the scenario, is intended to be merged to the project's objectives to try and determine the which forms of new urban rituals could embody the urban practices which are the object of the project: could it be an application? An interaction with an urban screen? A typical transmedial user journey?

At this point the concept is developed, in respect of the ethical issues.

The concept is created across several iterations, and can (and usually is) refined multiple times throughout the project's life.

The means and methods through which it will be possible to measure and evaluate the quantitative ad qualitative usage of the designs is also formalized at this stage, together with the concept.

To support the project's technical/technological requirements software, devices and infrastructural platforms are developed at this point, and refined/integrated throughout the project's lifecycle.

During this phase special care is put on providing the tools and documentation to enable the educational and cultural strategies which are a fundamental component of our approach, and that will be used across workshops and as freely available development platforms.

At this time the project is deployed. The systems and practices are introduced to territories and population, by promote practical experimentation in real-life scenarios. Feedback processes are also suggested and promoted, to imagine redesign iterations or suggestion for next designs.

Measurements and evaluations are performed on the usage of the systems and frameworks (both qualitative and quantitative). Documentation is produced. Best practices and design guidelines are extracted.

In the different scenarios explored in the following sections, multiple approaches and strategies have been chosen to engage both the local population and different types of city dwellers (tourists, people coming to an event...), and to provide them with short and long term benefits. In the Atlas of Rome, for example, participants were easily recruited among the visitors of the exhibit, and a very detailed scenario about the possibility to research and establish participative practices for urban governance was provided as a possibilitisic benefit that many of them were ready to explore.

More difficult situations took place as well, such as in the case of the VivaCosenza example below, which featured a very low level of spontaneous citizen engagement which we were able to raise only by performing a capillary set of workshops together with citizen associations, local arts collectives, schools and with the support of already trusted communities which we have been able to identify after a thorough ethnographic observation on the field.

Also, the expected outcomes of the single projects vary depending on the cases. While each of the described examples has its roots in scientific research and academic practice, the different techniques and solutions found in each case have easily opened up to multiple usage scenarios. From the more artistically oriented, such as in the VersuS example below, to all the ones which have had a tangible business impact, such as the ConnectiCity and Trieste examples.

4 CASES

4.1 The Atlas of Rome

After an initial test produced for the Franz Mayer museum in Mexico City, we designed a 35 meter long architectural projection and sound environment for Rome's "Festa dell'Architettura" in 2010, organized by the City Administration together with the Italian Order of the Architects.

The Atlas of Rome's purpose was to portray in real-time the evolution of the visions, desires and actions created by architects, institutions, operators and citizens onto the city of Rome: 16 information domains had been classified to describe the overall wellness of the city.

Information was captured from multiple sources and processed using Natural Language Analysis (Hanks, 2005; Tuulos, 2004), and then was geo-referenced either through GPS enabled devices or by using a large database of Named Entities, including the names of streets, malls, cinemas, museums, landmarks, neighborhoods, common alternative names of places, pubs, bars, shops, stores, gyms, and other dozens of types of locations.

Content was also directly provided by citizens using web and mobile interfaces.

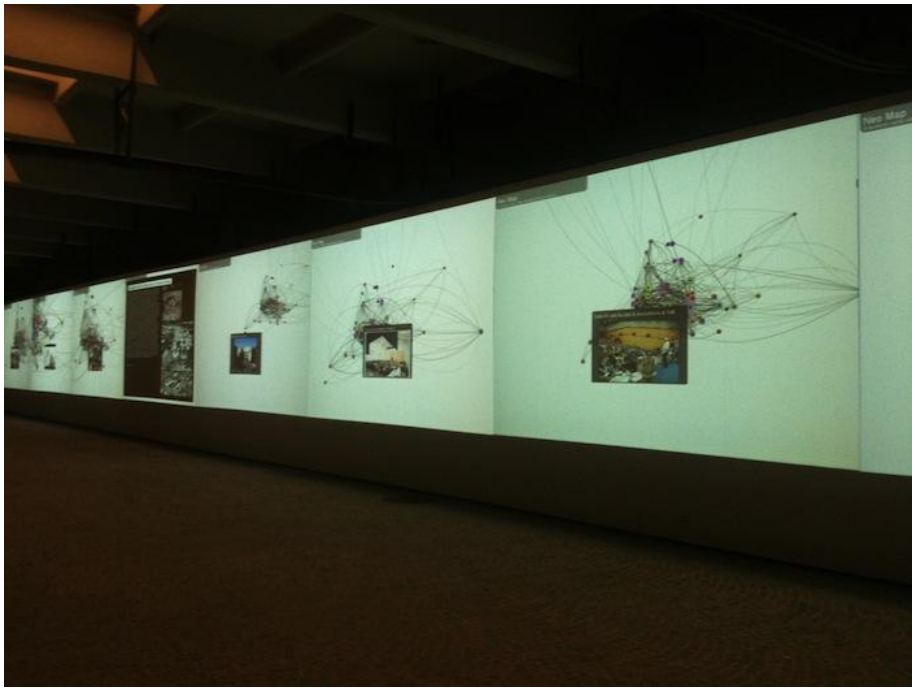


Illustration 1: The Atlas of Rome

Collected information was shown on the 35 meter wide surface using a Processing application. Different information visualizations were designed to aggregate information according to themes, time-frames and types of activities.[2]

Passer-by's possibility to interact in real-time with the installation produced radically positive effects: the fact that a large-scale architectural surface was actually responding in real-time to their interactions powerfully combined with the tangible effect of having own information published onto the projection. The combined effect of being able to both contribute and interact had a distinct empowering effect on people, who spontaneously started to discuss possible uses for this kind of system in areas such as participatory urban planning, policy making and decision-making at city level.

A neighborhood version of the Atlas was also produced, to experiment on the possibility to visualize the trending topics of the digital conversations taking place in neighborhoods in which a smaller, urban-screen based, version of the visualizations was placed.

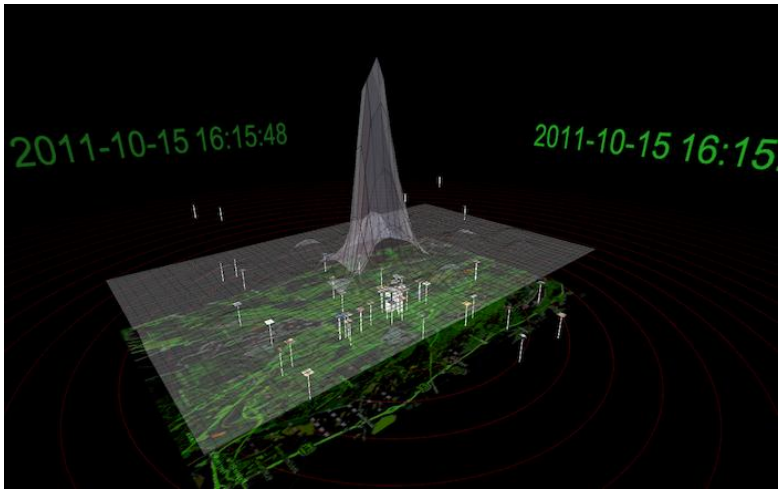
4.2 Riots in Rome

The possibility to harvest information in real-time from cities using user generated content on social networks was used in occasion of the first instantiation of the VersuS project.[3]

The first prototype was created in occasion of the protest which took place in the city of Rome on October 15th 2011, in occasion of the event organized worldwide by the "Occupy" movement, and which quickly degenerated into violent uprisings all over the city's centre.

VersuS was created to collect all social network activity during the protest.

Different social networks were observed using different techniques, including Twitter, Flickr and Foursquare APIs and Facebook's Graph API to first identify relevant sources (user profiles and pages focused on the city and on the themes of the protest) and then harvested for information (about 16000 profiles and their connections were harvested).



Riots VS Rome

Natural Language Analysis and GeoParsing/GeoReferencing procedures were applied to identify content which was actually relevant to the protest allowing us to select more than 92000 information elements in the time-frame of the protest.

A series of visualizations were designed to investigate on the results of the process.

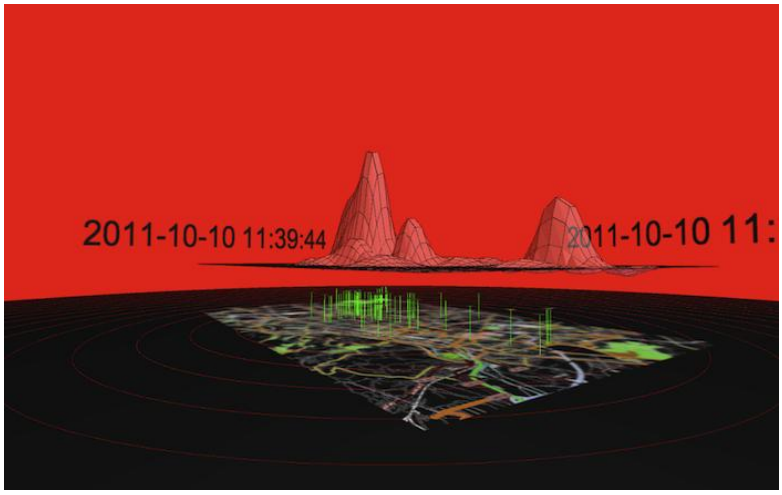
A geo-referenced parametric surface showed the real-time geographical intensity of communication and allowed to clearly follow the protest, documenting how a large number of individuals actively used social media to communicate and collaborate during the riots.

[2] http://www.artisopensource.net/2010/06/07/atlas-of-the-visions-festa-dellarchitettura-index-urbis-rome/
[3] http://www.artisopensource.net/category/projects/versus-projects/

Qualitative analysis was then visualized to display usage scenarios for this information, from the points of view of administrations, police and security and citizens. In this occasion we were able to observe how tens of thousands of valuable information elements emerged in real-time for each of these application scenarios.

4.3 Love versus Turin

A similar technique was used in the city of Turin to harvest information about the emotions of citizens and tourists.

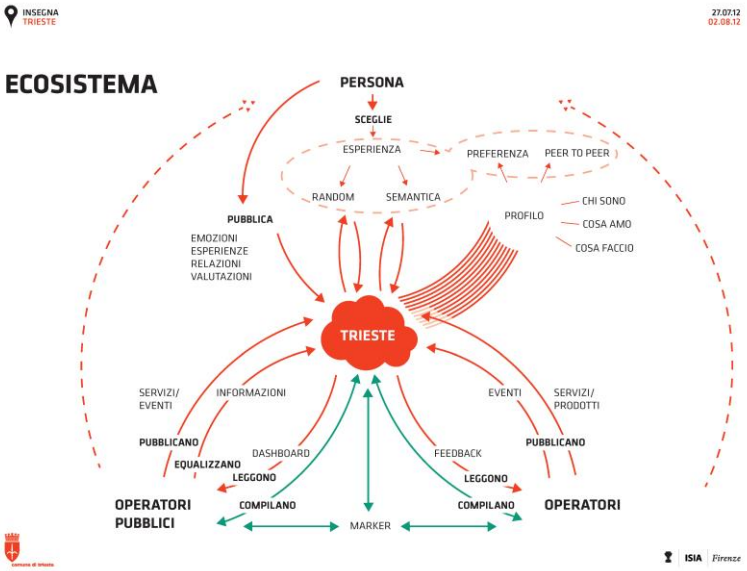


Love VS Turin

This time the content collected from social media sites and, then, geo-referenced was processed to explicitly extract information related to the emotions expressed by users. "Love" was used, specifically.

The experiment was able to express multiple interesting elements about the ways in which citizens experience and perceive the city in emotional terms, including: the emergent definitions of landmarks; the distribution of specific emotions through different neighborhoods; the time-based sequences according to which different emotions manifest themselves in various locations of the city (for example their emergence across traffic jams and various situations of urban distress).

The project served as a useful foundation for its next instances.



Insegna Trieste

4.4 Urban communication in Trieste

Organized by the City Administration of the City of Trieste and by ISIA Design Florence, and with the collaboration of the Regional Administration of Friuli Venezia Giulia, the Faculty of Architecture of the University of Trieste, ISIA Urbino, IUAV University and the University of Nova Gorica a workshop has

gathered students to explore the city of Trieste from a new point of view, and trying to answer the question: "What is the information architecture of the city, as interpreted from a variety of cultures and points of view? How is it possible to define strategies and methodologies to design a system of signs, technologies and methodologies to represent it in meaningful ways? What is the future of urban signage?"[4]

Urban signage is the street-interface for the city's Information Architecture.

Starting from the existing scenario we have imagined to extend the set of techniques, methodologies and technologies which were classically used to design urban signage, and to include a wider, holistic, set of considerations into the discourse.

Ubiquitous technologies, tagging, augmented reality, urban screens and other technologies can be used to radically transform our experience of cities, as we navigate through streets, landmarks, businesses and opportunities for socialization, entertainment, culture, information and relation.

To transform the city into a place where no spectators exist: in the Network everyone is a performer.

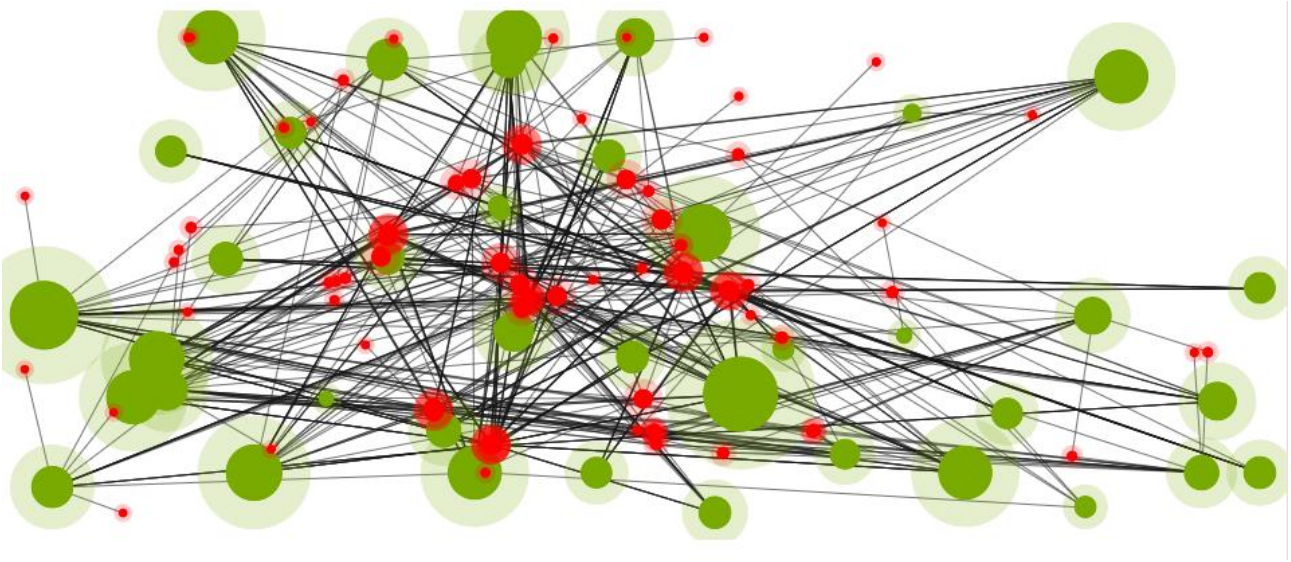
Choosing, connecting, looking, conversing, recognizing and interacting: everything in the Network becomes construction.

From consumers to cultural producers, disseminated in time and space, and connected by transforming links, multiple and emergent.

The results of the workshop, which engaged the local population as well as the students coming from the universities, have been many and varied, including the draft definition of a possible urban ecosystem, the idea of the "City as a Platform" as an opportunity for free expression and business, a concept for a movable landmark and the definition to setup a "city construction kit", a mix of free hardware and software technologies which can be used to develop the city's digital ecosystem and its connection to its analog life.[5]

4.5 A contemporary arts festival in Cosenza

VivaCosenza Performance Lab is an international event about art and performance that is held in December in the city of Cosenza, an ancient and beautiful site of the south of Italy.[6]



VivaCosenza

We were invited to create the "digital life" of the city during the festival, so we created some tools which could be used by students and citizens to enact the real-time, participatory narratives of the event.

Using a series of open technologies which we had developed for the VersuS family of projects, we have setup a system which is able to capture in real-time all of the social network activity of citizens, students,

[4] http://www.artisopensource.net/2012/07/25/redesigning-urban-communication-in-trieste/
[5] http://www.artisopensource.net/2012/08/10/trieste-cloud-city-new-frontiers-of-urban-communication/
[6] http://www.artisopensource.net/2012/12/01/vivacosenza-how-to-transform-a-city-event-into-a-real-time-participatory-performance/

visitors, organizations and institutions of the city of Cosenza and also of the people who have used social networks to communicate about the festival and the city from other locations.

A set of language-based technologies have then been used to classify all this information, in real time.

Furthermore, special projects have been created by high-school and university students, who have been asked to create communication formats for the festival, dealing with arts, food culture and new forms of journalism and storytelling.

All of the emergent communication which has been generated in real-time during the festival has been visualized both online, on smartphone/tablet applications as well as using a projection mapping in a public space in the city, so that all citizens have been able to experience the digital life of the city directly from public space.

The objective of the platform is to understand the ways in which these kinds of technologies can be used to transform the life of the citizens of the city, to imagine, design and enact novel participatory approaches.

In this, we have suggested a new role for institutions, who can become promoters and maintainers of new forms of expression which are available and accessible to everyone.

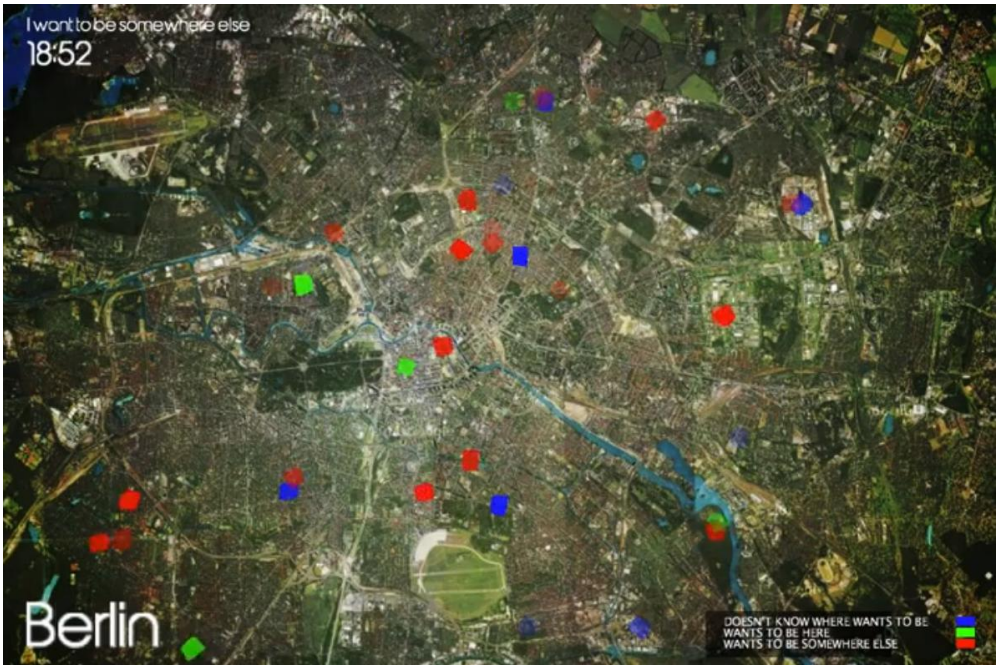
Just as we used technology to create an infrastructure for expression to be used by students to create their own formats, we imagine a "city as a platform" (for example as we suggested in Trieste), where ubiquitous infrastructure (both cultural and technological) is made accessible and usable through public policies, enabling citizens and city dwellers to basically have the tools to design and build their own digital, cultural, business, communication, storytelling, envisioning ecosystem.

In the project we have started from scratch with students and have setup a basic set of technologies, for them to be used as building blocks for their communication and storytelling formats.

The issues of privacy and control have also been the object of multiple workshops which engaged the wider population in imagining convenient, safe usage scenarios for these technologies.

4.6 Feeling happy to be in London and Berlin

A series of installations were presented at the Ljubljana Design Biennial exploring the possibility to listen in real-time to the emotions, expressions and information generated by users on social network and using ubiquitous technologies, and to publish them onto the cities which they are related to.[7]



Berlin Wants to be here

[7] http://www.artisopensource.net/2012/09/20/versus-at-bio23-ljubljana-design-biennial/

A scenario emerged according to which it becomes possible to realize information landscapes which are ubiquitously accessible and which change our experience or urban spaces.

These projects also suggest the possibility to use these methodologies and technologies to promote novel forms of participatory practices in urban spaces, for decision-making, policy-making and urban planning and design.

Among the installations, two dealt with the well-being expressed by social network users in the various locations of the city of Berlin and London.

5 CONCLUSION

The next steps of this series of projects will engage the exploration of the possibilities offered by using novel forms of devices (such as the ones that will be produced in Trieste with the "city construction kit") as well as an even stronger push in the direction of various forms of mobile interaction, as the possibility to disseminate ubiquitous technologies is, in our experience, among the leading drivers to this kind of innovation.

A specific note has to be made in relation to the themes of urban screens. Our experiences have shown how their limitations in terms of ubiquity and on the possibility to show only a limited number of decipherable points of view are matched by the ways in which they provide user-generated interventions high visibility and the distinct perception of participation to city life and governance.

Thus, they can and need to be carefully chosen in the design of such kinds of projects.

As far as we are concerned, and from the point of view of a research that allows us to cross the boundaries of architecture, anthropology, cognitive science, interaction design and many more, this type of projects represents both an opportunity and a frontier, in which the dangers coming from the industrial open data and of human experiences and narratives match the opportunities to promote a sustainable, feasible rise of new, free, accessible "anthropological gestures", and the freedom of expression, self-determination, organization that go with them, situated in the location of what seems to be the place of the destiny of human beings of the near future: the city.

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