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Emotional Cities: imaginary future of ambiances explored in the Mobiance workshop

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Abstract. *Mobiance, a mix between Mobile and Ambiance, is a research and creation process on the impacts of the uses of mobile tools on urban design. The second Mobiance workshop, held in Nantes, France, at the beginning of October 2015, focused on captors/actuators interacting in/with cities. Captors/sensors stand for connected devices, private and public ones, mobiles and fix ones, visible and invisible ones, interacting in the public space. This paper first presents the context of the workshop and the proposals produced by the participants; then it develops an analysis of these proposals and compares them to the outcomes of the first Mobiance workshop held in 2013.*

Keywords: mobile devices, ambiances, urban design, emotions

Introduction

Mobiance, a mix between Mobile and Ambiance, is a research and creation process that analyses the impacts of the uses of mobile tools on urban design. The second Mobiance workshop, held in Nantes, France, at the beginning of October 2015[1], focused on captors/sensors interacting in cities. Captors/sensors stand for connected devices, private and public ones, mobiles and fix ones, visible and invisible ones, interacting in public space. The key issues that the workshop addressed were: How these connected devices transform urban ambiances? What are the new forms of interaction and communication they will produce in urban space? What are their impacts on urban daily practices and on urban design? What technical and political issues arise from their multiplicaton and interactions? Twelve students during three days explored these issues and envisioned future scenarios.
We will first present the four proposals produced by the students, before to discuss the main outcomes of the workshop. In particular, we will show how emotional dimensions of urban digital experience have been emphasised by the students,

1. See: http://www.ambiances.net/workshops/nantes-2015-capteurs-senseurs-en-interaction-dans-la-ville.html

although this was not specified in the initial issues of the workshop. Finally, we compare the four 2015 proposals with the ones developed in the 2013 workshop.

Context of the workshop and proposals descriptions[2]

Twelve students from different areas (engineers, architects, urban planners and managers) were invited for three days of work in Nantes. Organised into four multidisciplinary teams, they were asked to produce scenarios of interaction between human-sensor communication interfaces and users in public spaces. The question was how to filter, aggregate, contextualise and disseminate relevant information in a context of multiple and continuous flow of data. Students had to envision specific urban situations and to build, illustrate and present a coherent and relevant scenario at the end of the workshop. They were asked to consider captors/sensors interaction and uses with no technical limits, and they were pushed to work with various sensory modalities: light, sound, haptics, vibration, odour, etc. The following presents the four proposals regarding the interaction between people, emotion, and the city.

Data clothing, data sharing

The first proposal, 'Data Clothing, Data sharing' (by Cecilia Chiarini, Capucine Lonjon, Manon Seppecher), was based on a clothing metaphor. Each individual generates data: he/she carries data, digests them and new data emerge from this process. This information constitutes part of the identity of the individual. Hence, it becomes necessary to distinguish between public and private data, and which to disclose or to keep private; this is the challenge of virtual identity and privacy. In developing the concept of *Data Clothing*, the issue of data identity is pushed further and formalised in the form of clothing. Individual data may no longer be virtual but physically communicated or represented: thus clothes may become an interface that enables new interactions between people and their environment in the daily city experience. Hence, according to this team, each individual could decide to wear, display or share personal data through clothes, giving different levels of interaction. The city would be able to capture the data generated by the individual and to interpret, assimilate, and react to them. The urban space itself would be able to generate information. Finally, the urban environment becomes a place for *Data Sharing* among individuals and between the individuals and the city.

Physorial Heritage

The second project was named 'Physorial Heritage or creating an emotional heritage with the memory of places' (by Carole Bodilis, Anna Leonte, Léa Renucci). Physorial heritage relates to the idea of keeping a physical track of what is not tangible, i.e what comes from the sensory field. In the proposal, public spaces would be equipped with sensors that collect the different sensory energies released by on-site users at a specific time. The sensory heritage is progressively created by inhabitants; the place collects these memories and makes them available to future generations. Data are collected and interpreted as elements that contribute to generate an ambiance in the most physical sense (odors, colors, shapes, etc.). The temporary

2. All the proposals are under Creative Common Licence (Attribution - Non Commercial)

sensory dimension is collected by the *Physorial Heritage* system as a fingerprint. Later, people who will visit the place will be able to connect to these ambiantal memories and to feel them again. Thus, the device would allow to create an emotional heritage and then to assign emotional values to places beyond their functional values.

Emotional cloud

In the third proposal, 'Emotional Cloud' (by Clémentine Houdoyer, Louise Vautier, Irène Vegetti), the relevant city element is the air, considered as a medium. Actually, in this proposal, emotions are shared not only verbally nor virtually, but they are also exchanged immediately and playfully through the air. Thus, the air participates in interactions between citizens and it can also play with them. Individuals can convey emotions using the surrounding air through coloured breathable non-harmful particles. Indeed, each individual would possess a device that will capture his/her emotions and may project them in the air by activating the particles… The tool would colour particles in the air following the emotion chosen by the person creating the cloud. The recipient of this colourful cloud will be covered with colour and will feel the embedded feeling. Once completed its task (and only after), this colourful cloud will vanish… However, in the city, air is not uniform and static, It comes and goes uncontrollably. The air thus becomes also an actor of the interactions between people: cloud transmission would occur thereby not only to know persons, but it could also reach strangers. This new medium would change the way people interact: its immediacy would help to improve communication passing through emotions, its playful side would break barriers and even transform communication in a game.

Symbiosis

The last proposal called 'Symbiosis' (by Julie Milovanovic, Quentin Parizot, Arnaud Prugnière), imagines a future city where street furniture and city dwellers are intertwined through a new type of language: the one of collective emotions. The urban landscape would adapt itself in real time according to the dominant moods, revealing an emotional architecture of a new kind. In this world, every citizen would feel instantly, according to his/her free will, the mix of emotions surrounding him/her. The vibrations would be the foundations of this new language. The city could inform us of collective emotions in real time using a sophisticated vibratory system, and each citizen would have a sensor to receive it. By capturing the emotional data of each individual, mixing them to bring out the very essence of the collective mood, and transmitting it through a vibrational frequency, the city would speak with us the language of emotions. Basic emotions, that are joy, anger, sadness, disgust, fear and surprise, would be captured from each individual through an integrated chip in the internal ear, that could also be a receiver and therefore allow everyone to attune with his/her urban environment. Tomorrow's architects and artists would participate in the development of emotional landscapes. Urban furniture would react in real time to the collective moods. Illustrating 'mood symphony' of the group, vibrations would result in a scalable map in real time showing people's temper. Anybody would be able to observe changes in the mood of a given place: public square, business, neighbourhoods, entire city, etc. People

would communicate differently, through this new sensory and sensible augmentation.

Analysis and comparison with the first Mobiance workshop

The proposals resulting from the 2015 Mobiance workshop present four different ways to express and share emotions without worrying about their dissemination and reception. Thus, even if the free will of the individuals still exists (choice to be tuned or not in *Symbiosis*, choice to show or not in *Data Clothes*), the proposals imagine scenarios where people would be immerged into ambiantal visible/sensible emotional fields. Intimacy vanishes to allow collective interactions with people's moods or emotions. What would be the behaviour of people in such worlds where emotions are ubiquitous? The same questions asked by Kassabian (2013) about music in ubiquitous listening could be transposed in a world filled with ubiquitous emotions: How individuals could react to these invasive emotions? Where to direct attention? What amount of attentiveness needs to be paid to them?

It is surprising that, in the student's proposals, the city as a built entity disappears. Its interstitial space, together with people interactions, become the main urban issue. The material city is thus transformed into a stage for social and interactive life of people. In the last scenario, collective emotions will even 'design' the urban space itself.

In the four proposals, the urban experience of each individual is affected by its constant connexion with other feelings and emotions. This could be interpreted as an extension of the 'permanent alert' state defined by permanent networks connexions through mobile devices (Boullier 2011). This new state affects the way to go through cities. Boullier (2011, 2015) develops the concept of *habitele* which is the whole environment of digital entities of a person that also corresponds to the personal data ecosystem one can carry to augment his/her environment. The *Data Clothing* proposal is a *habitele* metaphor. The emotions shared in the four proposals define a kind of *augmented ambiance* through the mobile carried ambiances.

As recently stated by Abiteboul, André & Kaplan (2015), everybody has data but we do not always control data access by other parties. The authors examine how people manage their digital lives in a word where data is considered as a 'vital asset'. Their answer is through a 'Personal information management system' (PIMS). This PIMS is more or less a digital home for the user who regains the control on his/her data. Who handle the data, who supervise them, was not an issue addressed by the workshop proposals. (Kaplan *et al.* 2012) state that the problem is more in the data construction. Every data is made/designed, acquired or recorded for a specific purpose. They are different mediation ways. In the workshop proposals, data are only seen as freely given and the mediation and the purpose are not raised issues. This is correlated with the supervision question.

The proposals of the 2015 Mobiance workshop differ slightly from those of the first Mobiance workshop two years earlier (Servières et al. 2014; Siret et al. 2014)[3]. In the first edition, the students were asked to produce proposals dealing with new uses of mobile tools for urban design in relation to ambiances. The proposals were mainly uses cases of urban design tools on mobile devices. Mobility was used to give

3. See also: http://www.ambiances.net/workshops/nantes-2013-mobiance-outils-mobiles-ambiances-design-urbain.html

meaning to the ambiances in urban design. Thus, in these proposals, the goal of urban design was to identify places where ambiances would be considered as 'poor', and to suggest new developments to improve them. Ambiances were also considered as a communication medium for city leaders that could bring city dwellers who share the same 'sensibility' to discover new urban spaces. The limit of these approaches was to depreciate some parts of the city, and levelling the ambiances around consensual experiences.

In the 2015 workshop, the 'no limit in the technic' was fully taken into account by the students. They have imagined new urban situations were the tool itself is inherently mobile because it is a part of every individual, carried without even thinking about it. Thus for these students, mobility is not an issue, it is a starting point. The mobility does not give new meanings to the urban world, but it allows to share more emotions. On the contrary, in the previous workshop, the student proposals were limited to classical mobile applications.

The first Mobiance workshop brought to light the need of two information systems. One would be composed by physical sensors collecting any place and any time a set of quantitative physical parameters regarding temperature, sound, wind, land use, etc. Then this information would be supplemented by personal quotations that would give them meaning and singularity. In the 2015 workshop, the separation between physical data and personal appreciation was not even made. The information system itself was considered as integrated: data are everywhere, constantly accessible, and people are always plugged.

In both workshops, the proposals develop scenarios that take place in a hyper-supervised world. The question of who is the supervisor is not raised by the students. They have some concerns about the limits for the individuals, but nothing at a larger community and political scale. It seems that for the concerned generations, students and young workers under thirty, tracking of individuals is a necessary evil if it is designed in the service of public good, served by a 'public authority' with very blurred edges.

Nevertheless, we notice that from the first Mobiance workshop to the second one, the scenarios developed by students refer to very contemporaneous questions, shifting from current connexion and data sharing problems, to the more intimate issue of emotion sharing. Thus, the four scenarios of the 2015 workshop focused on emotional communication. The workshop raised questions about the future of citizen and city interaction, and gave us clues on how young people see their actual world while showing us the way they dream their future.

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References

Abiteboul S., André B., and Kaplan D. (2015), *Managing your digital life with a Personal information management system*, Communications of the ACM, 2015, 58 (5), p. 32–35. <hal- 01068006>

Boullier D. (2011), *Habitèle virtuelle*, Revue Urbanisme, n° 376, pp. 42–44

Boullier D. (2014), *Habitele: mobile technologies reshaping urban life*, URBE, vol. 1, no. 6, pp. 13–16

Kaplan D., Kaplan F., Dalbin S. and Maisonneuve M. (2012), *Méthodes, techniques et outils*, Documentaliste-Sciences de l'Information 2012/3 (Vol. 49), p. 10-15. DOI 103,917/docsi.493.0010

Kassabian A. (2013), *Ubiquitous Listening: Affect, Attention, and Distributed Subjectivity*. By. Berkeley : University of California Press, ISBN 978-0-520-27516-4

Servières M., Siret D. and Lescop L. (2014), *Outils numériques mobiles, ambiances et design urbain : quelques résultats issus du workshop pluridisciplinaire MOBIANCE*, Actes du colloque SCAN' 14, Presses Universitaires de Nancy, p. 233-243

Siret D., Servières M. and Lescop L. (2014), *Communication multimodale et collaboration instrumentée pour le design urbain : opportunités et risques des outils mobiles analysés à travers l'expérience du workshop Mobiance*. In Leclercq P (Ed), 'COMMON'14. Communication multimodale et collaboration instrumentée », Atelier des Presses de l'ULg, Liège, Belgique

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