

Digital traces as tool of a human-centred design approach

Ami Licaj

Department Architecture and Design DAD (University of the Study of Genoa)

email: licaj.ami@gmail.com

Abstract

Today humanity generates 5 exabytes of data every 12 hours, through devices that are now extending of our skin, our mind and our existence. The hyperconnected society generates digital traces that, for those who are able to read them, describes the reality of the existence of people, their habits and their needs. Digital traces of online life, the life in which we exist for most of our time - probably coming into the future to live in continuous online flow -, are readable signs of problems related to every aspect of people life's and therefore citizens. Knowing how to read and understand these traces - data - means knowing how to listen society and its needs, and above all the city and its citizens, the starting point for a human-centered design.

Abstract

Oggi l'umanità genera 5 exabyte di dati ogni 12 ore, tramite device che ormai sono estensione della nostra pelle, della nostra mente e della nostra esistenza. La società iperconnessa genera dunque tracce digitali che, per chi è in grado di leggerle, raccontano la realtà dell'esistenza delle persone, delle loro abitudini e delle loro necessità. Le tracce digitali della vita online, che sempre più sta diventando la vita in cui esistiamo per la maggior parte del nostro tempo – probabilmente arrivando in un futuro a vivere in flusso online continuo –, sono segnali leggibili di problemi relativi ad ogni aspetto della vita di persone e dunque cittadini. Saper leggere ed interpretare queste tracce – i dati – significa saper ascoltare la società e le sue esigenze, e soprattutto la città e i suoi cittadini, punto di partenza per una progettazione human-centred.

Introduction

“All of us are both producers and consumers of information” the concept is expressed in the Introduction of Jacobson's book “Information Design”. The sense is that designers are not only the

professional figure between technology and usability, user and interface, message and communication. They are also consumers, users and recipients of the message, as much as their users. As Iaconesi claims, quoting Bateson, we ourselves are part of the ecosystem and this becomes a fundamental element for his observation and ecological thinking.¹ So the designer is both a person and a user, he lives in society and is an active part of this system.

The designer and professionals of any field, have the power to be able to observe with careful and critical eye according to the criteria of their discipline. What designers should start doing is to consider the digital environment as a first analysis place for their projects. It's no longer enough nowadays sitting on a bench watching people to design, as designer Paul Ulian says², because we would probably face only the image of people folded on their devices, intent to exist in their digital environment while walking in the natural one. In the digital environment there is a large part of their time and it is in that place that the needs of the end users of their projects and work are hidden. Another reason to consider, during the design process, even online existence is that often the two existences do not coincide, but in both there are elements of truth.

The digital traces that define our digital identity are in fact a part of the often different and contrasting ego, as Sara M. Watson demonstrates in the analysis of her digital data from social networks and different platforms in common use. What comes out is a fragmented profile but with interesting variables, which show that digital traces can capture aspects of ourselves that we can not grasp in analogue life, and these variables can not be ignored when considering needs of our users and citizens.

"She is between 25 and 34 years old. Or he is less than 32 years old. It's a Millennials. She is deducibly married. But she uses her phone as one single woman.

(...) Listen to rock, rap and hip-hop music and read children's literature. Is passionate about robots and renminbi. She likes water, ice, oranges, the wellness centers, the Chinese New Year, the cervical vertebrae and the color of the Human skin. It has a retro style.

(...) He only did 40,094 steps last week. It could qualify for a medical study on anorexia³"

However, having a complete picture allows us to apply processes, methods and tools of design in order to carry out projects that are functional on the totality of the individual and that respect its existence, its daily rituals and needs; being the designer who solves problems must have a complete picture of them, and not partial. The analysis of the traces of digital identities on the web in general, and on social networks in particular, should become an integral part of the profession of the designer and his education.

"Ask questions because data has the answers⁴"

The traces of online existence are data, informations that hides problems, needs but also answers. Designers contribute with our daily slice of data to feed this system that now as ever homologates us through social and device. Within this homologation these two constants – social and devices –, almost present in everyone's lives, allow us to have starting points to understand what the new

¹ S. Iaconesi, O. Persico, *La cura*, Codice, Torino, 2016

² T. Bovo, Paolo Ulian: Non devo parlare inutilmente, www.frizzifrizzi.it, 6/10/2017

³ S. M. Watson, *Bits of me*, www.schirn.de, 21/06/2016

⁴ D. de Kerchove, *Cultura e società in trasformazione: l'era digitale*, conferenza Palazzo Ducale, Genova, 10/04/2016



Fig. 1 "Social Decay" Andre Lacatusu behance.net

Methodology

"(...) we have recognized that INFORMATION is the MERCHANDISE par excellence. The interesting fact, however, isn't this, in my opinion, but the fact of recognizing that traditional merchandises (goods, objects, services) are in very strong decline values. We no longer know what to do with traditional goods and this come designers we should be worried.

The only good that matters is information (data) and if we include this in the acquired ability to implement data (big data analytics) in real time and in enormous quantity, the phenomenon becomes interesting and action is urgent.⁵"

Never before, being part of the system from the inside, designers can try to understand these complex systems, to try to understand how all this can be used in terms of an instrument and a means of analysis, problem-solving, problem-finding and ethical communication.

A possible way to do this could be starting from self-observation, as user-designers. Observe themselves to observe; be test subject of themselves, to understand relationships and behaviors between body, devices, social networks and data; starting from the personal case study, to comprehend the common one homologously.

The practice of observing oneself has not always been an applicable method in the design process, indeed it is often used to make a kind of self-censorship of what are their intimate visions and opinions, trying to keep the most objective vision towards the project and as detached as possible. Probably because, even if always present in different forms, the homologation has never been measurable.

In recent years, self-tracing practices have allowed many designers, such as Giorgia Lupi and Nicolas Felton, to develop projects and studies on body-device-data relationships. Starting from the analysis of oneself led to reflect, and give answers, on common problems, contributing to validate neonative theories.

Giorgia Lupi, designer and creative director of Accurat, and Stefanie Posavec, with the Dear Data project, have collected and measured every week, for a whole year, data that examined, from time to time, aspects of their daily lives, carried out in two different cities, New York and London.

⁵ F. Celaschi, Intervista Dicembre 2017.

The two designers processed these monitors every week on different themes, and turned them into Views on a postcard, ready to be sent to the other side of the Atlantic.

How many times have they complained or when they have felt envious, how many times have they looked at the time, how many times have they said “thank you”, the sounds they have heard, etc. Tackling each theme involved understanding more and more the relationships between technology, space, time and one’s identity⁶.

Listening to ourselves but also listening to the world, this is what we tried to do through the project with the participatory performance Baotaz realized in August 2016 and exhibited at the Triennale Design XXI, on the occasion of the “Knowledge Sharing” convention. The installation was designed and developed during an international Summer School at the ISIA in Florence, organized by Salvatore Iaconesi, Oriana Persico and the Nefula team. Baotaz consisted of three elements which made the experience of multi-sensorial and extremely immersive enjoyment.

In its entirety it allowed to “listen”, in different ways, the conversations of the hyper-connected world - through real-time data coming from social networks - on the theme of inhabiting the planet. The intensity of the conversations and the emotional aspects were translated by a silicone brain - a metaphor of the hyper-connected mind - which lit up through the leds according to the emotional progress of the conversations, a helmet that transformed intensity and emotions into vibrations, allowing the user to listen through the wearable and therefore his own skin, and finally an online platform that, through an interactive visualization, allowed to explore data on emotions and conversations.

The performance therefore acted on the extremes of the immersiveness and on the power of the permeability of the message through use contemporary of almost all the senses. Data, skin, eyes, body, mind and social networks gathered around an ubiquitous conversation.



Fig. 2 “sur-fake” Antoine Geiger: <http://antoinegeiger.com>

⁶ S. Posavec, G. Lupi, *Dear Data*, Particular Books, London, 2016.



Fig. 3 “Baotaz” La Cura Summer School. Triennale Design XXI, Milano 2016

Conclusion

Data are traces of people's lives and the digital environment where we actually exist online. Designers should try to understand how to observe the digital environment, collect these traces and learn how to read them in order to discover problems and solve them. Learning to collect, process and make accessible data's users of the project means placing their existence, their body and their identity at the center of the project, because data derive from them. A closed-circle process, the data produced by the people / users / citizens are shared, borrowed from the designer and returned to the direct owners in the form of a customized project.

References

- T. Bovo, Paolo Ulian: *Non devo parlare inutilmente*, www.frizzifrizzi.it, 6/10/2017
- S. D. Carli, "Nella società ipercomplessa, la strategia è saltare le separazioni," 09-Jun-2017. [Online]. Available: <http://www.vita.it/it/interview/2017/06/09/nella-societa-ipercomplessa-la-strategia-e-saltare-le-separazioni/119/>. [Accessed: 29-Jan-2018].
- P. Ciuccarelli, G. Lupi, and L. Simeone, *Visualizing the Data City: Social Media as a Source of Knowledge for Urban Planning and Management*, 2014 edizione. Springer, 2014.
- C. Chen, *Information Visualisation and Virtual Environments*. Springer, 1999.
- J. A. G. M. van Dijk, *The Network Society*, Third Edition edizione. SAGE Publications Ltd, 2012.
- Q. Fiore and M. McLuhan, *Il medium è il massaggio*. Mantova: Corraini, 2011.
- S. Iaconesi, O. Persico, *La cura*, Codice, Torino, 2016
- R. E. Jacobson, *Information Design*. Cambridge, Mass: Mit Pr, 2000.
- D. de Kerchove, *Cultura e società in trasformazione: l'era digitale*, conferenza Palazzo Ducale, Genova, 10/04/2016
- J. Lankow, J. Ritchie, and R. Crooks, *Infographics: The Power of Visual Storytelling*, 1 edizione. Hoboken, N.J: John Wiley & Sons Inc, 2011.
- T. Maldonado, Memoria e conoscenza. *Sulle sorti del sapere nella prospettiva digitale*. Milano: Feltrinelli, 2006.
- M. McLuhan, *Gli strumenti del comunicare*. Il Saggiatore, 2015.
- S. Posavec and G. Lupi, *Dear Data*, 01 edizione. London UK: Particular Books, 2016.
- S. M. Watson, *Bits of me*, www.schirn.de, 21/06/2016
- A. C. Telea, *Data Visualization: Principles and Practice*, Second Edition. CRC Press, 2014.
- G. Ziccardi, *Il libro digitale dei morti: Memoria, tutto, eternità e oblio nell'era dei social network*. Utet, 2017.