Through Technologies of Communication and New Media Practices: [Un]aesthetics, [Un]mensch

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Abstract

Through technologies of communication and new media practices, such as speculative media interfaces, our posthuman society combats a globalized "technosphere" causing the planet and its inhabitants to undergo a profound crisis. Such new media practices, in their technique and epistemological aspects, stand as the provocative potential of the dialectics of nature and culture and its role in critically exploring the implications of emerging technologies in the communication processes in urban space. The hypothesis is that speculative media interfaces can be used to explore the co-existence of human and non-human futures in urban space under the environmental crisis today. I ask how interface's 'non-human eye' as a communication device can be related to Bernard Stiegler's (1952-2020) endeavor to understand technical evolution by provoking a revision of the whole of a non-human agency in history? What 'otherness', such as Benjamin's 'angel of history' (*Unmensch*), may have revolutionary forces that indicate a way out of our Anthropocentric perspectives? These questions not only aim to open new perspectives on media practices, but also to contribute to create space for discussion about alternative ways of understanding the relationship between human beings and technology under these transforming conditions. The studies have shown that the integration of speculative media interfaces into architectural aspects and interactions relied heavily on physical integration of contents into the environment and levels of mobility, and as such presumed the prevalence of anthropocentric perspectives to the detriment of non-human aspects. For this reason, ways of thinking and designing for human-nonhuman interactions at city scale remains largely unexplored. In this article, I will discuss how media interfaces, as communication devices, can be used to investigate more than human futures.

Introduction

Although the way architects design space relies crucially on their own experience, they have only rarely focused on non-human factors, such as the nature of devices of communication and new media practices that equally participate in shaping the urban spaces we inhabit. Likewise, technology and media which are designed to support our everyday lives, have started to steer our reality. As Francesco Casetti noted and explained with his notion *mediascapes*, today we inhabit "space which is not just a landscape containing media but rather a physical environment that (while accommodating devices) transmits and processes messages."[1] According to Casetti, "this optical-environmental arrangement implies a temporary suspension of the immediate interaction with the world, and its reactivation through other means...."[2] As a consequence, space is no longer a neutral container in which media can simply take place or come to pass; it responds to the presence of media.[3] Moreover, the media that we use and technological processes that shape our interactions in space, bring forth the question of our co-existence with technology in the space we regularly inhabit.

Over the past decades, architects and urbanists have been trying to understand and guide these new conditions. They are finding that media is reconfiguring the regimes of more than human futures in urban settings, radically redefining qualities of real space through the qualities of virtual worlds. Nevertheless, the studies have shown that the integration of speculative media interfaces into architectural aspects and interactions relied heavily on physical integration of contents into the environment and levels of mobility, and as such presumed the prevalence of anthropocentric perspectives to the detriment of non-human aspects. For this reason, ways of thinking and designing for human—nonhuman interactions at city scale remains largely unexplored. In this article, I will discuss how media interfaces, as communication devices, can be used to investigate more than human futures in the world dominated by the mass media. By analyzing the integration of diverse types of communication devices, such as smart phones, computer screens and other urban screens, not to control but rather to shape interactions in the urban space, I will deal with the basic conditions of designing for the human-technology interactions at city scale.

Within a few years, the passive physical world defined by purely functional structures which give people shelter, and in which we consume products and interact with the world by way of screens, will be rendered obsolete by intelligent environments in which everyone and everything (people, objects, spaces) will both generate and consume information and, ideally, transform it into knowledge.[4] Architecture, which organizes human activity by means of the construction of space, has the potential to play a key role in this new, hybrid situation by redefining itself as an interface for interaction.[5]

The Case Study "Key of the Game"

I tested the hypothesis in the case of the research project *Key of the Game – The Conquest of Belgrade Fortress*[6] (2010, Fig. 1) performed at University of Belgrade, by analyzing both urban objects and urban practices in connection to human-technology interactions. The research is set in the domain of interactive urban environment with a screen as an interface. In this analysis, interface is not merely an object or boundary points but "autonomous zones of activity"[7] or, more precisely, interface is the means by which interaction or communication is achieved.[8] It is essentially related to the place at which independent and often unrelated systems meet and act on or communicate with each other (the man-machine interface).[9] I am specifically interested in the ubiquity of digital information and ways we approach to it through the interfaces. In this context, the focus should rather be given to the ways this information is related to social interaction, for example: human engagement in urban space, such as participatory culture or processes of social-spatial inclusion. To enable the qualities of these relations to become part of the analysis, and bring them into play, I am taking the scenario of Foucault's *heterotopia*. The *heterotopia* is considered an instrumental device not only due to its ability to remain outside of all places,[10] but rather given its capacity to keep the dynamic space of relations with all the other sites be they real or virtual. In such a way, it suspects, neutralizes or inverts the set of relations that they happen to designate, mirror or reflect.[11] Implementing Foucault's scenario into my research, *Key of the Game* research project was designed as a space occupying alternately virtual and real environments and distributing knowledge, during game playing in the Belgrade Fortress area. The interfaces (screens) are scattered across the Fortress and the Kalemegdan park area, and function as relational devices through which players take interactive roles and are guided virtually to move physically through the site. Their interaction is based on building together the physical and virtual layers of the city in a continuous fashion by providing the complementary analysis of information in the virtual system. The purpose of this project is to provide a reservoir of knowledge about the city that would be used to devise environmental models for the preservation of heritage architecture and its further development.

Linking Digital with Real Spaces, Programming the Actions

The interfaces in the research project are designed primarily to invite social engagement and participation, incessant interactions between actors in real physical space, as well as actors with the space of the immediate interaction with the diverse media devices. All stored data on the web platform would then link the physical spaces, objects in the park and the Fortress with a virtual online resource. Simultaneously, a continuous data circulation is visualized in the trenches of the Fortress, where the collaborative engagement with façade projections is finally executed. Today we are equipped with instruments to record processes faster and transmit them continuously to a network. Thus, structuring data spatially and creating interactive virtual environment can reveal something about the perception in movement and interaction in real space. Information is the key to this process. The method is based on gradual shifts from digital environments into real-life situations by identifying each element of the digital world with its equivalent in the real world. Considering that hierarchies do not exist in digital space to link data, by transferring its phrases and syntaxes to real space, the hierarchies of the physical world could be abolished. In that regard, the implications are also visible in the unconventional language of architecture that uses information as cultural product to incessantly fill the system and transform fixed values and subjects. Manuel Gausa highlights the possibility of implementing these ideas in architecture by emphasizing that "the innovation with which the digital world is constructed needs to be carried over into the physical world."[12] He states that technological advances effectively make it possible to animate structure, anticipate processes and generate flexible, interactive systems. The function of interaction is to impose a new dimension of space that can continually locate us in the virtual network of the city. Deprived of objective boundaries, the architectonic element begins to drift and float, devoid of spatial dimensions (depth, distance, scale, the type of spatial form, openness), but inscribed in the singular temporality of an instantaneous diffusion.[13]
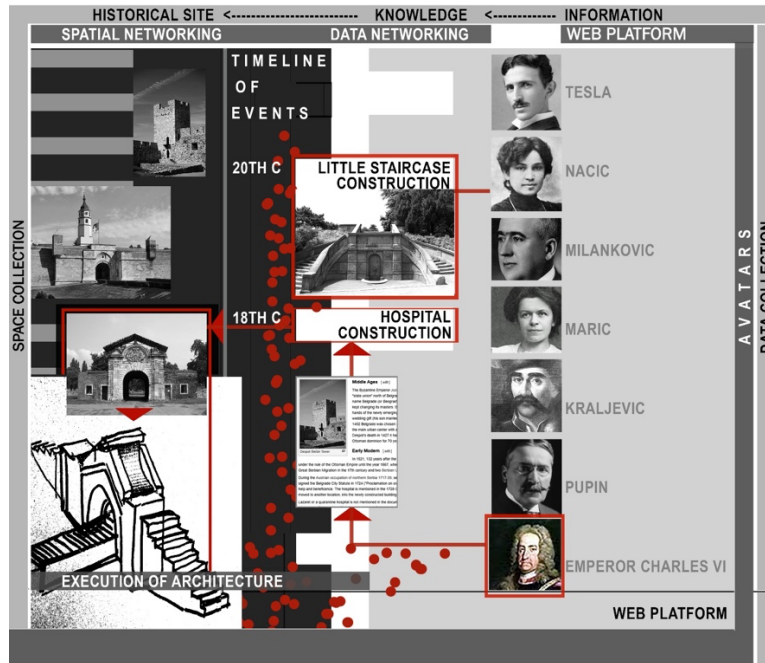
Figure 1. Katarina Andjelkovic, *Key of the Game – The Conquest of the Belgrade Fortress.*
Web Platform: Processing the Game. Research project by author, 2010 © Courtesy of the author.

Programming functions comes with the conditioning factors of time and events, and with the consequent actions depending on the evaluation of previous answer provided during the process. These conditioning factors result in a more complex programming that can be better attuned to the potential needs of the actors. All of the actions provided in the system are used for processing environmental models (for example, for the purpose of preservation), they are stored and listed digitally to be activated and processed at any time. In that sense, interfaces are more than devices that communicate between subjects and technology. They are connecting devices between spaces, times, objects and subjects. Moreover, this perspective reveals how interfaces produce knowledge and inspire human interaction in urban space through these connections, such as participatory culture or processes of social-spatial inclusion. In that sense, interfaces are not only a noun but a verb—not only objects but rather practices.

The Capacity to Perceive the Dimension of Otherness

Therefore, technology structures human experience of reality and has the power to shift the relation of human to the world. With Bernard Stiegler, the history recognizes how the technological condition has been repressed in the work of philosophers such as Rousseau, Kant, Husserl and Heidegger. This is the first position from which we observe and analyze interfaces (as connecting technological devices) in relation to the co-existence of human vs. non-human futures in the urban space. The complex linkages raise between media as technology and environmental settings including space in more-than-human worlds. With the progress of modernist thoughts and an increased capacity to perceive the dimension of otherness, we started to see and understand the world around us in alternative ways. In fact, modernity has gauched with the issues of 'non-living' beings and 'non-human' agency in a very paradoxical way: they were constantly drawing orders between those realms and, at the same time, lurking those orders.[14] Moreover, by overcoming the dichotomy nature-culture through modernity, today in times of deep ecological crisis this 'other' as alternative way of thinking may offer us faithful tools to imagine futures. In light of such circumstance, it is significant to reconsider the relationship of technology and nature only to confirm that there are forms of technology that can be looked at as forms of life.

Walter Benjamin was the one to explore the dialectics of nature—culture in very provocative ways. By using conceptual tools to think specific notions, he was deconstructing the anthropocentrism of modernity. With Benjamin, obsession with the characters like angelic beings became the representation of *Unmesch*— image of a cannibal angel—the 'angel of history'.[15] Benjamin's *Unmesch* became the sign of an entity that empathized with the destructive side of nature. Likewise, in Flusserl's philosophical accounts, we find descriptions of a strange creature which comes from hell and is used as a way to think about technology and human nature. Despite the 19th century understanding of the Anthropocentrism in the image shown here (Fig. 2), demonstrating "technology that has an eye," we must remember that Benjamin's angel arrives from hell and can pull us into the unexpected abysses. With Benjamin's observations, *Unmensch* is correlated to the notion of history that is no longer purely Anthropocentric in nature or import solely in concern of a human subject.[16] In this way, both Benjamin and Flusserl created a new worldview where nature has revolutionary forces that indicate a way out of our Anthropocentric perspectives. It can be seen as a way to materialize utopias and exist to enable the construction of alternate worlds within the representation of technologies.

Figure. 2. J.J. Grandville, A Conjugal Eclipse from Another World, 1844
© Un autre monde: transformation, vision, incarnation, ascensions, locomotions
(HACHETTE LIVRE-BNF; 1844th edition).

Along with Derrida and Manuel De Landa, Bernard Stiegler strives to understand technical evolution by provoking a revision of the whole of a non-human agency in history. In fact, in Stiegler's general organology—'life'—an account of life when it is no longer just biological but technical, or it involves not just organic matter but organized inorganic matter.[17] From the perspective of a media theorist, historically it was an attractive perspective to understand technology as a subset of a cultural artifact, and vice-versa. In other words, technology is explained in terms of culture and society. This has changed with Stiegler's ideas about technics[18] which reconfigure the opposition between social constructivism and technological determinism. In present times, culture and society are comprehended in terms of technical object. More precisely, Stiegler feels that we urgently need to understand the process of technical evolution, given that we are experiencing the deep opacity of technics."[19] Historically, any technical artefact can be thought of as a series of objects, a lineage or a phylum that can be divided up into generations.[20] Interestingly, in his own observation, artefacts can be traced not just to other artefacts but precisely to human activities such as calculation or certain repetitive sequences of movement, which brings back the human factor and function into the analysis. Depending on how we define technical object—for example a computer can be defined by its form or function—the problem recurs.

Andrés Vaccari & Belinda Barnet remind us that "robot historians will effortlessly cut through our anthropocentric biases: culturalism, biologism, teleology, and determinisms of the social, economic and technological kind."[21] As historian David Edgerton has argued, the machine historians will search for a dynamic in technics that stems neither from biology nor from human societies, a developmental logic that grants machines their own material limits and resistances, their own principles of organization and interbreeding. Importantly, future historians might conclude that it was in fact their own ancestry (in the shape of tools, canoes, language and dwellings) who gave rise to human beings as a species; humans were a fleeting appendage, a bridge between the tool and the Supermachine. This insight calls for a new consideration of technicity, and a new theory of the relationship between human beings and technics. Today, the biosphere reaches the limits of Anthropogenic sustainability. Reticulation that today operates through World Wide Web [www], based on the GPS and on the Cloud, takes form of exospherical infrasomatizations. Search engines, social networks, smartphones, sensors, rfid chips, barcodes, cookies and 'internet of things'—are all becoming mnemo-technical of every material, substance or product. All this constitutes a new stage: the process of exosomatization. And, with exosomatization, biosphere becomes technosphere. This is a phase that will in all probability see the introduction of previously unimagined—or at best vaguely intuited – technologies and formal concepts in every aspect of urban thinking.

In Conclusion

Media infrastructures participate in shaping our ways of perceiving the world. Today, we are increasingly thinking and living under conditions of an effective "programmability of planet earth."[22] We thus need to pay attention to the complex consequences of media becoming environmental and environments becoming mediated. On a discursive level, these transformations are heavily debated in connection to themes like, processes of social-spatial inclusion and exclusion, participatory culture, or within the variety of cultural practices surrounding media, art, and architecture. From this point of view, action and interaction, as well as dynamic relations between human and non-human entities, need to be framed and shaped on a wider range of scales. It allows us to probe deeper into the production of *new media practices as part of urban spaces,* and unpack the struggles and biases inherent in these processes. In consequence, the virtual world is ushering in a space rich in possibilities—a space open to new programs and new spatial definitions, born of operative environments that are capable of 'reacting to' and 'mutating with' reality, and thus capable of 'tuning in' to and 'acting' in it at the same time.

Likewise, interface is no longer primarily understood and defined as a technological *object,* but theorized as zone of activity. As such, interface can be used for further explorations of these dynamic constellations in how it co-constructs the urban spaces of our mediatized cities through constant negotiations between digitization and datafication, privatization and commercialization. This line of research, led by media researchers- to name but a few- Nanna Verhoeff, Shannon Mattern, Simon Wind and Heidi Rae Cooley, has already opened paramount questions such as, "rapid and radical transformations of urban culture and urban publicness," which are "spurred by intensified (global) mobilities, the ubiquity and proliferation of digital information and communication technologies, and the spread of datafication and platformization."[23] This said, human engagement though diverse practices in the urban space such as, urban screens, media architecture, interactive installations, location-based games, augmented reality, mobile mapping and other urban interventions, bring insightful cases of constituting the co-existence of human and non-human futures in the urban space.

Author Biography

Katarina Andjelkovic (PhD, MArch Eng), Atelier AG Andjelkovic, is a theorist, practicing architect, researcher and a painter. Katarina's research, writing and teaching is transdisciplinary and crosses architecture, visual arts and film. She served as a Visiting Professor at the University of Oklahoma (the US), at the Institute of Form Theory and History in Oslo, Institute of Urbanism and Landscape in Oslo, the University of Belgrade, and guest-lectured at TU Delft, AHO Oslo, FAUP Porto, DIA Anhalt Dessau, SMT New York, ITU Istanbul. She has lectured at conferences in more than twenty-six countries in Europe, the UK, the US and Canada; has published her research widely in international journals (Web of Science); won numerous awards for her architecture design and urban design competitions. Katarina won the Belgrade Chamber of Commerce Award for Best Master Thesis defended at Universities in Serbia in all disciplines. Katarina has published two monographs; a book chapter and several journal articles with Intellect. E-mail: katarina.code@gmail.com

Notes

1. Francesco Casetti, "The Projection/Protection complex: Screens, Enclosures, Bubbles," Webinars Screens and the digital mediascape (in Pandemic times). Neuroscience & Humanities Lab Centre for Advanced Studies in Cognitive Neuroscience & the Humanities of the University of Parma, Italy, lecture February 19, 2021. https://www.youtube.com/watch?v=VMweZjNiqQ4&feature=youtu.be&fbclid=IwAR1pztSbtX MRzmnmWNFA7p3C8MlpOqXHsc1NVIJX01RZzWU4Io3hOx1MtxM

2. Ibid.

3. Francesco Casetti, "Mediascapes: A Decalogue," *Perspecta* 51: Medium (The MIT Press, 2018): 21.

4. Vicente Guallart, *Media House Project: The House is The Computer. The Structure is The Network* (Barcelona: IAAC Institut d'arquitectura avançada de Catalunya 2004), 30.

5. Ibid, 30.

6. Katarina Andjelkovic, *Key of the Game – the Conquest of Belgrade Fortress*, originally performed in full authorship at the University of Belgrade, Faculty of Architecture, as part of the doctoral studies program, during 2010. Later published in: Katarina Andjelkovic, "Spatial Context of the Cinematic Aspect of Architecture" (PhD diss., University of Belgrade, 2015).

7. Alexander R. Galloway, *The Interface Effect* (Cambridge, UK: Polity Press, 2012), VII.

8. Definition of interface, *Noah Webster's American Dictionary of the English Language from 1828*, merriam-webster.com. Accessed November 25, 2021. https://www.merriam-webster.com/dictionary/interface

9. Ibid.

10. Read in: Michel Foucault, "Of Other Spaces, Heterotopias," *Architecture, Movement, Continuite 5* (1984): 46–49.

11. Michael Foucault's elaboration in his piece "Of Other Spaces," based on a lecture, but first published in English in 1986.

12. Manuel Gausa, "Theoretical Framework," in Media House Project: The House Is the Computer. The Structure is the Network, ed. V. Guallart (Barcelona: Institut d'arquitectura avançada de Catalunya, 2004), 36.

13. Paul Virilio, *The Lost Dimension*, trans. Daniel Moshenberg
(New York: Semiotext(e), 1991), 13.

14. It is a specific field of the philosophy of history, pioneered by Walter Benjamin. Manuel De Landa's review in his *A Thousand Years of Non-Linear History* (A Swerve Edition, Zone Books, 1997), tried to provoke a revision of the whole of a non-human agency in history. He demonstrated how thinkers and artists were dealing with the link between 'the living' and 'the non-living', claiming that these are the artificial means constantly transformable across the boundaries, and they seem to problematize the very notion of life.

15. About Benjamin's 'angel of history' read in: Walter Benjamin, *Illuminations*, ed. Hannah Arendt, trans. Harry Zohn (New York: Schocken Books, 1968).

16. Beatriz Hanssen, *Walter Benjamin's Other History: Of Stones, Animals, Human Beings, and Angels* (Berkeley, CA: University of California Press, 2000), 48.

17. According to Stiegler, human is being exteriorized into technics, artifacts, or into the inorganic organized matter, that culture and society constitute themselves contingently. Bernard Stiegler, "Elements for a General Organology," *Derrida Today* 13, 1, (2020): 72-94.

18. For Stiegler, *technics* are techno-scientific technology, but also all the ways in which the human is exteriorized into the artifacts.

19. Bernard Stiegler cit. in: Andrés Vaccari & Belinda Barnet, "Prolegomena to a Future Robot History: Stiegler, Epiphylogenesis and Technical Evolution," *Transformations: Journal of Media & Culture*, Issue No. 17— Bernard Stiegler and the Question of Technics (2009).

20. Andrés Vaccari & Belinda Barnet, 2009.

21. Ibid.

22. Jennifer Gabrys, *Program Earth: Environmental Sensing Technology and the Making of a Computational Planet* (Minneapolis: University of Minnesota Press, 2016), 4.

23. Michiel De Lange, Sigrid Merx, and Nanna Verhoeff, "Urban Interfaces: Between Object, Concept, and Cultural Practice," Introduction to *Urban Interfaces: Media, Art and Performance in Public Spaces*, ed. Verhoeff, Nanna, Sigrid Merx, and Michiel de Lange, *Leonardo Electronic Almanac* 22, no. 4 (March 15, 2019), n.p.

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