Urban Heterotopia: Zoning Digital Space [1]

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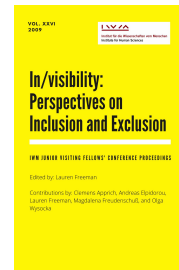
Today we live in an "era of space" and, as Foucault explains in a lecture, delivered at the Parisian *Cercle d'études architecturale* on March 14, 1967, this era is an "era of simultaneity, of juxtaposition, of proximity and distance, of coexistence and dispersion. The world is understood not so much as a big living organism which develops through time, but as a net whose skeins intersect and connect points."[2] Foucault's problem of networked space thus gives rise to a rather unconventional definition of a specifically achieved utopia.[3] "Heterotopias" are "counter-sites, a kind of effectively enacted utopia in which the real sites, all the other real sites that can be found within culture, are simultaneously represented, contested, and inverted."[4] Foucault's examples of heterotopias are gardens, cemeteries, psychiatric clinics, brothels, prisons, the villages of Club Mediterranée, etc. These heterotopias form counter-spaces by creating illusions, which infiltrate reality. I argue that digital space itself constitutes such a counter-site, namely, a heterotopia in the Foucaultian sense. Cyberspace – considered as virtualized reality, which composes the horizon of possible expectations[5] – is not only a structural, but always a cultural, phenomenon as well.

The Information City

In recent years, discussions and investigations of digital networks have become the determining morphology of our society. Handling the current discourse about these new dynamics with Foucault's "theoretical kit" henceforth provides a specific point of view from which the description of the global network society can be confronted with a variety of local forms of knowledge. At the beginning of the 1990s, an active media culture scene was formed to discuss both the promises and risks of recently built network technologies. This fact forms the starting point for my work, which sets out to define these pioneer projects as an experimental ground for contemporary forms of subjectivity, and furthermore, to describe the current conception of network society more generally. A focus on media archaeology, therefore, results from the question of how technology – and respectively, the discourse over technology – has been and continues to be crucial for our understanding of the dominant organizational form within the information age.[6]

Understanding the city as spatial metaphor to describe digital networks enables further conclusions to be drawn about the implicit assumptions – found in media but also academic discourse – of today's network society.

In what follows, I would like to provide some insights into the current debate on our digital future by tracing the tracks of techno-cultural visions back to the early years of network building. When the Internet (a synonym for the "world wide web") was still in its infancy, categories like hypertext had already been widely discussed.[7] Given the fact that the electronic data management had produced an enormous amount of information, the question arose as to how this new, invisible digital space could be adequately structured? At the beginning of the 1990s, Andreas Dieberger coined the term "Information City" to describe a spatial user interface for hypertext.[8] In order to resolve the problem of "getting lost in hyperspace,"[9] Dieberger's city metaphor attempted to make the structure of information systems easier to understand by drawing a cognitive map of the information space. In his concept, hypertext documents are visualized as houses in the Information City using architectural knowledge from city planning in order to build an information environment that helps to navigate hypertext.[10] The Information City "defines an ontology of spaces and connections" in order to "explicitly create structure in an unstructured information domain."[11] In this sense, navigation through cyberspace is only possible when this structure is communicated to the user.

Structuring the Invisible

The visualization of information space expresses meaning by using familiar images from everyday life like city's streets and buildings in order to structure the data space. But unlike "real" life, computer generated space is theoretically infinite and non-Euclidian. Thus, one important problem (or perhaps, possibility) of cyberspace is that its "original architecture" is non-hierarchical.[12] Implementing the (hyper)texturing concept of the Information City, therefore, provides a rich set of navigational infrastructures by using existing knowledge about a structured environment (i.e. the city itself). To use Dieberger's words: "An important advantage of...city metaphors is that they define several levels of enclosed spaces."[13] The elements of a city (i.e. districts, neighbourhoods, blocks, buildings, etc.) are "ideal sources for metaphors that describe strong encapsulation and access control."[14] It is this concept of inclusion and exclusion that transforms the pure data space into a highly contested social place. Although considering information structures in terms of the city does not mean that the structure must look like a real city, this idea of structuring an invisible space relates to the modern dream of a governable city and its reason of state.[15] The city, therefore, provides an organizational regime, in order to visualize the invisible. It is important to note that the spatial metaphor of the Information City sees itself as an alternative to the merely abstract "Storage-and-Retrieval" techniques that require a rather concrete idea of the search result. Hence, the Information City provides a pragmatic approach to cope with the problem of locating and *re*-finding information.[16]

The utopian idea of gathering and structuring the (world) knowledge within the Information Cities also refers to the desire of informational control. The Information City as organizational regime therefore constitutes a "New Jerusalem" which promises to pacify today's "Babylon of information."[17] This attempt to structure the chaos within digital space is one of the main characteristics of the so-called "pioneer days" of the Internet (i.e. the early 1990s). However, as can be seen from the concept of the Information City, this idea of an ideal utopia is never disconnected from the "real" world. On the contrary, Cyberspace does not represent a "new pure continent," but rather, it functions as a projection surface for our own fantasies.[18] Considering Foucault's lecture mentioned above, one may point out how this information space provides a venue for individual and social practices, for ways of living, cultural patterns, knowledge, power, and domination. The digital space therefore constitutes a mirror, which interfaces the experiences of virtual reality and real life. As Foucault writes: "The mirror is, after all, a utopia, since it is a placeless place. In the mirror, I see myself there where I am not, in an unreal, virtual space that opens up behind the surface…But it is also a heterotopia in so far as the mirror does exist in reality, where it exerts a sort of counteraction on the position that I occupy."[19] Thus, Cyberspace is not an utopia, conceived as a genuinely exceptional place, but rather, it is a heterotopia conceived as a particularly achieved utopia. According to Foucault, it would be the task of so-called "heterotopology" to explore these other spaces, in order to make them visible and legible.[20]

The Digital City

At the beginning of the 1990s, the city metaphor was not only used to stage an ideal space of knowledge, but it was also used to constitute the location of an ideal social order. The notion of the "virtual community,"[21] therefore, gave rise to various Digital Cities, which were founded during the first days of the Internet (for example: *De digitale Stad Amsterdam*, *Internationale Stadt Berlin,* and *Wien.at – Digitale Stadt*). Although for different reasons, all of these projects failed in the end, they still provided an important place from which to analyze the preconditions of network society. In doing so, a sustained effort grew to revitalize the democratic system by implementing new information and communication technologies. Hence, the "new Athenian age" was developed as a result of technological emancipation. "*Cyberdemocracy* or electronic democracy are the new tubes which should transform the passive spectator democracy into an active participatory democracy and, at the same time, create a global public sphere."[22] It is important to note that in this sense, only the well-informed citizen constitutes an important and valuable part of the virtual community. The Digital City, therefore, interferes with the Information City, where all knowledge is gathered and structured through spatial organizational regimes, in order to be visible for the digitally enlightened *Netizen*.[23]

In contrast to way in which the urban area forms the traditional framework of civic society, the proclaimed deterritorialization of the city was supposed to depart from this tradition. In this sense, many authors called for a redefinition of communities within digital space, whereas the complex interaction between old and new spheres was at the centre of discussion.[24] But instead of the anticipated "electronic agoras" and their cyberdemocratic ideals, the only domain that seems to be left over today is the capitalistic

market place. Access to the digital space, therefore, is only granted to those who are able to participate (i.e. to those who have access to computer networks).[25] For this reason, the contemporary imperative of constant connectivity relates to a new form of governance: "This is based on the instrumentalization of personal loyalty relationships and the willingness to actively take responsibility: governance through community ."[26] In relation to the welfare state, Nikolas Rose, a British sociologist, points out that this "communiy-discourse" goes far beyond the scope of "society," leaving a disparate field of communities structured through convictions, values and cultural identities. Hence, the technological change interlinks with a social transition by dissolving the previous structure of solidarity and therefore stretching digital networks over the yawning gap. In this new situation, participation of certain communities becomes vital, whereas any violation of the common ideal gets penalized with the expulsion from these communities. [27]

New Regimes of Control

As we have seen, digital space constitutes one of the vanishing points of network society. From the ground of this virtual heterotopia, we experience the world through "precarious interspaces,"[28] which transform our common perceptions of everyday life. These perceptual breaks, however, only remain visible before they become part of our everyday media life. Hence, in order to reveal the implicit knowledge in our ordinary use of new culture technologies, we need an archaeology of Cyberspace and by recovering the Informational as well as the Digital City as organizational and social regimes, we come across the old desire for a total accumulation and rigorous control of knowledge and power.[29] In contrast to pure Cyber-utopianism, new information and communication technologies have always been structured by powerful interests. Like the city, Cyberspace has a military origin. Today's struggle is primarily about hegemonic power over information and control of communication. These new regimes of classification and categorization therefore structure the abstract and infinite data space into visible and legible units. In this sense, every human-computer interface uses some sort of metaphor (for example: Laptop, Desktop, folders, trash can, windows, etc.). The metaphors used in the interface determine how the user conceives and navigates the computer and how the world is accessed via this computer. In keeping with this matter, media theorist Lev Manovich states: "Far from being a transparent window into the data inside a computer, the interface brings with it strong messages of its own."[30] Hence, by organizing the digital space in specific ways, the interface provides distinct models of the world.

The computer interface, which was shaped by the city metaphor in the beginning of the 1990s, becomes a key semiotic code in the information society. In this context, semiotics looks at culture as a form of communication which broadcasts its messages on the basis of socially accepted codes: codes that represent a certain system of symbols and meanings, whose definition establishes the cultural hegemony over our everyday life. Every time we use the Internet, everything we access – i.e., texts, images, photographs, videos, music or whole virtual environments – has already been filtered by these "cultural interfaces."[31] Given the fact that digital data is simply a sequence of zeros and ones, there are numerous ways in which it could be made visible. Thus, it is not by accident that the city was one of

the most meaningful metaphors in the early days of the Internet. The city is defined (at least symbolically) by walls whose gates constitute the interface to the city.[32] In relation to current media practice, this leads to a rather paradoxical situation: on the one hand, new media technologies have become more accessible and easy-to-use; on the other hand, access to the information generated by users is largely controlled by a few companies .[33] T his specific form of a "digital panoptism" insidiously affects the user by employing new techniques of data-mining and marketing research, while its centre remains closely guarded, and therefore, unreachable to the user. Hence, it seems that the network society turns out to be yet another society of control. The virtually free "space of flows"[34] remains within strict boundaries because the technological infrastructure is increasingly controlled by commercial and state interests.[35]

Conclusion

By tracing the Information City back to its utopian dimension of an "ideal space of information sharing and consumption,"[36] we can locate some of the fractures in this historical line of thought. A fundamental critique of this utopian thinking must begin with a critique of techno-determinism and its talk about intelligent systems, digital communities, and new continent.[37] The rise of the network society is not a social or technological necessity and this is why we have to break with the still existing teleological approach of technological innovation. In this sense, technology will never deliver us from the unsatisfactory nature of our life, but it can function as an instrument in the process of this deliverance .[38] Technology, understood as material tool (i.e. the Internet), and meaning, understood as symbolical construction (i.e. Cyberspace), are two of the main constituents of human action, which, in turn produce and shape society. Vis-à-vis today's information flood, we should not be dreaming about floating cities, but rather, we should be building ships in order to navigate in the oceans of knowledge. This is because the ship, according to Foucault at the end of his 1967 lecture, "is the heterotopia *par excellence*. In civilizations without boats, dreams dry up, spying takes the place of adventure, and the police take the place of pirates."[39]

Notes:

2. Michel Foucault, *Des espaces autres (1967)*, in: *Dits et Écrits IV* (Paris: Gallimard, 1994) 752.

3. In the classical definition, the "u" stands for "nothing", whereas "topos" means the "place" – so "utopia" is a "nowhere" or "un-space" as a deeply unreal place.

4. Foucault (1994) 755.

5. In this sense, Cyberspace stands in contrast to technological computer networks, which provide the necessary infrastructure. Nonetheless, both of them are interdependent, because without the technological infrastructure, the virtualized communication on a global basis would not be possible. Furthermore, without the cultural horizon of Cyberspace, the Internet would be no more than a loosely connected network of computers.

6. This is a concept used by Manuel Castells for whom the network constitutes the main characteristic of today's society. Manuel Castells, *The Rise of the Network Society. The Information Age: Economy, Society and Culture, Volume 1* (Hoboken: Wiley-Blackwell, 2000).

7. David Bolter, *Seeing and Writing* (1991), in: Wardrip-Truin, Noah/Montfort, Nick (ed.): *The New Media Reader* (Cambridge: MIT Press, 2003), p. 679-690.

8. Andreas Dieberger, *Navigation in Textual Virtual Environments using a City Metaphor* (Ph.D. dissertation, Vienna University of Technology, 1994), URL http://homepage.mac.com/juggle5/WORK/publications/thesis/ThesisPDF.html

9. Andreas Dieberger, *The Information City – A Metaphor for Navigating Hypertexts* (paper presented at the BCS-HCI'93, Loughborough, 1993).

10. This idea of a visual structure is mainly based on the work of MIT-scholar Kevin Lynch. Cf. Kevin Lynch, *The Image of the City* (Cambridge: MIT Press, 1960).

11. Andreas Dieberger and Andrew U. Frank, *A city metaphor for supporting navigation in complex information spaces*, in: *Journal of Visual Languages and Computing*, no. 9 (1998), URL: http://homepage.mac.com/juggle5/WORK/publications/JVisLang_City.html

12. Lawrence Lessig, *Die Architektur der Kontrolle. Internet und Macht*, in: *Transit*, no. 19 (2000), URL: https://www.iwm.at/index.php?option=com_content&task=view&id=219&Itemid=331

13. Dieberger (1998).

14. *Ibid*.

15. Isabell Lorey, *The Dream of the Governable City. On Plague, Policey and Raison d'état*, in: *eipcp* (2007), URL: http://eipcp.net/transversal/1007/lorey/en

16. Here I am following the research done by Kirsten Wagner. Cf. Kirsten Wagner, *Digitale Städte, InformationCities und andere Datenräume*, in: Anett Zinsmeister (ed.): *welt[stadt]raum. Mediale Inszenierungen* (Bielefeld: transcript, 2008) 105-128.

17. *Ibid* ., 123.

18. Oliver Marchart, *Was ist neu an den Neuen Medien? Technopolitik zwischen Lenin und Yogi-Bär*, in. nettime (ed.): *Netzkritik. Materialien zur Internet-Debatte* (Berlin: ID, 1997) 92.

19. Foucault (1994) 756.

20. Jeffrey Shaw, *The Legible City* (1988-1991), URL: http://www.medienkunstnetz.de/works/the-legible-city

21. Howard Rheingold, *The Virtual Community. Homesteading on the Electronic Frontier* (New York: HarperPerennial, 1994).

22. Claus Leggewie, *Netizens oder: Der gut informierte Bürger heute*, in: *Transit*, no. 13 (1997) 5.

23. Kirsten Wagner, *Architektonika in Erewhon. Zur Konjunktur architekturaler und urbaner Metaphern*, in: *Wolkenkuckucksheim. Internationale Zeitschrift für Theorie und Wissenschaft der Architektur, no.* 3/1 (1998), URL: http://www-1.tu-cottbus.de/BTU/Fak2/TheoArch/Wolke/deu/Themen/981/Wagner/wagner_t.html

24. William J. Mitchell, *City of Bits. Space, Place, and the Infobahn* (Cambridge: MIT Press, 1996).

25. This correlates with the situation in ancient Greece, where access to the public space (i.e. the agora) was only granted to individual and free men.

26. Nikolas Rose, *Tod des Sozialen? Eine Neubestimmung der Grenzen des Regierens*, in: Ulrich Bröckling/Susanne Krassmann/Thomas Lemke (ed.): *Gouvernementalität der Gegenwart. Studien zur Ökonomisierung des Sozialen* (Frankfurt: Suhrkamp 2000) 81.

27. In relation to *De digitale Stad* (DDS) Amsterdam, some of the problems can be shown which arose as a result of this transformational process. After the DDS had failed in their effort to reach a broad public, the subsidy practice for Amsterdamer media culture changed fundamentally. According to the market logic, the financial policy shifted from permanent sponsorship to project-related funding, thereby restricting the establishment and preservation of a functioning infrastructure. Furthermore, the responsibility of the decision-making process was transferred to the communities themselves, according to the new techniques of governance. Cf. Geert Lovink and Patrice Riemens, *Amsterdam Public Digital Culture 2000*, in: *Telepolis* (2000), URL: http://www.heise.de/tp/r4/artikel/6/6972/1.html

28. Georg Christoph Tholen, *Die Zäsur der Medien*, (Frankfurt: Suhrkamp, 2002) 111.

29. Cf. Wagner (1998).

30. Lev Manovich, *Interface as the Key Category of Computer Culture* (lecture held at Interface Explorer, Vienna, 2001), URL: http://interface.t0.or.at/levmlecture.htm

31. *Ibid.*

32. Geert Lovink, *Virtuelle Städte und ihre Bewohner*, in: Christa Maar and Florian Rötzer (ed.): *Virtual Cities. Die Neuerfindung der Stadt im Zeitalter der globalen Vernetzung* (Basel: Birkhäuser, 1997) 55.

33. In particular, the buzz word "Web 2.0" shows how the decentralization of the means of communication is accompanied by a centralization of the media market itself. Examples include: when *Google* bought the video-portal *Youtube* for 1.65 billion U.S. Dollars, when *Microsoft* invested 240 million U.S. Dollars in the online-community *Facebook*, or when Rupert Murdoch took over the network-platform for 580 million U.S. Dollars. Cf. Felix Stalder, *30 Years of Tactical Media*, in: kuda.org (ed.): *Public Netbase: Non Stop Future. New Practices in Art and Media* (Frankfurt: Revolver, 2008).

34. The "space of flows" defines an exchange-system of information, capital, and power. As a deeply social space, the "space of flows" may be an even better concept to describe the digital space as an heterotopia than the notion of Cyberspace. The "space of flows" brings distant elements into an interrelation of real-time communication. As a consequence, the new spatial logic is characterized by the predominance of the "space of flows" over the "space of places." Cf. Manuel Castells, *Die Städte Europas, die Informationsgesellschaft und die globale Wirtschaft*, in: Christa Maar and Florian Rötzer (ed.): *Virtual Cities. Die Neuerfindung der Stadt im Zeitalter der globalen Vernetzung* (Basel: Birkhäuser, 1997) 112.

35. It must be mentioned that all city metaphors (be it in the form of the Informational City or the Digital City) have failed in the end. It is precisely because of these failures that the metaphor of the city is of particular interest for an archaeological analysis.

36. Flavio Sparacino, Alex Pentland and Glorianna Davenport, *City of News*, in: Ars Electronica (ed.): *Exhibition Catalogue* (Linz: AEC, 1997), URL: http://ic.media.mit.edu/Publications/Conferences/CityOfNewsArs/HTML

37. Marchart (1997) 90.

38. Peter Lamborn Wilson, *Media-Space!* (opening speech given at Public Netbase, Vienna, 1997), URL: http://www.t0.or.at/hakimbey/opening.htm

39. Foucault (1994) 762.