Meanwhile, by 2004, the development of Russian media art led to mediashift and a number of festivals in Riga, Perm, Kransojarsk, Mosow and St-Petersburg have taken place over the last decade. Portals like Asia Nemchenok's blog Videopoezija (Nemchenok 2012), SELF-ID (SELF-ID 2012), and Videopoezija.ru (Videopoezija 2012) have also been established. There have also appeared a number of creative groups, like the Laboratory of Poetic Actionism (Laboratory of Poetic Actionism 2012) , Machine Libertine (Machine Libertine 2012), Zlystra and Pupstrip (Zlystra and Pupstrip 2012), amongst others.

Currently, two important e-lit communities can be located on the web: 'neterature' and IF. Since Teneta, the first Internet literature contest was closed, its inheritor Net Literature has not been as dynamic, while IF, on the contrary, started gaining authority since the millennium.

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THINKING IN NETWORKS: WESTERN/NON-WESTERN INTERACTION

Yvonne Spielmann

The article discusses artists' practices that in aesthetical-technical ways intervene into computer networked environments. I am interested in Japanese media artists who, in interactive installations, rethink the use of technology that we encounter in the industrially-culturally compressed spaces of the metropoles, like Tokyo. These technologically saturated spaces have created super-density as a new cultural form of the present. The focus of my discussion is on artists' interventions in networks that in different ways make us aware of the possibilities for approaching and reflecting upon our behaviour in such media-cultural and ubiquitous mediascapes.

I will briefly outline the interwoven systems of communication, transport and information as they represent and remediate daily social interaction in Japan. I use the example of the Japanese art-architectural group 'doubleNegatives Architecture' to give an example of a creative response that considers networks as a different social model. Further, the installation works by Seiko Mikami are considered as a response to the quotidian experience of high density living and consequent lack of individual space. In her interactive installations we are targeted by programmed sensors and robotic devices, which invite us to engage in close encounter with the measuring and moving systems of the installation. In this human-machine-interrelationship, we will also achieve a sense of each other via a technological environment that becomes a perceptual space that makes us aware of social interrelationships.

Mediascapes in Japan

Media development in Japan initially derives from a close working context between technical-scientific research laboratories, the computer industry, education and research in the disciplines of information science, design, art and architecture. From an external perspective, it can be regarded as pioneering new connections between digital media art, national research laboratories and the computer industry. By international comparison, the engagement with computer media in Japan is characterized by the collaboration of developers, engineers, and artists, whereby media artists often have training in computer science and information theory.

Innovative experiments with interactive-virtual applications which use, among other things, components with LEDs, robots, GPS, digital video, sensors and command systems from the commercial-industrial and military sectors, originate in a Japanese cultural space, the everyday life of which is intensely permeated by these sorts of technologies. The above-named components are indeed, in themselves, present in the media sector around the world. However, Japan plays a leading role so far as the density of implementing these technologies in public and private space is concerned. In Japan, engineering and computer science have created a new way of dealing with technology in the everyday world. Overall, we can recognise a medial setting, which is strongly determined by the use of technology in public life. This ranges from life-size screens for video projecting animation, music, and advertising clips, with competing sound levels and an intensive network of digital signs with acoustic signals in public space, to private and muted use of personally configured mobile technologies employed for computer games, the exchange of emails and internet communication on the street, as well as in traffic and transport systems. Precisely for that reason, the use of cell phones is felt to be disturbing in the constricted spaces of the underground and in the regional and Shinkansen high-speed trains and accordingly avoided. Communication is mostly via silent texting.

The particular nature of such connections in Japan occur in the narrowest of spaces and in high concentration. The super-density of communications, transport and information in the space of the metropoles, like Tokyo, creates the limits of the temporal-spatial compression, creating a new cultural model. Tokyo's super-density is an example of this cultural form:

> What seems at first as an extreme version of a city, successively reveals itself as the opposite, as not-city. In the end, there is the realization that, if super-density is to function at all, then only if it throws off anything supposedly urban, becoming a pure state of intensity, as we otherwise only know it from art, music, media.' (Koelbl 2000: 56).

Even if urban public space in shopping centers and transport systems is mostly an expression of an enterprise culture, saturated with densely packed vertical arrays of audiovisual information on LED screens ranged above and alongside each other, this super-dense electronic cultural space does allow other aspects of a culturally located understanding of aesthetics. This enterprise culture has similarly established itself in other Asian metropoles and at the same times allows an expression of the perceptual-bodily encounter with the real of the technology and its networks.

In this respect, the installation works of Seiko Mikami respond to the quotidian experience of high density living and the consequent lack of individual space. In her interactive installation *Desire of Codes* we are targeted by programmed sensors and robotic devices, which invite us to engage in a close encounter with the measuring and moving systems of the installation. In this human-machine-interrelationship, which is set out for multiple participants, we also achieve a sense of each other via the technology. The technological environment becomes a perceptual space, which instigates awareness and self-awareness, wherein individual position and behaviour is experienced in response to digital codes which are responsive to us.

Another example of creative invention and intervention in the technological environment is the work of Euro-Japanese art and architecture group doubleNegatives Architecture. They use automatic and self-modifying systems as a model to engage us, the participants, to closely investigate and rethink how handy technologies and complex military and political surveillance and control structures interact. This is evident, in particular, when the art group investigates self-organising mesh network devices that were initially designed for warfare. I propose to regard the open work structure of the architecture group as a way to initiate thinking about the purpose and mechanisms of connectedness and connectivity that have developed distinctly in Western and Asian cultures.

Western/Asian connections

The presence of technically elaborate works and applications from Japan has become noticeable at media and computer festivals around the globe, which have arisen parallel to technological development. But even when Japanese examples do

attract notice in wide-ranging discussions about contemporary media forms, and on the aesthetic potential of new technologies, acquaintance with them in Western dominated discourses, around the general media debate, is restricted to singular positions, and there is little consideration of the cultural context from which they arise. That is because a generalized Western perspective applies in most cases, and it is one that is almost taken for granted and receives scarcely any justification and even less argumentation to locate it in relation to global developments in media. Here, a further index of the blind spot in the discourse appears from the technological perspective. Its rationale lies in the industrially oriented developments of tools and applications, where the Japanese were also present, with computer-graphic innovations and examples from computer art. However, this state-of-affairs reveals an imbalance between the presence and assessments of the discourse of aesthetic-creative praxis with digital media in Japan.

In this situation, which is characterised by an imbalance between Western and Eastern discourses and practices, it has become difficult to determine the position of critical discourse in the arts and humanities. Notably, it is difficult to define a position and its locational relevance in intervening art practices. From where do they operate and to whom do they speak in a global network? In light of these reflections, how can we argue aesthetically for interventions into complex and diverse media realities at all?

In providing an answer, cultural critic Homi K. Bhabha, when discussing questions about *The Location of Culture* (Bhabha 1994), has pointed out that critical engagement beyond dualisms and polarities keeps cultural dialogue alive and inhabits the in-between zones with dynamic interaction and open-ended processes. The artists' intervention is seen as the instrument of interrupting the apparently seamless and fluid stream of performance of present media cultures. By means of fostering multipurpose views in a variety of combinations, a lively participation in and with the 'smart', 'ambient' and 'intelligent' environment can be experienced as a new form of social behavior. This also affects how we locate our present position, in temporal and spatial terms, to overall trans-local, transcultural and transnational systems. It seems local relationships are precious: cultural context matters in terms of its roots (where things originate from) and, by the same token, cultural contexts need to be understood as travelling concepts so that their routes (where things travel to) are of equal importance; to reframe James Clifford's (1997) observation that culturally determined media concepts, that underlie practices, traditions and aesthetic expressions, do exist in travelling relationships where things are exchanged in the encounter between internal practices and external influences. In this direction, the spatial relations of locational positions and differences are important factors in understanding connectedness in, with and through the overall technological environment that is reshaping social practices.

Further to the discussion of Japanese media arts, it may be worthwhile to remember that the idea of networking is rooted in an Asian thinking that does not, in philosophical terms, rely on subject-object relations, dualisms and interrelationships that are of Western origin. A specific kind of temporal-spatial juxtaposition and connectedness unfold as a genuinely permeable quality that in Asian cultures promotes a *'*thinking in networks*'*, rather than thinking in dialogues. When viewed together, creative and cultural practices in the Asia-Pacific sphere manifest a seminal understanding of interconnectedness that characterises a cultural specificity and is highlighted in the use of media technology: 'The Far East thinks in networks. ... The Far East has an almost natural connection to technical networking' (Han 2005). Given that the dynamics of contact do manifest themselves in the way medial and cultural crossings can be seen to travel and pervade each other, it seems appropriate to discuss this dimension of connectedness in respect of cultural specificities (roots) and their transcultural qualities (routes).

The notion of network thinking and related circular structures indicate a cultural form that is more associated with Eastern thinking and differs from the Western cultural forms of polarities. In view of the task to identify aesthetic means of intervention it is, therefore, worthwhile to look more carefully at the cultural components, wherein specific artistic proposals are made. It is not to say that the cultural form, as such, will be highlighted or even play an articulated role in the practices. Nevertheless, it will be an influential element that forms the surrounding and rootedness of intellectual and aesthetic conceptual thinking and it cannot escape a specific context. Creative intervention cannot be inventive in a neutral, abstract space. It needs to express relations, differences and tensions to an existing situation. Following, it may not come as a surprise when doubleNegatives Architecture, the collaborative artistic-architectural group that spans Europe and Japan, is especially interested in revising questions of subject positions; positions that connect to the centrality of a Western -centric perspective. These structuring principles, in a differing spatial setting, are remodeled and construct novel network options that create another model of decentralised connectivity.

The media artist, Seiko Mikami and the architect Sota Ichikawa, in their collaborative interactive-perceptual installation *Gravicells* (Yamaguchi Center for Arts and Media 2004) similarly address space when they go beyond commercial media products, being concerned with integrating our own subjective experience into a field of interaction that uses dialogue as the operational mode. This is achieved by employing environmental data, captured via GPS from the physical world, and relating this to our immediate perception of our own bodies. Participants, viewers and users make their own subjective-personal approaches to the interfaces and to other people present in the same 'field'.

Fig. 1. Seiko Mikami and Sota Ichikawa 2004. *Gravicells. Gravity and Resistance*, Yamaguchi: Yamaguchi Center for Arts and Media.

The subjective interaction of ourselves with other selves in a defined field leads to the distortion and deformation of objective GPS positional data. Deviations from the spatial coordinates express an almost personal sense of gravity (weight, movement and speed) in the form of concentric circles that change and move in dialogue with similar information from other participants. The floor consists of cell-like grids with fixed sensors built in to detect the changes of position, weight and speed of visitors. The new space serves as a dialogic model that expresses the need for one's own space and also the anxiety of getting too close to others, something that reflects the quotidian experience of narrowness and density in public spaces, the metro and commuter trains in Japan. The experience, as such, is in fact not a culturally specific one but certainly does correlate inter-subjective values derived from a widely shared experience of lack of space in modern Japan and translates people's responses to the high density of space into a new media form.

Artists creating networks

Artistic intervention into social and cultural relationships that belong to our networked societes, to borrow Manuel Castells' (Castells 1996) term in the broader understanding of art within global politics, needs to take into account the media and cultural aspects of thinking in networks. To explore this further, I refer to the virtual architecture project *Corpora in Si(gh)te* (2007-2009) of the collaborative artistic-architectural group doubleNegatives Architecture (Sota Ichikawa, Max Rheiner, Akos Maroy, Kaoru Kobata, Satoru Higa, Hajime Narakuwa). This group is especially interested in questions of subject positions; positions that connect to the centrality of a Western-centric perspective. These structuring principles, in a differing spatial setting, are seen to be remediated and construct novel network options. The present architectural model suggests cross directions and networking practices that are relevant to the larger topic of intervention and ideas of connectivity, from scientific models to real spaces, in different locations and different cultural contexts. Set against the background of a dominant centrality of vision and surveillance (echoing the visual regime of modernity of Martin Jay (Jay 1993)), the intervening concept manifests in decentralisation and the building of another vision of mobile connectedness in situations of augmented reality.

In the installation the group investigates the use of networks for surveillance and military purposes and, for example, uses smart dust[1] technology and augmented reality, as introduced as ubiquitous devices in the two Gulf wars. In this respect, we can appreciate the critical approach of artistic intervention that explores invisible and mostly unnoticed computing operations. Therein, I wish to stress, lies an alternative aesthetic approach towards the built environment (architecture) and dominant visual regimes (predominantly linear perspective). In the installation of *Corpora In Si(gh)te* these parameters seem to be rather fluid and changeable. This raises questions of power and control: what is potentially responsible for reassembling the parameters? Can it be anyone and does the system need us? Consequently, the work poses the critical question of to how to organise communicative structures in a living environment where real space expands into mediascapes and changeability is formless, frameless and fluid.

The group's philosophy is to use data input from nature (such as wind, temperature, light and noise) and to employ military technology to build living architectural environments with intelligent sensors. *In Corpora in Si(gh)te*, the concept is to decompose the parts and materials of real buildings and reassemble them as an autonomous structure with varying and multiple viewpoints that are called 'super-eyes'. The aesthetic experiment results from mixing existing devices and building one's own structure. Superimposed architectural models are built from data measuring brightness, wind direction and speed, temperature, humidity and sound. The three dimensional structure that is generated is constantly changing, demonstrating how the flexible, constantly recreated corpora which is constructed from the collected and connected data of multiple viewpoints, occupies and dominates the surrounding public space. The superstructure interacts with the surrounding environment and also redesigns itself. It purposefully uses the technology of a mesh network and employs smart dust tools, deriving from military technology, with the goal of establishing decentered networks. What is demonstrated here are processes of building networks by restructuring connections from scratch, in all possible directions.

In Corpora, another mesh network will be realised in connection to a real time environment, with behaviour like an organic structure or nervous system. This model of networking realises possible forms of virtual architecture that grow like an organism and are not stable, unlike a concrete entity. In line with the concept of decentered networks the 'super-eyes' are self-generating, self -assembling structures that stress multiple connections because they exist in polar coordinates, not within Cartesian parameters. The multi-perspectival model departs from the linear perspective that is incorporated into most computer graphics systems. Herein, a change of perspective that stresses the optionality of using another representational system goes hand in hand with interaction with the surrounding environment. As a result, the project *Corpora in Si(gh)te*, which was presented at the Yamaguchi Center for Arts and Media, Venice Architecture Biennale, Ars Electronica Center and Hungarian Cultural Institute in Berlin, creates, each time, an unique ambient structure that disassembles the underlying smart technologies of military surveillance operations using sensors and wireless network functions. The aim is to demonstrate how we may change the function of, and challenge the ways in which we perceive and behave, in relation to disturbing, decentralised, unstable, constantly reassembling environments.

Fig. 2. Double Negative Architecture (Sota Ichikawa, Max Rheiner, Akos Maroy, Kaoru Kobata, Satoru Higa, Hajime Narakuwa). 2007-2009. *Corpora in Si(gh)te*, Japan/Hungary/Switzerland, virtual architecture project.

Another example, Seiko Mikami's large-scale three part spatial installation *Desire of Codes* (Yamaguchi Center for Arts and Media 2010, also exhibited at InterCommunicationCenter, Tokyo, 2011), addresses our relationship to the digital. It poses the question of what sort of 'inherent behaviour' computer codes might have, particularly when their capacity to measure and move takes on an organic character.

On the wall of the installation space Mikami mounts ninety devices that are equipped with search arms that have small LED pointers, cameras and sensors to detect the movement and sound of visitors when they approach the wall. The whole structure is targeting us, as if the technical apparatus and humans were different species entering into a dialogue with each other. As the lights and cameras follow the visitors' movements the devices, which are driven by audible motors, move their arms, *'*searching for*'* individual visitors like buzzing swarms of mosquitoes. In the process, their light-intensity varies in response to the activity of the user/visitor. Various real-time measurements are combined to create the responsive effect: movement is captured by light and ultrasound sensors and body temperature by infrared sensors.

Of particular interest here is how the use of the sensors diverges from the norm, as Mikami's self-built device is employed to measure data distinct to what was anticipated with the original purpose of the parts. For example, the sound-sensor serves to estimate distance. Each of the combined sensors and the cameras capture and measure independently, but they are networked together and attuned to each other as a form of 'group behaviour.' The audience for this 'industrial invention' not only interacts but, because of the extremely minaturised interfaces, can also experience the similarity between the behaviour (orientation in space, movement, response) of themselves and the machine. Because the devices are similar in size to toys, they appear harmless and attractive, not like control and surveillance apparatus.

Of note are the cultural aspects of referencing miniaturised computers, electronic toys and gadgets, which have spread like insects through the private and public sectors in Japan and South-East Asia. In her work, Mikami makes us aware of a close and personal relationship between human perception in general and individual senses and how they are affected. She draws our awareness to the humanoid behavior of increasingly small and smart robots and machine devices that are equipped with sensory instruments to detect us, target our behaviour and follow us. It is precisely this interface, built by Mikami herself without using standardised mechanisms, which evokes the experience of in-between-ness and makes us aware of our modes of perception in relation to surroundings that are machine driven and operated by a chain of codes.

Mikami, in the other two parts of the installation, further explores her view of the desire of codes, seen as a chain of behavior and responses corresponding to social behavior. Once we move away from the *Wriggling Wall* with its ninety units targeting at us, we find ourselves surrounded and targeted by six huge, over-sized robot arms that hang from the ceiling and reach into the space. The robot arms seek to express the desire of the code to follow and record the movements of visitors. The arms are equipped with cameras and projectors and simultaneously project the recorded footage onto the floor where we move. In the third part of the installation, *Compound Eye*, Mikami further focuses the anthropocentric effect of the miniature mechanical arms of the *Wriggling Wall*, with their LED's trained on us like searchlights.

> If you enter this white room ninety moving units of structures with built-in small sensitive cameras (0.0003lux) are placed across a 15m long white wall. Each device senses with insect-like wriggling movements the positions and movements of visitors, and turns toward detected persons in order to observe their actions. Round-shaped screen (in sixty-one hexagonal parts), that looks like an insect's compound eye, is installed in the back of the exhibition space. Visual data transmitted from each camera, along with footage recorded by surveillance cameras at various places around the world, are stored in a central database and ultimately projected in complex images and sounds that are mixing elements of past and present onto the screen. This compound eye-screen and the room's sound system express a new reality in which fragmentary aspects of space and time are recombined, while the visitor's position as a subject of expression and surveillance at once indicates the new appearance of human corporeality and desire. (Mikami 2010)

In the image-structure, imitating an insect's eye, current and past recordings of viewers can interfere, via computer programs, with data from internet search engines, which have access, in real time and permanently, to surveillance cameras from places all over the world. The model of the hexagon here becomes a permeable interface of global surveillance: it makes us aware of how personal experience is caught up in a worldwide data transfer.

Fig. 3. Seiko Mikami 2010 *Desire of Codes*, Yamaguchi: Yamaguchi Center for Arts and Media.

The philosophy of the installation is testing our experience of the behaviour of machines, as they are driven by codes. We are also invited to think about the desire of the code to randomly grasp and process data from anywhere at any time and *'*produce*'* endless chains of information input and output. The installation demonstrates its own structural components, such as repetition in the stream of data, and thereby makes us aware of our own desire to create and produce something and at the same time show our limits to influence and actually control the machine processes with which we interact. This interplay, in an in-between area, reacts like a circulation of perception. In it, participants experience the mechanism of permanent surveillance, as it is implemented in our technology and determines life in intensely structured cultures, like Japan. Here, any action is immediately the object of surveillance and triggers an endless, incessant search for input-data.

As these examples demonstrate, when we wish to discuss artistic -creative positions in computational development, it is important to mark the specific context of discourse and critique through the use of alternative models.

Notes

1. See http://robotics.eecs.berkeley.edu/~pister/SmartDust/

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OUT OF PLACE: DIGITAL IN-GROUPING

Donna Leishman

Abstract

Since the maturation of the mobile network and a pervasive immersion into social media, the concept of community has been irrevocably dislocated from traditional geographical interactions. Establishing what adequately characterises born or predominately digital groupings is being investigated and discussed in academic, public and civic arenas[1] . Both the positive (Fig. 1.) and negative positions (Fig. 2.) have been voiced. Our 'always on', always-connected' status (Antonelli 2008) has created a close and some would argue dependent psychological relationship with our technologies (Charles 2011). If we consider that these technologies *have* significantly changed our practical reality, a reality where human experience and technical artifact have, for many, become inseparable, and that we now live within a 'life mix' (Turkle 2012) or pressured 'cycle of responsiveness' (Perlow 2008) then traditional concepts of how community is enacted using (deleterious or not) technologies merits review. This paper will look specifically at the heavy-user Flash developer/designer community and employ Social Identity Theory (SIT) (Turner & Tajfel 1979) as a means to interrogate how far technology has bypassed or developed established SIT concepts such as community, categorisation and identity.

Context

Predating more recent discussions around the negative or hidden effects of technology (Greenfield 2009) was an utopian ideology. Early digital culture (1993-2001) was driven by native Net communities who relished the freedom to work and communicate in a non-hierarchical digital space, where open-source sharing and virtual relationships gave respite from offline notions of ownership, materiality and physical identity. This early period was followed by the emergence of a larger browsing audience, who helped establish what has now been termed Web 1.0. Web 1.0 moved towards Web 2.0 (around 2004, onwards), which saw content providers and user groups evolve into more participatory 'prosumer' (McFedrie 2002), co-authorship and early crowd sourced enterprises (such as Threadless.org). Within Web 2.0 a confident commercial market and the expansion of the Social Network framed a decentralised culture. The current pervasive nature of mobile and networked technologies suggests we are entering a Web 3.0 and has enabled many to work and communicate with people in 'different time zones, on screens of different resolutions' (Antonelli 2008: 15-16) in both personal and professional dimensions (Naughton 2012). The initial techno-utopian ethos remains – indeed, 'networking' and or 'connectivity' are often presented as irrefutable contemporary virtues, albeit an amalgam of philosophical and theoretical origins with an unabashed commercial strategy.

Current key positives tend to be organised around the notions of:

1. Access: Since Web1.0 we have been given greater access to a better-delineated world, where any content can be found, giving rise to the idea of both a knowledge economy and *more* democratic access to information.

2. Connection: That technology can foster better connections (faster, stronger) with individuals and groups.

3. Sharing: Arguably the most ubiquitous and tangible addition is the ability to connect and share via the 'broadcasting' of personal details, stimuli, and observations facilitated by commercial companies such as YouTube, Twitter and Facebook. User-generated content implies a more active, liberal, discursive culture.

4. Ease: where smart devices deliver pervasive computing to make managing responsibilities and relationships less difficult and time consuming.

5. Creativity: An active discursive culture suggests new thinking and innovation can take place – e.g. that technology enables the 'wisdom of the crowd' in crowd-sourcing, as a problem solving tool.

6. Freedom: an idea located within the original net community's liberal ideology, where users can conceive of any question, urge or desire and act without restrictions.

All of the above positives can be reviewed from a counter negative position:

Fig. 1. Nokia's more 'youthful' strategic direction (October 2011) for their *Lumia* phone based on 'co-creation', with consumers being invited to collaborate with the company's marketing. Image source: MarketingWeek.com O'Reilly (2012)

Fig. 2. 'The Social Media Venn Diagram' T-shirt Design from www.despair.com

1. Access: Rather than the notion that we have been given greater access to a better-delineated world, we are in an era where there is a lack of information quality. What we have now is the illusion of truth and a crisis of authentic and or verifiable knowledge; Wikipedia and Google do not offer users truth or fact.

2. Connection: that the cycle of connectivity – the expectation to 'always be on' – is creating anxiety and dependency in users (Turel, Serenko & Bontis 2011). Turkle's (2011)