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MONIKA FLEISCHMANN & WOLFGANG STRAUSS INTERVIEW



Today we talk with Monika Fleischmann and Wolfgang Strauss, two interactive artists well known for their research into interaction and the development of mixed reality experiences, involving VR (in the early years) and, in the recent years, web-incentrated works. They've always been interested in the role of performance as the way to acquire knowledge. In interactive art, in fact, the performer not only views, but often is called to edit the artwork. Fleischmann and

Strauss are one of the most important new media art figures of our time. Let's talk with them.

- 1) Hi Monika, hi Wolfgang, it's great to talk with you: when we, as FLUX, have decided to begin this series of interviews, i've thought i would have asked you an interview! One intriguing aspect of interactive art, i would say, it's the linkage between the digital technologies /j media implied within it and the message these artworks would transmit to the user, who has an important role in the artwork, because he's asked to think or to gain something from his experience. **In your artworks, what the user is asked to do? What he gains from the experience?**

Hi Alessandro, thank you for your interest in our work and for the interview. We work since 1987 in this – at that time – very new field of interactive art, science and technology. Maybe we can introduce some of our work with a short video from the opening of one of our media art labs, the **eCulture Factory** (2005) and some interviews (in german) as resonance to this opening:

<https://www.youtube.com/watch?v=RVrD9sA-Ppg>

http://fleischmann-strauss.de/resources/Eroeffnung_eCultureFactory_2005_Interviews.pdf

What the user is asked to do? We try to avoid the computer world term 'user'. The visitor is simply asked to take part. Taking part, is one of our artistic, scientific and technological research interests.

<http://www.nada.kth.se/arena/part.html>

We understand interactivity and interactive art as data-performances of virtual objects and human subjects. The visitor is immersed in a dialogue with him/herself and others mediated through machines. Confronted with the rhetorical figure of the virtual data performer, the human performer gradually develops his/her own individual performance ... and identity. Participants can take an active or passive role. They are in the middle of the action. They are onstage to act or simply to watch the others. We provide space for interactive encounters. It is an encounter with virtual acts and their own actions as an encounter with him/herself such as for example in the myth of Narcissus. A stage filled with data. This is not a matter of pressing buttons or

sweeping a touchscreen. An essential element lies in stopping and pausing as soon as participants enter the stage. It is the moment in which own thoughts arise. The interactive stage manifests itself as a thinking space where art, science and technology are intertwined.

But, the visitor must be tempted to play. The artistic challenge is to make the staged environment accessible, so that participants are encouraged to act. The precise interplay of sound, image, interface for bodily contact or no contact creates a seductive environment and soon the participant becomes the artist's accomplice. The individual actions create individual experiences. We are interested in the difference of the visitors' performative acts, their voices, gestures, facial expressions ... in the often unconscious actions of the visitors. With the dialogues that emerge between the self and the other/s we construct a "new reality" following our own aesthetic rules. This artistic strategy brings about new findings (Ryszard W. Kluszczyński). And we hope that the audience gets an idea of the different performative acts and their impact.

Unlike the interactive environment, a mobile device meets other requirements. In today's communication via mobile devices, the physical presence, the gestures and facial expressions are largely ignored or replaced by emoticons. In contrast to this, performative acts are a major component of our artistic work. Not only in our mirror works - "Liquid Views" and "Rigid Waves" - we play with performative acts. In "Home of the Brain" visitors listen to the voices of important thinkers and their statements. Vilém Flusser, the media philosopher; Joseph Weizenbaum, the scientific and social critic; Marvin Minsky, the cognitive scientist of artificial intelligence and Paul Virilio, the critic of the media society. By moving through the environment, the participant arranges the spoken words in form of a philosophical discourse. The voices and meaning of the spoken text was the foreground, coloured 3D objects gave an orientation on space and built the visual background. We observe how people use their bodies to explore the philosophers' ideas: Flusser's House of Adventure, Weizenbaum's House of Hope, Minsky's House of Utopia, Virilio's House of Catastrophe. They are not disembodied, but flying, diving, hiking and wander through the "Philosophers' (virtual) Houses" with data goggles and gloves. Listening to the philosophers' voices as a sign of their identity (Valie Export), the participants become data divers in search of guidance and knowledge. It was an invitation to think about their media theories to explore the critical role of a future digital culture.

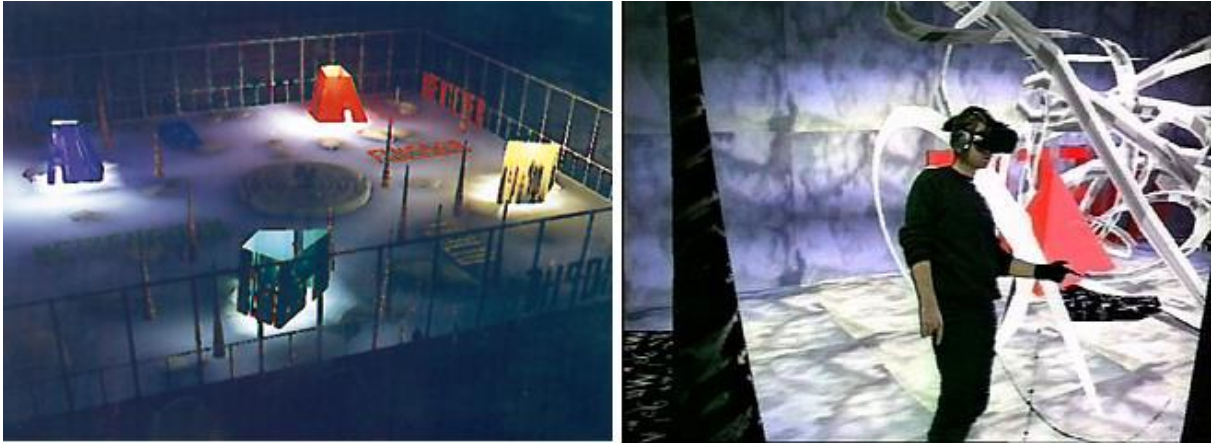


Fig. 1: Home of the Brain (Fleischmann/Strauss 1992)

- 2) Two of your more suggesting and talked about works, especially in the books concerning the history of interactive art, are “**Home of the Brain**” and “**Liquid Views**”, generally considered two of the most important works of that decade. Here, the duality actual world / virtual world always want to raise a deep thought on the user: it seems that the artwork tries to switch on a light on the user, bringing him to think on something that is much more than the simple interaction. **What do you think that the users could gain from this kind of interaction?**

In the movie "Orphée" Jean Cocteau connects the world of the unconscious with the reality of everyday life: an ordinary mirror is the gate to the afterlife. The film shows how Orpheus' hand disappears in the mirror. It is a magical moment that will be remembered. With „Liquid Views“ we are trying to achieve a similar moment of transition by reflections. The transition into a Mixed Reality happens as soon as the hand touches the (simulated water) screen and one's own image dissolves. In "Liquid Views", we make the transition to an imaginary world through technical innovation (there was no high-resolution touch screen yet in 1992) linked to the aesthetic and perceptual connotation of the myths of Orpheus and Narcissus.

How does it work this process of performative acts and actors in "Liquid Views"? It is an indirect call to perform. As soon as we hear the sound of water we come closer. We look at our image in artificial water and intuitively perform a gesture of touching in the sense of self-assurance - 'that's me'. Thus the water begins a life of its own by a generative code. Artificial waves appear to dissolve the image and the viewer leaves traces behind - usually unnoticed. By triggering the surface it can take countless forms of appearance. If the surface is not touched anymore, the picture becomes clear again.

At first glance, „Liquid Views“ might be about "experiencing oneself in a possible other being" (Luca Farulli). Only in the second moment, the viewer realizes that his intimate act of reflection, is publicly visible to others. The viewer becomes a performer literally in the middle of a common "marketplace". The vivid image, that involves the viewer emotionally and intellectually, is actually a system of control. A public eye

that betrays the viewer at the very moment when we are completely submerged in ourselves. Then we become immersed in the interactive plot. This is the moment in which the fiction starts a creative process.

We imagine ourselves in a situation of intimate self-reflection, but at the same time our playing is displayed on the large screen behind which is directed to the public. A process of internalization is externalized. (Derrick de Kerckhove). The message is: You are in public! The observer is the observed. The experience is: I am the actor and I have an audience! The work is an early indication of forms of virtual presence as integral part of today's social media. Facebook became a reality 25 years later. Only since the whistleblowers publish secret documents, the attention for the personal data are slightly higher.

What happens when we come into this interactive liquid mirror situation? You see yourself in this mirror as another and that's why you get a picture of yourself. The Recipient becomes the received. It means to experience the Jetztzeit (Wolfgang Strauss) or Nowness (Michael Joyce). Literally the work reflects our thoughts in real time to ourselves. Therefore, using the artwork is a form of being on a construction site - for the construction of a thought space (Denkraum) - built by words, images, voice, sound, interface etc. The sound of water in "Liquid Views" and the voices of the four philosophers in "Home of the Brain" support the transformative change in the visitors' perception of the virtual work. At the same time it is a contemplative experience of self-reflection. To see things differently, to show things otherwise. The body is in the picture, the mind is on the move. That's the new experience. So, what we produce with our work, are situations and atmospheres.



Fig. 2: Liquid Views (Fleischmann/Strauss 1993)

- 3) Why artists, in the past years, have decided to build virtual experiences? **Why you've chosen this medium, and what's behind a simple engaging experience?** What's the real reason for this choice, **and why now, after some years, it's a medium less used than in the past?** Now we have an increasing use of Augmented Reality applications and gaming is beginning to use the virtual reality concept, using it in videogames, a different kind of experience, apparently more linked to entertainment.

After the fall of the wall, our point of departure was to invite thinkers and futurists to a conference about the

future of Berlin. It turned out it will not be possible to bring these different speakers together in one place at the same time. Therefore we decided to do a performative virtual gathering and entered the New National Gallery in Berlin (West) virtually. A Virtual Reality installation – interactive realtime 3D - was the right medium to realize what we called first „Philosophers' Houses“. With the title "Home of the Brain" (1989-92) we prove reference to Laurie Anderson and her Home of the Brave (1986), a music film with concerts and songs about her love-hate relationship to her country. We are concerned with breaking new ground in another love-hate relationship. Digital media and the Internet as "Neuland" (Angela Merkel, 2013) was a very new territory when we started to explore it (Fleischmann-Strauss, 1987). We didn't even know the term interactivity, but it was clear to us it should be a model for a new kind of museum: to exhibit ideas and concepts of contemporary thinkers, so that visitors could walk through this ideas from anywhere in the world. We wished the public to know more about the new ideas of modern philosophy and the digital future.

As it was technically quite complex, it took us more than a year to build this first interactive virtual thinking space together with „Berlin, Cyber City“ (1989-90) after some trials with an architecture space for Hewlett Packard (1987). Like in architecture it took different disciplines to build this very first virtual exhibition for networked computers. It was pure research and development, e.g. a radiosity programme calculating light and shadow. It presented the digital 3D space, that usually looked at that time very flat, as a magical interactive space. All was done at our Art+Com Raumlabor in Berlin, which we cofounded with Edouard Bannwart, Wolfgang Krüger, Dirk Lüsebrink, Joachim Sauter and others in 1987. We interviewed the for mediathinkers individually and invited all to help us building their houses. Vilém Flusser did his interview in german. He was really excited and asked "how could I furnish my house?" Paul Virilio was nice and charming, but answered only in french. The two others spoke english. We didn't translate it. The sound of the voices was more important and we knew, that the language problem in the global world would be resolved sooner or later through digital translation programs.

This new media – Virtual Reality, networked computers, interfaces, 3D environments, realtime interaction, philosophical thinking, media ethics – made clear that it needs transdisciplinary fields of research for media art. The collaboration of artists, designers, IT scientists became our special feature and we became media professionals of various fields. Back then this new type of knowledge production started: transdisciplinarity, as an institutional innovation. But, it was not easy to overcome the disciplinary boundaries and work in teams. Each discipline – art, design, computer science - has its own quality standards and international ratings. After all, each of our team members learned to know the views and perceptions of the other disciplines and - sometimes – to appreciate.

It was not a question to overcome the „Endlichkeit“ (finitude) (Heidegger) of human existence by Virtual Reality as some art historians assumed 25 years ago. Even if some people are hoping to switch over to new forms of life to be able to live as saved data. In fact, with our work we show very subtle - with voice, sound,

visualization, interactivity and data storage - the digital control system, which arise from networked computers and the Internet. Later, we continued the work as an open platform, a Mixed Reality networked stage to enter, entitled "Murmuring Fields" (1997-99).

<http://www.nada.kth.se/erena/murmur.html>

Changing from Virtual Reality Technology by developing the concept of Mixed Reality, the work becomes a physical and cognitive experience, thus changing access to and perception of the work. From "Home of the Brain" to "Murmuring Fields" - from networked computer experienced through data glasses, to a "space filled with data", an acting and learning area.

Philosopher Mark B.N. Hansen, in quoting us *"turning the theory on its head that man is losing his body to technology [...] the interactive media are supporting the multisensory mechanisms of the body and are thus extending man's space for play and action"* (Monika Fleischmann and Wolfgang Strauss), defines the new realm of virtuality: "Central in this reimagining of VR as a mixed reality stage is a certain specification of the virtual. No longer a wholly distinct if largely amorphous realm with rules all its own, the virtual now denotes a *"space full of information"* that can be *"activated, revealed, reorganized and recombined, added to and transformed as the user navigates...real space."* Mark B.N. Hansen sums up: "Bluntly put, the new mixed reality paradigm foregrounds the constitutive or ontological role of the body in giving birth to the world."

http://samples.sainsburysebooks.co.uk/9781135878870_sample_525342.pdf



Fig. 3: Murmuring Fields (Fleischmann/Strauss 1998)

At the beginning of the 1990s some scientific and technical disciplines were also enthusiastic about the idea of Art, IT-science & Technology working together. So the German National Research for Information Technology (later became Fraunhofer) invited us in 1992 to Bonn / Sankt Augustin to work as research artists in their newly founded VR lab (Wolfgang Krüger/Dennis Tschritzis) and as fellows to the KHM in Cologne (Bernd Girod). The result was the foundation of our MARS Exploratory Media Lab in 1997 (MARS = Media Arts Research Studies). Soon the MARS Lab was very well received internationally and had passed a number of international scientific and artistic evaluations with excellence. Unbelievable today: more than 15 years we worked with our transdisciplinary research group as an independent self-financed Media Art Lab

in a technological research environment sometimes with five, sometimes with more than 40 employees. But, it was not a financed playground. We learned how to acquire European and National Research money and got about 15 Mio. Euro in 15 years of MARS and eCulture Factory existence.

During this years the culture of research had changed significantly. At Fraunhofer, we experienced a hard time of economisation and commercialism for our applied research in the last years. We were asked to cooperate with the economy and to sell what we had invented before such as tools, patents, online platforms, conferences, exhibitions, competitions or other cultural formats. We were not allowed anymore to submit research projects and get money from the EU or others. Therefore we founded the eCulture Factory and looked for partners in the cultural industry. It was expected of us to set up a company in the area of creative industries. But the place and the external conditions were bad, it became difficult to continue working and we did not want to sell our soul to the demands of a new institution (part of Fraunhofer).

Finally all the transdisciplinary media communication experiments and prototypes – many of them invented by us, our fellows or colleagues – where commercialized by big players in the US because it lacked the spirit, entrepreneurial support and the money in Germany. The only thing to say is: Media art pioneers invented many of today's media concepts 20 years ago but with more ethical intentions and with the idea of transparency. It could be seen in the ZKM in Karlsruhe if there would be something like an ongoing research on media art history. The intent to explore the interactive image production and reception, which powers today's digital imaging revolution would be re-framing where we are now.

Why have we ourselves become interested in digital media? Because in 1987 it was new and because, transdisciplinary work was necessary due to the technical complexity. Some spoke about an electronic Bauhaus. To learn and invent digital culture and interactive media art took us approximately 25 years and the creation of 3 Labs: Art & Com, MARS, eCulture Factory. Over 25 Art & Science projects have emerged during this time. We should have left Germany in 1997 e.g. for Asia, to be successful in interactive art or in another research environment. Back in Berlin since 2014 we develop artistic and architecture projects in public and private space and are much more aware of the resources needed and energy wasted by networked computers.

- 4) Gaming is one of the most known sources of interaction: through the joypad, everyone can experience a story, and is proved that the user is totally immersed into the game. Some artists are working in this direction: Bill Viola has developed “The night journey“, as an example. **Does a bridge exist between your works and the gaming interaction practice, and, in particular, do you feel that this could be, in the future, an interesting field for experimenting in interaction?**

Bill Viola's "The Night Journey" is a good example to reflect on the gaming interaction practice and for slowing down. We become aware of the acceleration in computer games and for the lack of reflection. In 2003 Tilman Baumgärtel was curator for the exhibition "Computer Games By Artist". We documented this exhibition on [netzspannung.org](http://www.netzspannung.org), our education platform and archive for media art.

<http://www.netzspannung.org/media-art/exhibitions/games/en>

Inviting people for participation can only be done through play. But we differentiate between a game and to play. We work with playful elements in interactivity, but the screen-based computer game has never been our focus. We observe how people approach "Liquid Views" or "Murmuring Fields" or "Energy Passages" and how they get immersed by playing with it. A kind of concentration arises as well as in a computer game, but the adaptive problem in the video game is to beat the machine. The flow (Mihály Csíkszentmihályi) of concentration has more to do with contemplation, when people begin to play in interactive art installations and is different than the obsessive concentration of people playing computer games.

Beside this flow of concentration, the term flow runs like a red thread through our work. The flow of words in sound and vision in the project "Energy Passages" or the flow of images and texts in the archive project "Media Flow". That is the view of a static archive as moving information that passes by as a dataflow and deploys a contemplative effect. The language games (Wittgenstein), that we have developed within this works, are blueprints for future educational games and learning spaces. Also, the Museum of the Future and the Electronic Classroom are research issues that lead to new communication spaces.

„Energie Passagen“ (Passages of Energy) is art as a language game. Playing with language is a thought experiment (Ludwig Wittgenstein). The Title is directed to Flusser's term of the Passage and refers to Walter Benajmin's Passagen-Werk (The Arcades Project). Likewise in „Energie Passagen“ the newspapers text is fragmented by code and represented as a language game through the intervention of participating visitors'. Peter Matussek, german media scientist, points out that the Energy Passages resemble a staging in which text and reader are equally involved: "It is not about throwing around technoid text fragments like what the hypertext cult celebrated excessively, but filling the remaining gaps using in an odd way smoothly operating automatisms.

This especially due to the strikingly harmonious, however, fragmentary recomposing of what we have latently retained as consumers of the news. In this way of staging life is emphatically breathed into scripture. It becomes vivid not just because of the bare motion of pictures itself, but because of its media practice to stage performative readings in which text and reader equally participate in a constructive way. Additionally, the compensatory flare-up makes the motion of pictures continuously flirt with its own demise. In the contemporary silicon age the future of scripture rather lies within visual, sculptural and architectural forms of

expression than in “secondary orality”. This is exactly what the installation makes the visitors sensitively experience”.

<https://www.youtube.com/watch?v=h-naEzCEmFs>

More comments of Christiane Paul, Sherry Turkle, Itsuo Sakane and others in Public Voices:

http://energie-passagen.de/presse_engl.html

<http://www.eculturefactory.de/medienfluss>



Fig. 4: Energy Passages (Fleischmann/Strauss 2004)

All of our works provide a specific situation, a physical environment that makes every person part of the play. The interpersonal relationship that develop through observing each other are the essential characteristic of this situation. Here interaction means simultaneously transmitting and receiving over multiple channels. The difference between the interpersonal face-to-face interaction and communicating by using a computer shows the special role that the sense of seeing plays in communication. Different to the film „Her“, the computer does not see that it is perceived, and its reactions are not based on its perception. Relying on the computer game, this means the computer will only respond to input commands. Even if the man-machine dialogue seems to be as confusing as in Weizenbaums' Eliza.

The theories of game and action gave us some interesting hints for design and analysis of interactivity. In 2001 our project i2TV – Interactive Internet TV proved a distributed, networked poetry play integrating Internet participants with participants on site. I2tv combines the passive broadcast model with participatory models of networked environments and different interface devices. The audience, both local and on the Internet, can actively shape TV events, using text, image, live audio and video. Participants took part in a networked real-time performance for a live TV production, from home PC as well as digital nomads with cell phones and palm tops.

The demonstrator shows the re-conception of "Otto's Mops", a well known poem by Ernst Jandl as a distributed poetry play shaped by participants. German broadcaster WDR was interested to use the technology for production of participative TV entertainment. But from a technological point of view it was too early like most of our experiments.

<http://netzspannung.org/cat/servlet/CatServlet?cmd=netzkollektor&subCommand=showEntry&forward=&entryId=143479&lang=en>

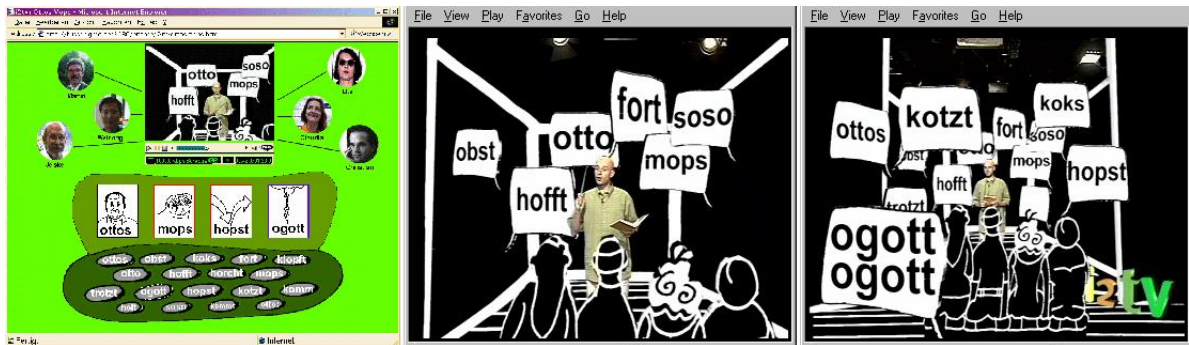


Fig. 5: I2TV – Interactive Internet TV featuring "Otto's Mops" (Fleischmann/Strauss 2001)

Indeed, there is another bridge to gaming industry. Many of our previous interfaces were pure body interfaces reacting on body movement or gestures. Some of these early demonstrators had been picked up by the gaming industry. Flying with the "Virtual Balance" (1995) through virtual terrains, like travelling on the magic carpet in fairytale, today is done with the Wii Balance Board (2007). We still remember many Japanese visitors, obviously engineers, at Siggraph LA 1994, chronicled every detail with their cameras. Other work such as the contactless "PointScreen" for gesture based interaction, patented in 2002, returned years later as industrial products, e.g. Microsoft Kinect in 2009. <http://eculturefactory.de/pointscreen>

- 5) I've seen a trend regarding the introduction of the World Wide Web on a large scale: the artists who worked with interactive art and multiuser environments, moved to the Web. The information travelled through the net of the WWW is really interesting, and now the Internet has become a stable world, in which loads of websites everyday are built and published. **What potential the Internet has for the interactive artists even today?**

In 1997 - just like Oliver Grau, who was one of the first who wrote about our work - we found that the achievements of media art disappear. For this reason, we started to work on the topic of digital archive and preservation of digital culture as a branch of interactive media art. With the project Netzspannung.org we initiated one of the first educational platforms and online archives for media art and digital culture. It shows already in the concept phase in 1998/89 all the characteristics of media communication as offered from around 2005 by the Internet industry such as Youtube and streaming or cloud computing. Technically Netzspannung.org was based on distributed servers and experimented on a small scale with the topic of cloud computing. With the "Mobile Unit" we were often in universities and lecture halls to record and stream interesting talks - live via broadband network - directly in the lecture halls of the German universities. Thus, we have tested the first forms of online journalism and education.

Furthermore, we developed new educational formats and new interfaces to access the media art archive: the Digital Sparks university competition, the netzkollektor as an open presentation channel for the community, the Cast Conference for the exchange of Art, Science and Technology, the Media Art Learning program for learning and teaching media art in Universities and school. Moreover - a novelty for the time (2004) - the data were analyzed semantically and thus put into context. This created an archive not as a digital card catalog, but as networked information. The motto of the archive: Not searching - but finding. Today we are surprised that with the tools and technologies available today, no similar project comes up.

We not only develop new processes of data acquisition, but also scenographically orchestrate the archive for the web and the exhibition space. ZKM director Peter Weibel sums up the advantages of the media art platform: "Netzspannung.org and its groundbreaking interfaces create cognitive and data structures. What has been created here is a model for an international educational infrastructure that deserves imitation."

The "Media-Flow Browser" transforms the passive archive into an interactive flow of information containing pictures and texts. **Media flow - the archive goes on air.** The "*Matrix Browser*" shows a multiplicity of arranged pictures of the archive, which can be enlarged by means of a virtual magnifying glass. With the aid of a neural net and linguistic analysis, the "*Semantic Map*" shows information as a mesh of semantic relationships. The viewers are drawn into the events through performative interfaces. In his publication "100 Products of the Future", physicist and Nobel Laureate Theodor W. Hänsch counts the "Semantic Map" among the pioneering ideas destined to transform our lives.

<https://simposiofuturospossiveis.wordpress.com/category/palestrantesspeakers/monika-fleischmann-wolfgang-strauss/>



Fig. 6: Faces of netzkollektor (2001): Semantic Map (2004), Matrix Browser (2006), Media Flow Browser (2008)

<https://www.youtube.com/watch?v=lQ7xTAXYIWE>

<https://www.youtube.com/watch?v=N8YnxGuXVGw>

Let's think a little bit about the pros and cons of the digital revolution. Facebook is the postmodern Stasi. No dictator could have come up with that. But the radio in war areas is sent via social media over the Internet (Asserbaidschan). Many talk about Cyberwar but hardly anyone of Cyber Peace – because the war industry

profits from the Cyberwar delivering digital weapons in critical states. France gave Libya a system to monitor the Libyan Internet. The great controversy revolves around civic freedom - how can I prevent to be located on my phone? The hacktivist group Telecomix helps Syrians with infrastructure to overcome an repressive government that fears about the „destructive ideas“ of young Internet „users“ such as questioning of religion, publishing rumors, misrepresenting facts Both sides speak of the Cyberwar and for Telecomix modem lines were a way out.

The question is whether individual activists change the world. After all, numerous citizens' initiatives have formed such as the Acta agreement that could be prevented over the internet. Hacker Space Tokyo developed his own Geiger counter, as no officials published data on Fokushima radiation. That is the strength of the Internet when it is used for democratic processes. But we risk a Big Brother society. Therefore, everyone should learn to code like the alphabet to understand the digital culture. It should be a school subject. At the moment there is a technical elite of 1% of the population who knows about coding. But today many seem to prefer playing with 3D printers. Everyone can make its own comb or whatever. This is a brief look at the current Internet, which nevertheless still exists alongside the purely commercial Internet. Some people hope that the Internet of Things will bring democracy because anyone can build and measure its own sensors. But, a little more training in critical thinking is necessary too.

- 6) Why, even if we're a modern society, the art system does not give the right importance to art based on interaction and, as a consequence, not so much interactive art exhibitions are held by the most important museums (excluding some exceptions) and not so much people is attracted by this kind of art? **Isn't it the expression of the people of this age? Why they're always more attracted by the classical art?**

The art market is interested in classical art, because you make money with an art collection from canvas. In digital art, there is a concern to get the required hardware and software in time as well as the right technician for the maintenance of the systems.

- 7) One of the greatest debates, and one of our limit, as italians, although we're known from our art history past, is what the museum would be in the future, the so called Museum 2.0. The trend, here in Italy, is to separate the museum seen as an experience and as entertainment from an old way of thinking the Museum as a serious and sacred space. The result is that young people is not attracted by art, because it's only intended in its classical way, and young people don't feel connected with these artworks in any way. Last year i've been in ZKM, and i've found a totally different approach: the interaction with the artworks as a way to learn something and the chance to play with old videogames: the result was that loads of young people visited it. **What's the future of Museums, and does the new media art, including interactive, art, fit well with an old concept such as that**

of the Museum?

The museum field remains dominated by men and women who don't want to have problems with technology or budget. When we showed Energy Passages on a public place in Munich in 2004, it was attended by about 4,000 visitors on site. This people were thankful that not again the Blaue Reiter has been shown for the 100th time, but current media art involving the visitors into the actual situation of what is going on in (digital) life.

What can we do? Most politicians do not understand what it means the digitisation of the world. To change things for the digital culture and for our future: Go into politics, start businesses, initiate new forms of museums and curate current exhibitions, publish in magazines, talk to artists and scientists in this field. The most difficult thing is the need to make money as an artist in order not to betray your work. An artist must always have sponsors, buyers or a professorship.

- 8) If i'm not wrong, as the technology have increased his influence on the process of artwork thinking and making, artists identity as singles became to lose, going back to the idea of the artist as a group of researchers. How art history could manage this loss of identity? **Do you think that, in the future, it could be easy to remember the artworks (and the art trademark) of a group of researchers as well as the works of Picasso or Nam June Paik?**

Of course we think a group of researchers could be remembered. There is enough research money at the EU in Brussels to do such work in teams. It is about the right team and about new research ideas or new perspectives of old ideas. But because of lack of requests from the media art or due to poorly identified problems in research proposals, many funds are still conducted in the traditional art historical research.

- 9) As we mainly, at the moment, publish music articles, what's the role of sound into your works and, in general, into interactive artworks? **Do you think that there's a strong connection between these two things, and, if so, what kind?**

For us the relation of the visual and the auditive was important from the beginning, because the interactive virtual environment is a timebased format. Similiar to film image and sound are the narrative base. The italian Art historian Luca Farulli (2011) describes better than us how we deal with the topic of sound and voice, that is significant in the context of our work: "What levels, what layers of voices-sounds are we dealing with? The first answer, obviously, will point at the sounds present within the installation: a simulation of water sounds in Liquid Views, the babel of streaming words in Energy Passages, the voices of philosophers in Home of the Brain. The question needs to be reformulated in a more specific, radical way: For whom are the voices of the sounds? – Only for those who can create an image, impulsively restoring a

feeling; an image which reflects the beholder himself in an altered state. It is not about the static property – memory, but the dynamic one – imagination.”

Exemplified with the work "Energy Passages" we explain the sound-image relation and how News Streams could run through our bodies. The sonification of the data by means of artificial voices extends the visual experience of the installation on the auditory level. A text-to-speech method converts text into a sound-panorama and supplements the movement of the image complementary. The spatially staged sound, the fluid motion of image and sound and the gestures of selecting single words create an atmosphere of ceaseless change. The performing visitors orient themselves according to the echo of these medial elements and it results in a form of echolocation. The hearing and imagination mutually reinforce each other. The sound scientist Holger Schulze describes the simultaneity of image, sound and motion in Energy Passages as “The Orchestration of sensual and perceptual Media and News Streams” ... ”we could have the impression all the current newsstreams were running through ourselves”. The visitors participate in a performative reading whose words literally flow through the body and make the audience perceive the place sensitized. This is being achieved through the seamless implementation of the virtual image and sound space into the real city environment.

<http://energie-passagen.de>

- 10) How interactive art is perceived by the art market? Why we don't find the most important interactive artworks in the most famous galleries and art auctions? What's the market situation for this kind of art?

We are not artists who watch the galleries and museums for what is saleable. There, art is discussed as a picture frame. The art market is like we said before, primarily economically motivated. For example, the collection Stoschek includes mainly video art, but calls the whole media art. The DAM has specialized in computer art of the first hour, because there are pictures hanging on the wall. Interactive works were and are often too complex in maintenance and operation. They are based on hardware and software that needs to be constantly updated. These works are not configurable as Nam Jun Paik did it with its complete packages of video and player. In addition, interactive works are process based. It cannot hang as a picture on the wall.

Even more difficult is when it comes to net-based work. For curators to finance a media art exhibition is more difficult than the much easier to handle painting, sculpture or drawing. Contemporary Art collectors, curators, and institutions have difficulty in recognizing New Media Art as a valid contribution to the history of art. It is deemed uncollectible Amy Cappellazzo observed, a contemporary art expert: “collectors get confused and concerned about things that need to plug in.” (Edward A. Shanken quoted Sarah Thornton).

<https://hybridge.files.wordpress.com/2011/02/hybrid-discourses-overview-4.pdf>

- 11) Since your early works, the medium of interaction has changed a lot: at the beginning there were large interactive screens, while now we have smartphones, tablets and watches. **Are, in particular, smartphones and watches a good medium to experience art? If so, why, and if not, why not? What do we have to expect from the future in this development?**

In the past one was used to Unix surfaces in the New Media Art. In conjunction with C ++ you could imagewise turn and exercise as you wanted. It was the most transparent „user interface“ ever. With the conversion to mobile phone as a portable computer, not only the screens have become smaller, but also the transparency of the user interface. Most happens behind the screen and it is beyond our knowledge. The precast industry has already started with Java in the form of encapsulated information. Previously you've spent a long time with programming, today it goes via App in a wipe. The Apps are the top of intransparency interfaces. In fact, these are directional microphones and cameras watching the users.

- 12) Thanks a lot for your time. Greet our readers!

We are pleased with the fact that interactivity is discussed in your Flux magazine. In times of even smaller screens - used as observation instruments for the body - the term of the Interactive became discredited. An App is not interactive. You get exactly what you want. The opposite is the case with interactive media art, especially in the 90s. It was created essentially through media deconstruction and with reversible cables and data. We wish your readers pioneering spirit in the disassembly of things. We should never take for granted what we get from the industry. New forms and formats emerge by reversed engineering. Don't trust technology.

http://fleischmann-strauss.de/resources/Performing_Data_09_2011_Monika_Fleischmann_Wolfgang_Strauss.pdf

Author: Alessandro Violante

<http://fluxproject.altervista.org>