

New technologies of art produce new forms of presentation and reception. Since video art emerged in the late 1960s, media art has become a vital part of international museum collections. How can these artworks be made accessible beyond their temporal visibility in exhibition contexts? Which strategies of documentation exceed the aesthetic deficits of traditional reproduction techniques as still images? »Present Continuous Past(s)« provides a state of the art insight into current discourses on de-centralized models for the dissemination of media artworks. Combining the views of international artists, scholars, curators, and distributors, the book reflects on the demand for a broader accessibility of media art in the context of research and academic teaching.

- Annamann*
Bippus / Mollmann
Christ
Daniels
Del Favero / Brown / Shaw / Weisul
Flach
Fleischmann / Strauss
Frieling
Frohne
Fronmø / Fauconnier
Guitton
Haustein
Rosenbach
Rutten
Schieren
Zippay



www.springeronline.com

ISBN 10 3-211-25468-4 SpringerWienNewYork
ISBN 13 978-3-211-25460-4 SpringerWienNewYork

Ursula Frohne / Mona Schieren / Jean-Francois Guitton Eds.

SpringerWienNewYork

»Present Continuous Past(s)«

Media Art. Strategies of Presentation, Mediation and Dissemination

On the development of *netzspannung.org* – An Online Archive and Transfer Instrument for Communicating Digital Art and Culture

Preliminary Remarks

The Internet platform *netzspannung.org* is a comprehensive archive of the current discourse on the theory of media, of artistic work and new strategies for communicating digital culture. Unlike other online platforms established in Germany in recent years, such as *Medien Kunst Netz* or *Datenbank der virtuellen Kunst*, which, using varying approaches, offer a more historical perspective on media art, *netzspannung.org* addresses current trends in digital art and culture. One fundamental characteristic of the platform is its interdisciplinary take on media art, media design, media theory and information technology and the way it communicates this information in the form of online teaching and learning modules. Through these, the site has succeeded in establishing an information pool with an interdisciplinary focus that appeals equally to users from the fields of the humanities and computer sciences, artists and designers, agencies and IT companies.

Whereas cultural institutions, educational establishments and libraries are experiencing budget cuts and sponsors for art and culture are increasingly hard to find, by contrast, the fast-moving, complex and highly diverse world of digital media demands the provision of additional information, not least as an economic factor. The kind of information sources that communicate currently relevant, up-to-date and attractive material are vital to the transfer to society of learning, design utopias and new technologies.

But it is not only with regard to content that *netzspannung.org* is a model educational tool and transfer instrument. Another fundamental aspect is the technical infrastructure on which the platform is built. Its special knowledge discovery tools allow for multidisciplinary contextualization and intuitive access to information. The platform is thus a model for structuring topical knowledge in order to render it accessible.

1 <http://netzspannung.org/about/history>.
 2 The authors have headed Media Arts Research Studies (MARS), a research department initiated by them at the Fraunhofer Institute of Media Communications, since 1987. At the time, the Institute of Media Communication (IMK) still belonged to the GMD Research Center for Information Technology. The GMD merged with the Fraunhofer Company in 2000.
 3 The CAT feasibility study became the basis on which the Internet platform *netzspannung.org* was developed. It represented the start of the Internet media lab that we have been setting up digitally at the MARS Exploratory Media Lab since October 1999. <http://netzspannung.org/version1/journal/issued/cat-history/>.

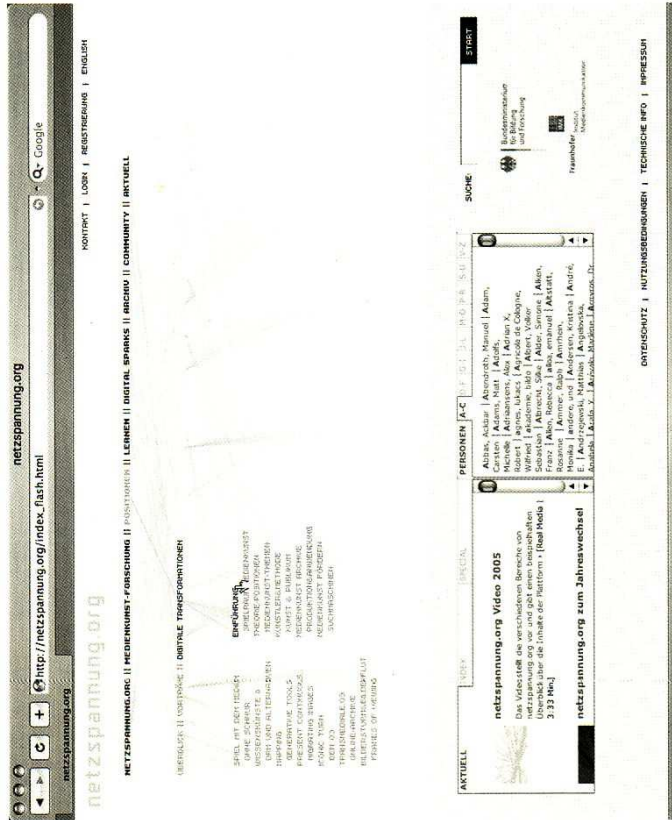


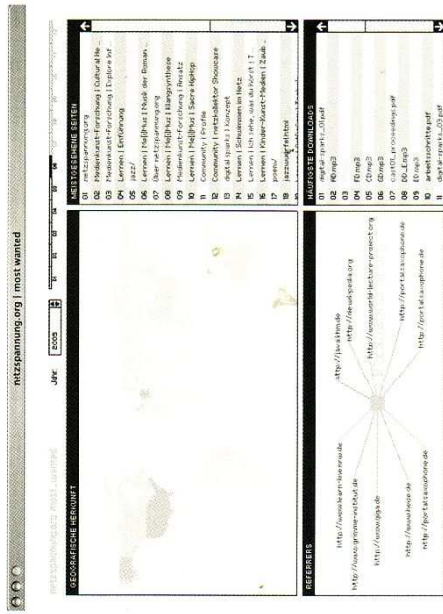
Figure 01 The *netzspannung.org* homepage as an overview structure

On the genesis of *netzspannung.org*

Media art needs laboratories in which to conduct its experiments. We see the platform as a virtual location, an 'Internet-based media lab'. As a next step, it is planned to allow it to function as a real 'local media lab' and an accessible archive. This will offer media art in the German-speaking environment in particular the opportunity to publish and present itself within the context of the international community.

At the start of the undertaking, we reviewed art using digital technologies and its social, political and economic relevance.¹ In summer 1998 we conducted² an electronic survey on the subject of the communication of art and technology (CAT),³ aimed at media culture artists throughout the world. The CAT study looked at the way art, culture and information technology influence one another and forecast trends and mutual interaction. It formed the basis of the five-year CAT R&D project that has created some 25 jobs for an interdisciplinary team for the duration of the period.

Figure 02 Most wanted statistics tool indicates users' origins and their interests



The mentioned survey was directed at 100 media experts from the fields of art, culture, science and industry. This means that the CAT study benefits from the experience and recommendations of international artists, curators, and scientists. The methods used for our survey were mailing campaigns, Internet-based research and interviews on the subject of digital culture. We asked the electronic arts community: how can an Internet media lab function as an online competence center for art, culture and new media? How should it be structured? What functions should it fulfill? How can the platform be used as a means of reflecting on media developments oriented around both peoples' needs and content? The community offered the idea of a networked center of centers, that could become a virtual home for projects by individual artists, for artistic/scientific research projects and further platforms. Networking archives was named as one important objective. The name we chose for the platform was a play on words and as such open to different interpretations. One goal of *netzspannung.org* was to initiate networks between purveyors of digital art and interaction between the different activities. The platform went online at the beginning of 2001, with the aim of engendering visible suspense on the World Wide Web through the medium of interesting and topical content on digital culture.

At this point in time the *netzspannung.org* platform comprises a series of basic services for storing, administering, accessing and regulating user rights plus a total of 11 modules for data input and data output. *netzspannung.org* has now become an Internet platform for staging media events, art productions and intermedia research. Accordingly, even version

1.0 has the technical capabilities of a dynamic knowledge portal for digital art, design and media communication. We launched an incentive program featuring cooperation agreements with artists (artists in residence)⁴ and workshops. Our »digital sparks«⁵ competition has the object of highlighting what is currently being taught in Germany, Austria and Switzerland with best-practice examples from the worlds of art, design and IT as well as of awarding production bursaries to the prizewinners. Some of these are implemented at the MARS Lab, others with partners.

netzspannung.org allows for an architecture of data spaces that can be individually configured and sees itself as a public information interface with the »netzkollektor« as a free channel interface and state-of-the-art production and distribution format for the community. With the knowledge discovery tools methods of offering access to, networking and illustrating the flow of information and data storehouses are structured using semantic classification. These form the basis of new interfaces with an extended scope of knowledge.

On the development of networked knowledge structures

What is the significance of the permanent growth in information in terms of its reception? What formats could be found for communicating non-linear and networked forms of artistic expression in order to illustrate process-controlled works in aesthetic terms? How can trans-genre information structures be portrayed as networked knowledge beyond the bounds of rigid systematics? How are trans-disciplinary knowledge structures created?

In his 1945 article »As we may think« *Vannevar Bush* called for a new relationship between thinking people and the sum of our knowledge. The American scholar complained that »there is a growing mountain of research. But there is increased evidence that we are being bogged down today as specialization extends.«⁶ In *Bush's* analysis, the real problem in choosing information is the artificiality of its indexing systems which sort data in archives alphabetically or numerically so that the information can only be found, if at all, by going through the indexes one by one. He went on to say: »The human mind does not work this way. It operates by association. With one item in its grasp, it snaps instantly to the next that is suggested by the association of thoughts, in accordance with some intricate web of trails carried by the cells of the brain. [...] Selection by association, rather than by indexing, may yet be mechanized.«⁷

generation working in media culture and, at the same time, to offer insights into the research currently being conducted and into what is being taught at universities in the German speaking world: http://netzspannung.org/digital_sparks/
 6 Vannevar Bush - As We May Think - The Atlantic

Monthly, July 1945. HTML version by Denys Duchier, 1994 <http://www.csi.uottawa.ca/~dduchier/misc/vbush/awmi.html>
 7 See also Vannevar Bush »As We May Think« In: *For Dusk's magazine*, no. 2, 1/1997, pp. 136-147, http://www.csi.uottawa.ca/~dduchier/bush_d.html

4 <http://netzspannung.org/about/trans/projects/>
 5 digital sparks is a competition for students and graduates from all specialist areas working in the fields of media art, media design, media IT, media staging and media communication. What we are looking for is interactive, experimental and theoretical work that demonstrates an innovative approach to digital cultural technologies. The objective of the competition is to encourage the upcoming

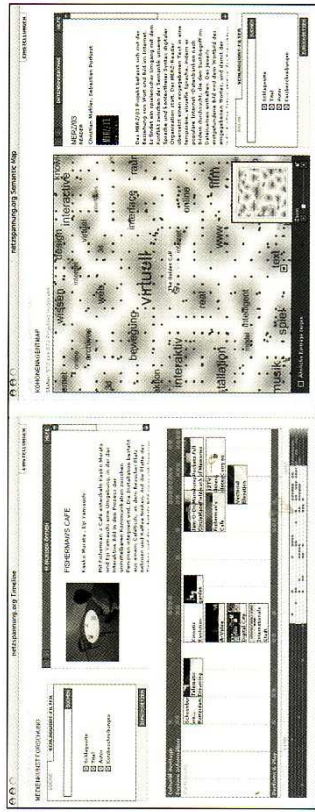


Figure 03 Knowledge discovery tools: timeline, semantic interface map and interface

The idea of associative networks of concepts also forms the basis of the way the knowledge discovery tools are designed and programmed. Their aim is to display the content of media art works both visually and in technical, computer-related terms with a view to analyzing and graphically illustrating semantic interrelationships in their digital content. Tools such as the *semantic map* filter relevant content from the flood of information and establish interrelated conceptual networks from it. The user thus gets an idea of the archive's entire current content.

netzspannung.org's archive serves not only to reconstruct a past, but also to imagine a present. Here, what is called for is not a rigidly fixed arrangement of data bodies but the constantly changing formation of a growing archive that can be read in ever new ways. With the *semantic map* – a dynamically generated navigation map – invisible links between items of information are calculated and displayed. Content on related topics is grouped together in clusters with a spatial distance indicating a substantive one. The more closely related two documents are, the closer together they are positioned. The maps are produced based on automated text analysis and the evaluation of the latter by means of a neuronal network. Instead of using linear and hierarchical structures, information is displayed as a network of semantic relationships. The *semantic map* topographically groups the entire contents of the archive according to content similar in a cybernetic sense under a certain keywords such as ›interactive‹, ›installation‹ or ›video‹ depending on what terms (meta-data) have been defined as keywords for the works in question. Here the documents are arranged in a neuronal network following the principle of closest proximity in geographic terms. Conversely, ›timeline‹ sorts the works in time and assigns them to specific topic groups

8 Armand Schultheiss wrote out thousands of little tablets, most of them made of sheet metal, covering them with amassed knowledge from the entire cultural history, all fields of learning and all walks of life. He established an encyclopedia in the forest, little written tablet hanging on trees and bushes and mounted on walls, together with

path systems and seats, laid out in wine terraces and on the slopes of a chestnut forest. Working painstakingly and with great attention to detail, he created a library that he wrote and illustrated himself (Armand Schultheiss (1901–1972) Das wärschöne Ganton des Wissens, Mankus-Druckerei (ed.) S. Göttinger-Bühl (text), Theo Frey

such as ›cultural heritage‹ and ›explore information‹ in the ›media art research‹ section. Presented in relation to one another in this way, connections between works that would not otherwise be recognizable thus become visible, offering users many different perspectives on media art-related topics.

Just as large telescopes allow astronomers to see the heavens we need new cultural technologies and new tools to sift through, survey and evaluate the quantities of data. Astrophysicist *Roger Malina* compares our knowledge discovery tools to a ›telescope facility for looking at and evaluating the data cosmos‹.

On our curatorial strategy

Our strategy for building up a collection of media art and material relating to digital culture is not based on data hunting in general, but on the acquisition of interconnected information. If media art is to be seen as a point of interface between art, technology, science and society, it must be displayed with its processes and interdependencies. This cannot be restricted to individual, isolated descriptions of the oeuvre of well-known artists often mentioned but seldom analyzed and interpreted in the context of other contemporary works, descriptions that do not take account of the latter's individual production conditions. By contrast, with *netzspannung.org* we aim to record current and emerging cultural trends and tendencies in present-day attitudes. We want to direct what we offer not only towards the academic community but also to the artists themselves and a wider public interested in current questions relating to media art. How are digital media researched? How do they become productive? What do artists do with the new media and what individual characteristics do they put in place?

In this context, increasing significance is attached to the term artist/scientist. After all, it should not be forgotten that media art is based on a technology originating in scientific, industrial or military research laboratories that has suddenly turned up in social contexts. Our objective is thus not to present a comprehensive compendium of selected media art in the form of an educational canon, but to devise an open structure capable of further development, perhaps comparable with architect *Le Corbusier*'s endless museum or the encyclopedia of scraps on Monte Verita in Switzerland, the brainchild of Swiss artist *Armand Schultheiss*.⁸ Following the fundamental principle of interactive art, the aim is to program a non-linear construction and collection structure on the Internet and thus an ›imaginary museum‹⁹ such

(photographs) http://www.dioptier.ch/publikationen/kunst_schultheiss.htm
 9 ›Because an imaginary museum, such as has never existed has opened its gates, it will take to the limits: the

intellectualization that began with an incomplete confrontation with works of art in the real museums.‹ André Malraux. The imaginary museum.

as *André Malraux* wished for, one that would basically allow every visitor a different and personal viewpoint – an individually configurable exhibition for analyzing and interpreting. This structure appears as a mixture of display storehouse on the one hand and guided tours through networks of content on the other. In this environment, the individual work appears in comparison with other works. It grows beyond the statement it makes on its own behalf and in this constellation throws light on the manifestations of cultural digital technology. A statement of the kind that the work alone would not have engendered comes into being, one that is often not the intention of the work, but now to interpreted in a new context. In this modular and configurable field of vision a multi-faceted range of media art emerges, one that not only – as is often the case in museums – leads to an illustration of the works on show. This notion of collection, and it is also reflected in the trans-disciplinary configuration of art rooted in technology, is one of the principle focuses of *netzspannung.org* and could also be expressed by the term of networked knowledge. The idea of networking information and rendering it visible forms the basis of the knowledge discovery tools.

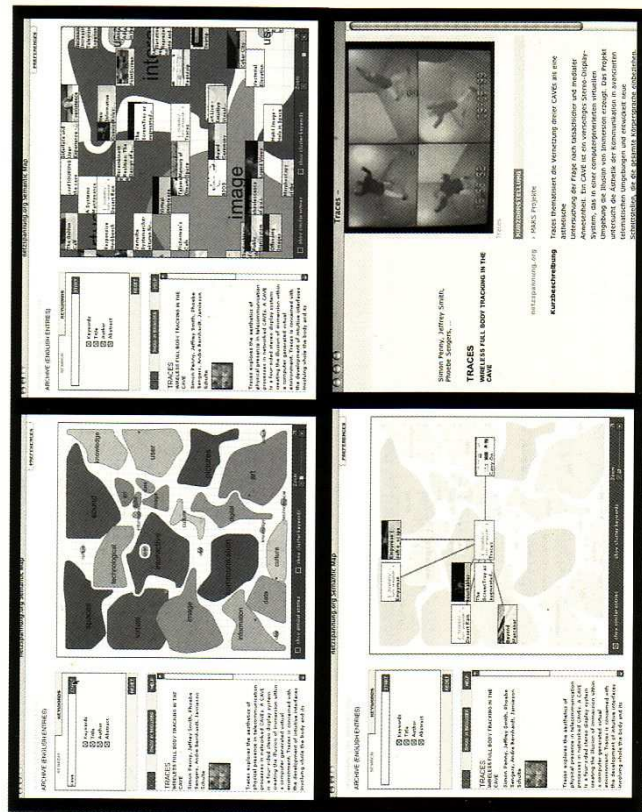


Figure 04. Semantic map in various different degrees of semantic zoom

On the content

The question »Why is it so appealing to live in mixed realities« is the programmatic subject of our *CAST01* conference: »Living in Mixed Realities« at *Schloss Birlinghoven* in 2001. It describes our initial strategy when we started developing our database, to fill the planned archive's empty virtual »room« with content. A »call for papers« prompted 450 answers to the above-mentioned questions. The international jury of artists and scientists selected more than 80 works, texts and projects using a peer review procedure. For the conference, these were divided into seven panels. The invited speakers raised some of the main questions of our media society on the following issues:

- 1 Understanding Mixed Reality? / Spaces for Emergent Communication
- 2 The Information Society Landscape / New Formats of Expression
- 3 Networked Living / Connected Citizens
- 4 Digital Archives and Mobile Units
- 5 Tools and Strategies for Intermedia Production
- 6 Performative Perception / The Body as Instrument
- 7 Media Art Education / Teaching New Media

The theme of the conference serves to define the main features of the contents of the data pool on media art and digital culture. Entries submitted for the conference form the basis of the online archive. Four years down the road this collection of articles and works, which is compiled in the *CAST01* conference volume, remains one of the most frequently downloaded documents on *netzspannung.org*. Now, in June 2005, *netzspannung.org* has over 1,000 entries covering art, design, art theory, media theory, and computer science. There are articles and theoretical writings, multi-media presentations – images and films, as well as applications – of both artistic and academic projects, as well as over 130 hours of video documentation of scientific lectures and symposia.

The *netzspannung.org* section covering »Media Art Research« pave the way for questions on the topic of the interaction between Man-Machine-Man. Themes such as »Take Part« or »Perform & Play« bring together characteristic examples, prompting fundamental questioning of media art, illustrating the interaction between artistic, design, technical and academic aspects. Whereas the entries in the database provide in-depth information on individual works and projects by artists and academics, the general fields place these works in a theoretical and historical context that lends itself to the media. »Positions« has a

wide range of video documentation of lectures by renowned artists and academics produced in collaboration with well-known partners from the fields of culture and science such as *Burda Academy* in Munich, *Edith Ruß House for Media Art* in Oldenburg, *House of World Cultures* in Berlin, *ZKM – Center for Art and Technology* in Karlsruhe and many other cultural or academic institutions. Selected lecture series on »Iconic Turn«, »Migrating Images«, »Frames of Viewing«, »Mapping«, »Generative Tools« and »Cordless« were recorded with the help of the *netzspannung.org* mobile streaming lab and broadcast live to the lecture theaters of the associated universities. Networking lecture theaters widens the possibilities of teaching on home territory and is the first model for the »classroom of the future«. It is a podium for lectures by hitherto less well-known academics and artists as well as internationally renowned speakers. They cover a wide range of topics: The film director *Wim Wenders*, for example, speaks about »Every Picture Tells a Story – of Places as Authors«, robotics researcher *Rolf Pfeifer* about »The Visualization of Intelligence«, art historian *Barbara Stafford* about »Images of Knowledge« and art expert *Boris Groys* about »Exiting the Image«. A player developed specifically for the films provides additional information about the context of the lectures.

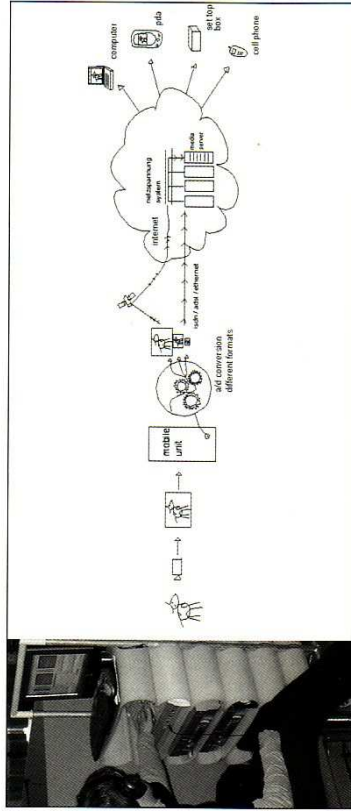


Figure 05 The mobile unit as data storage, recording and distribution tool

By publishing lectures immediately as video documentation and making them accessible to everyone in the long term the platform encourages the acquisition of fresh knowledge,

relating it at the same time to earlier archive information. Both the opportunity with the online archive to publish things quickly and its accessibility in terms of contents and time make the platform a knowledge organism and a model for a new form of public library. The various archive interfaces, which enable different methods of accessing the contents, involve in part totally new approaches to locating previously unknown knowledge in archives. Here media art topographies are recorded, in which interdisciplinary R&D is conducted at all levels – content, technology, design and transfer.

Knowledge structures as cultural technology

Knowledge should be freely available. In the Internet age the legitimate interests of authors and owners of exploitation rights stand in the way of this maxim. Nonetheless, ways must be found whereby knowledge on the Internet does not merely serve commercial interests. This applies to the changes to copyright laws currently being planned and furthermore to civil rights in a digital society. Copyright law must not be allowed to become preventive law. It must take into account those features peculiar to the Internet.¹⁰ For this reason it is necessary to create a right that champions a free Internet culture without forfeiting fair remuneration.¹¹ In keeping with the idea pursued by the Encyclopedists,¹² who, between 1751 and 1772 published in 28 volumes everything that was then known,¹³ since 2001 the freely accessible Internet encyclopedia Wikipedia¹⁴ has been growing, with the aim of making knowledge available on a large scale.¹⁵ With the same spirit *netzspannung.org* invites artists and curators to make available their work in the »netzkollektor«. In this context our »Energy-Passages,¹⁶ a media art installation in a public place, highlights the need for the free flow of information in a global society.

The mechanization of knowledge and the mass distribution of all types of information on the Internet nonetheless go hand in hand with a de-humanization of knowledge-processing activities. Mankind is forfeiting to technology something that was initially part of its individual life energy. »Whereas to date the growth in human knowledge promoted the birth of technology, it is nowadays technology that is increasingly influencing the production, storage, processing, distribution, and recycling of knowledge. Knowledge is becoming ever more dominated by technology, and as such knowledge is no longer merely a pre-requisite for

10 which authors can collaborate. Wikis are Web sites that enable any internet user to contribute without prior registration. Anyone can write new articles or make improvements to existing ones. The Wikimedia Foundation, a charitable organization, is engaged in pioneering work in the collaborative compilation of contents. The charitable foundation, which was set up by Jimmy Wales and now has a worldwide network, uses the money it receives from donations primarily for expanding the servers and technical infrastructure

16 Fleischmann & Strauss: Energy-Passages – media art installation in a public place <http://www.energiepassagen.de/>.

13 »So that the work of the past centuries was not without benefit for the coming centuries: so that our grandchildren are not only better educated, but at the same time more virtuous and happier, and so that we do not pass away without having been of use to humanity.« Denis Diderot.

14 Since May 2001 a total of 240,638 articles have been written for the German language version of Wikipedia. As at June 5, 2005, <http://de.wikipedia.org/wiki/Hauptseite>

15 Wikipedia uses Wiki technology, a digital tool which

10 <http://www.reiter-das-internet.de/index.htm>.

11 See Attac-AG »Wissensallmende und Freier Informationsfluss« für die Kulturflärate. <http://www.attac.de/wissensallmende/>.

12 Encyclopedist refers to the founders, members of staff and publishers of the Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers which appeared between 1751 and 1772 under the guidance of Denis Diderot and Jean d'Alembert <http://www.philosophenlexikon.de/diderot.htm>

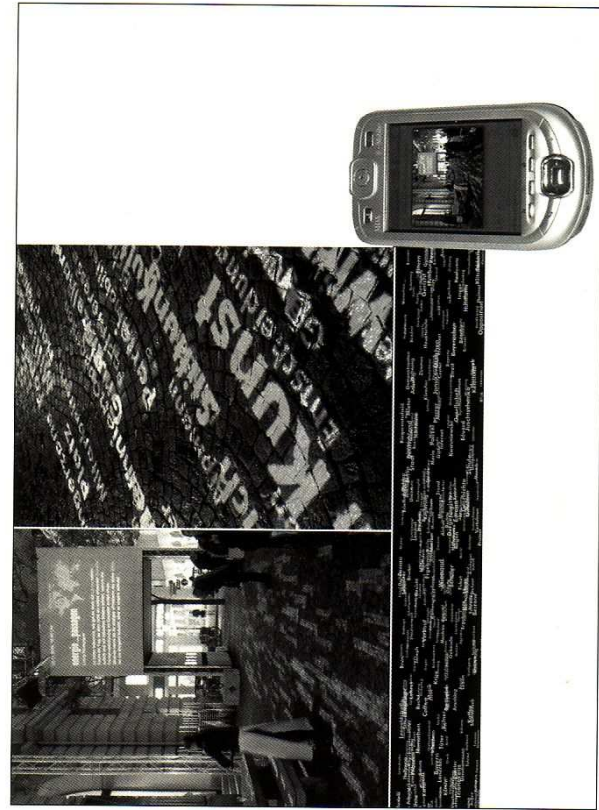


Figure 06 Energy-Passages. An interactive installation in a public space, Munich 2004

technology, but just as much its ultimate goal. « This is how *Holger Nohr*, a business IT specialist, describes the change in the relationship between knowledge and technology.¹⁷ Extending to all disciplines, research in science, art, politics, technology and economics must develop new approaches to stimulate new education processes, focusing on a different attitude to knowledge and lack of knowledge. Researchers into the future say that we need to strengthen not an »either, or« but an »as well as« mindset, not to mention »thinking in relationships«.¹⁸

Search engines, first and foremost *Google*, have long since represented a form of power over knowledge. In 2002 a *Telepolis* article addressed the influence of search engines on our knowledge: »which knowledge memories a society has, and the extent to which those thirsty for knowledge can access them is not in itself decisive, ultimately the way millions of people typically use them is what forms public opinion.«¹⁹ Nowadays search engines²⁰ function as our »universal interface to the digital world.«²¹ The growing *Wikipedia Community* defines the term as follows: »A search engine is a program for enquiring about documents that are stored on a computer or a computer network, such as the World Wide Web.« With

netzspannung.org as an artwork itself we make a discerning observation and illustration of changes in societal knowledge structures and we support experiments in education of cross-disciplinary thinking

Translation: *Jeremy Gaines*

17 Holger Nohr, in: *Technisierung von Wissen – eine Herausforderung für die Technikfolgenforschung?*, <http://www.ink-hdm-stuttgart.de/nohr/publ/Technik.pdf>

18 See Bernhard von Marous, *Das andere Intelligenz*, Wein

wir morgen denken werden, Stuttgart, Klartext, 2004.

19 Goedart Palm, *The world is almost everything that*

Google is, 28.03.2002, <http://www.heise.de/tp/04/>

artikel/12/12/18/1.html

20 The word »Suchmaschinen« (search engine) appeared for the first time in the German reference book *Großer Duden*

in 1999 – an Internet program that with the help of exten-

sive databases consisting of Internet addresses enables a

targeted search for information in the Internet.

21 Stefan Krempl, *The Beautiful New World of the Google*

Society, 20.05.2005 <http://www.heise.de/newsticker/meldung/59709>