

Schedule

09:45 Doors open

10:00 Introduction Moderator Emilie Randoe

10:20 Charles van der Mast, TU Delft

10:45 Jeroen van Mastrigt, Professional School of the Arts Utrecht

11:10 Bas Haring, Media Technology, Leiden University

11:35 Coffee Break

11:55 Han Gerrits, Amsterdam New Media Institute

12:20 Anne Nigten, V2_

12:45 Jan Vogel, TNO

13:00 Lunch Break

13:45 Respondent: Rob van Kranenburg

14:00 Panel discussion; public discussion: Mirko Tobias Schaefer, Arie Altena, Henk van Zeijts, Leonard Franken and students' representatives

15:00 Conclusion

Open Alliances is part of the Dutch Electronic Art Festival: DEAF04 Affective Turbulence, 9 November – 21 November 2004.

More information on DEAF04 On line: <http://www.deaf04.nl> where an archived video stream of Open Alliances will be available.

Program

Increasingly, educational institutions are entering into alliances with companies and institutes from different sectors. Open Alliances is a meeting about cooperation and the transfer of knowledge between universities, academies, companies and R&D institutes in art and media technology. Central issue is the position of intermediate knowledge institutes, and how they can contribute to an open transfer of knowledge.

Open Alliances has invited a number of prominent Dutch speakers to inspire the debate on models of collaboration in art, media technology and education. A broad selection of examples of new strategic alliances and cooperative efforts will be presented throughout the day. Forms of cooperation, different interests of partners and the influence on education and research will be discussed, together with the audience and a panel of experts.

Moderator: Emilie Randoe, Director Institute of Interactive Media, Hogeschool van Amsterdam.

10 a.m.: Introduction; presentations of initiatives

- Charles van der Mast, **Media and Knowledge Technology** Delft University of Technology; a minor within Technical Informatics, concluding bachelor project involves a three-month traineeship in the industry or government body.
- Jeroen van Mastriht, **Professional School of the Arts Utrecht**; an alliance in which the Utrecht School of the Arts (HKU) and the Utrecht University collaborate together to provide research and master education on the intersection of art, media, technology & science and scholarship.
- Bas Haring, **Msc Mediatechnology** Leiden University; multidisciplinary master program, originates at LIACS (Leiden Institute of Advanced Computer Science) at the Faculty of Mathematics and Natural Sciences. LIACS works closely together with the Faculty of Creative and Performing Arts of Leiden University.
- Han Gerrits, **Amsterdam New Media Institute**; platform of knowledge institutes and companies in new media in Amsterdam. Focus on knowledge transfer between knowledge institutes, companies and government bodies and between professionals, researchers and students. ANMI recently organized its first summerschool.
- Anne Nigten, **V2_**; offers a forum and a network in which knowledge from various disciplines and professions can be collected and combined. Includes the V2_Lab, a workplace for artists, scientists and technicians which focuses on collaboration, on exchanging and combining knowledge in so-called aRt&D.
- Jan Vogel, **TNO**; a knowledge organisation for companies, government bodies and public organisations. TNO applies scientific knowledge with the aim of strengthening the innovative power of industry and government.

1 p.m.: Lunch; respondent

- Rob van Kranenburg, **Virtual Platform**; network for policy and cooperation in the field of new media and 'living culture' in the Netherlands.

2 p.m.: Panel discussion; public debate

- Mirko Tobias Schäfer, **Utrecht University**, New Media and Digital Culture
- Leonard Franken, **ABN/AMRO**, department New Technology & Innovation
- Henk van Zeijts, **Waag**, Society for Old and New Media
- Arie Altena, **Frank Mohr Institute**, for (post) Graduate Studies and Research in the Arts and Emerging media

3 p.m.: Conclusion

Background

The current cabinet has made knowledge, education and developing further toward a competitive knowledge economy spearheads of its policy. Thus it wants to strengthen knowledge transfer within networks of businesses and knowledge organizations. This is possible through, for instance, improved mobility of people between companies on the one hand, and academies and universities on the other, or through collaboration on R&D projects. In this context the Advisory Council for Science and Technology Policy sees a role for the cultural sector: "...a knowledge economy can only develop properly if it is embedded in a culturally sophisticated, creative, tolerant and open knowledge society. As a factor in locating knowledge-intensive business activity, the cultural climate is gaining in significance."⁽¹⁾. However, it is still unclear what sort of contribution cultural R&D organizations can make to the exchange of knowledge within strategic alliances.

Content

The dynamicism, speed and partial unpredictability of developments in the knowledge economy demand much flexibility on the parts of educational institutions and companies. Project learning and research play a prominent role in strategic alliances, specifically in a number of new courses of study at the intersection of art, science and technology. Flexibility and the ability to come to terms with new knowledge developments are more important than one-time learning for the sake of a concrete innovation. Educational institutions find themselves faced with the challenge of bringing together various parties in project learning. Art and media technology R&D organizations could play a role in this because of their experience in interdisciplinary R&D.

Open Alliances will inventory the existing models for cooperation and the role of R&D organizations in these, and discuss methods of knowledge exchange. Speakers from educational (art and science) and R&D institutions will present several initiatives and collaborative models which address the needs of different parties, embedment in existing institutional structures, and the added value of interdisciplinary cooperation.

Key terms

- Alliance: a formal agreement establishing an association between nations, business partners or individuals for mutual advantage.
- R&D organization: publicly financed non-university research organization (TNO, V2_, Waag).
- Knowledge exchange: the process of acquiring, transforming, disseminating and managing knowledge.
- Knowledge transfer mechanisms/flows of knowledge:
 1. Mobility of people
 2. Collaboration on R&D
 3. Contract research and advice
 4. Collaboration in education and training

(1) <http://www.awt.nl>, AWT: advies 5

5. Intellectual property

6. Spinoffs and entrepreneurship

7. Sharing of facilities

8. Publications

9. Participation in conferences and professional networks and councils

10. Other informal contacts and networks

Presentations

Media & Knowledge Technology Delft Technical University

<http://www.msc.its.tudelft.nl/mke>

MKT is a minor within Technical Informatics. This means that it shares two-third of its programme with the regular Computer Science curriculum such as courses on computer systems, programming, logic, and mathematics in general. Besides these subjects MKT students take specialist subjects on multimedia, Knowledge engineering and Man-Machine-Interaction. The theoretical knowledge acquired in these courses is put into practice within several design projects where students design user interfaces, implement agent technology, apply computer vision to gesture recognition and develop computer games. The concluding bachelor project involves a three-month traineeship that can be done in industry.

presented by:

Charles van der Mast(NL)- TU Delft

<http://mmi.tudelft.nl/~charles/>

dr. ir. C.A.P.G. is associate Professor Media and Knowledge Engineering at the Faculty of Electrical Engineering, Mathematics and Computer Science Tu Delft. Charles has extensive experience in research and education in the areas of multimedia, human-computer interaction, virtual reality and e-learning. He wrote his dissertation on collaboration in multidisciplinary working groups.

Professional School of the Arts Utrecht

<http://www.psau.nl/>

The Professional School of the Arts Utrecht provides programmes of independent study in an open environment for research and development. The idea is to bring together students and lecturers with various backgrounds, either from the UU or the HKU. At this moment several programmes are provided in the field of creative industries. One of these programmes is called 'applied games'. This programme is being developed by HKU Art & Technology and UU New Media and Digital Culture. The PSAU master programmes are facilitated by HKU's art & media technology project bureau Xchange. In Xchange eight professionals work to build and maintain relationships with companies and organisations in various fields regarding art, media and technology.

Utrecht School of the Arts <http://www.hku.nl/>

Faculty of Art, Media & Technology <http://kmt.hku.nl/>

European Media Master of Arts <http://www.hku.nl/emma/>

Project bureau Xchange <http://exchange.hku.nl/>

presented by:

Jeroen van Mastrigt (NL) - HKU

Jeroen van Mastrigt works at the Utrecht School of the Arts (HKU), Faculty of art, media and technology. He is currently involved in the Professional School of the Arts Utrecht, a collaboration between Utrecht University and the HKU on interdisciplinary masters at the intersection between art, media and technology. Jeroen is Course Leader of Game Design & Development Programme at the Utrecht School of Art & Technology (HKU) and has been closely involved organizing events and programmes in the field of games and simulations.

Msc Media Technology Leiden University

<http://mediatechnology.liacs.nl/>

The Master Programme in Media Technology is offered by the Leiden Institute of Advanced Computer Science (LIACS) in collaboration with the Faculty of Creative and Performing Arts. Moreover, various professors from several faculties of Leiden University participate in the programme. The co-operation between the Faculty of Creative and Performing Arts and the Computer Science Institute unites the creative point of view of the Arts and the scientific point of view of the Msc. LIACS has numerous international collaborations and maintains contacts with other Dutch University research groups as well as with the Dutch industry and with the Lorentz Center, an international research centre for Astronomy, Computer Science, Mathematics and Physics.

Presented by:

Bas Haring(NL) – Leiden University

Bas Haring is associate professor at the Leiden University and a writer. He received his Ph.D. in artificial intelligence in 1997. His debut "Cheese and the Theory of Evolution" has been translated to various languages; in 2002 it won the prestigious Belgian Golden Owl for juvenile literature, the Dutch Eureka! prize for popular science, and the German prize for "The best scientific book of the year 2003". His most recent book "The Iron Will" is issued in 2003. The Iron Will is about the brain, consciousness, and thinking machines. Furthermore Bas Haring writes and presents the philosophical television program "Stof" that is broadcast on public channel 3.

Amsterdam New Media Institute

<http://www.anmi.nl/>

The Amsterdam New Media Institute is a collaboration between knowledge institutes and companies in Amsterdam in the area of new media. Its mission is to stimulate knowledge transfer between knowledge institutes, companies and government bodies and between professionals, researchers and students. It does so by developing and organizing interdisciplinary courses, study- and research programs. The start of ANMI was the ANMI Summerschool, which took place in August 2004. Organisations involved in the Summerschool were: Vrije Universiteit, Hogeschool of Amsterdam, University of Amsterdam, Hogeschool InHolland, Waag Society, Mediamatic, Virtueel Platform, Kennisland, Media Academie and the companies Lostboys and TBWA\Interaction company.

presented by:

Han Gerrits (NL) - VU

Han Gerrits is part-time professor "Technology and Innovation" at the Vrije Universiteit Amsterdam. He also is the initiator of the Amsterdam New Media Institute. He combines science and practice for almost 20 years. At the Vrije Universiteit he teaches IT and New Media. Next to his teaching he works as a consultant. He has been advising many large Dutch organisations.

V2_, Institute for the Unstable Media

<http://www.v2.nl>

V2_, Institute for the Unstable Media, is a interdisciplinary centre for art and mediatechnology in Rotterdam, the Netherlands. The organization is active in a many-branched network of artists, theorists, and researchers, who work in areas such as electronic art, media, science and technology, and closely collaborates with other centers for media art. V2_Lab is a workplace for artist, scientist and technicians which focuses on collaboration, and exchanging of knowledge in artistic research and development (aRt&D).

presented by:

Anne Nigten (NL) - V2_

<http://lab.v2.nl>

Anne Nigten manager of V2_Lab, the aRt&D department of V2_Organization. Ms. Nigten is advisor for several media art and science initiatives in Europe. She published papers on art, engineering and (computer) science collaboration. Before her current position at V2_ she has been working as an independent media artist, and simultaneously fulfilled several management jobs for the media art sector in the Netherlands. Besides this Ms. Nigten has practiced several more technical oriented functions.

TNO

<http://www.tno.nl>

TNO-STB is involved in applied research: the systematic and effective collection, development and interpretation of knowledge and concepts. STB develops visions, supports processes and advises on the relationship between technology, economy and society. Contract research results in understanding of and recommendations on the implications that technological developments have for policy and policy processes. This produces answers to clients' questions and solutions to their problems. In addition, STB's own research contributes to clients' research agendas by reviewing new issues and analysing new signals from society and the scientific community.

presented by:

Jan Vogel(NL) – TNO

<http://www.stb.tno.nl>

Director of TNO Strategy & Research Planning since September 2004. Following his study electrotechnics at the Technical University Delft and fulfilling his Military Service as a Marine Officer, he started his career at the University of Rotterdam. On an industrial contract he developed a product line for echo-acoustic diagnosis. In 1983 he joined TNO and developed new business areas for inspection and diagnosis. As senior division head he was responsible for system innovation and IT development. In 1993 he became first Deputy Director and later on Director of TNO Physics and Electronics Laboratory (TNO-FEL). Jan Vogel is a member of several advisory boards and committees and highly interested in development of innovation and the related knowledge infrastructure. Special interest is related to strategic/political edge of security items.

Panel Discussion

Respondent

Rob van Kranenburg(BE/NL) – Virtual Platform

<http://www.virtueelplatform.nl>

Rob van Kranenburg is an independent researcher and consultant on cultural connectivity. He co-programmed Doors of Perception 7 on the design challenge of pervasive computing, before working three years as teacher-coordinator New Media at the University of Amsterdam. Currently he is attached to the Virtual Platform as interim director. He is external advisor to the Raad van Cultuur ad hoc committee on media education.

Participants

Mirko Tobias Schäfer(AT/NL) – Utrecht University

<http://www2.let.uu.nl/Solis/homelet/master/nieuwemedia/index.htm>

<http://www.dvision.at/mirko>

Mirko studied theatre, film and media studies and communication studies at Vienna University (A) and digital culture at Utrecht University (NL). He was organizer and co-curator of [d]vision - Vienna Festival For Digital Culture. Mirko received a master in philosophy from the University of Vienna. Since February 2003 he is working as a junior teacher/researcher at the University of Utrecht at the Institute for Media and Re/presentation. He is currently writing his dissertation on "Bastard Culture! Competent Users, Networks and Cultural Industries". Mirko lives in Rotterdam (NL) and Vienna (A).

Leonard Franken(NL) – ABN AMRO

<http://www.abnamro.nl>

Leonard Franken(NL) is Vice President of the New Technology

& Innovation dep. of ABN AMRO Bank N.V. Leonard joined ABN AMRO Corporate IT Strategy & Architecture department in May 1999 with a remit to Corporate IT Architecture as an enterprise architect. He is currently leading the New Technology team at ABN AMRO, which sits in the corporate centre and aims to create awareness for and drive business innovation with new tech. developments. Prior joining to ABN AMRO, Leonard worked for 10 years at KPN Research, the Dutch Telecoms research labs where he was in charge of strategic IT research for KPN. He also lead several KPN participations in international research programmes for Eurescom and EU.

Henk van Zeijts(NL) – Waag Society

<http://www.waag.org:8080/waagsite>

Henk van Zeijts is Head Creative Learning of Waag Society and manager of the Centre of Expertise on Cultural Education and ICT. Before, he worked as a project leader at an educational communication office called Podium, he was musician at the Dutch theatre group Dogtroep and was a researcher on Physical Chemistry at Wageningen University.

Waag Society is part of many (inter)national networks and has a coordinating role in some of them, like in the European Cultural Backbone. Cooperation with De Balie and Paradiso has lead to a further extension of the Backbone programme with Steim and Montevideo. This renewed cooperation will present itself under the name the VIRMA: Virtual Institute of Research on Mediaculture Amsterdam.

Arie Altena(NL) – Frank Mohr Institute

<http://www.mohr-i.nl>

<http://www.xs4all.nl/~ariealt>

Arie Altena is ad interim head teacher at the Frank Mohr Institute Interactive Media and Environments. He writes about art and new media for various magazines. Recently he edited the booklet 'Unsorted, Thoughts on the Information Arts, An A to Z for Sonic ActsX (Sonic Acts/De Balie).

Frank Mohr Institute works together with the University of Groningen (Faculty of Arts, Art, and Architecture History) and the Centre for High Performance Computing and Visualisation, HPC&V) and the Groninger Museum on the Art and Media cooperative platform, which will be providing integrated education and research at graduate and doctoral level.

Moderator

Emilie Randoe (NL) – Hogeschool van Amsterdam

<http://www.interactievemedia.hva.nl><http://www.interactievemedia.hva.nl>

<http://www.interactievemedia.hva.nl><http://www.interactievemedia.hva.nl>

In 2001 Emilie Randoe was asked by The Hogeschool of Amsterdam to start the Institute of interactive Media. In 2004 the Institute counts for 390 students, 28 teachers and hands out the first certificates in 2005. This year the Institute opened the doors of Media Lab Amsterdam, a collaboration between the Hogeschool van Amsterdam and the University of Amsterdam. Before Emilie switched to education, she worked in area's like political-cultural centre De Balie, the advertising trade magazine Nieuwstribune and medialab Waag Society.

Theory

Excerpts from chapter on 'New Media Art Education', Geert Lovink, *My First Recession*. V2_/NAI Publishers, Rotterdam, 2003.

The Battle over New-Media Arts Education:

Experiences and Models

"We will be victorious if we have not forgotten how to learn." Rosa Luxemburg

This text investigates methodologies of teaching "new media" in the arts and culture context. Since the 1990s numerous schools have started new-media programs. The educators I will feature in this story are based in a variety of institutions, from art academies and design schools to cultural studies programs, literature faculties and media and communications departments. Despite the boom in new-media programs, little has been written about this field. The primary source for this chapter is a series of online interviews with practitioners who run such programs. I sent out early versions of the text to the interviewees so that they had an idea of what others and I had to say, which resulted in an open and collaborative sharing of ideas and experiences. [...] In the educational context it is easy to see how global technologies and design-related issues relate to specific local contexts. Whereas some places are traditionally strong in design or

visual arts, elsewhere one can see new-media programs thriving within disciplines such as architecture, literature or social sciences. The ever-changing, hybrid nature of the new-media sector requires special educational conditions and tactical skills in order to build institutional alliances. New-media arts labs have to be open to other disciplines, while at the same time they have to fight for their own space and define, defend and expand the field. How do performing arts, music and cultural studies (all close to the field) respond to rise of new media as a separate entity? Literature, for instance, is already dealing with its own emerging subgenre of "electronic literature." Electronic music has been around for decades and has found its niche within music departments. So why suddenly buy into this overhyped generic "new media" term? Are there enough claims to be made for turning new-media studies into a separate department, just because it attracts scores of students at a certain moment in time? And how can artists talk to engineers, if indeed there is a wish for dialogue and a common language in the first place? And there are not only institutional concerns; the relationship of the new-media departments to "industry" and society at large seems as important. [...] The Freudian question, "What does a company want?" is the wrong one from the start. Problematic, off-track courses are much better for students. General skills last longer than the applications of the day. Schools that desperately try to comply with industry demands are often the least interesting ones. This also counts for schools that want to attract international students. Many warn that this is a volatile market. Changing currency exchange rates, rising fees for (international) students, wars, recessions and health crises such as SARS can suddenly change student interest in ambitiously marketed programs. The problem with the "market" approach is not so much commercialism, but the vulgar input-output model that fences off the curriculum against "alien" influences, thereby limiting students' opportunity to explore technology outside of the given frameworks.

Inspiring models

Is the demand that students get "real outcomes" from courses a legitimate one? Why should anyone support the subjection of students to the "creative imperative"? The reason is simple: money. With the introduction of a fee structure comes the expectation of a job in "the industry," if only to pay off the accumulated debt. In a post to the Nettime list, Are Flagan argues against the idea that new-media arts should further boost the economy of "free": "The surplus of free labor in any field undermines the possibility of any sustainable employment down the food chain. Especially in the new-media art field, where new courses are popping up by the minute (arguably years too late), students pay big bucks to enter a field that is extremely limited, and that has virtually no economy to secure a return on their investment and fee." Still, the "industry" focus often ignores the creative potential of students and is interested merely in a steady output of young, cheap pixel pushers and HTML slaves (when Web design was the cool thing to do). John Hopkins: "In Scandinavia, often the state-mandated education programs are driven closely by industry and state-media outlets, with little validation of student endeavors in their own media worlds, like the demo scene, the club scene, and the gaming communities, where innovative practices are developed." [...] What if the stakeholders are not interested in such meetings and collaborations? Competition between disciplines and their respective institutions is a really existing factor which educational new-media initiatives need to be aware of. Institutional politics will most likely lead to a segmentation of new-media programs. This almost inherent problem is countered by the growing certainty that students will most likely work within interdisciplinary teams. New-media work is not assembled by lonesome laptop geniuses. Teams usually

consist of designers, programmers, editors, project managers and administrators. Then there might be a sound component, and collaboration with architects, interior designers or specialists in color, stage design, light or analogue animation. [...]

Collaborative project-based education is a proven model for escaping individual vocational training and the pressure to teach commercial software. [...] The tension between vocational training and conceptual learning can be overcome by making radical choices. It remains important to emphasize that the computer is not just a tool. Ideally, new-media programs should be modeled after laboratories, not schools. One short-term aim should be to build bridges between the arts and the geek community, and leave the world of "science" alone for a while. Interdisciplinary dialogues should start nearby, with the sysadmin who runs the department server next door. Forget the astrophysicists, biochemists and work first on, say, free software and open source inside your own institution. If the computer is to be an omnipresent work environment for all forms of artistic expression, it will be of strategic importance for us all to understand contemporary computer culture and those who program code. Computer science is not just "engineering" but an art form providing society with key concepts and metaphors. To understand the hacker's world and the history of computing at large is an obligation for us all.

References

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<http://www.awt.nl/?id=4>

Paul Rutten, *Markontwikkelingen in de Digitale Infrastructuur*. Rathenau Instituut:

<http://www.rathenau.nl/nl/index4.html?publicaties/tekst.asp>

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Dialogic, *Naar een meetlat voor wisselwerking*. Adviesraad voor Wetenschap en Technologiebeleid

<http://www.awt.nl/?id=37>

Experimental collaboration

In the context of the Dutch Electronic Art Festival 2003 (DEAF03), V2_ organized lectures and tours for various educational institutions. Afterwards, a few expressed interest in a more intensive form of collaboration. V2_ subsequently entered into discussions with four institutions. Ultimately, this led to an experimental collaboration in the past year with the New Media and Digital Culture program at the University of Utrecht and the Media Technology program at the University of Leiden. Results of this small scale collaboration are published in this reader and provided the impetus for a special program at DEAF04 concerning forms of collaboration with partners from different sectors: *Open Alliances*. The outcomes of *Open Alliances* will be used in an international context during Transmediale 2005, Berlin.

Students' Projects

Open Security System by Brit Hopmann, Mika Igarashi, Bart Thomée

Supervisor: Dr. Bas Haring

Open Security System (OSS) is developed in collaboration between Media Technology, Leiden University and V2_, Institute for the Unstable Media.

The philosophy of the project evolved from the theme of DEAF04, Affective Turbulence: The Art of Open Systems. OSS is intuitively very open to the

audience, but is very closed in reality. This project raises questions such as: What is an open system? What is a closed system? Where is the fine line between the two? Can a system be both open and closed?

To illustrate this concept, students developed a locker system in which visitors of the festival can store their personal belongings. In contrast with traditional lockers, where items are stowed away out of sight and are thus closed from view and access, our lockers are normally open and only close when someone approaches who is not the rightful owner of the belongings. The project space is designed to remind the visitor of an art gallery - a gallery where personal belongings are exhibited. In this way, different functions of space evolve as a security system; access is strictly prohibited, but as an exhibition space it is open to the public.

The Organized Chaos of Network Culture— by Zuraida Buter, Sarah Lugthart, Eva Nieuwdorp, Jantine Scheele
thenode.nl/deaf

In this project we will pin down some corners that give structure in the openness of the network culture as it developed in the past two decades. There are many kinds of participation possible and many ways to define them, however, we choose to look from the non-capitalist, almost utopian view as designed at the first introduction of networks.

First we take a look at the Free Software Movement, created by Richard Stallman in the early eighties. This ideological project intended to create a free movement in which users became the building bricks in the existence of the system. We'll try to make a connection with discourse in interaction and Stallman's GNU project, to define the possibilities of interaction and participation within these technological developments.

Technological advancements are, when first introduced, more often than not met with overtly positive reactions. The new technology is impregnated with certain expectations, ranging from practical prospects to imposing utopian ideas that may aid mankind as a whole and bring it closer together.

One important uniting aspect is activism. Activism comes in many forms, with different goals and different ways of getting there: from blowing up one of the many McDonald's facilities to the more diplomatic strategy of writing letters en mass or just opening up information on the net, from the local demonstration on a city square to the virtual hacking of company information. The kind of activism that one paper will explore is more of a cultural activism than a political kind (Thake). Its basic issues revolve around what Theodor Adorno calls the culture industry. This culture industry is the same that Stallman reacted on by creating his GNU software.

Paired with activism is the so to speak unintended side effect, hacking. Hacking may be used as a form of activism, but was never initially the goal when the network was creating. Hacking offers many ways to slip through the meshes of the net and opens up another openness and participation culture. Forms of hacking can be found in the (sub) culture around video games.

Computer games are becoming a bigger and bigger industry. While it's a medium that is highly commercial it is also a medium which is subject to cultural transformation and resistance.

Of course 'interaction' is a buzz word and games are seen as a real good example for throwing the term interactivity at. Supposedly, games are really interactive in itself, because the player can participate, without the player the game won't do anything. Even this last thing is contested by persistent games such as online games and games as *Animal Crossing*. But what is real interactivity? Most of the time it's about participation not interaction. The term interactivity becomes empty. It's nothing more than one big shell with which a researcher/artists/ commercial companies can do what they want without anyone knowing what exactly they mean with it. The third paper will not necessarily look at the term interactivity itself but will argue that another form of interactivity is what people do with the games itself which is not always how the game industry envisioned it.

The culture surrounding games is huge. Game websites, research, fan art, fan games, literature, machina movies to name a few expressions of game culture. The third paper will take a look at a possible form of resistance from this game culture: the network of game emulation and retrogames.

The project will consist of at least three papers which are described above. The four corners of openness, possibilities, usage and unexpected action define a network in which everything seems to be possible, but interactivity is yet to be defined.