



04.09.08 - 09.09.08 / 10:00 - 19:00
KUNSTUNIVERSITÄT LINZ, HAUPTPLATZ 8

INTERFACE CULTURE
AT ARS ELECTRONICA '08
ART ON THE MOVE

www.interface.ufg.ac.at



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Exhibition Opening:
 04.09.08 at 15:30
 Schirmmacher,
 Finanzgebäude Ost,
 Hauptplatz 4010 Linz.

Rector Univ. Prof. Dr. Reinhard Kannonier
 Univ. Prof. Dr. Christa Sommerer
 Univ. Prof. Dr. Laurent Mignonneau
 Univ. Prof. Dietmar Offenhuber

ART ON THE MOVE: INTERFACE CULTURES AT ARS ELECTRONICA 2008

Christa Sommerer, Laurent Mignonneau, Dietmar Offenhuber, Michaela Ortner

This year's presentation of the Interface Cultures master and doctoral student projects focuses on aspects of mobility and performative interactions in public spaces. As interface technology starts to intrude more and more in our daily lives(1) it has also become easier to handle for apprentices. Students are now free to experiment with do-it-yourself style interaction design and increasingly bring artistic and experimental content to it without being entangled in too many technological issues. Wearable interfaces, as we have already presented them in the past two years of Ars Electronica (2,3) have now been combined with more performative and environmental interactions and the aspect of gaming has been enhanced. After consuming a variety of guest lectures and courses during the past years(4) students are also increasingly interested in investigating the value of information and its cultural implication. They anecdotically deal with social behavior in public space by creatively analyzing the multitude of social signals. As interface technologies rapidly develop and seamlessly merge into our daily products and commodities, artists and creators must remain critical and investigate and question their societal and creative implications as well as issues of control and agency.

- 1 Sommerer, C, Jain, L. C., Mignonneau, L. (Eds.): "The Art and Science of Interface and Interaction Design", Springer Verlag, 2008.
- 2 Sommerer, C, Mignonneau : "Hybrid Interfaces and Physical Computing" In: "Goodbye Privacy", Ars Electronica 2007, Ed. G. Stocker and C. Schoepf, Hantje Cantz Verlag, pp.234-243.
- 3 Sommerer, C. and Mignonneau, L. "Tangible, Audible, Playable, Wearable—Interface Culture student Works at Ars Electronica 2006", in: "Simplicity—the Art of Complexity", Ars Electronica 2006, Eds. G. Stocker and C. Schoepf, Hantje Cantz Verlag, 2006, pp. 234-243.
- 4 Sommerer C. , Mignonneau L. , King D. , "Interface Cultures—Cultural Aspects of Interaction", Transcript Verlag, 2008.

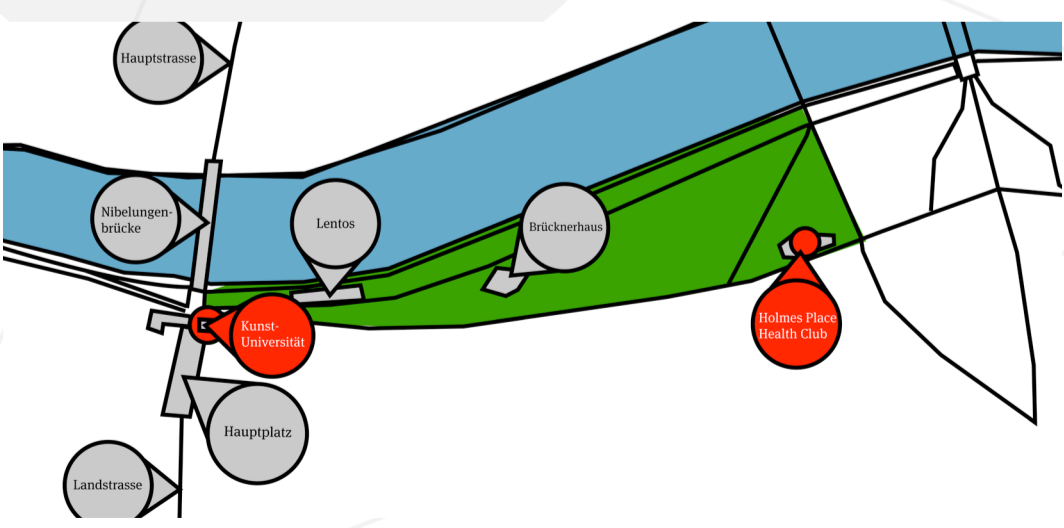
Info

<http://www.interface.ufg.ac.at>
<http://www.aec.at/festival>

Instructors:
 Univ. Prof. Dr. Christa Sommerer, Univ. Prof. Dr. Laurent Mignonneau, Univ. Prof. Dietmar Offenhuber, Dr. Hideaki Ogawa, Dr.phil. Katja Kwastek, Dipl. Ing. Jürgen Scheible, Dipl. Ing. Martin Kaltenbrunner, Dipl. Ing. Christopher Lindinger, Dipl. Ing. Robert Praxmarer, Mag. Art. Gebhart Sengmüller, Mag. MPS Sabine Seymour, Mag. Andreas Weixler, MFA Mahir M. Yavuz, MA Dipl. Designerin Dorothee King, Times Up, Mag. Friedrich Kirschner, Sebastian Neitsch

Credits:
 Graphic Design: Omur Sönmez
 Exhibition Management: Mag.art. Michaela Ortner, Travis Kirton, Thomas Wagner, Mauro Arrighi, MSc. Ebru Kurbak, MFA. Mahir M. Yavuz, Ricardo Nascimento, Grazielle Lautenschlaeger, Dipl. Ing. Jona Hoier
 Technical Management: Sebastian Neitsch, MA. Mika Satomi

Map



Performative actions in public spaces

Episuro—drift together: An interactive installation in public swimming pools
 Sebastian Neitsch, Stefan Schwabe (Exchange student of Design at the University of Art and Design Halle)



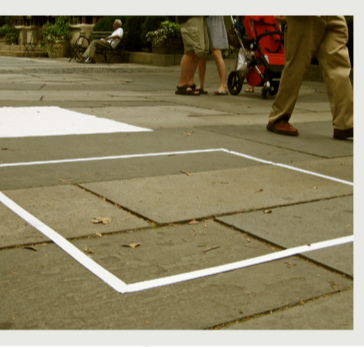
Everybody needs his personal space, but social contacts and closeness to others as well. Therefore it is necessary to emit parts of our own space. We want to interpret this continuous pulsating conflict. It was our aim to convert a public swimming pool into an interface for swimmers. We realized the project for the first time in an old swimming pool in Halle/ Saale, Germany in March 2008 where we projected an image onto the ceiling that reacted to the swimmers in the water. Depending on the movements of the swimmers digital interactive images were processed and a harmonica sound was created under water and in the air. At Ars Electronica 2008 the project will be shown at the Holmes Place Health Club swimming pool in Linz.

DADAgear
 Mauro Arrighi, Anika Hirt, Omur Sönmez



"DADAgear" is a performative act, which investigates human-to-human interaction and social spaces via smart sweaters following the Dadaist's precepts: randomness and a playful attitude. While wearing the sweaters, by touching oneself as well as hugging others and punching, kicking or rolling on the floor, the audience members can use the garments as instruments; fragments of sentences and sounds will become audible depending on where and how the sweaters have been touched. Through this interaction a kind of Dadaistic generative poetry will emerge. While a single user could produce a non-complete sentence on his/her own, the semantic power of the performance is fully expressed when two or more garments are "played" consecutively following a certain order. Then it will be possible to formulate full sentences, but still with weird and/or unexpected meanings. Sense of touch plays a key role in the performance, the way in which the audience behaves is crucial: the harder one puts his/her hand(s) on the sensitive area(s), the more intense the "tone" of the spoken words becomes. <http://www.dadagear.org>

Perfect Human
 Mika Satomi and Hannah Perner-Wilson



"Perfect Human" is a performance that takes place in public space, using a fabric-based soft motion-capture costume and portable radios. The technology worn by the performer plays the role of an interpreter, mapping statements to her bodily expressions. These statements are broadcast and played back through the radios, translating the dancers movements into spoken words. By copying the movements of the person within the marked space, the performer acts as an interface, allowing others to explore the system. Even though the audience plays the role of the observer, they have to themselves become involved in order to perform the role of the perfect human. Inspired by Jürgen Leth's 1967 short film "The Perfect Human" and Lars von Trier's "The Five Obstructions" (2003), this performance intends to create a sixth obstruction, by introducing the rules of performance and non linear narration.

Massabrage—The Only way to Celebrate Champagne
 Jona Hoier



"Massabrage" is a machine that transfers the idea of opening a bottle of champagne with a saber (a technique called sabrage, which was practiced in the time of Napoleon) to the age of technology and mass production. A saber is slid along the body of the bottle towards the neck. The force of the blade hitting the lip of the bottle separates the collar from the neck of the bottle. The cork and collar fly with up to 200 km/h for up to 15 meters.

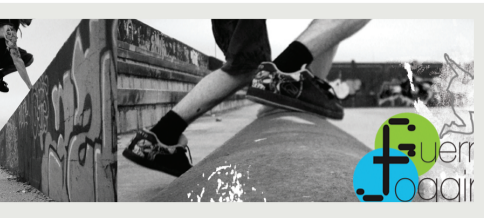
Games in public spaces

Wolves & Sheep
 Tiago Martins, Thomas Wagner



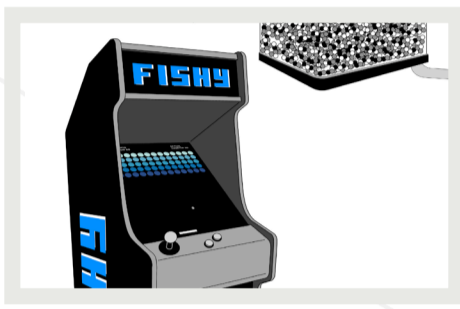
Wolves & Sheep is a multiplayer location-based game combining mobile devices and tangible interfaces. Players take to the streets of Linz to hunt sheep as leaders of a hungry pack of wolves. For this they resort to their wolf-like senses of sound and smell. Real physical space is merged with the game space as players will navigate the city, constrained by its physical obstacles as well as virtual bodies of water and traps set by other players. While players compete out in the streets, visitors at the exhibition are able to track their progress via a real-time game map. They can also directly influence the progression of the game by manipulating real objects placed on the map's surface. This complex project has been quickly developed on Nokia Series 60 phones using the Python programming language. Wolves & Sheep also makes use of other freely available technologies such as the Java programming language and the reacTIVision computer vision framework.

Guerrilla Jogging
 Jeldrik Schmuck, Ulrike Gollner, Walter Ruprechtsberger



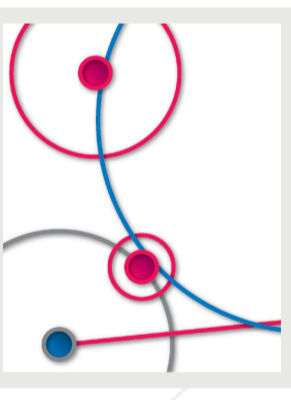
"Guerrilla Jogging" is an interactive GPS-location based mobile game for one or more players that runs on pocket PCs and smart phones. In a virtual paper chase the player has to reach virtual points by moving him/herself in the real world to the corresponding GPS position as fast as possible. For every point reached the player gains bonus points according to the passed altitude. By using the height as a filter it becomes possible to compare the efforts of different competitions in various terrains. After finishing the game the personal high score can be uploaded to a website where statistics of the personal achievements and a ranking of all users are shown. In a further step it will be possible to connect to a server playing against others in real time. The first player to reach a point gets the bonus point. Again the linking of the bonus points to altitude makes it possible to compare the efforts of the different players. "Guerrilla Jogging" is programmed under GNU public license and everyone should feel free to use the source code for his/her own projects or, even better, to add more functionality to the existing game logic.

Fishy
 Dolo Piqueras (Exchange student from the Polytechnic University of Valencia, Laboratory de Luz)



"Fishy" aims to visualize some aspects like non-visible violence of our technological and mass media era. The purpose of this installation is to make visitors aware of the difference between the knowledge that we have about an object and the knowledge about the concept of this object. Maybe the problem of our time consists of the discrepancy between the enormous technological power that we deploy and the limited capacities that we have to understand and control the effects of this power. Our awareness has not kept pace with what we can provoke in the world. When visitors approach the "Fishy" installation they see a box full of balls and an old style video game machine, seemingly inoffensive. Visitors can start to play the video game and do what they already expect, to win. But as more users start to win, more and more balls fall into a pipe that is connected with an aquarium where a small fish swims around. The amount of water in the aquarium decreases and the fish finds itself in danger when too many people start to win the video game. "Fishy" tries to make people aware that their actions are often unrelated to the consequences of their actions and that mechanics depend on actions that are abstract concepts and often lack connection to the real physical world.

PINS
 Travis Kirton



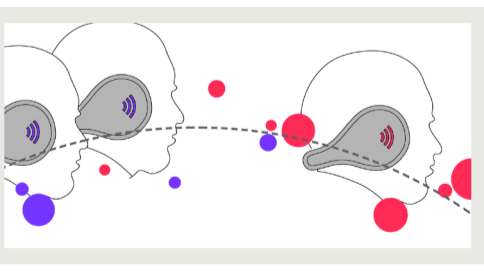
"PINS" is a strategy game for two or more people that was developed as a means to explore the possibilities and challenges of design for multi-touch/tangible gaming surfaces. Drawing inspiration from classical games such as Chess and Go, it seeks to break away from the traditional single-movement, turn-based style and static-grid playing areas. Computer vision creates an opportunity for the redesign of traditional games as it allows for real-time play where players can focus less on the mechanics of position and rules (now managed by the computer) and more on the fluidity of movement and reaction between opponents. "PINS" uses the reacTIVision platform as an environment for "play" achievable only on intelligent and reactive surfaces, and is a first experiment into the idea of Surface Gaming.

Quite Quiet
 Christoph Kaltenböck



"Quite Quiet" is an interactive installation where the mouth movement of users is detected through a camera. By modulating the opening and closing of the mouth users can control and modulate recorded sound samples, play with them and literally chew them up.

Hot and Cold Whisperer
 Ebru Kurbak



"Hot and Cold Whisperer" is a playful wearable interface for finding WiFi hotspots in the urban environment inspired by the well-known hot and cold game. The hot and cold game is normally played by multiple players: a player searches for a hidden object whereas the others yell out the words "hotter" as he gets closer to the object and "colder" as he moves away. "Hot and Cold Whisperer", designed in the form of ear warmers, converts this game into a personal urban experience for the user who is searching for a WiFi hotspot. The ear warmers are covered with soft and warm fabric. They snap onto the user's ears and protect them from cold weather during daily activities. A WiFi detector as well as a pair of headphones is embedded in the system. As the user strolls around the city, a voice whispers words like "warmer", "hot", "cold" and "colder" into the user's ears according to the strength of the continuously detected WiFi signal.

Environmental interactions

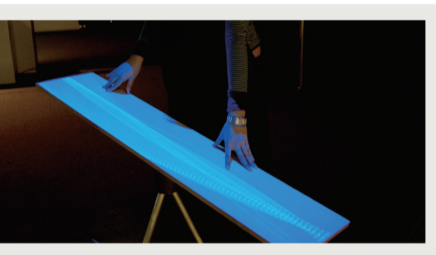
TAIKNAM HAT
 Ricardo Nascimento, Ebru Kurbak, Fabiana Shizue



"Taiknam Hat" is a kinetic piece of mobile headwear that reacts to changes in radio wave signals from the surrounding environment. The intention of the project is to visualize invisible signals and to contribute to the awareness of the increasing electromagnetic radiation surrounding us. "Taiknam Hat" utilizes biological principles regarding the causes and properties of horripilation in birds as a metaphor, in order to express our bodies' irritation towards electromagnetic radiation as well as to create a visual and tactile signage of their existence to other people. When users wear the "Taiknam Hat" radio wave signals in their neighborhood become visible as feathers on the "Taiknam Hat" start to move according to the strength of the radio wave signal.

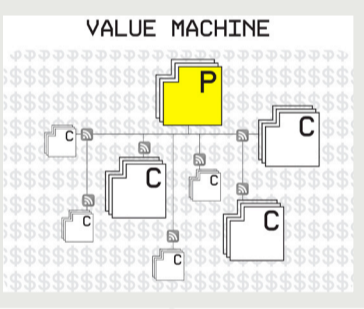
Questioning the weight and value of information

/balance
 Ichiro Kojima (Exchange student from IAMAS Institute of Advanced Media Arts and Sciences Gifu Japan)



"/balance" is an interactive installation that allows users to experience the weight of digital information. It comprises a physical controller and a digital image projected onto a tilting surface. By using the controller users can dynamically interact with the projected images on a surface while receiving tangible feedback through that controller itself. This project is a proposal for an interface that gives mass to digital information and lets users feel the weight of digital images.

Value Machine
 Mahir M. Yavuz, Ilteris O. Kaplan



"Value Machine" is an interactive visualization project which focuses on "conversations" happening in the blog sphere and attempts to reveal the hypothetical economical values of these conversations. We produce, consume and share our knowledge with each other every day on blogs. Lately, this vast amount of exchange has begun to extend itself from the source of the information and spread out to different channels raising the question of ownership. Who owns the knowledge? Can we talk about a value system to quantify this knowledge? Can we monetize this knowledge? The aim of the project is to point out the new directions of conversations on the web and the new economy that establishes itself around these conversations. "Value Machine" consists of an application interface that discovers and analyses real-time activity of user-defined conversations. Calculated values are sent to the printer that then prints out the results of the analysis for each conversation. The printed receipts are aimed to give the users the idea of the value that exists in cyber space.

Don't give up! About a history that doesn't want to be told
 Grazielle Lautenschlaeger (exchange student from the University of São Paulo, Nomads.usp, Center for Interactive Living Studies)



A lost man, a couple, a robber and a dog are in a confusing scenario. What are the relationships among these characters? It is up to you to find out! "Don't give up!" is an interactive audiovisual installation where a tension between the system and the interactors is generated: the system is programmed to take the narrative to chaos and the users are supposed to put it in order. The story is a narrative experiment where public expectations are constructed and broken, as a metaphor of a history that does not want to be told. The experiment takes us to the question: how could immersion and critical distance be developed inside the electronic art? Aiming to create space and time paradoxes to the interactor's experience, this non-linear story is presented in a 3-dimensional real scenario in the form of a 3D projection surface inspired by Escher's picture "Relativity". Illustrations and animation: Andreea Jeblean, Sound design: Daniel Guedes Evangelista