Performative actions in public spaces

DADAgear

Mauro Arrighi, Anika Hirt, Onur 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. *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 dancer's movements into spoken words. As the performance progresses, the performer's questions and answers create a feedback loop of "action" and "reaction". Inspired by Jørgen Leth's 1967 short film *The Perfect Human,* this performance picks up on details from the film and considers, from the performer's point of view, how he/she dresses, undresses, falls, sleeps, eats, what he/she thinks, etc. The performer is framed as he/she questions himself/herself and those around him/her—what or who is the perfect human?

Games in public spaces

Wolves & Sheep

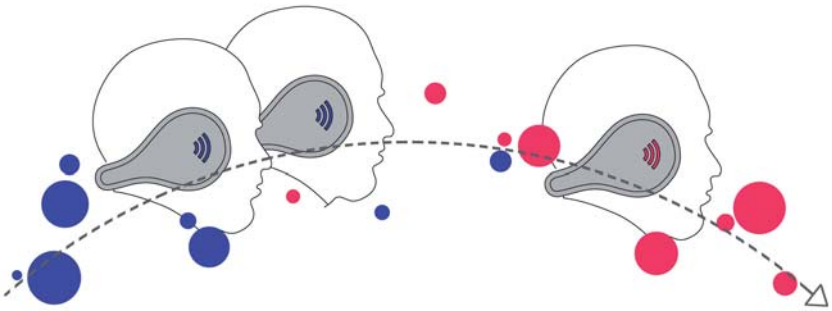
Tiago Martins, Thomas Wagner

Wolves & Sheep is a multiplayer location-based game combining mobile devices, GPS technology 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. The closer they are to the sheep the louder they'll hear its bleating; and they can, from time to time, determine the sheep's approximate direction by catching its scent. Real physical space is merged with the game space as players navigate the city, constrained by its physical obstacles as well as virtual bodies of water that the pack will refuse to cross. 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, which represent in-game hazards and power-ups.

Guerrilla Jogging

Jeldrik Schmuch, 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.



Hot and Cold Whisperer

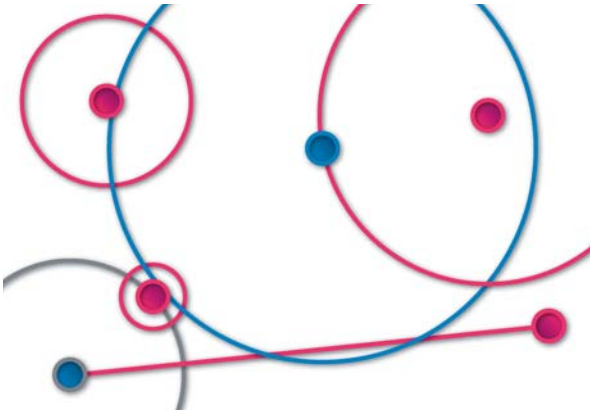
Ebru Kurbak

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 "hot", "hotter", "cold" and "colder" into the user's ears according to the strength of the continuously detected WiFi signal.

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.



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.

Masssabrage—The Only way to Celebrate Champagne

Jona Hoier

Masssabrage 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. *Masssabrage* is an ironical statement about mass production and the use of technology.

CAMPUS

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 literarily chew them up.

Environmental interactions

TAIKNAM HAT

Ricardo Nascimento, Ebru Kurbak, Fabiana Shizue

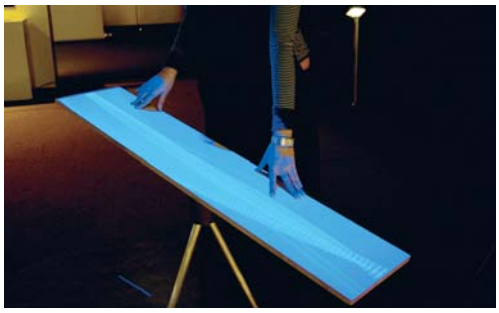
Taiknam Hat is a kinetic piece of mobile headwear that reacts to changes in radio wave signals from the surrounding environment. The intention of the project is to visualize invisible signals and to contribute to the awareness of the increasing electromagnetic radiation surrounding us. *Taiknam Hat* 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

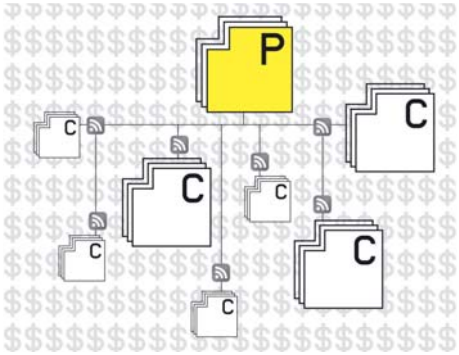
Ichiro Kojima (exchange student from IAMAS Institute of Advanced Media Arts and Sciences Gifu Japan)

/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

Graziele 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 Jebelean, Sound design: Daniel Guedes Evangelista

Episureo—flowing together Interactive Installation in Swimming Pools

Sebastian Neitsch, Stefan Schwabe

The Underlying Concept

Day in and day out, we move along prescribed channels—on the way to work, in the privacy of our own homes and even in our recreational pursuits. We follow paths laid out by the architecture or by flowing masses of human beings, and subconsciously acquired behavioral patterns. The personal space that we appropriate in doing so depends on our environment and the people surrounding us. We all need this private sphere, but no less essential for us are social contacts—that is, being close to others.

This conflict—one constantly fluctuating in intensity—as well as the traces that our movements leave behind in space and time are what we wish to playfully illustrate and to make participants cognizant of.

The Ideal Surroundings

In order to manifest these thoughts by means of an interactive installation, we need a physical setting in which people move about in relatively conscious fashion and remain for a certain length of time. The participants ought to form groups and communicate with each other, move about of their own accord in a large ambit and have the possibility of completely immersing themselves in their own world.

A swimming pool satisfies all of these conditions almost perfectly. It's a bounded space that one enters as if one were going on stage. The shapes of most of these facilities predetermine particular lanes of traffic that the swimmers more of less consciously follow, and that we as authors can play with. Moreover, users are relaxed; they have the time and the unstressed frame of mind to get involved with the atmosphere and the installation.
The upshot of these considerations has been this fascinating project that aims to not only interpret movements, group dynamics and flows of human beings, but also to reconfigure a public swimming pool as an interface.

Implementation
An image projected onto the ceiling reacts to the swimmers in the water via camera tracking. The visualization changes depending on their movements, and a musical tapestry is woven through an underwater loudspeaker. The images and sounds change depending on how many swimmers are in the water at a particular time, how fast they're moving and how far they are from one another. The results are abstract, minimalist graphics that depict traces of movements, spaces and the formation of groups. In order to portray the entirety of motion in the pool and not just the movements of each individual, a sort of current is also generated, which influences the whole visualization.