

# EDV & Multimedia Interaktionsdesign

01 – Einführung

Prof. Dr. Jochen Koubek

24. Oktober 2011



# Zusammenfassung

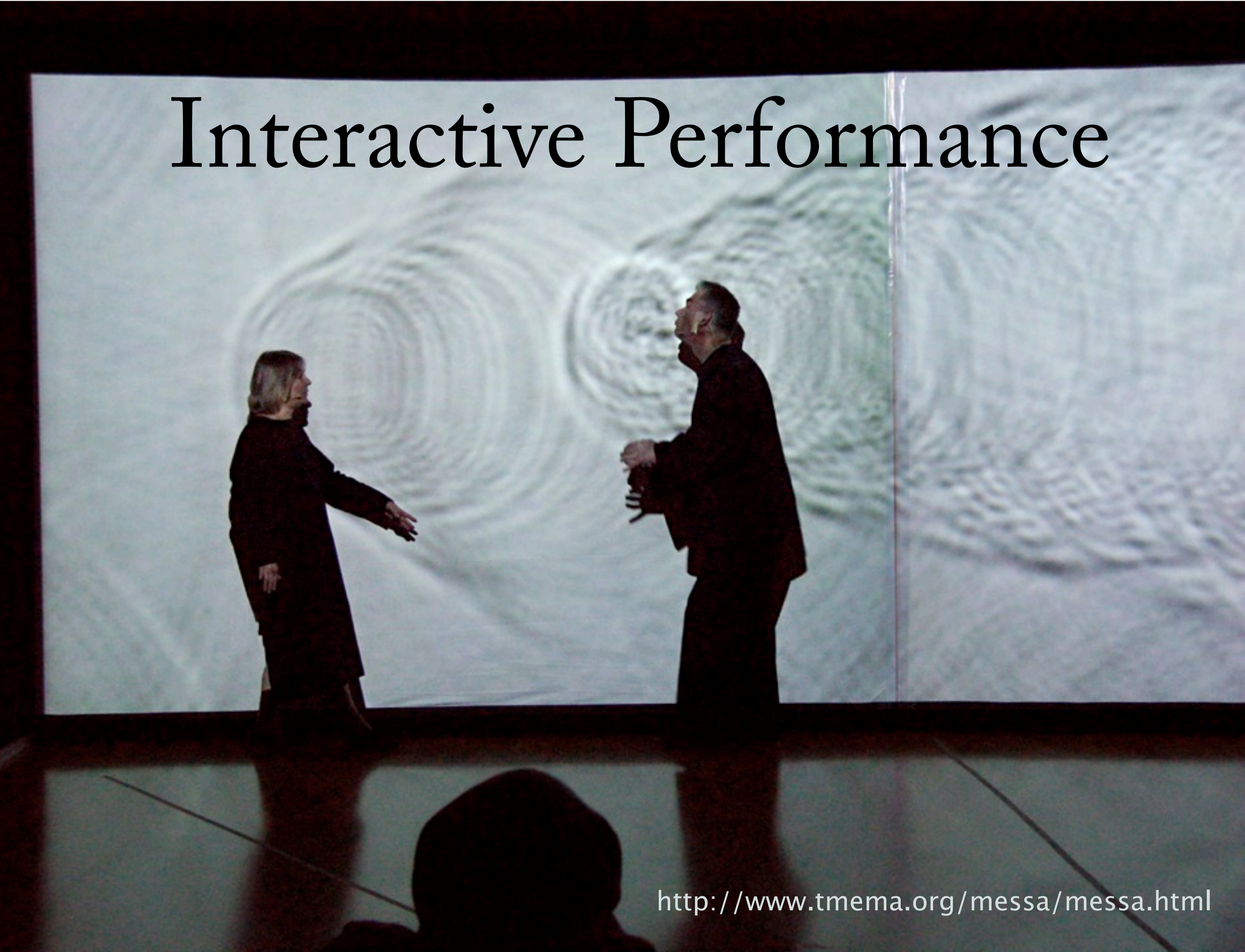
Interaktionsdesign ist die Gestaltung interaktiver Systeme und ihrer Erfahrung durch die Nutzer (user experience design).

Die Aufgabenfelder sind vielfältig...

# Interactive Art



# Interactive Performance



## messa di voce

An Audiovisual Performance & Installation  
for Voice and Interactive Media  
by Golan Levin and Zach Lieberman  
with Jaap Blonk and Joan La Barbara  
Created Summer 2003

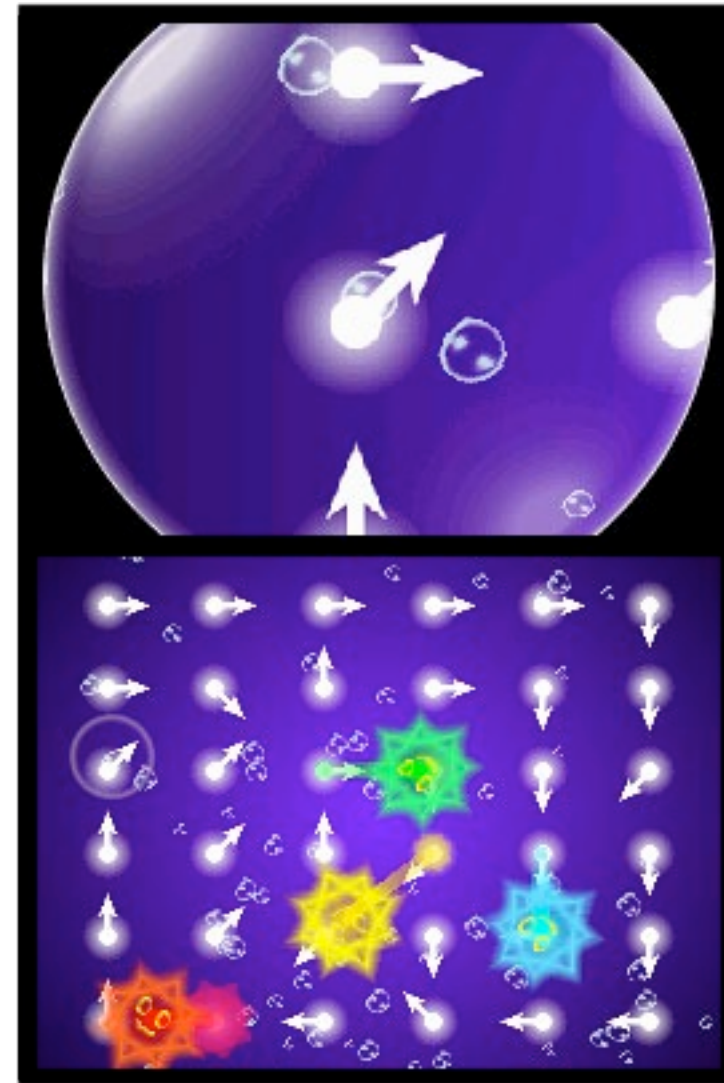
<http://www.tmema.org/messa/messa.html>

# Interactive Music

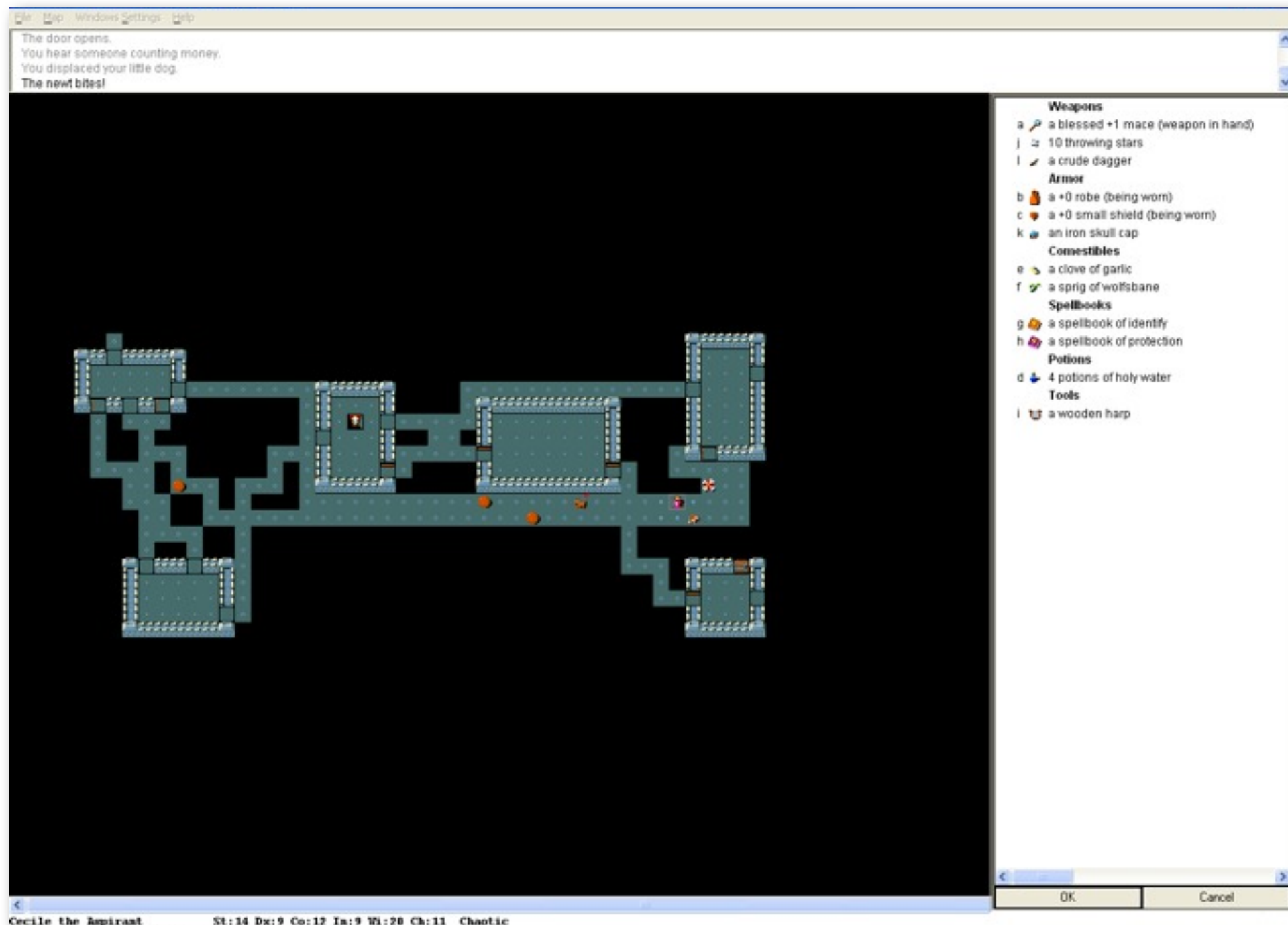


Iwai: Composition on the Table (PUSH)

<http://www.youtube.com/watch?v=Q6LWqmaaPyU>

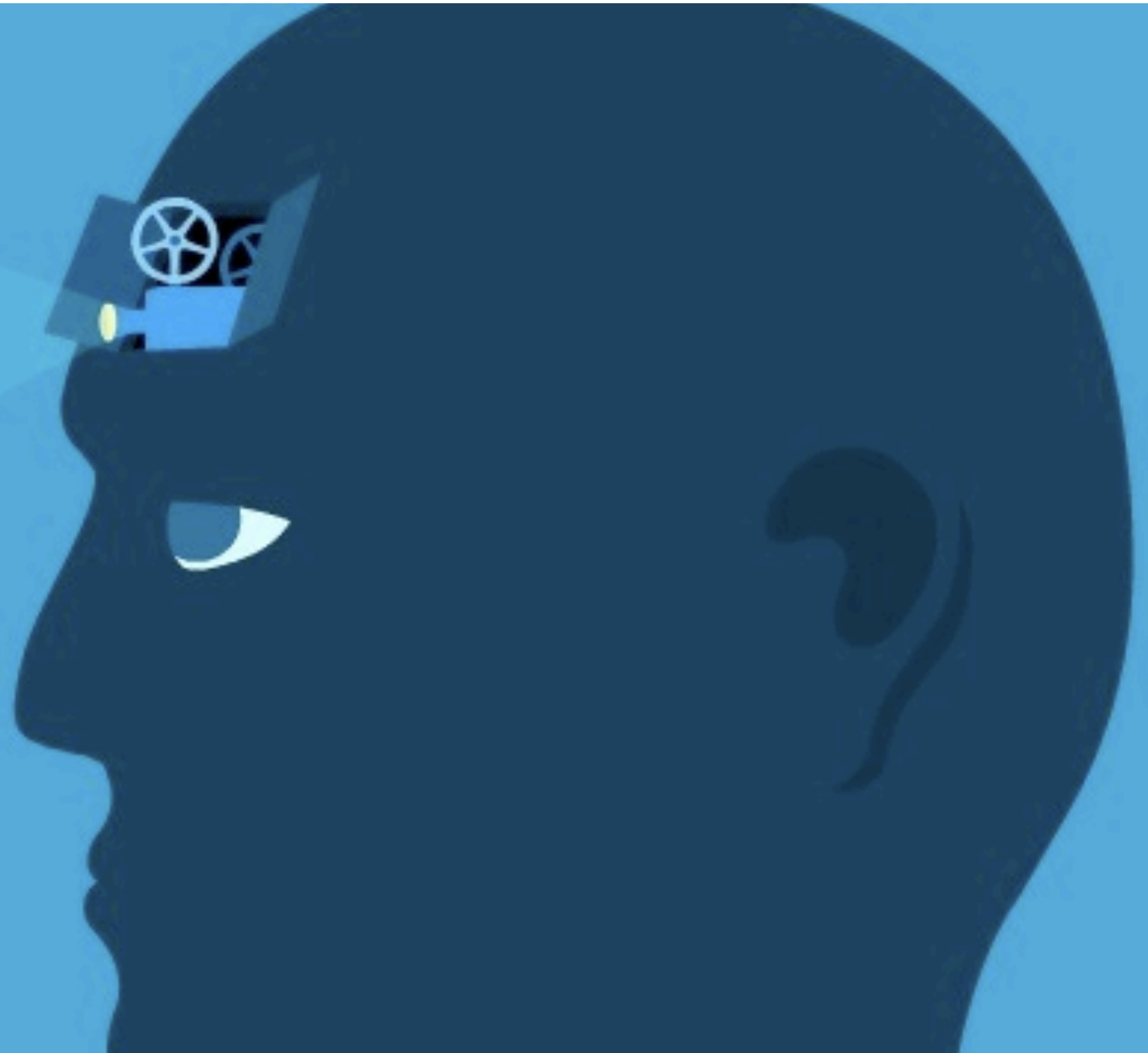


# Computerspiele



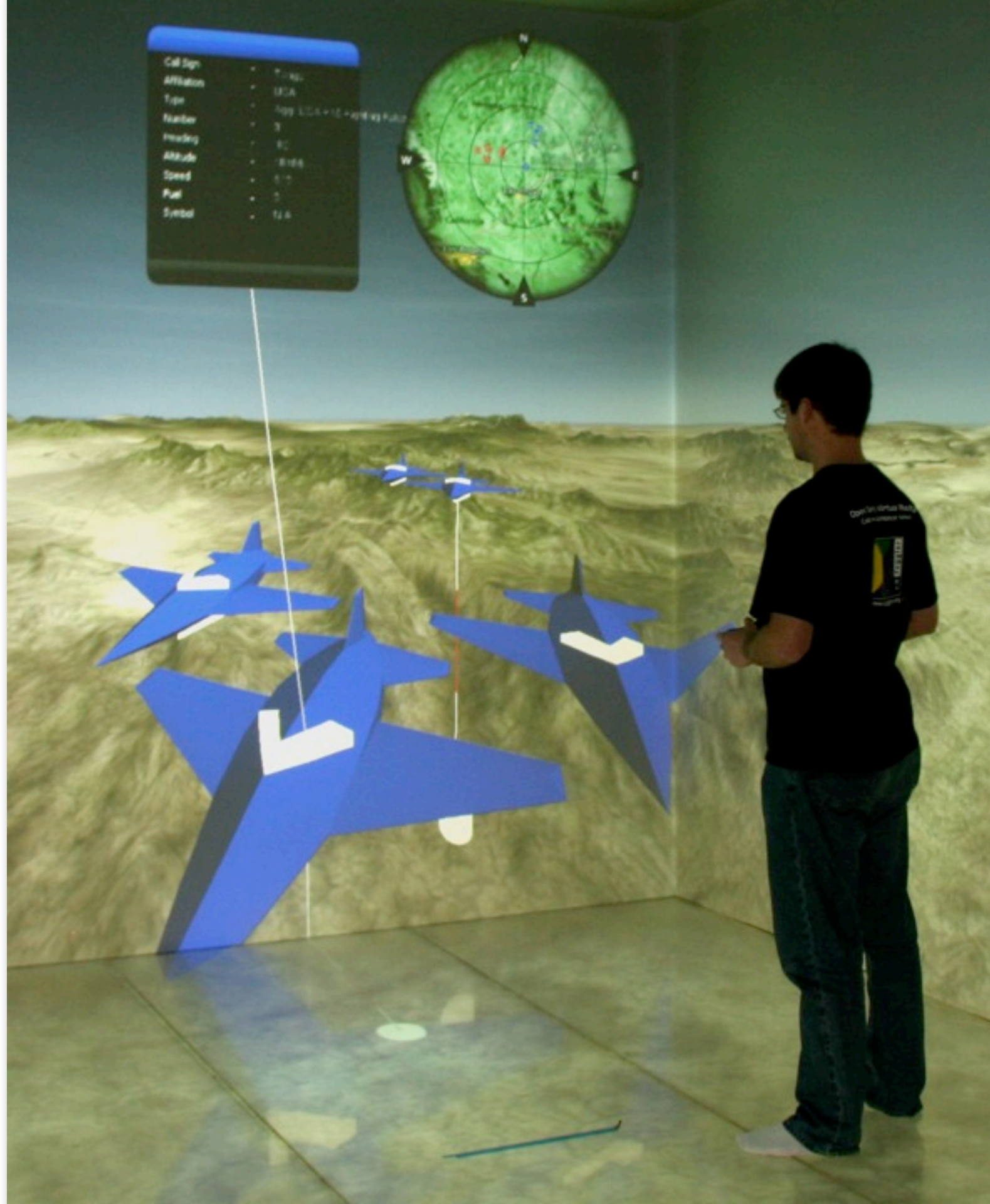
NET HACK | DEFEND YOUR DESKTOP | ESCAPE GAME [VISION]

# Art Games



<http://www.feedthehead.net/>

# Virtual Reality





# Augmented Reality



<http://open-tube.com/ten-amazing-augmented-reality-applications/>

# Mixed Reality Games



Sony's EyeToy "Groove" Interface supports single or multiplayer modes.

# Spielsachen



## Jedi Force Trainer

<http://www.youtube.com/watch?v=TQDra0NiHcQ&feature=related>

# Gadgets



<http://www.getdigital.de/products/clocky>

<http://www.youtube.com/watch?v=23uiDQ88EP8&>

# Spielkonsolen



Sifteo

<https://www.sifteo.com/>



**OPENCACHING.de**  
Geocaching in Deutschland,  
Österreich und der Schweiz

Unterstützt und gefördert durch  
die Deutsche Wanderjugend



Tempelhof, Berlin, Germany

- STARTSEITE
- MEIN PROFIL
- CACHES
- KARTE**
- INFORMATIONEN
- TEAMBLOG
- FORUM
- CHAT/IRC
- GEOKRETY

Karte



Nach Ort, Cache oder Wegpunkt suchen

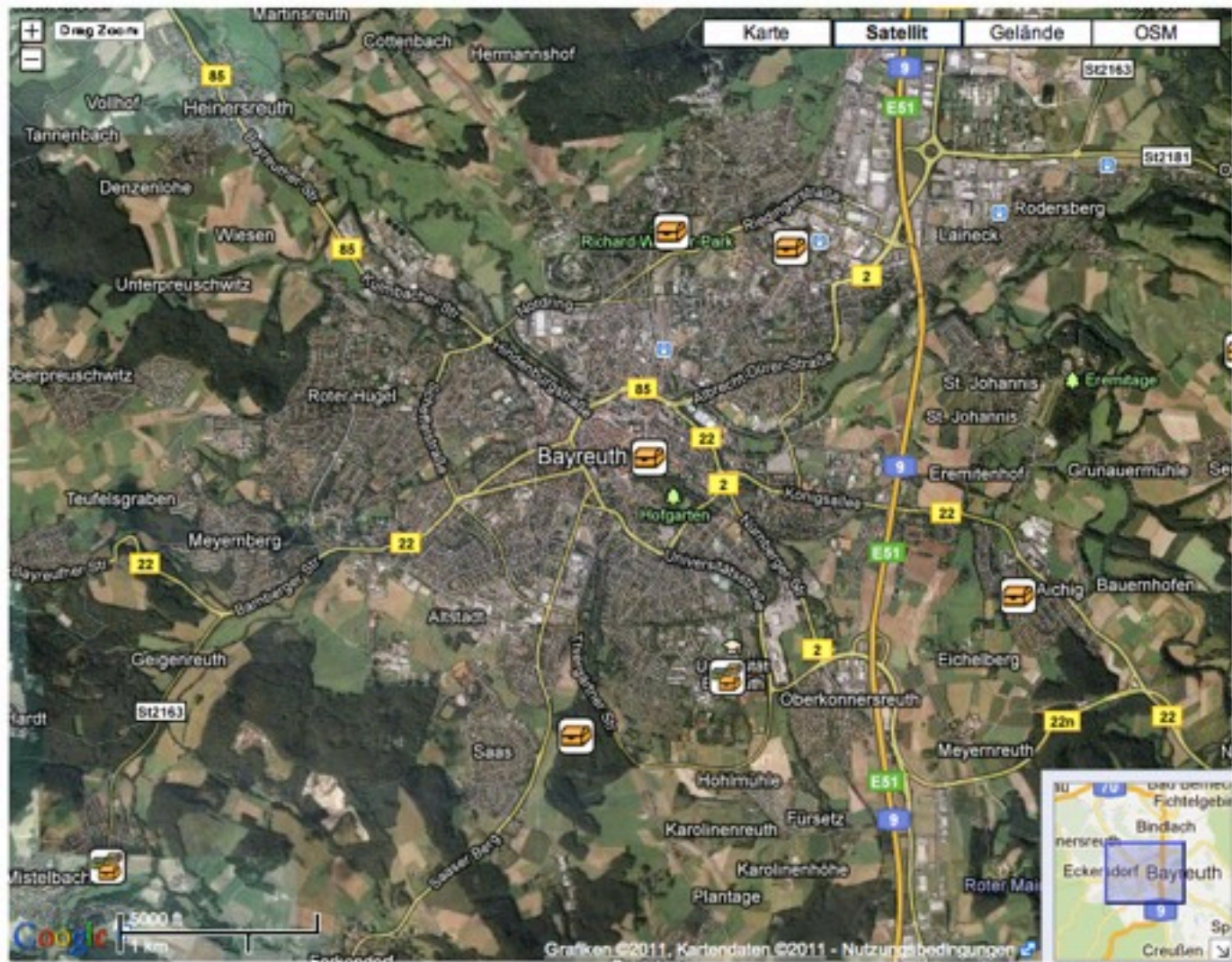


- HAUPTMENÜ**
- Berlin
  - Dresden
  - Düsseldorf
  - Erfurt
  - Hannover
  - Kiel
  - Mainz
  - Magdeburg
  - München
  - Potsdam
  - Saarbrücken
  - Schwerin
  - Stuttgart
  - Wiesbaden

**LÄNDERKNOTEN**

- oc.CZ
- oc.DE
- oc.ES
- oc.IT
- oc.JP
- oc.NO
- oc.NL
- oc.PL
- oc.SE
- oc.UK
- oc.US

**SPENDEN**



Nur Geocaches mit folgenden Eigenschaften anzeigen:

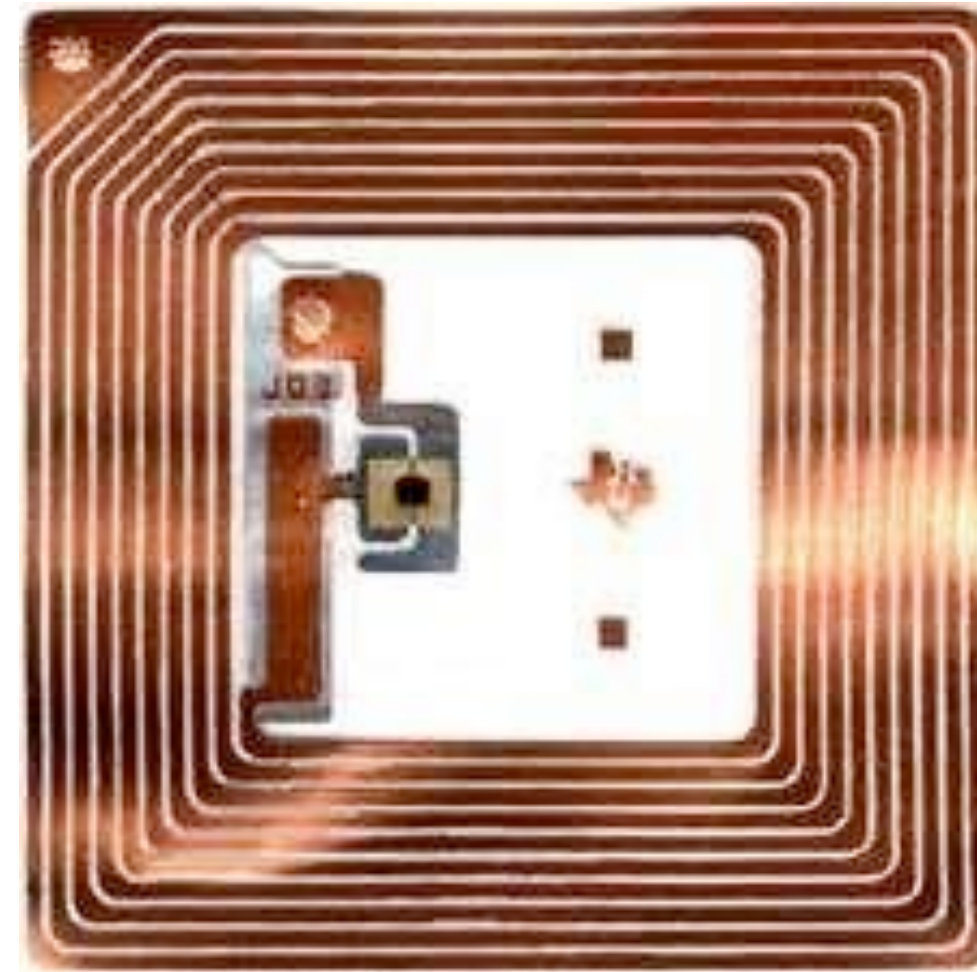
# Location Based Games

Geocaching

# Responsive Environments



<http://www.youtube.com/watch?v=2lXh2n0aPyw>



# Mobile Informationssysteme

## GPS, RFID, Mobile Tagging



# Wearable Computing

Steve Mann's "wearable computer" and "reality mediator" inventions of the 1970s have evolved into what looks like ordinary eyeglasses.



(a)  
**1980**



(b)  
**Mid 1980s**



(c)  
**Early 1990s**



(d)  
**Mid 1990s**

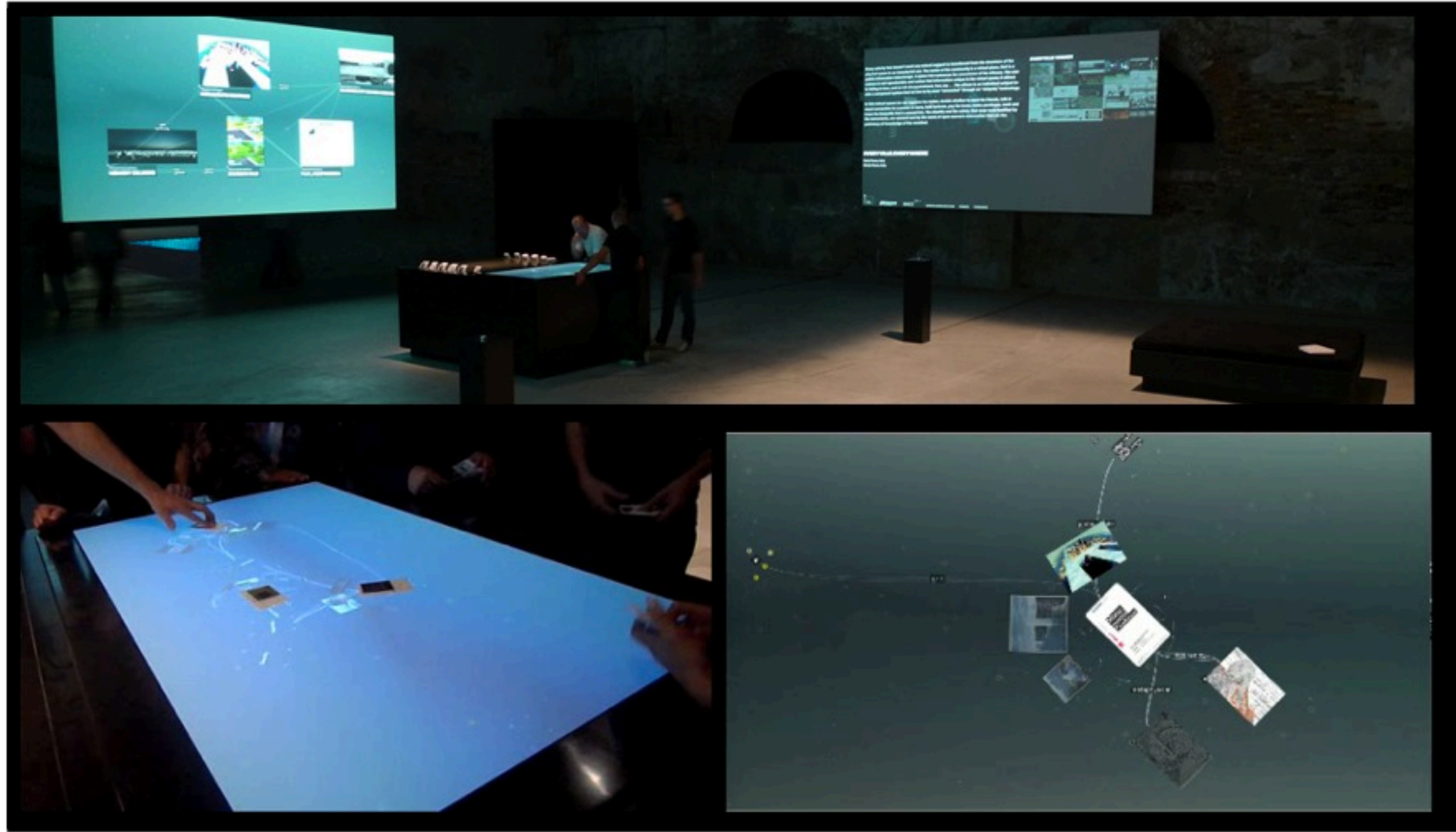


(e)  
**Late 1990s**

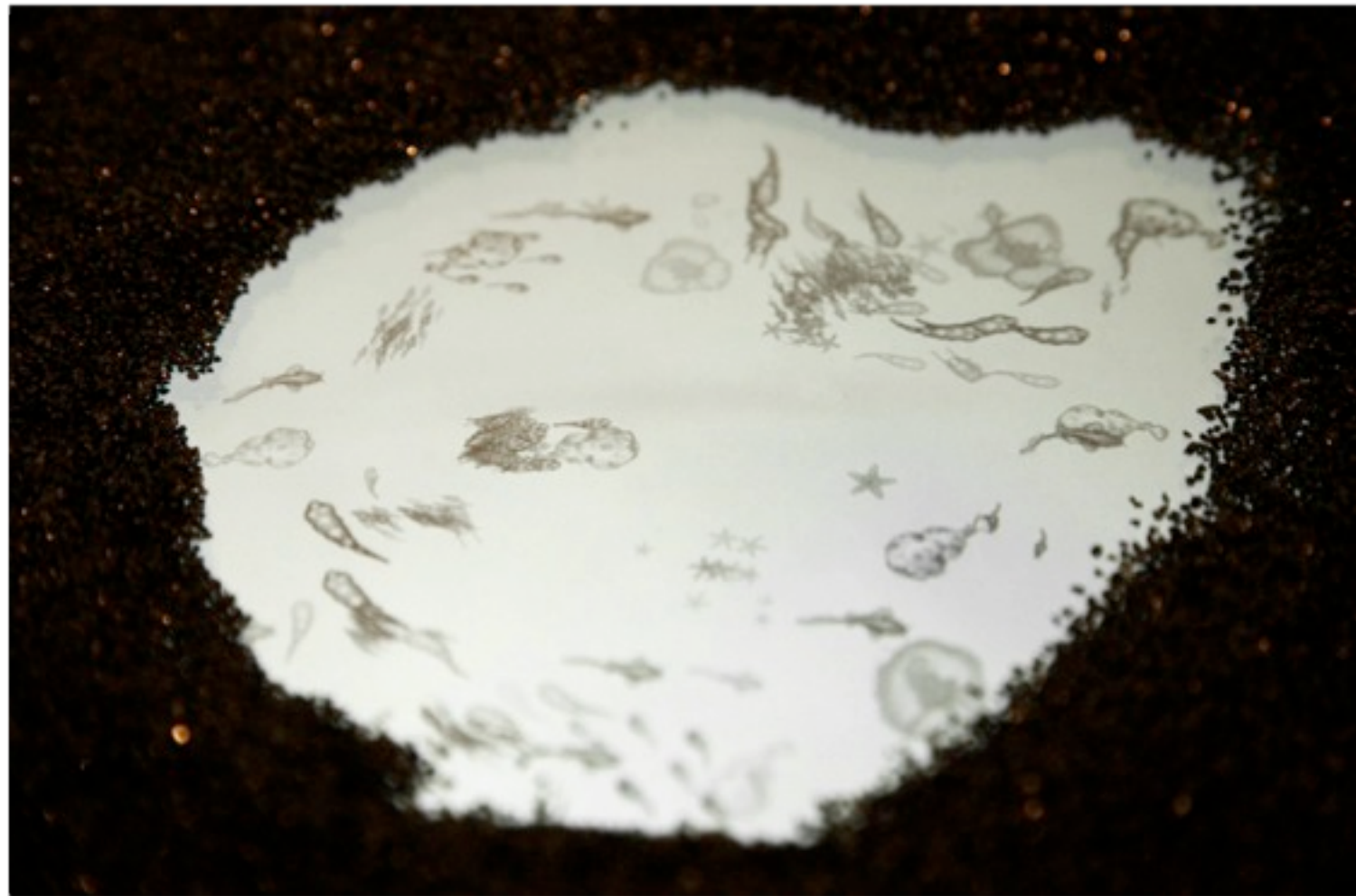
# Integrationsdesign



# Multitouch Interfaces



# Tangible Interfaces



[http://everyware.kr/portfolio/contents/09\\_oasis/](http://everyware.kr/portfolio/contents/09_oasis/)

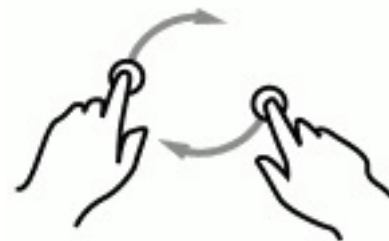
Oasis



Mud Tub

<http://tomgerhardt.com/mudtub/>

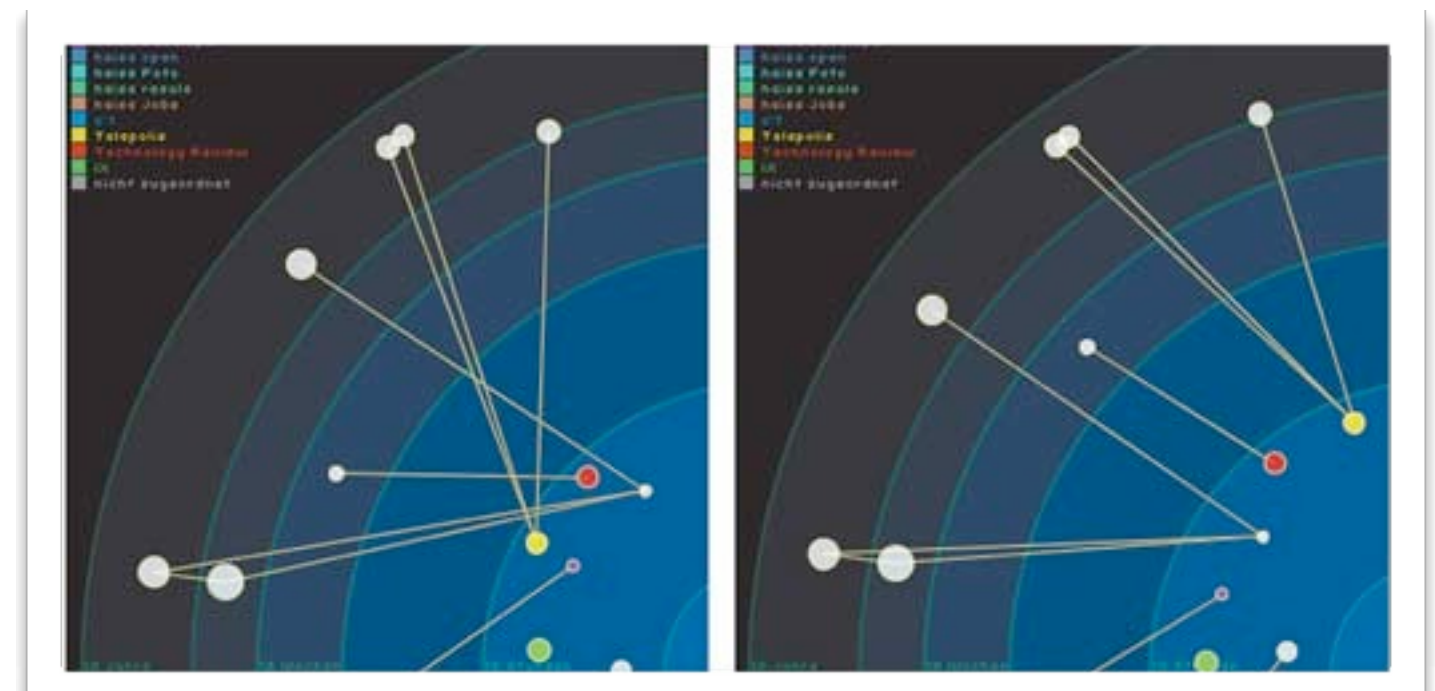
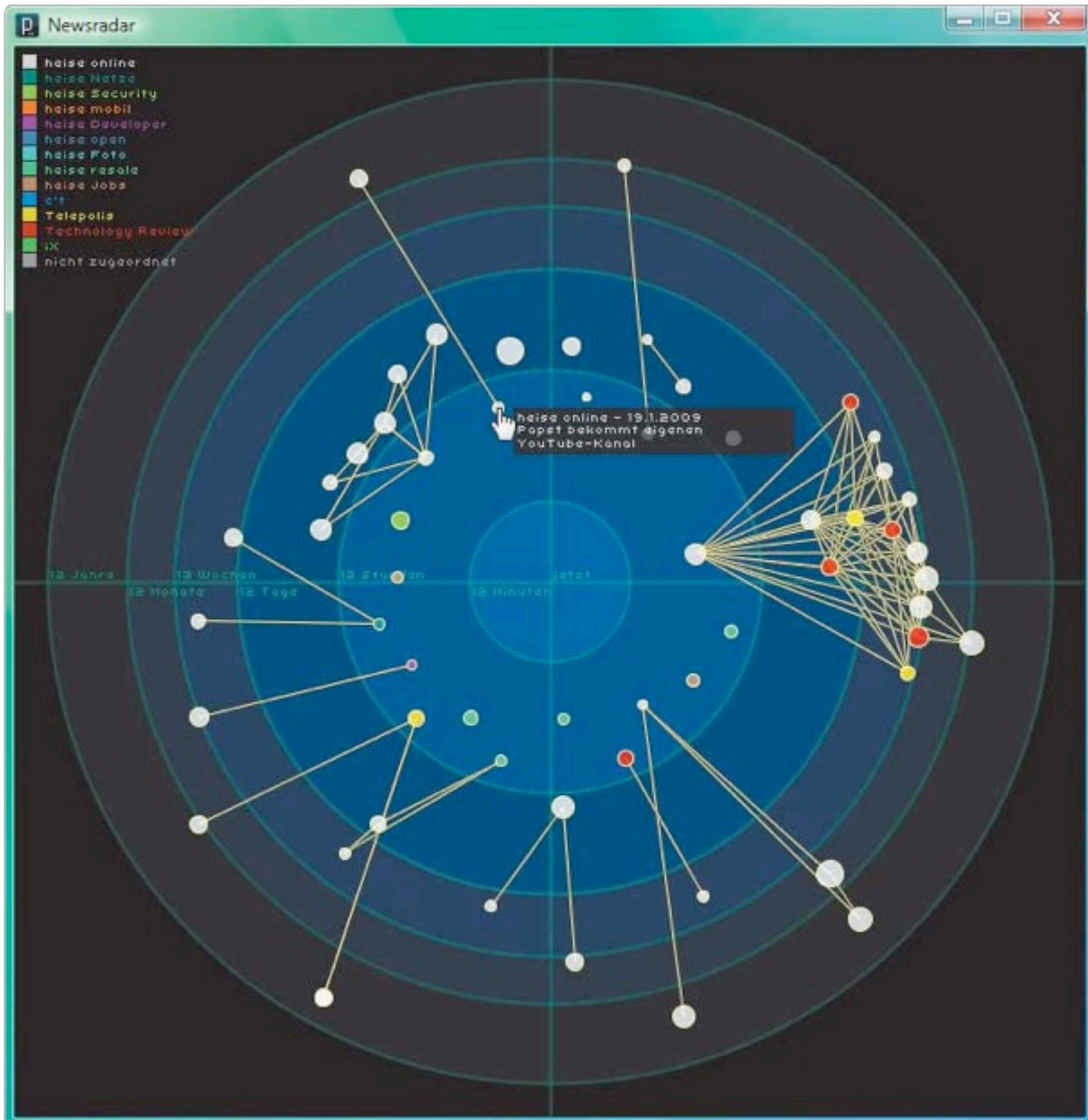
# Interface-Design



# Haustechnik



# Visualisierung



<http://www.heise.de/ct/artikel/Netzradar-291912.html>

# Interaktive Präsentation

**Die Realisation: Aufnahme eines Konzerts**

Hier haben Sie die Möglichkeit, dieselbe Stelle eines Konzerts aus verschiedenen Kameraperspektiven zu sehen.

Es ist ein Ausschnitt aus Mozarts Klavierkonzert KV 453 in G-Dur. Paul Gulda und die Camerata Academica Salzburg unter Leitung von Alexander Janicek spielten es in der Mozartwoche 1999.

In der Stellkizze links unten sind die Kameras (1 bis 4) schwarz eingezeichnet. Die goldenen Bögen repräsentieren das Orchester.

Klicken Sie auf eine der vier Kameras, um den Musikausschnitt aus der jeweiligen Perspektive zu sehen.

Den fertigen Schnitt sehen Sie, indem Sie auf die Filmklappe klicken.

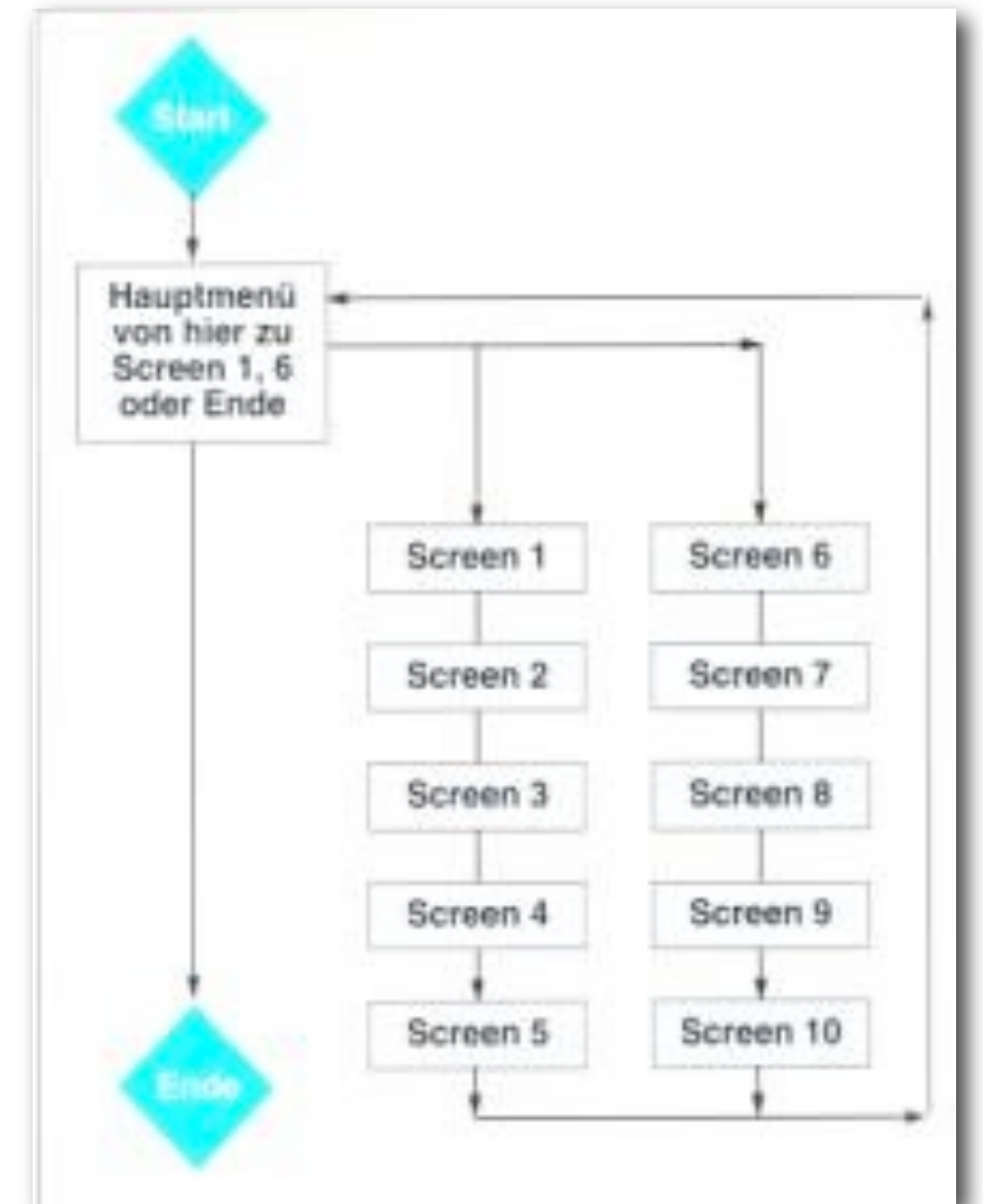


Bild: M. Kleiber, Unitel



# CSS·ZEN·GARDEN

## THE BEAUTY OF CSS DESIGN

A demonstration of what can be accomplished visually through CSS-based design. Select any style sheet from the list to load it into this page.

Download the sample [html file](#) and [css file](#).

### THE ROAD TO ENLIGHTENMENT

Littering a dark and dreary road by the past relics of browser-specific tags, incompatible DOCS, and broken CSS support.

Today, we must clear the mind of past practices. Web enlightenment has been achieved thanks to the tireless efforts of folk like the W3C, WHATWG and the major browser creators.

The css Zen Garden invites you to relax and meditate on the important lessons of the masters. Begin to see with clarity. Learn to use the (yet to be) time-honored techniques in new and integrating fashions. Become one with the web.

### SO WHAT IS THIS ABOUT?

There is clearly a need for CSS to be taken seriously by graphic artists. The Zen Garden aims to excite, inspire, and encourage participation. To begin, view some of the existing designs in the list. Clicking on anyone will lead the style sheet into this very page. The code remains the same, the only thing that has changed is the external [css file](#). Yes, really.

CSS allows complete and total control over the style of a hypertext document. The only way this can be illustrated in a way that gets people excited is by demonstrating what it can truly be, once the reins are placed in the hands of those able to create beauty from structure. To date, most examples of neat tricks and hacks have been demonstrated by structuralists and coders. Designers have yet to make their mark. This needs to change.

### PARTICIPATION

Graphic artists only please. You are modifying this page, so strong CSS skills are necessary, but the example files are commented well enough that even CSS novices can use them as starting points. Please see the [CSS Resource Guide](#) for advanced materials and tips on working with CSS.

You may modify the style sheet in any way you wish, but not the HTML. This

#### SELECT A DESIGN

- Subway Dream by Pablo Caro
- Contemplative Flurry by No London
- By The Pier by Peter Ong
- Uncultivated by Marie Carbone
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ARCHIVE

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we request the horizon of your presence in the

# CSS ZEN GARDEN

to experience the beauty of css design

## AN INVITATION

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#### Design & Plugins

- Essentialist by David Walling
- Postcards by Michael Probst
- 23 Hacks by Eric Meyer & David Baron
- Wiggle the Mousepointer by Joseph Pollock
- Rate and Range by Elizabeth Soto
- No Repeaters by Michael Hebray
- Japanese Garden by Michael Hebray
- Corporate Zentao by Brock Hovine

#### Archives

- past designs
- in progress designs
- view all designs

#### Resources

- View This Designer's CSS

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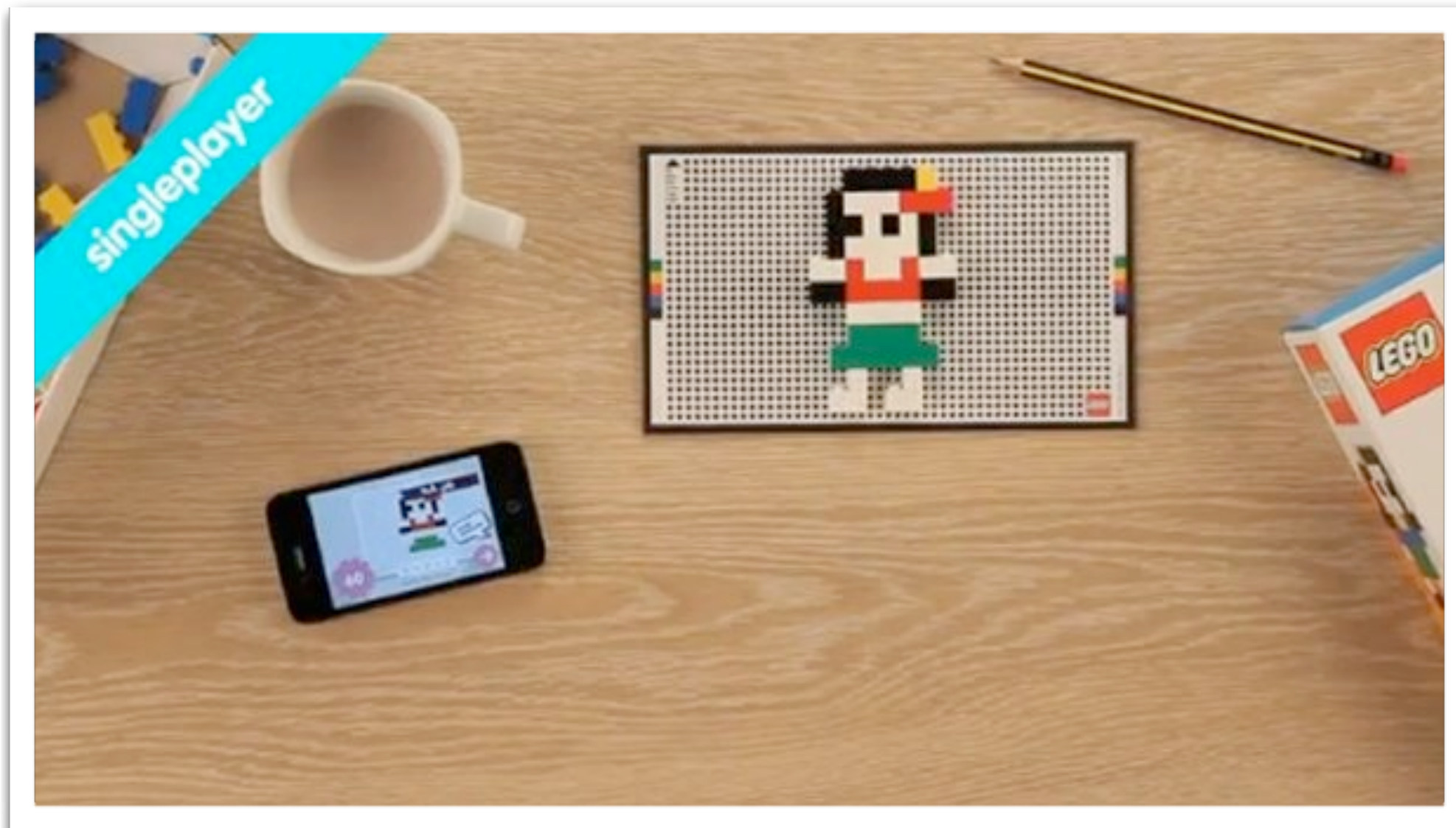
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# Webdesign

# Kombinationen

Interaktives, vernetztes AR-Spielzeug mit iPhone-App



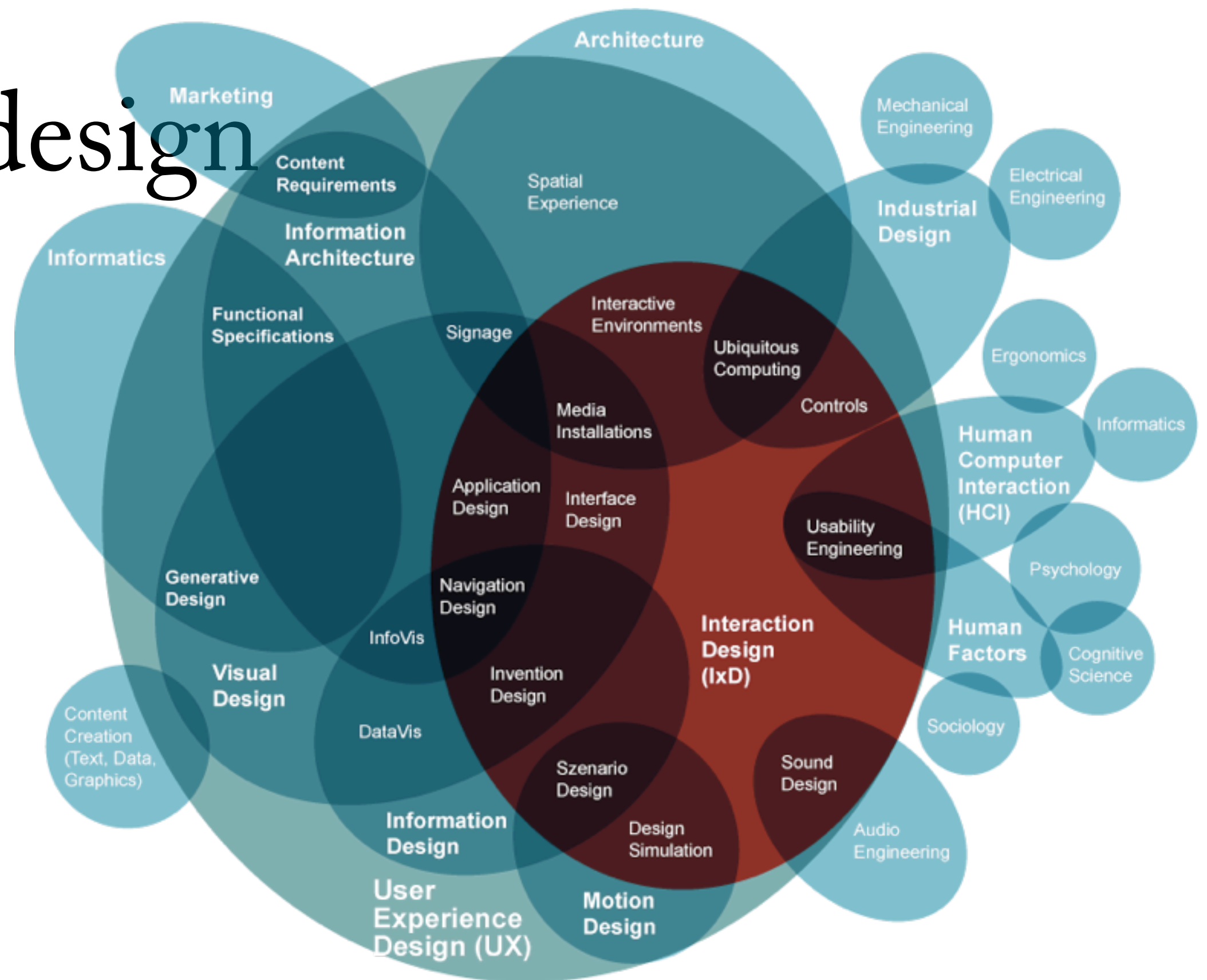
Life of George

<http://www.youtube.com/watch?v=1DHZwSOVKBY>

# Interaktionsdesign

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Die Aufgabenfelder sind vielfältig



# Schwerpunkt Interactive Art



1. The computer has become a new medium (a new set of media forms).
2. To design a digital artifact is to design an experience.
3. Digital design should not try to be invisible.

The most visible, and in some ways the most important, part of any digital application is its interface—the face that the application presents to its users. And digital art is all interface, defined entirely by the experience of its viewing or use. That is why digital art can provide such a clear test of the possibilities and constraints of digital design: it fails or succeeds unequivocally on the strength of its interface.

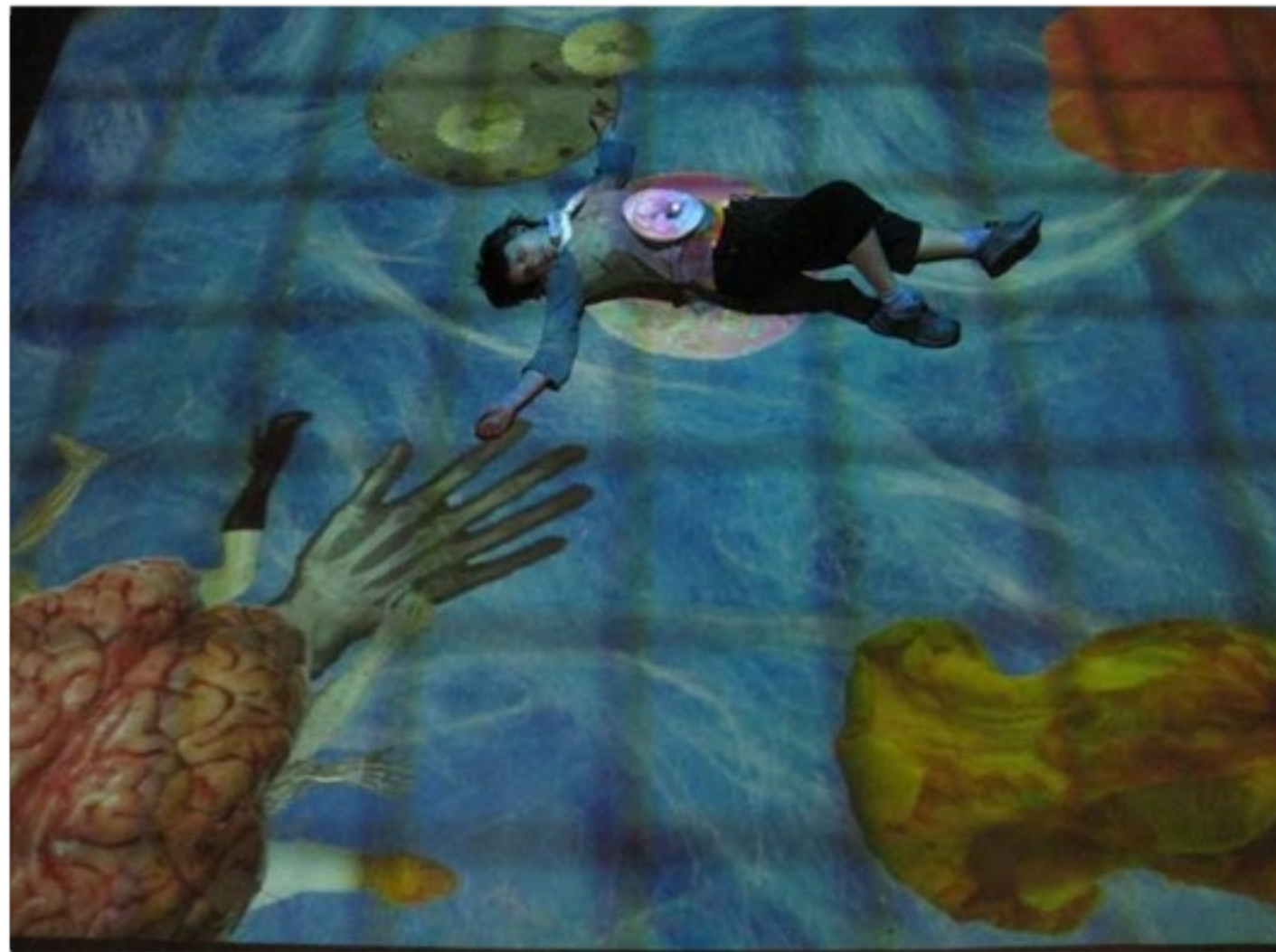
If we only look *through* the interface, we cannot appreciate the ways in which it shapes our experience.

Works of digital art are experiments in interaction design.

Jay Bolter; Diane Gromala: *Windows and Mirrors*. MIT Press 2003

# Schwerpunkt Interaktive Performance

Die ideale Schnittstelle zwischen Theater und Medien

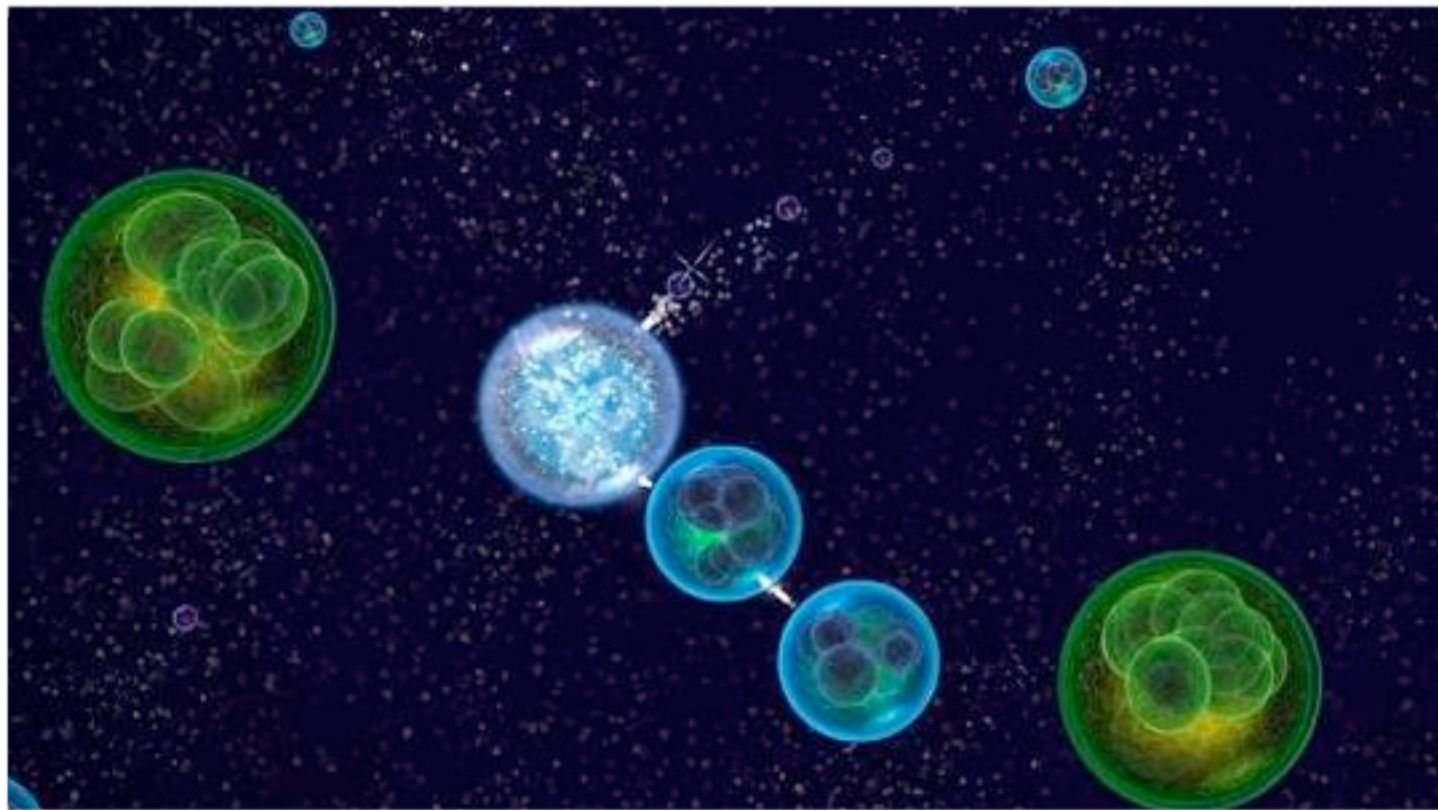


**Treasure Islands**

by Matti Niinimäki

<http://vimeo.com/4895941>

# Schwerpunkt Computerspiele



»To play, understand, and – especially – design games, one ends up having to understand them as systems. Any game is a kind of miniature artificial system, bound and defined by the game rules that create the game's magic circle.«

Eric Zimmerman

Osmos

<http://vimeo.com/5892502>

# Überblick über die Vorlesung

## Inhalte

Einführung

Interaktive Kunst

Interaktive Performanz

Computerspiele

Interaktion

Kognition

Emotion

Interfaces

Vorgehensmodelle

Anforderungsanalyse

Modellierung

Prototyping

Evaluation

## Ziele

Am Ende der Vorlesung planen Sie ein eigenes interaktives Medienprojekt

**Benennen** Sie wegweisende und inspirierende Projekte aus der Interaktions- bzw. Spielegeschichte.

**Konzipieren** Sie Ihr Projekt unter interaktions-, kognitions- und emotionstheoretischen Gesichtspunkten.

**Schreiben** Sie eine (intuitive) Anforderungsanalyse sowie einen typischen Anwendungsfall / Spielverlauf.

**Modellieren** Sie das Projekt mit einem Zustands-Übergangs-Diagramm.

**Skizzieren** Sie das Projekt und beschreiben Sie die benötigten Bestandteile, insbesondere die Schnittstellen.

Im Sommersemester bekommen Sie die Gelegenheit, dieses (oder ein anderes Projekt) als Prototyp zu realisieren.

# Organisatorisches

Schein

Gruppenarbeit

Processing

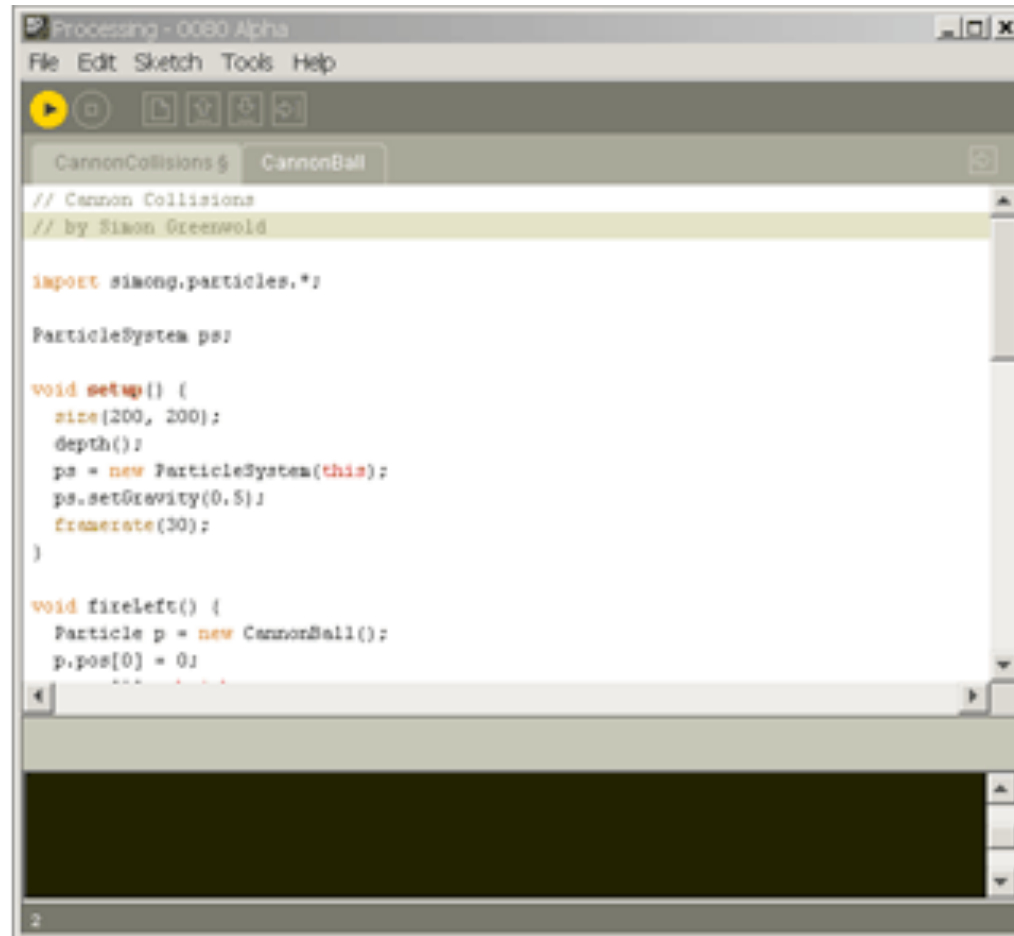
Pool-Kennung

Fortsetzung im Sommersemester

3D GameLab



Display Window



Menu

Toolbar

Tabs

Text Editor

Message Area

Text Area

Processing



# Achtung!

Um Zugriff auf fachspezifische Software zu erhalten, senden Sie bitte eine Mail an:

[software@stmail.uni-bayreuth.de](mailto:software@stmail.uni-bayreuth.de)

Bitte geben Sie folgendes in der Mail an:

in der Betreff-Zeile:

**Fachbereich:** z.B. *BIO, CHEMIE, ...*

im Text der Mail:

entweder:

**Kurs:** *Titel der Lehrveranstaltung*

**Dozent:** *Name des Dozenten*

**Benutzerkennung:** z.B. *s0mamust*

oder

**Abschlussarbeit:** *Studiengang*

**Betreuer:** *Name des betreuenden Dozenten*

**Benutzerkennung:** z.B. *s0mamust*

*Der hier kursiv geschriebenen Text muss in der Mail natürlich Ihre entsprechenden Angaben enthalten.*

**Die Freischaltung der entsprechenden Software erfolgt nach Prüfung Ihrer Angaben.**

Fachbereich: GSP

Kurs: EDV & Multimedia

Dozent: Prof. Dr. Jochen Koubek

Benutzerkennung: s4...

# 3D GameLab

## Quest based learning



<http://3dgameLab.org.shivtr.com/>