

massively multiplayer audio reality gaming

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overview

upcoming

- background
- projects: (serious) pervasive games
- what is massively multiplayer audio reality gaming?

ETH Zurich / CAAD & BB'TEL GmbH

BB'TEL audio reality multiuser telephone world: „Starbase 49“

STARBASE 49
Der Raum ist stumm. Die Menschen sind nicht.

Die Starbase 49, das Kommunikationssystem der Zukunft - die virtuelle Raumstation im Cyberspace. Das liegt auf der entgegengesetzten Seite des Mondes und mit dem Jenseits bekennt Du Dich an Bord. Triff in den Gängen und Räumen der Station andere Leute live und unkompliziert.

In den Gängen der Base hat schon so manche Freundschaft begonnen. Und das Beste: Alles ist so wunderbar unerfunden - es läuft am Telefon.

Wer seine Lust hat, geht einfach einen Raum weiter. Privat Absicht vom Geräusch hast Du eine "Kabine". Deine neuen Bekanntschaften können Dir hier persönliche Mitteilungen kontaktieren.

Du bist anonym - die anderen können nur Deinen Phantasienamen nachschlagen. Nur 50 Minuten... Ruf an und hör rein, dann wirst Du verstehen, warum alle so sicher darauf sind.

Deck 12 (Runde)
Deck 11
Deck 10 Lobby
Deck 9 Wägen
Deck 8 Passagier
Deck 7 Ober-Ring Deck
Kuppel A-D
Der große Ring
Deck 6 Inter
Strahlen A-D
Deck 5 Unter-Ring Deck
MR 1 und 2
Deck 4 Lebenserhaltungssysteme
Deck 3 Oberhangar
Deck 2 Hangar
Deck 1 Transporter Deck
Deck 00 VIP Lounge

DECK 1
Transporter Deck

ERDE MOND MIR STATION

STARBASE 49
Querschnitt
OLD PROJECT BY BBTEL, HAMBURG

background spw

STUDIED
SOCIAL ANTHROPOLOGY,
RHETORIC (M.A.)
CONVERGENT MEDIA

INDUSTRIAL
NEW MEDIA CONCEPTS
ENTERTMT. CONSULTANT
GAME DESIGNER

RESEARCH
projects & publications on
(PERVERSIVE) GAME DESIGN,
HCI, MOBILE APPLICATIONS

Pierre Bourdieu
Die feinen Unterschiede

Handbuch
Qualitative Sozialforschung

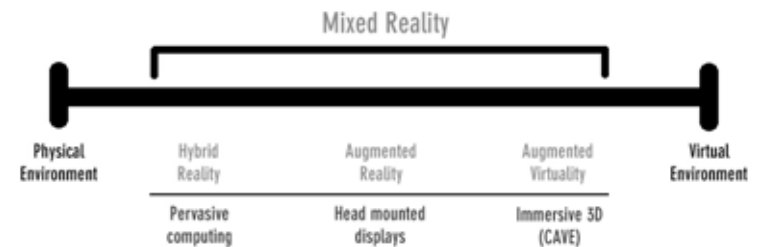
GRUNDRISSE
DER RHETORIK

Handbuch
Computer-Medien

ETH
BETH

projects: (serious)
pervasive games

def. pervasive computing & hybrid reality



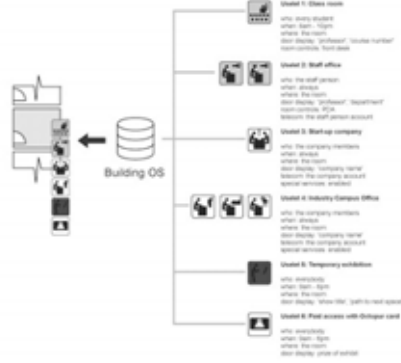
an environment as a service platform

OMA - AMO

Dimming system
Lighting control
HVAC controls
Security
Access controls
Lift controls
Electricity controls
Water controls
Room reservation

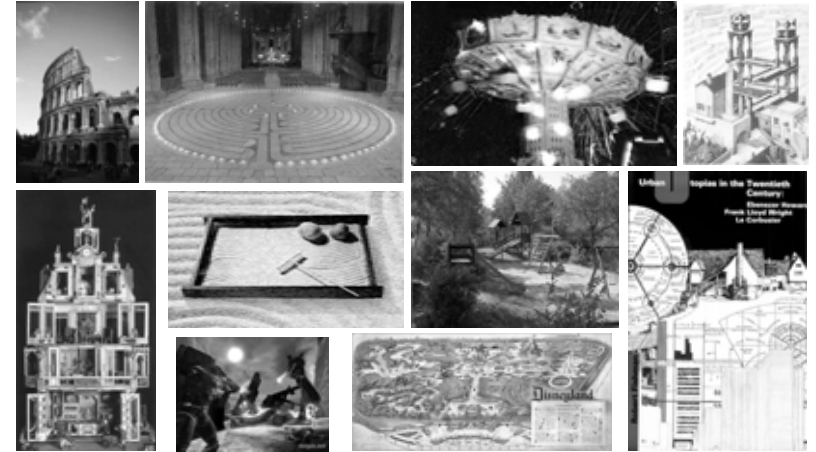
Data
Telefax
Text communication
Telecom
Teleconferencing
Display
TV and image communication
Internet access
e-commerce
facility management

Space
Computer

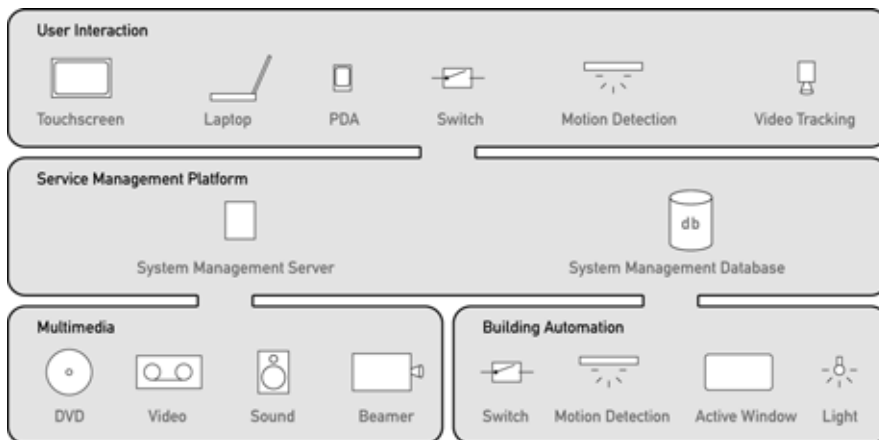


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the world is a gameboard



setup at ETH CAAD



(serious) pervasive games combine =

- 1) **serious purpose**
(e.g. learning)
- 2) **pervasive computing**
(e.g. mobile devices, wireless networks, sensors / actuators)
- 3) **game design methods**
(e.g. rules & goals, space-time, interactions, challenges & rewards, drama, closure)



third party serious pervasive game examples



Microsoft - „I Love Bees“ marketing for Halo2 (Xbox): Web + public payphones + real actors + collaborative gameplay

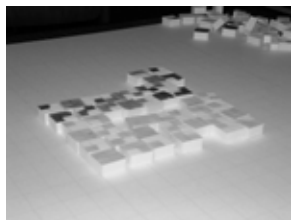
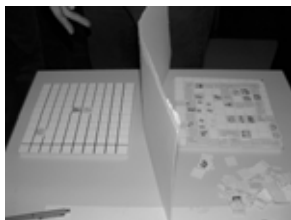


MIT - „Environmental Detectives“ emergency bio learning: PDA + GPS + virtual actors + collaborative gameplay

exemplary prototyping methods I



exemplary prototyping methods II

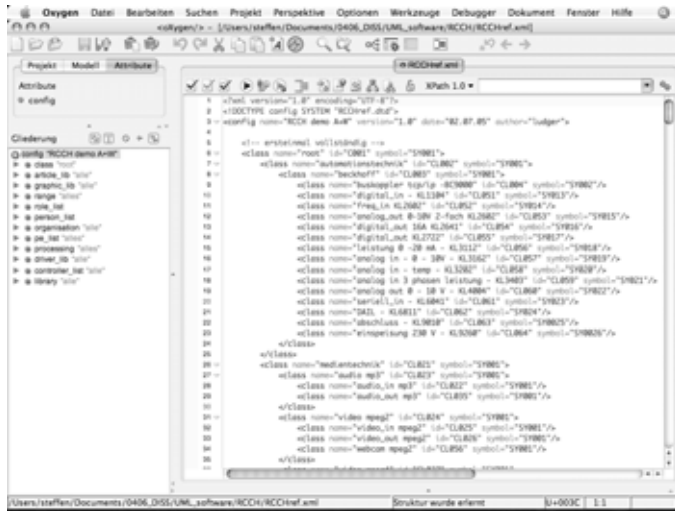


exemplary prototyping methods III



results from game arch design class, university of stuttgart, fall 2004/05, cf.
<http://wiki.caad.hbt.arch.ethz.ch/twiki/bin/view/Gamearch>

exemplary prototyping methods IV

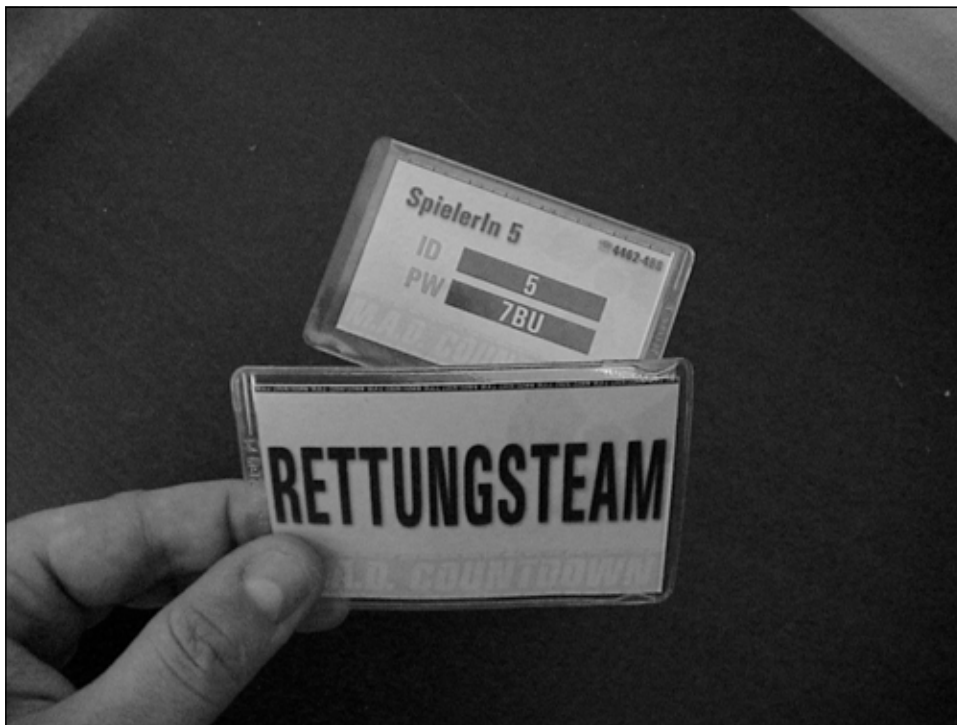


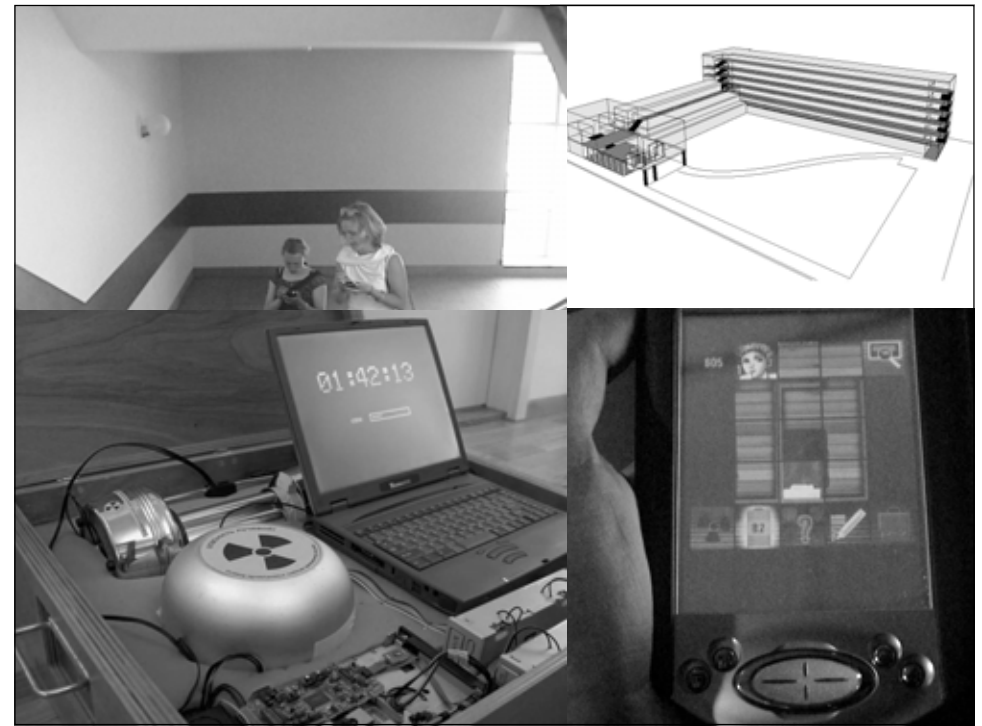
XML definition of a functional computer integrated building setting

serious pervasive game design: multiplayer WLAN

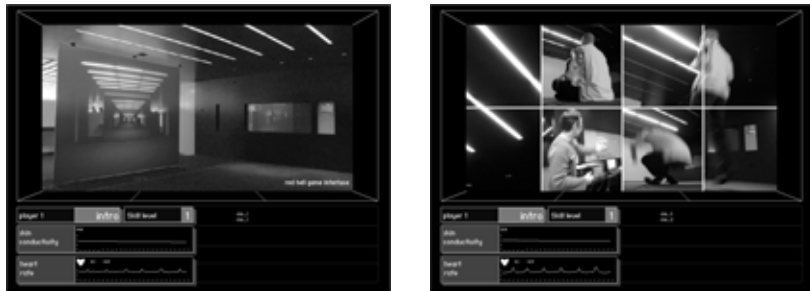


www.madcountdown.de: emergency & trust: PDA + WLAN + physical components + real actors + collaborative gameplay



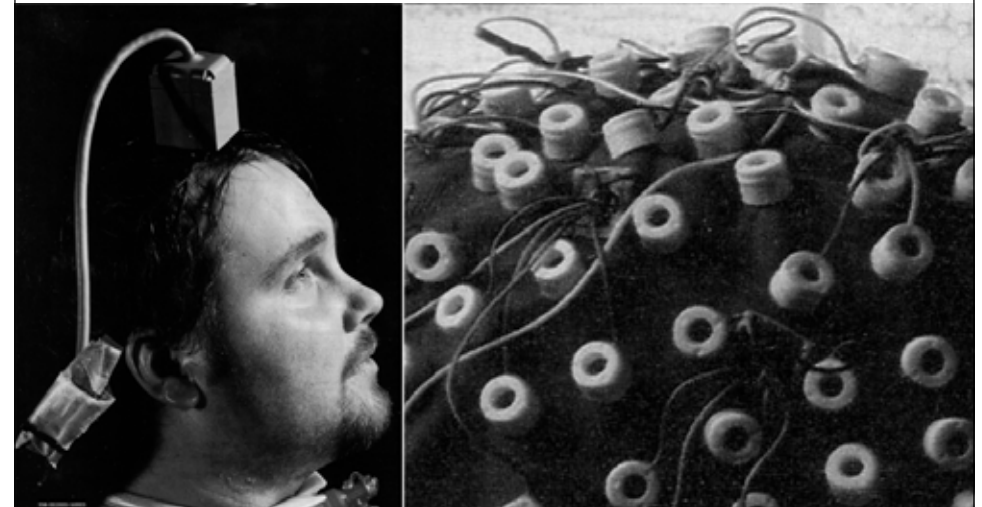


serious pervasive game design: biofeedback



„lightFight“ health care & room control: Wearable biofeedback + IP enabled room functionalities + psychophysiology

serious pervasive game design: biofeedback



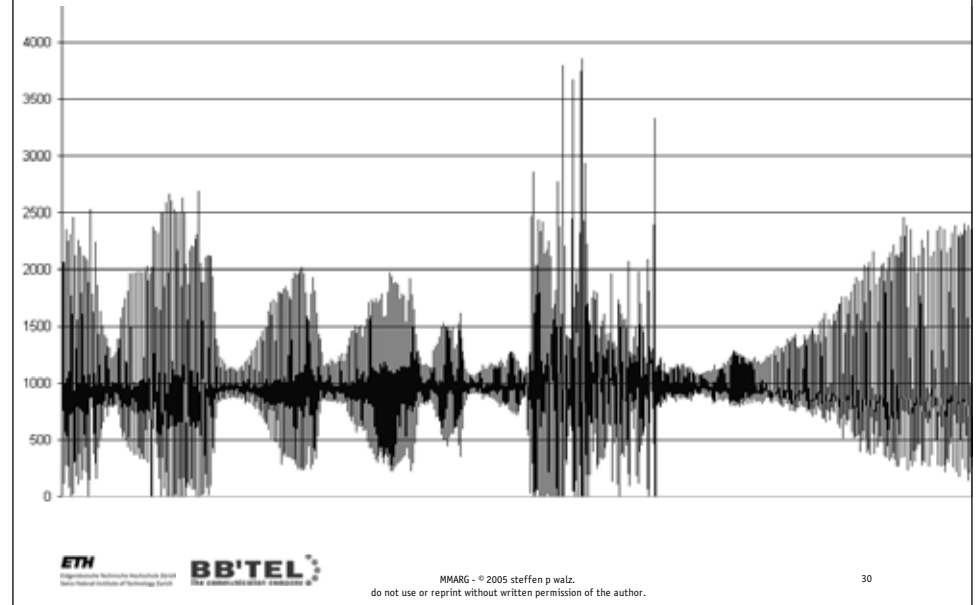
serious pervasive game design: biofeedback

Microsoft Excel - unterseebaug2.xls

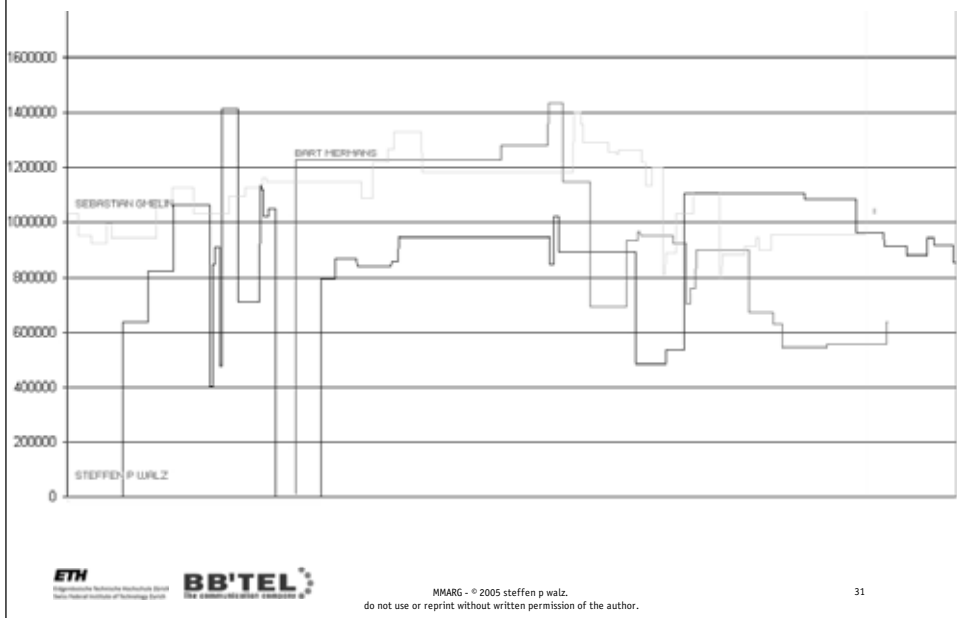
	Start Messung					Steffen P. Walz					Tobias Bonnetsch				
	time	skin	heart	galvan	activity	time	skin	heart	galvan	activity	time	skin	heart	galvan	activity
1	0	247	959	0	0	33	290	929	0	0	0	298	920	0	0
2	33	246	960	0	0	33	290	913	0	0	0	298	920	0	0
3	66	245	1009	0	0	66	290	905	0	0	0	298	920	1147	0
4	99	245	1009	0	0	99	290	1018	0	0	0	298	920	1246	0
5	133	245	997	0	0	133	290	1009	0	0	0	298	920	1439	0
6	166	245	972	0	0	166	290	1047	0	0	0	298	920	1209	0
7	199	245	972	0	0	199	290	976	0	0	0	298	920	1213	0
8	233	245	996	0	0	233	290	920	0	0	0	298	920	1071	0
9	266	245	989	0	0	266	291	930	0	0	0	298	920	951	0
10	299	245	991	0	0	299	291	965	0	0	0	298	920	873	0
11	333	245	990	0	0	333	291	1040	0	0	0	298	920	842	0
12	366	244	991	0	0	366	291	1009	0	0	0	298	920	809	0
13	399	244	949	0	0	399	291	987	0	0	0	298	920	872	0
14	433	244	954	0	0	433	291	983	0	0	0	298	920	949	0
15	466	243	971	0	0	466	292	1000	0	0	0	298	920	869	0
16	499	243	974	0	0	499	292	1125	0	0	0	298	920	899	0
17	533	242	988	0	0	533	293	1157	0	0	0	298	920	893	0
18	566	242	998	0	0	566	293	1030	0	0	0	298	920	898	0
19	599	242	1004	0	0	599	293	980	0	0	0	298	920	899	0
20	633	242	1011	0	0	633	293	736	0	0	0	298	920	899	0
21	666	242	1014	0	0	666	293	732	0	0	0	298	920	868	0
22	699	242	985	0	0	699	294	739	0	0	0	298	920	854	0
23	733	242	985	0	0	733	295	884	0	0	0	298	920	852	0
24	766	242	982	0	0	766	295	982	0	0	0	298	920	808	0
25	799	242	970	0	0	799	295	1045	0	0	0	298	920	825	0
26	833	242	976	0	0	833	296	980	0	0	0	298	920	860	0
27	866	241	939	0	0	866	297	915	0	0	0	298	920	908	0
28	899	241	952	0	0	899	297	874	0	0	0	298	920	972	0
29	933	241	976	0	0	933	298	909	0	0	0	298	920	963	0
30	966	241	908	0	0	966	298	958	0	0	0	298	920	959	0
31	999	240	910	0	0	999	298	962	0	0	0	298	920	1127	0
32	1033	240	910	0	0	1033	298	1046	0	0	0	298	920	1323	0
33	1066	240	939	0	0	1066	299	1112	0	0	0	298	920	1362	0
34	1099	240	1009	0	0	1099	299	1179	0	0	0	298	920	1289	0
35	1133	240	987	0	0	1133	299	1162	0	0	0	298	920	1107	0
36	1166	240	989	0	0	1166	299	1089	0	0	0	298	920	942	0
37	1199	240	984	0	0	1199	299	961	0	0	0	298	920	827	0

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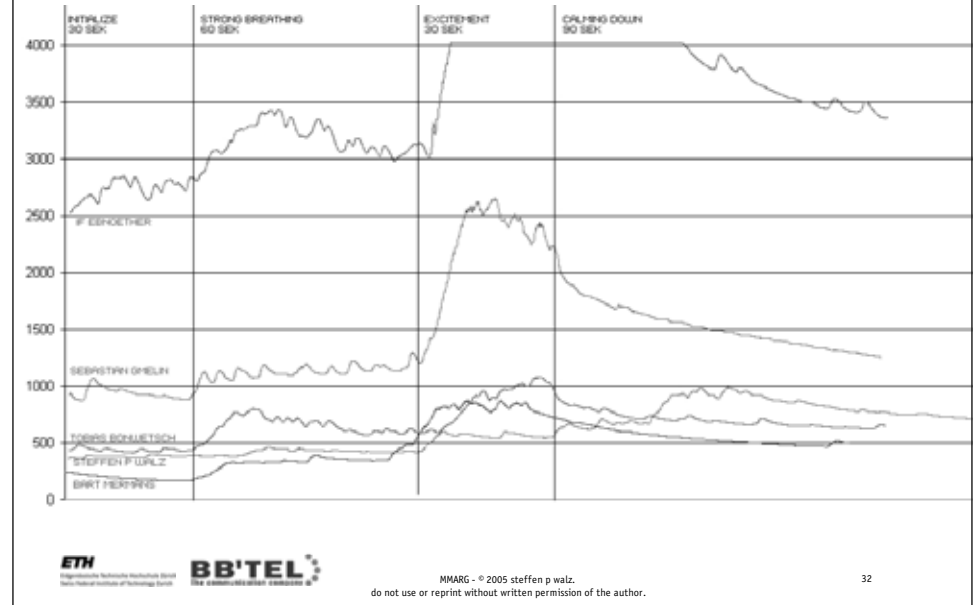
serious pervasive game design: biofeedback



serious pervasive game design: biofeedback

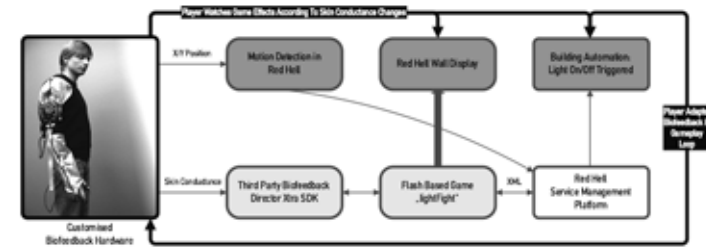


serious pervasive game design: biofeedback





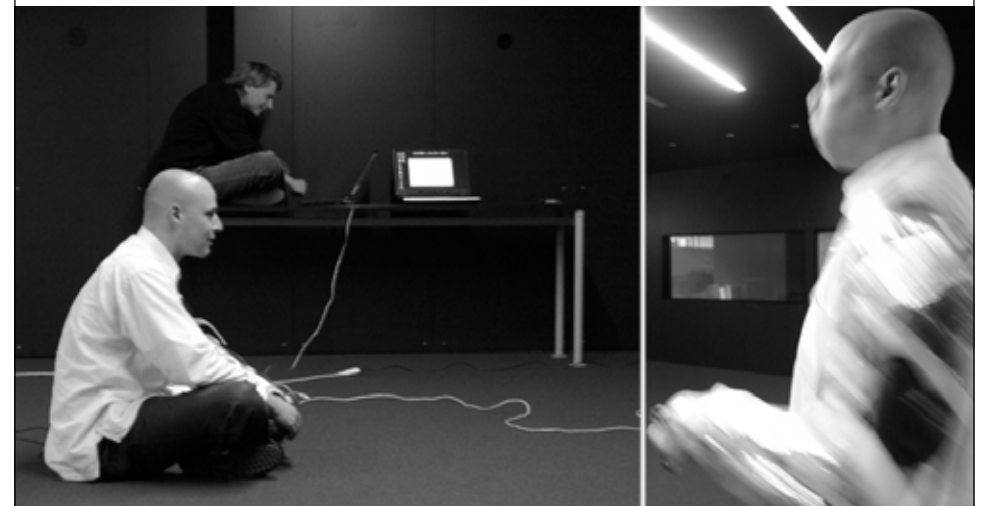
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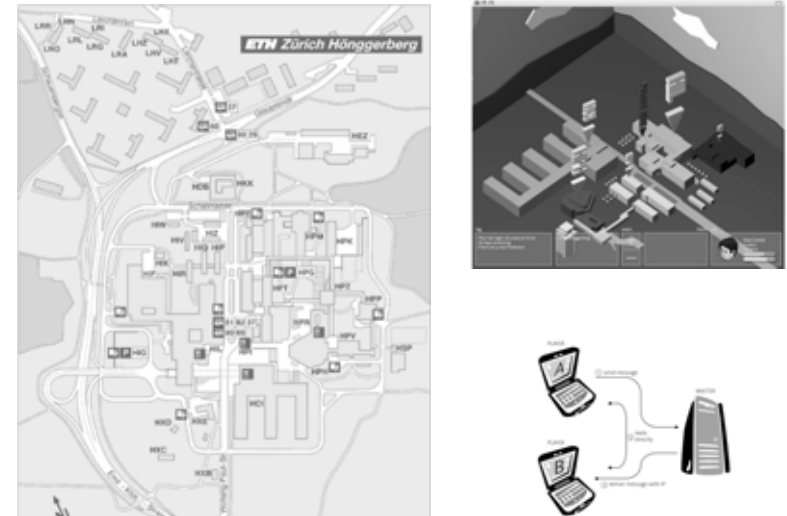


serious pervasive game design: MM WLAN

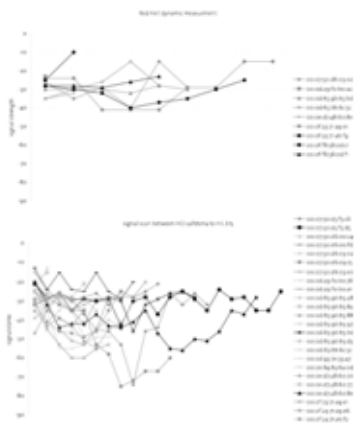


„ETHGame“ e-learning & community building: Mobile computer + WLAN positioning + massively multiplayer

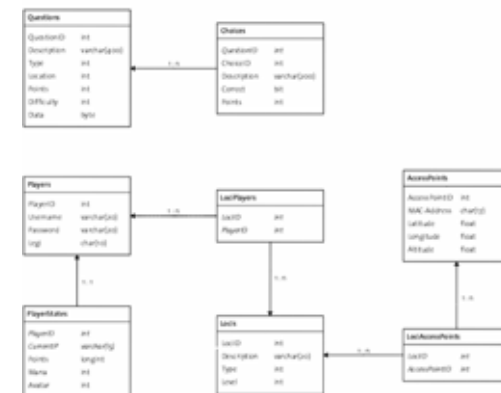
serious pervasive game design: MM WLAN



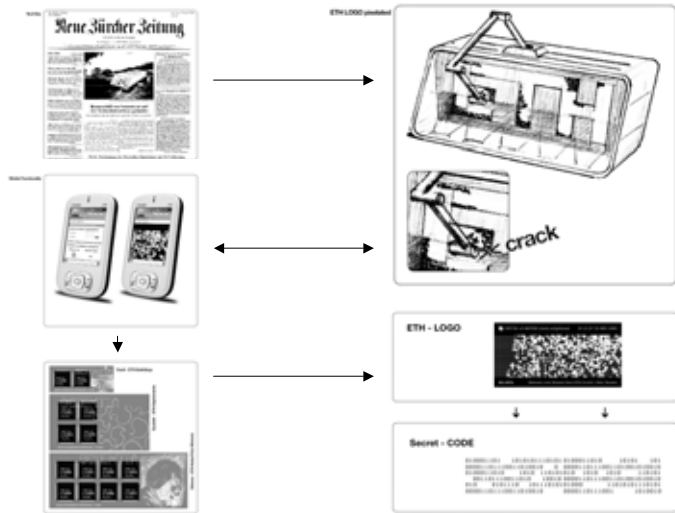
serious pervasive game design: MM WLAN



serious pervasive game design: MM WLAN



serious pervasive game design: fundraising

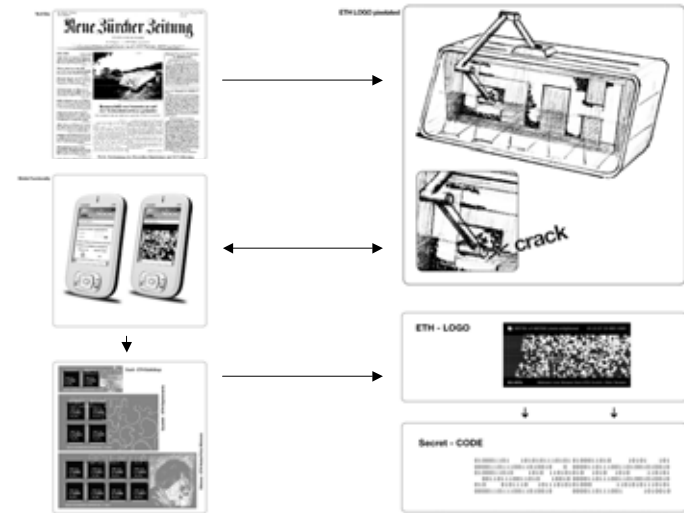


„ETH Fundraising“: Web + cell phone + alien invasion + public robotic display + chance prizes + collective gameplay



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serious pervasive game design: fundraising

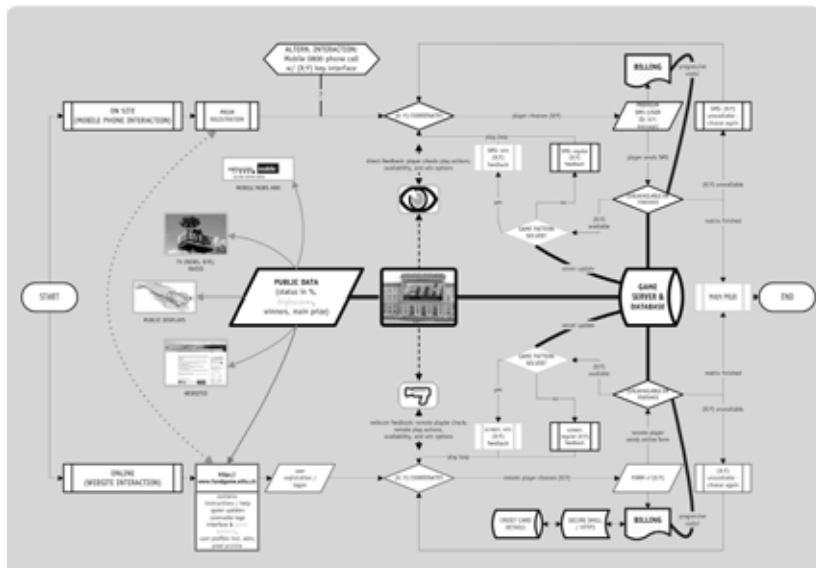


„ETH Fundraising“: Web + cell phone + alien invasion + public robotic display + chance prizes + collective gameplay



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serious pervasive game design: fundraising



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serious pervasive game design: telephony



Chaos Computer Club & Bbtel GmbH
„Blinkenlights“ (2001):

Cell phone + media augmented facade



CAAD & Bbtel GmbH:

Cell phone as universal control device (displays, functionalities, sensors)

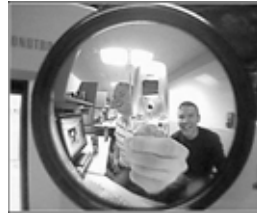


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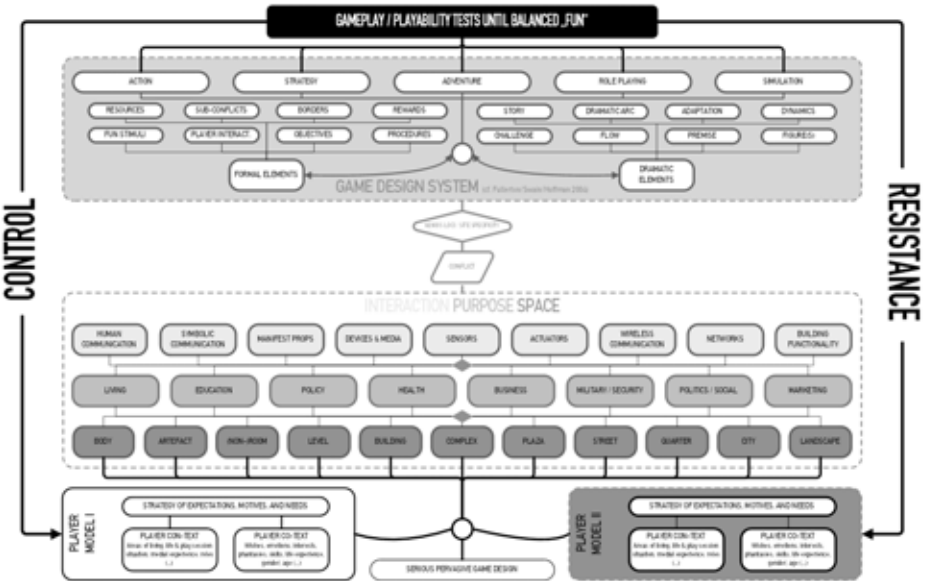
not so obvious serious game technologies



- face recognition
- gait identification
- (DNA) fingerprinting
- vehicle / traffic tracking
- electronic tagging
- location tracking
- wiretapping / bugging
- project echelon
- data warehouses (acxiom)
 - ID cards
 - CCTV



Massively Multiplayer Audio Reality Gaming



cell phone core functionalities?



cell phone core functionalities?



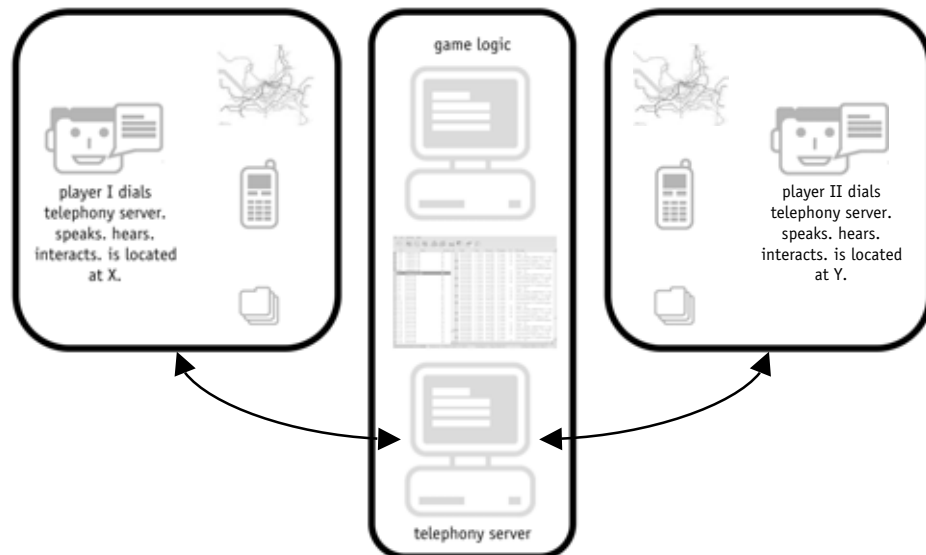
speak. hear.

added value cell phone functionalities?



interactivity via key manipulation.

abstraction of MMARG



research project: Massively Multiplayer Audio Reality Game =

- 1) many simultaneous players & quests in the style of MMORPGs, but in an audio reality -> research has to be done re: limitations of audio gaming
- 2) use core functionality of cell phones: speak. hear.
- 3) add side functionality of cell phones for in-game-interaction: universal remote control / „joystick“ via phone keys
- 4) possibly add: location based data
- 5) possibly add: online game component
- 6) theme: three kingdoms or alt.
- 7) cooperation: ETH / CAAD, BB'TEL, Profs. Kim / Lee + ?

Massively Multiplayer Audio Reality Game combines

- 1) mobile / stationary telephony
- 2) telephone conferencing
- 3) text-to-speech & automatic speech recognition
- 4) telephone interactivity
- 5) massively multiplayer technology / techniques
- 6) radio drama methods

ROI =

-> targets mass of (phone/mobile services) audience wherever they are

-> inexpensive because of voice over IP on backend

-> supports known online protocols, ActiveX, ODBX etc.

-> billing models: subscription; pay-per-minute; pay-per-data etc.

discussion



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