MULTI-DISCIPLINARY TEAM-BASED INNOVATION

Felix Naumann @ Rio Info 2008 - Oct. 1 2008
Agenda

- HPI
- D-School in Potsdam (and Stanford)
- Design Thinking
  - Multidisciplinary Teams
  - Design Thinking Process
  - Variable Space
- Activities of the First Year
- Design Challenges and Prototypes
Prof. Ulrich Weinberg

- Art and design diploma
- Specialized in 3D computer animation since 1986
  - Mental Images, Art & Com, etc.
  - Projects for ARD, BMW, Daimler, Telekom, ZDF, etc.
- Founder of TERRATOOLS and CYPARADE:
  - 3D interaction, visualization, simulation, computer games
- Professor for computer animation since 1994 at HFF Film & Television University, Babelsberg
- Dean of Animation Department (1994-2005)
- Vice President of HFF (1996-98 & 2005-06)
- Director of DMI Digital Media Institute at HFF
- Programme Director of INSIGHT OUT on Digital Cinema and HDTV
- Director of Chinese-German Summer Academy on short film production
- Visiting Professor at CUC Communication University of China, Beijing
- Director of HPI School of Design Thinking since June 2007
Information Systems at HPI

Prof. Felix Naumann
- naumann@hpi.uni-potsdam.de
- HU, IBM Almaden, DFG/JP/HU, HPI
- Currently at IBM Almaden Research Center

Research Topics
- Data Quality
- Information Integration
- Data Cleansing
- Peer Data Management
- [http://www.hpi.uni-potsdam.de/naumann/](http://www.hpi.uni-potsdam.de/naumann/)

Member of first year teaching team at D-School
Databases and Design Thinking?

Google: databases boring
Ergebnisse 1 - 10 von ungefähr 1.030.000 für databases boring. (0,29 Sekunden)

Google: "databases are cool"
Ergebnisse 1 - 10 von ungefähr 1.270 für "databases are cool". (0,29 Sekunden)

Google: "databases are sexy"
Ergebnisse 1 - 10 von ungefähr 274 für "databases are sexy". (0,30 Sekunden)

Google: "databases are easy to use"
Ergebnisse 1 - 10 von ungefähr 7.580 für "databases are easy to use". (0,23 Sekunden)

Google: "databases are difficult to use"
Ergebnisse 1 - 10 von ungefähr 17.600 für "databases are difficult to use". (0,07 Sekunden)
HPI - Hasso Plattner Institute

- Private University
- Cooperation with Potsdam University
- Founded in 1998
- Focus: Software Syst. Engineering
- ~500 students
Co-Founder of SAP
Former Chairman of the Board
Honorary Doctorship
Honorary Professorship
Donation HPI Potsdam 1998
Donation Hasso-Plattner-Institute of Design, Stanford 2005
Founder of Hasso-Plattner Ventures in 2005
Founder of HPI School of Design Thinking in 2007
Sponsor of Design Thinking Research Program in 2008
Drive company-wide adoption of design-led innovation in all products and services
Hasso Plattner Institute of Design
Stanford - d.school

- Founded 2005 at Stanford University, California
- Driven by Mechanical Engineering, Computer Science, Industrial Design, and Business Departments
- One year course
- Innovation driven
- Open to all disciplines

Stanford, Entrance d.school, Sweet Hall

Prof. David Kelley (Industrial Design)
Prof. Larry Leifer (Mechanical Engineering)
Prof. Terry Winograd (Computer Science)
HPI School of Design Thinking

- Founded May 2007 at HPI, Potsdam
- Two semester course
- Innovation driven
- Open to all disciplines
- No student fees

Prof. Hasso Plattner
Prof. Christoph Meinel
Prof. Ulrich Weinberg
Departments at HPI

- User Interfaces
- Enterprise Platforms
- Internet-Technologies
- Computer Graphics
- Operating Systems
- Business Processes
- Communication Systems
- Software-Architectures
- Information Systems

HPI - School of Design Thinking

Departments of other Univ.
D-School Activities

- Train the Trainers
- 3-week Bootcamp
  - Introduction to Design Thinking for students
- Classes
  - 1. semester Design Challenges (internal)
  - 2. semester Design Challenges (ext. Partners)
  - Apply Design Thinking in projects
- Research Program
  - 1 - 5 years
  - Research projects in cooperation with industry and society
- Conferences + Workshops on Design Thinking
- Lecture Series
- Future: Executive Education
  - Design Thinking Workshops for Executives from industry and social institutions
Our intents: Create the best Design Thinking

- Prepare FUTURE INNOVATORS to be breakthrough thinkers and doers.
- Use DESIGN THINKING to inspire multidisciplinary teams
- Foster RADICAL COLLABORATION between students, faculty and industry.
- Tackle BIG PROJECTS and use prototyping to discover new solutions.
Stanford Project Examples

- Class "Extreme Affordability"
  - INCUBATOR
  - LED light
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Three Core Elements

Multidisciplinary Teams

Design Thinking Process

Variable Space
The first year

- 40 students from 30 disciplines
- 6 professors and 6 assistants from Berlin / Brandenburg Universities
Multidisciplinary Classes

American Studies  
Architecture  
Art History  
Audio Engineering  
AV Media Sciences  
Biology / Chemistry  
Business Innovation  
Computer Science  
Cultural Sciences  
Economics  
Environmental Design  
European Media Sciences  
Fine Arts  
Gender Studies  
Indian Philology  
Industrial Design  
IT-Systems Engineering  
Journalism  
Legal Studies  
Medical Studies  
Modern History  
Philosophy  
Physics  
Political Sciences  
Social Sciences  
Production Design  
Micro Economics  
Macro Economics
Designing Innovation

Design innovation

Human values (usability, desirability)

Technology (feasibility)

Business (viable)

HPI School of Design Thinking | Felix Naumann
Design Thinking – The Process

Through iteration to innovation
From Problems to Solutions

- Framework
- ABSTRACT
- Principles
- OBSERVABLE
- Problems
- Solutions
The Principles

- Stay Focused on Topic
- One Conversation at a Time
- Encourage Wild Ideas
- Build on the Ideas of Others
- Defer Judgment
- Be Visual
- Go for Quantity

- Fail early and often
- Think User-centric
- Work Multi Disciplinary
- Look for Feasability - Viability - Desirability
Open to all Disciplines

HPI - School of Design Thinking
Potsdam
Cooperating Institutions

HFF
Hochschule für Film und Fernsehen Potsdam

HPI
Hasso Plattner Institut Potsdam

UDK
Universität der Künste Berlin

Uni P
Universität Potsdam

FU
Freie Universität Berlin

HU
Humboldt Universität Berlin

ESMT
Europ. School for Management and Technology Berlin

TU
Technische Universität Berlin
T-SHAPED PEOPLE

DESIGN THINKING

ANALYTICAL THINKING
Teams Teach Teams

HPI - School of Design Thinking
Potsdam
D-School Spaces

- Theater space / Lecture space /
- Student team Workspaces / Studio classrooms
- Offices / Collaborative Workspace
- Meeting rooms
- Studio
- Workshop
- Library
- Kitchen
- D-Lounge
- Audio Spaces
- Digital Space / WWW
- Guest Office
- Kid Space
D-School Interior

- White boards on wheels
- Working tables on wheels
- Material galore
- Computer workspaces on wheels
- Sofas on wheels
- Chairs / Stools
- Foam cubes
- Bar / Lounge
- PCs / MACs
- Projectors / Flat-Screens
- Video / Audio Recording + Edit
- Workshop
Student Workspace
Time Timer
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**Timetable**

- **Train the Trainers**
  - D-camp
  - DST-Workshop

- **Workshop on Design Thinking**
  - Semester Presentation

- **Final Presentation**

- **Project duration**
  - Winter Semester:
    - Class A (Part 1)
    - Class B (Part 1)
    - Class C (Part 1)
    - 30 min
    - 1 day
  - Summer Semester:
    - Class A (Part 2)
    - Class B (Part 2)
    - Class C (Part 2)
    - 60 min
    - ½ day
    - 1 week
    - 2x 3 weeks
    - 3 months
CLASSES 2007/08

- Bridging Generations
- Innovating for the base of the social pyramid
- Media reconsidered
Prototypes

Noodle Soup Experience
Prototypes

DIY Experience
Prototypes

- Job seeking Experience
Family Chair
TEAM WORK
Live design challenges at CeBIT 2008
CEBIT 2008 Design Challenges

- IT-Technical Jargon Experience
KANN MAN INNOVATION LERNEN?

bei IT-Gurus im Gespräch

für Design Thinking
ENABLE!   TRANSFORM!   RECONSIDER!

9 Projects with 13 external Partners
Class ENABLE!

E1 How might we provide a higher level of autonomy to mentally disabled people within areas of public life?

E2 How might we enhance personal supply chains for retail customers regarding convenience, cost effectiveness and sustainability?

E3 How might we help people to turn their social empathy into individual action?
T1 How might we enable spontaneous & secure interactions between people who don't know each other?

T2 How might we, regarding the scarcity of global resources, enable consumers to make use of the many energy saving solutions in their private households?

T3 How might a congress look like, which motivates decision makers to act sustainably in their organization?
R1 How might we generate new revenues with alternative usage models of existing fairgrounds?

R2 How might we enable individuals to find things that matter like a unique living space or an appropriate apprenticeship in their respective social context?

R3 How might we enhance the authoring process for TV-series?
Grand Finale at July 11 2008

- 200 invited guests
- 13 project partners
- Student Certificates
- Exhibition

Germany Land of Ideas

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T-Mobile is using the "parasite sms" as one of four new business ideas. One of the students got full time position at Telekom headquarter in Bonn.
Sustainable Event for Sustainable Action

B.A.U.M. redesigned EnACT 2020 fully with students. D-School shall be involved in the "Netzwerktische" networking tables.
Student team is working to establish a startup. Siemens is involved with two departments; Vattenfall headquarter Sweden too.
Some of the student ideas will be incorporated in Betterplace website
Metro AG developed business case for service station and will implement this with HPI and D-School on a partner scale.
Autonomy for Mentally Handicapped

Several parties claimed interest in the card system
Presentation in cooperation with partners in front of publisher, charity organisations, and government to develop campaign
ImmobilienScout24 will incorporate some of the ideas in their service. Bundesagentur für Arbeit is thinking of implementation on a grand scale.
Alternative Usage Models for Fairgrounds

AddieB/T design challenges lead to changes of Hall 9 concept (Future Parc).
Preparation of large AddieB/T Design Thinking event is in the making.
Grundy/UFA adapted the space concept for creative offices. SmartCard will be implemented to improve the authoring process.
GRUNDY/UFA ADAPTS DESIGN THINKING
126 Applications
of 68 disciplines
from 17 universities
Don't Wait - Innovate

Multidisciplinary Teams

Design Thinking Process

Variable Space
Don’t Wait.
Innovate.

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