Potentials of „Mixed Reality“ events for transnational education and research

Martin Steinicke, HTW Berlin
Martin Steinicke

• MSc. Business Computing
• Researcher (since 2010)
• Interest:
  • Game-based Learning
  • Gamification & API Ts
  • Mixed Realities
• Teaching:
  • Game-based Learning
  • Game- & Interaction Design
• Current Projects:
  • DAAD GIU AS
  • BMBF CoLearnET
• 13,000+ students

• 74 degree programs

• 5 faculties:
  • FB1: Energy & Information
  • FB2: Live Sciences
  • FB3: Business & Law
  • FB4: Computing, Communication & Business
  • FB5: Design & Culture
Prof Dr.-Ing. Carsten Busch

- Int. Media Computing:
  - Business of Media
  - Media Studies

- Research (excerpt):
  - Cofounder Gameslab
  - Cofounder FKI
  - Head of Creative Media

- Founder Institute of Brand Communication (IMM)

- President of HTW Berlin
Prof Dr. Tilo Wendler

- professor for:
  - quantitative methods
  - data mining

- research:
  - applied statistics for / in
    - SMEs
    - health care

- vice-president for teaching, academic studies & international affairs

- heads GIU AS (DAAD) and QIO (BQI) projects
Potentials of „Mixed Reality“ events for transnational education and research
Mixed Reality
Mixed Reality (MR)

Real Environment → Augmented Reality (AR) → Augmented Virtuality (AV) → Virtual Environment

Reality-Virtuality (RV) Continuum

Figure showing the Reality-Virtuality (RV) Continuum, ranging from Real Environment to Virtual Environment, with Mixed Reality (MR) at the center. Key points include:

- Good graphics
- Easy installation
Mixed Reality (MR)

- Real Environment
- Augmented Reality (AR)
- Augmented Virtuality (AV)
- Virtual Environment

Reality-Virtuality (RV) Continuum

- adding stuff
- making things visible
- natural environment
- usage of real environment
Mixed Reality (MR)

Real Environment → Augmented Reality (AR) → Augmented Virtuality (AV) → Virtual Environment

Reality-Virtuality (RV) Continuum

adding stuff
making things visible
natural environment
usage of real environment
Mixed Reality (MR)

Real Environment  Augmented Reality (AR)  Augmented Virtuality (AV)  Virtual Environment

Reality-Virtuality (RV) Continuum

scaling of complexity
natural interaction
independent of real environment
Mixed Reality (MR)

- Real Environment
- Augmented Reality (AR)
- Augmented Virtuality (AV)
- Virtual Environment

Reality-Virtuality (RV) Continuum

scaling of complexity
natural interaction
independent of real environment
Mixed Reality (MR)

Real Environment

Augmented Reality (AR)

Augmented Virtuality (AV)

Virtual Environment

Reality-Virtuality (RV) Continuum

absolute control
no constraints (feasible?)
Potentials of „Mixed Reality“ events for transnational education and research
application

education  research
application

education

initiating coop.-research

MR-GBL

HCI & Technologies
application

education

initiating coop.-research

MR-GBL

social presence & intercultural communication

HCI
application

education

research

MR-GBL

HCI

social presence & intercultural communication
application

education

DAAD project

research

mixed reality

tele-conferences & calls

MR-GBL

social presence & intercultural communication

HCI
sounds crazy?
sounds crazy? sounds like Sci-Fi?
sounds crazy?
sounds like Sci-Fi?
sounds interesting?
sounds crazy?
sounds like Sci-Fi?
sounds interesting?

Team Up! : martin.steinicke@htw-berlin.de