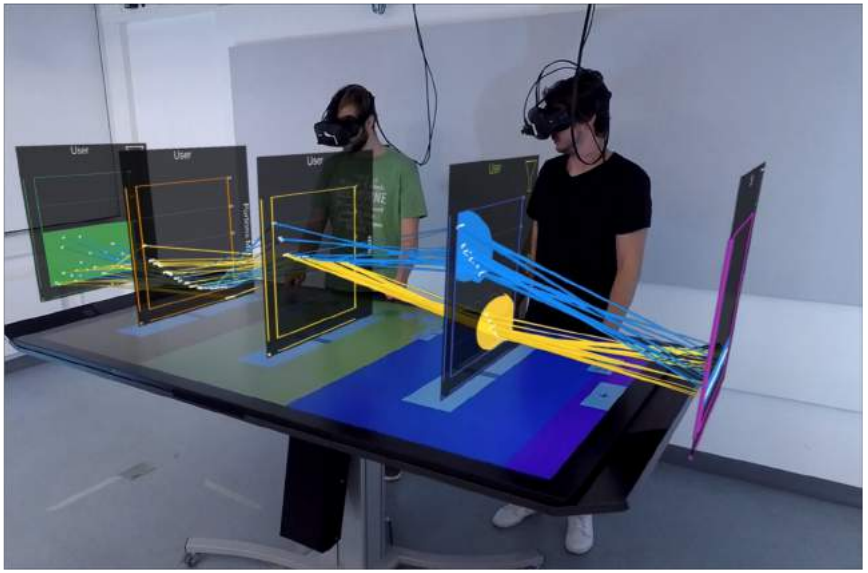
Universität Konstanz

Human-Computer Interaction Group
University of Konstanz

Daniel Klinkhammer (in representation of Prof. Reiterer)

October, 17th – Student Information Event

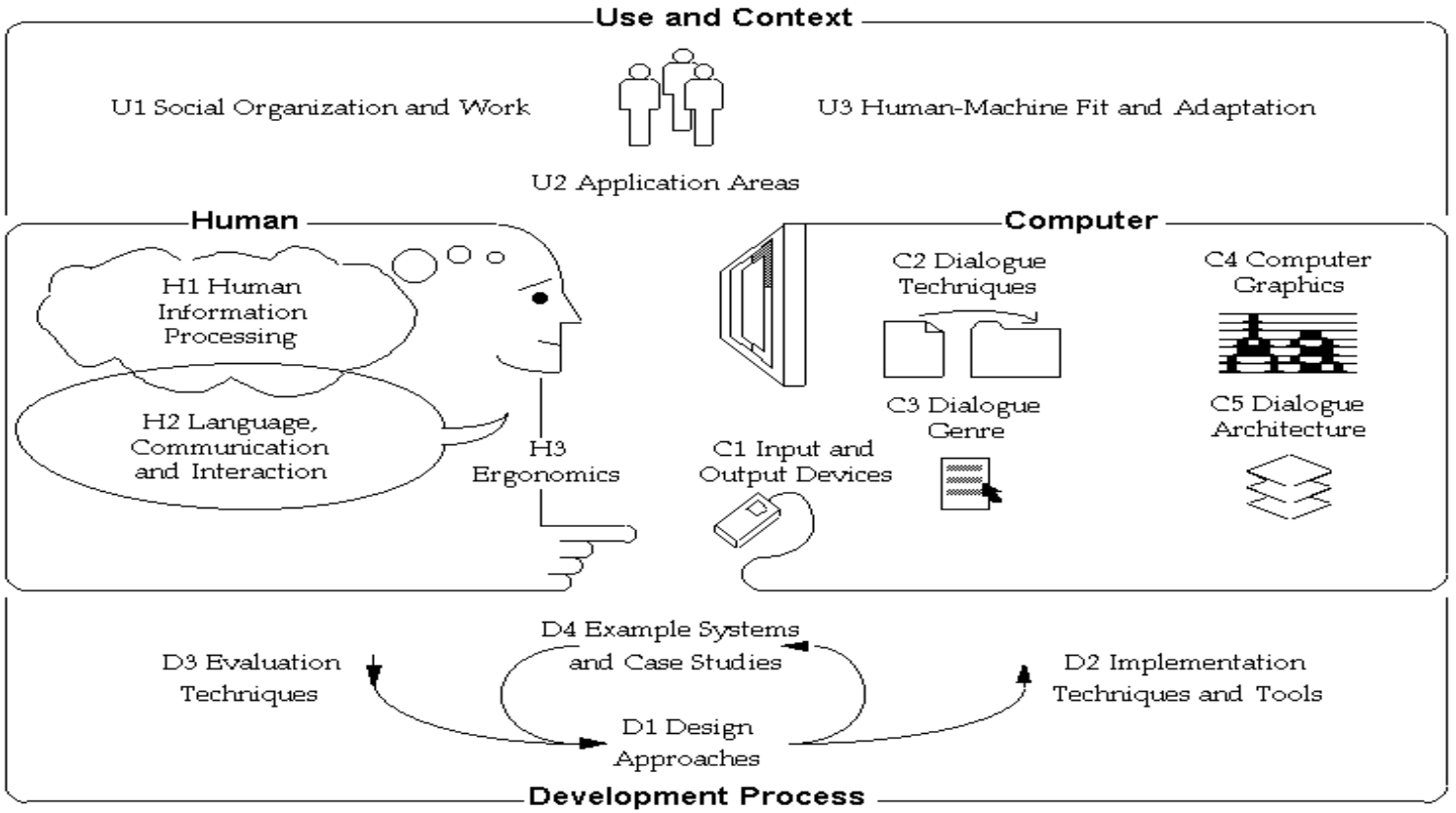
The Human-Computer Interaction Group



The Discipline of Human-Computer Interaction

"**Human-Computer Interaction (HCI)** is a discipline concerned with the design, evaluation and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them."

[ACM SIGCHI]



[ACM SIGCHI Curricula for Human-Computer Interaction]

The Human-Computer Interaction Group

Mission Statement

Our goal is to develop new concepts to support the interaction between humans and computers that accommodate the characteristics of human interaction and cognition as well as the latest technological developments. We call this novel blending of forms of reality-based interaction and communication with the technological opportunities **Blended Interaction**.

The Human-Computer Interaction Group

Professor

Prof. Dr. Harald Reiterer
Professor

Secretariat

Ingrid Henschler
Building PZ, Room 903
Box D 73

University of Konstanz
Universitätsstraße 10
78457 Konstanz
Germany

Tel.:+49 7531 88 2442

Opening hours: 9 - 12:30
Dates by arrangement

ingrid.henschler@uni-konstanz.de

Research Assistants

Simon Butscher M.Sc.
Research Assistant

Maximilian Dürr
Research Assistant

Daniel Klinkhammer
Research Assistant

Jens Müller M.Sc.
Research Assistant

Dr. Ulrike Pfeil
Research Assistant

Yunlong Wang
External PhD Student

Johannes Zagermann
Research Assistant

Student Assistants

Daniel Bogenrieder
Student assistant

Marcel Borowski
Student assistant

Stefan Feyer
Student assistant

Daniel Immanuel Fink
Student assistant

Carla Gröschel
Student assistant

Sebastian Hubenschmid
Student assistant

Tanveer Singh Mahendra
Student assistant

Lisa-Maria Mayer
Student assistant

Ralf Christian Müller
Student assistant

Moritz Skowronski
Student assistant

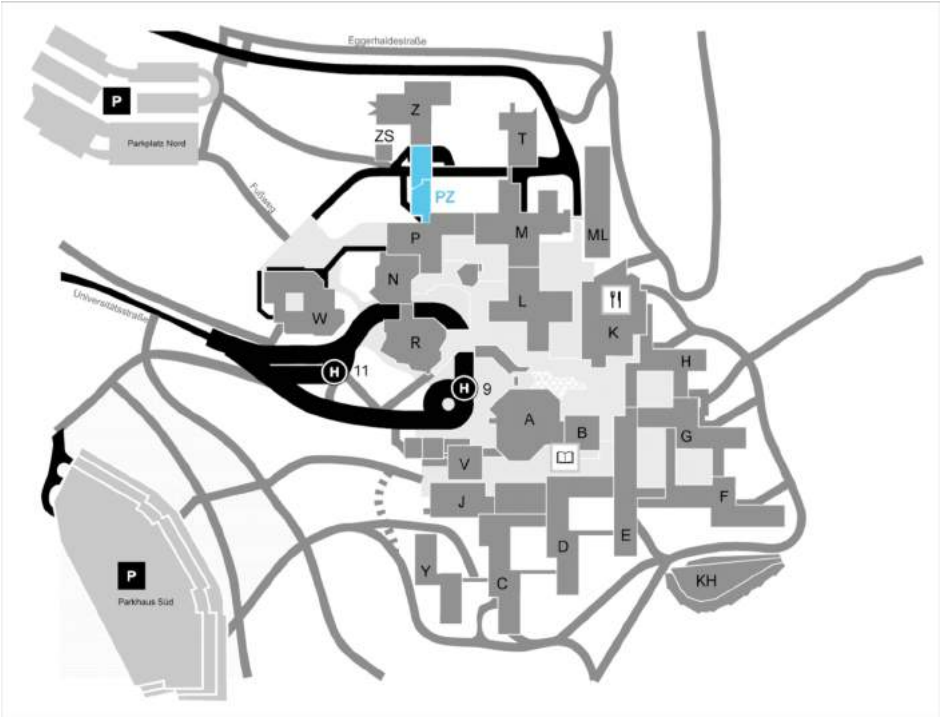
Katja Vock
Student assistant

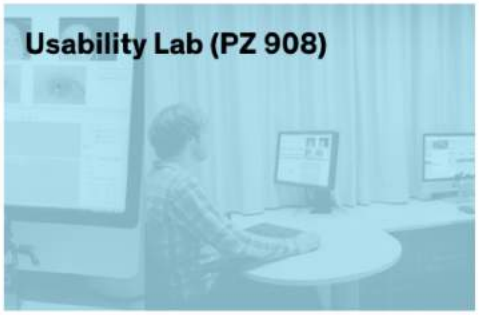
Juliane Wendler
Student assistant

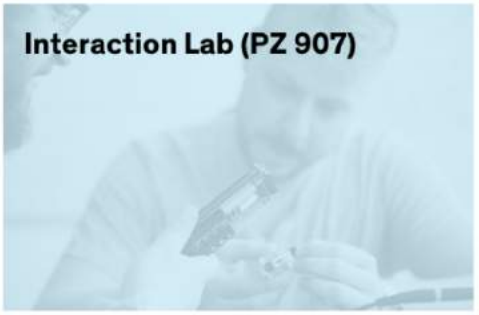
Jonathan Wieland
Student assistant

Where do you find us?

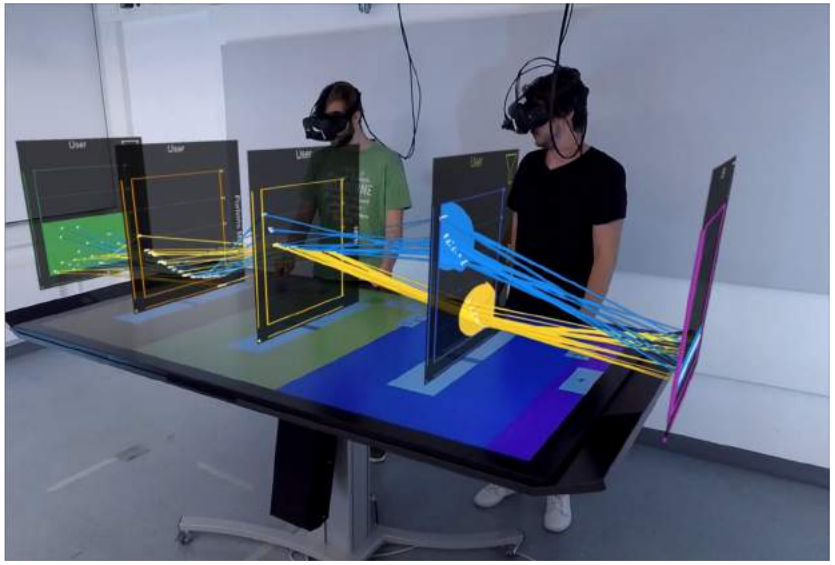
PZ Level 9







Our Labs - Media Room (Z 924):



Media Room

Our Media Room provides a research environment for the design, development, and evaluation of novel interaction techniques and input devices as well as a simulation facility for future collaborative work environments. Therefore, it offers different input (e.g. multi-touch, laserpointer, hand-gestures, body tracking, eye-gaze, speech) and output devices (tablets, tabletops, HD-Wall & vertical-aligned displays, 4K display, audio & tactile feedback, AR & VR Devices) which can be used simultaneously and in combination, creating a new dimension of multi-modal interaction.

Our Labs – Usability Lab (PZ 908):

Usability Lab

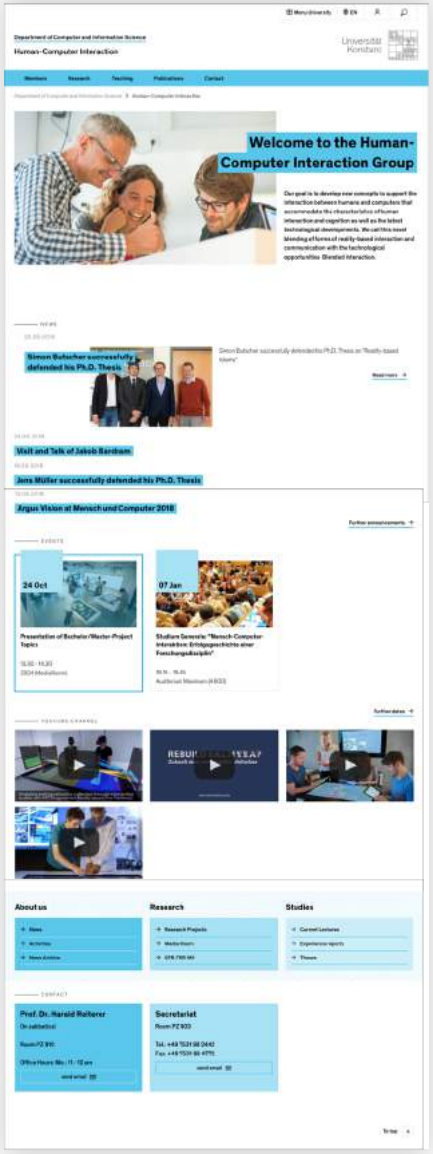
The Usability Lab provides an environment for the evaluation of our interaction designs and visualization techniques. It is equipped with high-end testing equipment including (mobile) eyetracking systems. Furthermore, we also use our main lab, the Media Room, as an evaluation environment - for focus groups, controlled experiments of novel input devices, and as a living lab in the context of our research projects.

Our Labs – Interaction Lab (PZ 907):

Interaction Lab

The Interaction Lab provides lab facilities for physical prototyping, sketching and video editing in research and education at the Human-Computer Interaction Group of the University of Konstanz. Students and researchers develop new input and output devices or illustrate novel interaction techniques. The lab provides tools for electrical and mechanical engineering as well as workstations for video editing and interactive design.

Website: http://hci.uni-konstanz.de



Teaching

You will find all relevant information if you want to focus your studies on human-computer interaction on this page: Mentoring programme, current and former lectures, as well as everything regarding your final thesis.

- **Teaching Overview**
- **Current Lectures**
- **Former Lectures**
- **Mentoring Programme**
- **Theses**
- **Experience reports**

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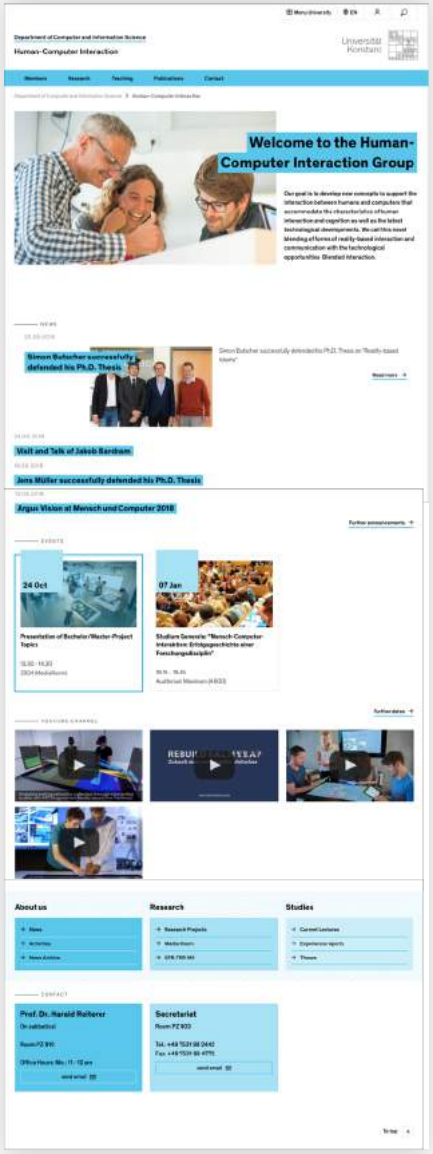

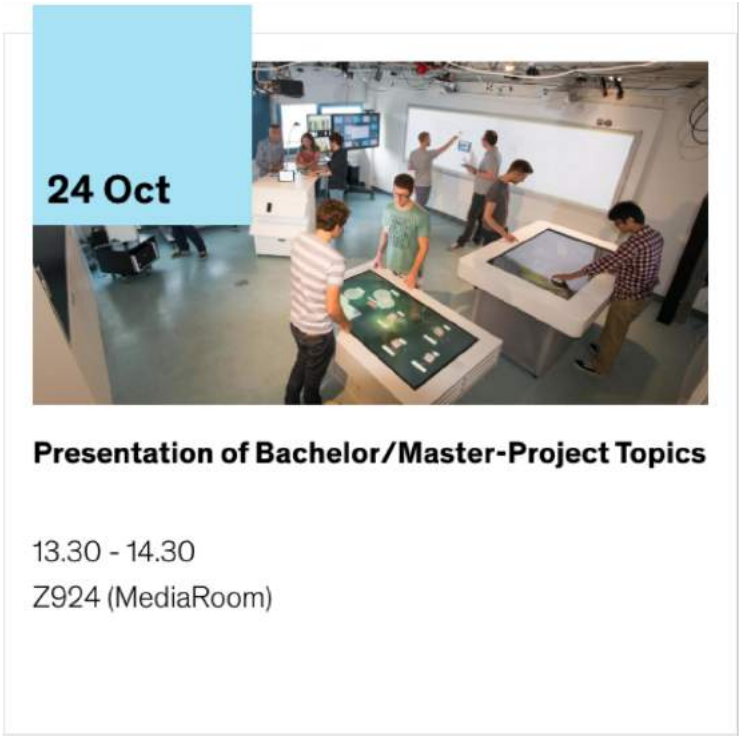

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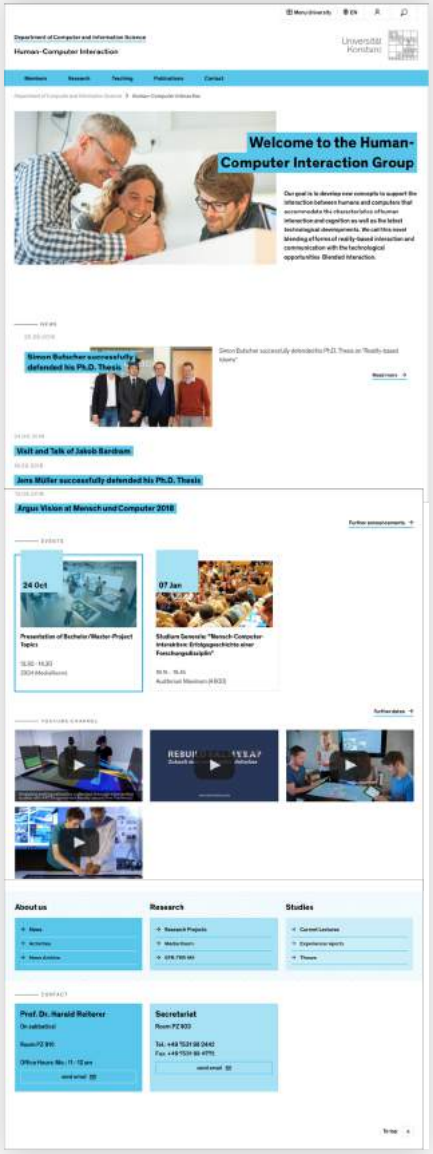
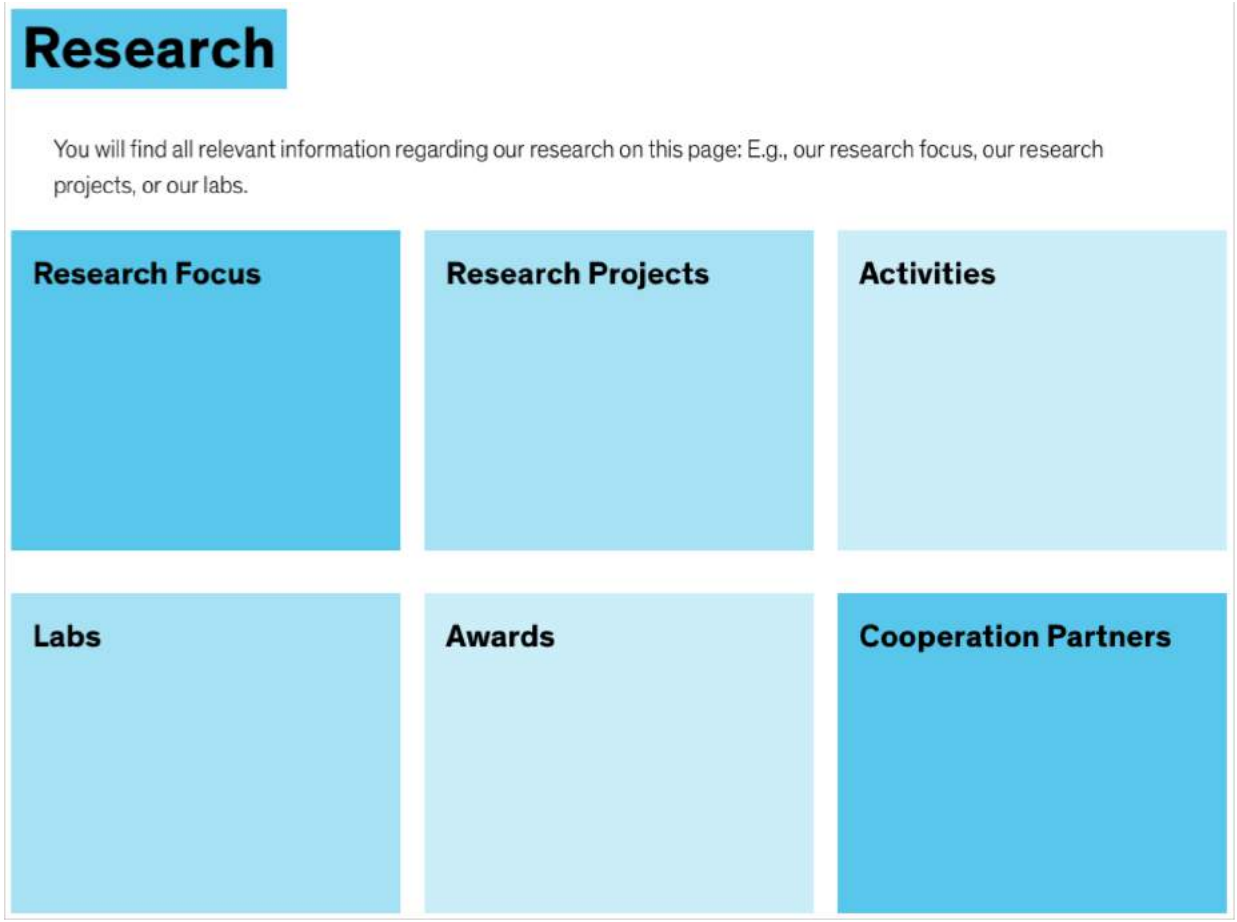




Research – Application Areas

Design Studios

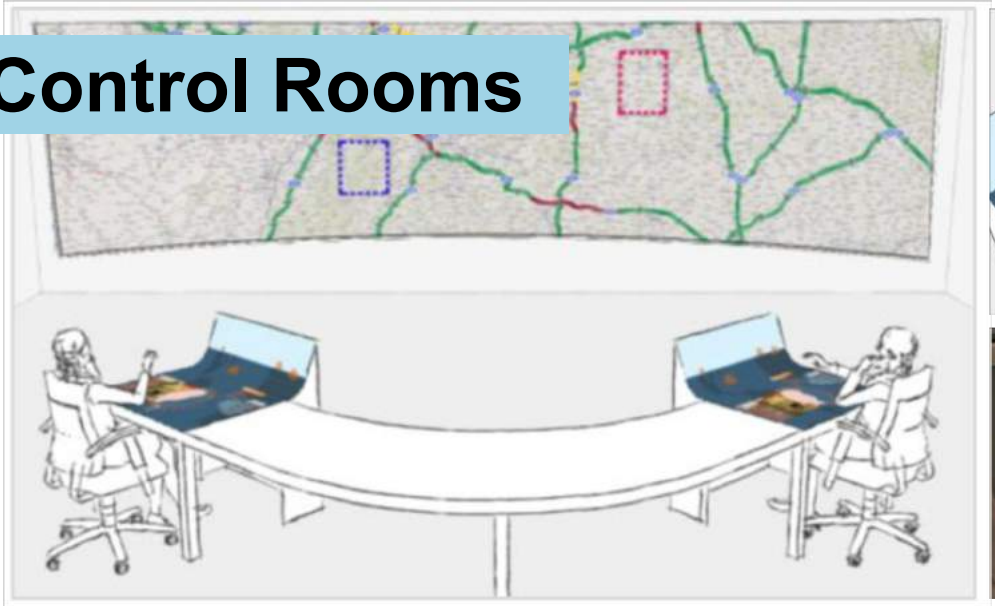
Design Studios

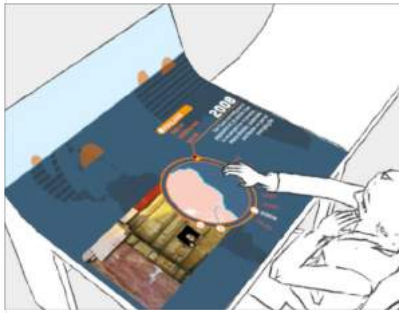
We are designing and implementing visualization and interaction techniques based on a spatial, cross-device workspace that integrates with the physical structure of a computation-augmented design studio setting. Within our lab Media Room we are exploring various settings with interactive whiteboards, pen tablets, digital pen and paper, large high-resolution displays, and tabletops.

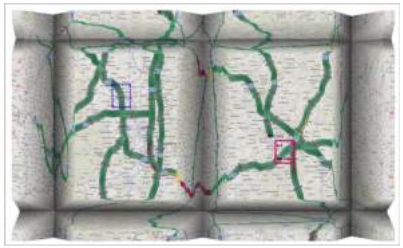
blended interaction design

Research – Application Areas

Control Rooms







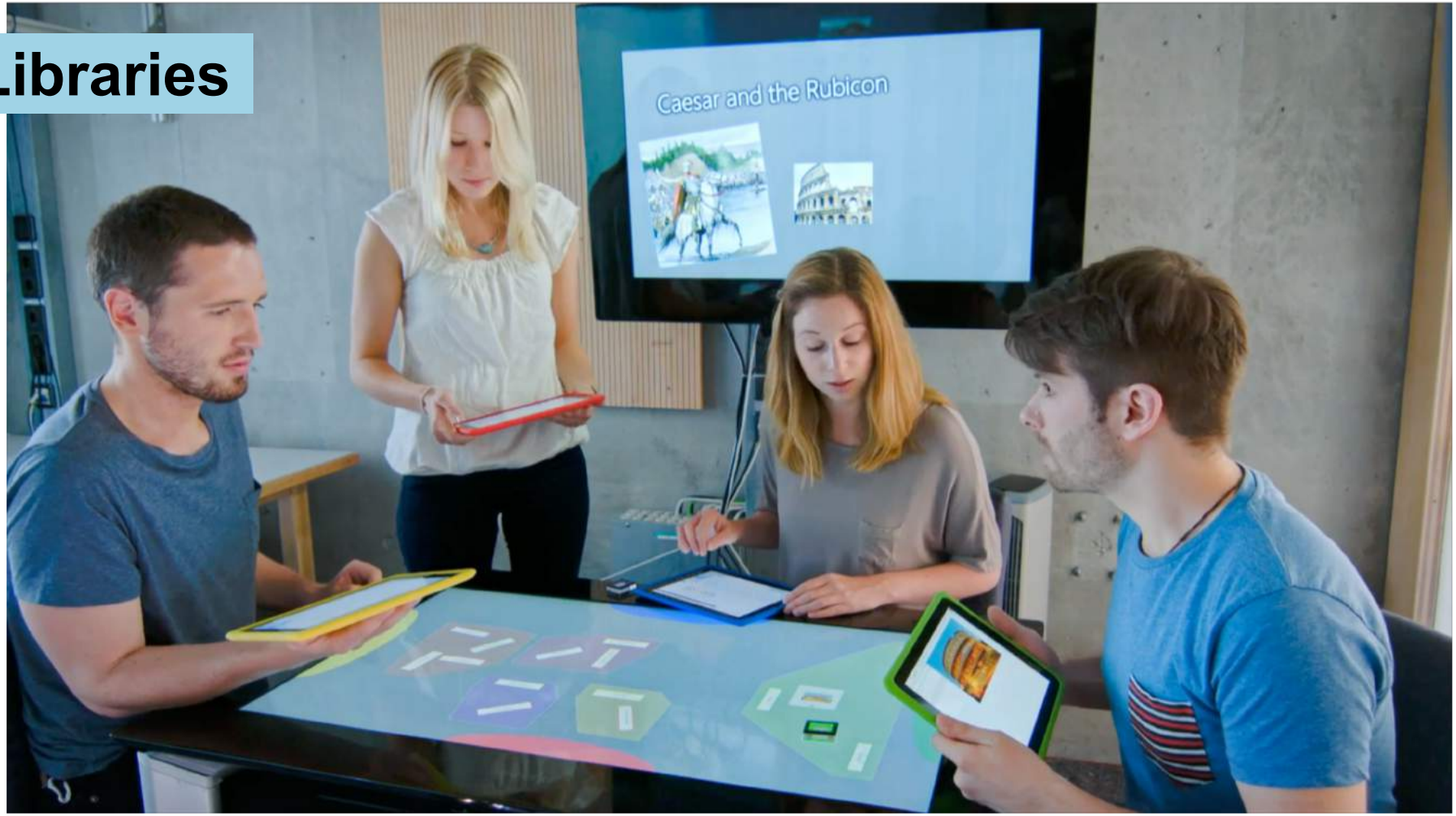
Control Rooms

Considering new technologies and approaches – as e.g. the principles of “reality-based interaction” – a holistic concept of today’s workplace is going to be developed. The next generation of control room design also considers previous generations in case they have proven themselves. So, a new and innovative concept evolves, perfectly uniting the benefits of former developments.

HOLISTIC WORKSPACE

Research – Application Areas

Libraries



libros

blended library

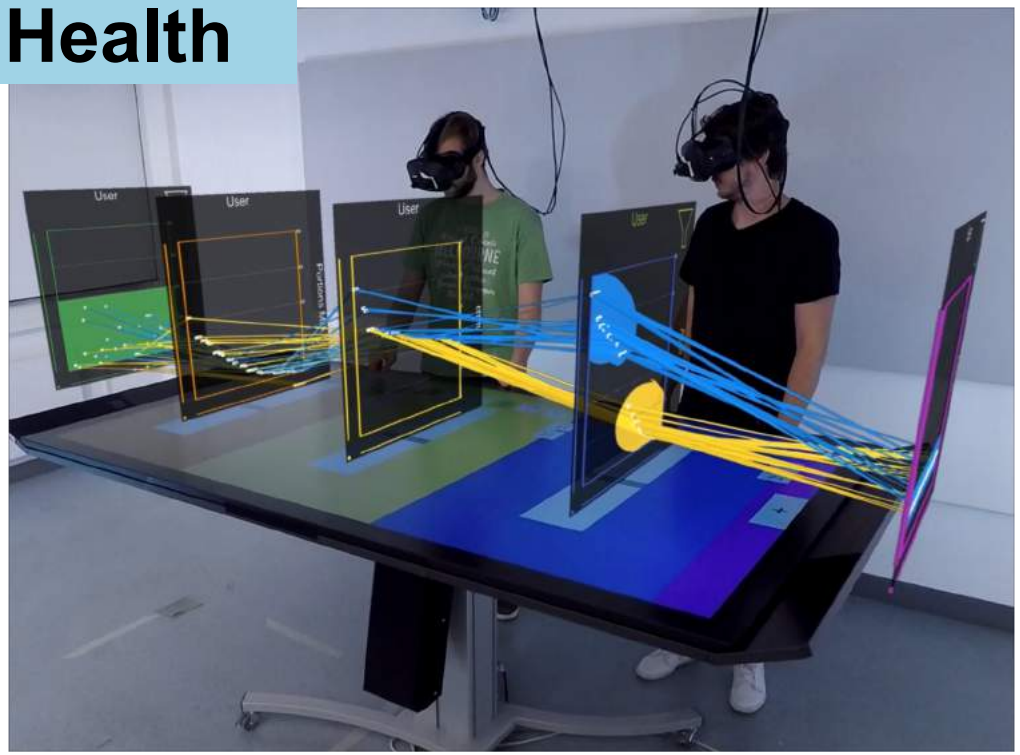
Research – Application Areas

Museums

BLENDED MUSEUM

Research – Application Areas

Health

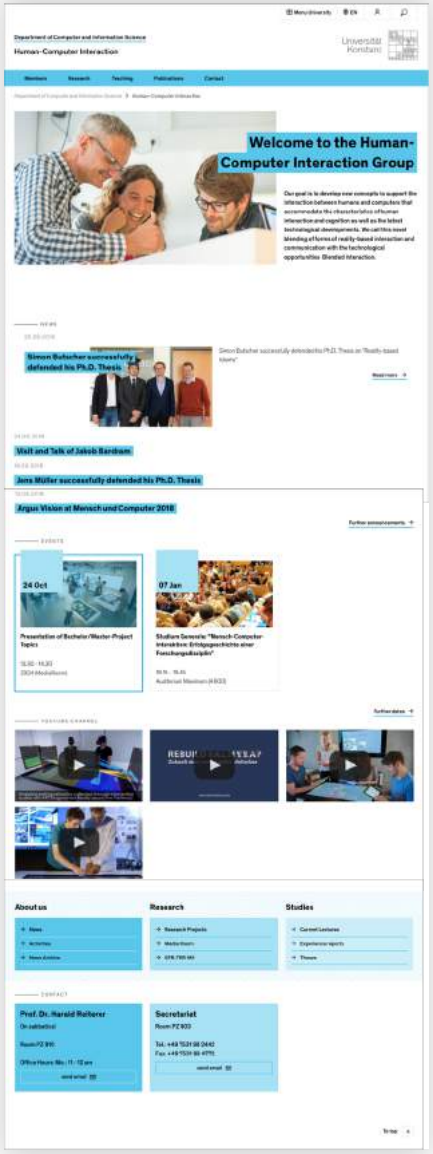


Health Applications – Data Visualization

The main aim of SMARTACT is to develop and empirically test the efficacy of a toolbox for mobile, real-time interventions targeting normal eating and physical activity using mobile technology (smartphones, body monitoring). The collected data can be used for collaborative visual data analysis (collaborative visual data analysis tool, research relevant).

Federal Ministry of Education and Research
DLR German Aerospace Center
Landkreis Konstanz
KONSTANZ Die Stadt zum See
Deutsches Rotes Kreuz Kreisverband Landkreis Konstanz e.V. & Rettungsdienst GmbH Landkreis Konstanz

Website: http://hci.uni-konstanz.de



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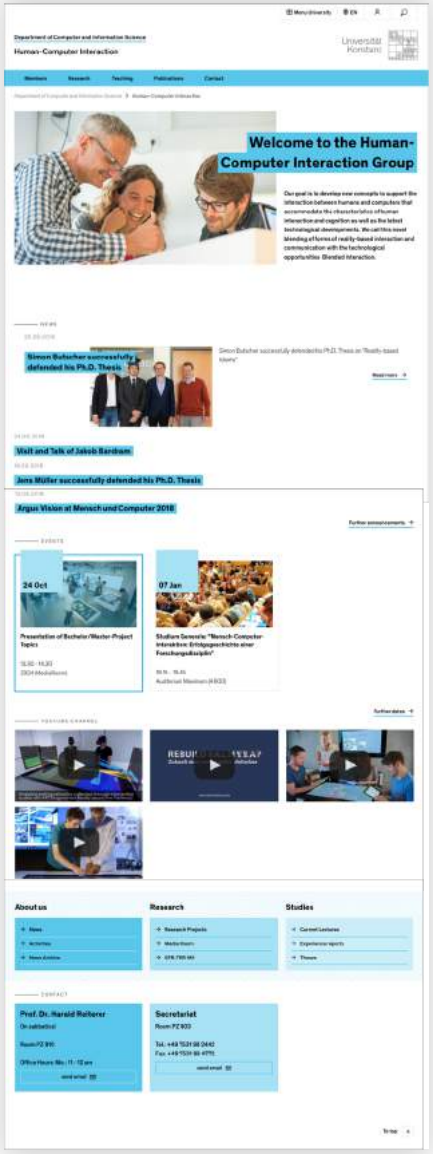


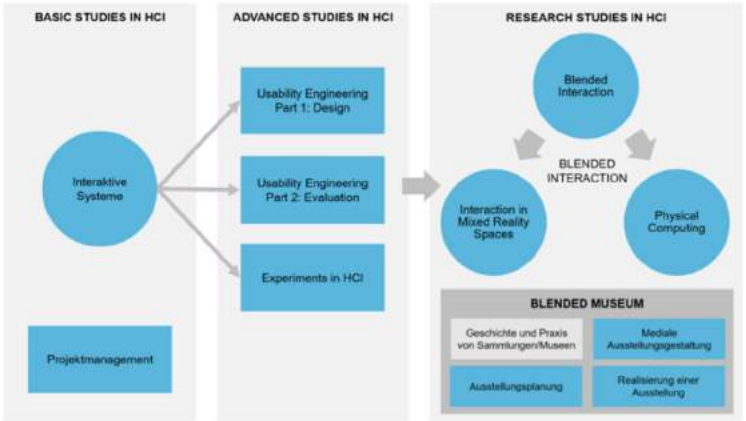
Teaching Overview

This is an overview of all courses offered by the Human-Computer Interaction Group during summer and winter term. The categories of our diverse course offer build on each other: Basic studies, advanced studies, research studies, and the teaching module "Blended Museum".

Visiting some of our current lectures is the most common way to get in touch with HCI and our work group. If you enjoy reading and learning HCI, you can easily schedule a **mentor conversation** with us, in order to arrange you academic alignment with respect to HCI as your core discipline.

In our practical courses we offer you the chance to take part in several interesting and competitive research projects. Please also have a look at **current Bachelor and Master projects**.

- → Current Lectures
- → Mentoring Programme
- → Current Topics for Bachelor- and Masterprojects



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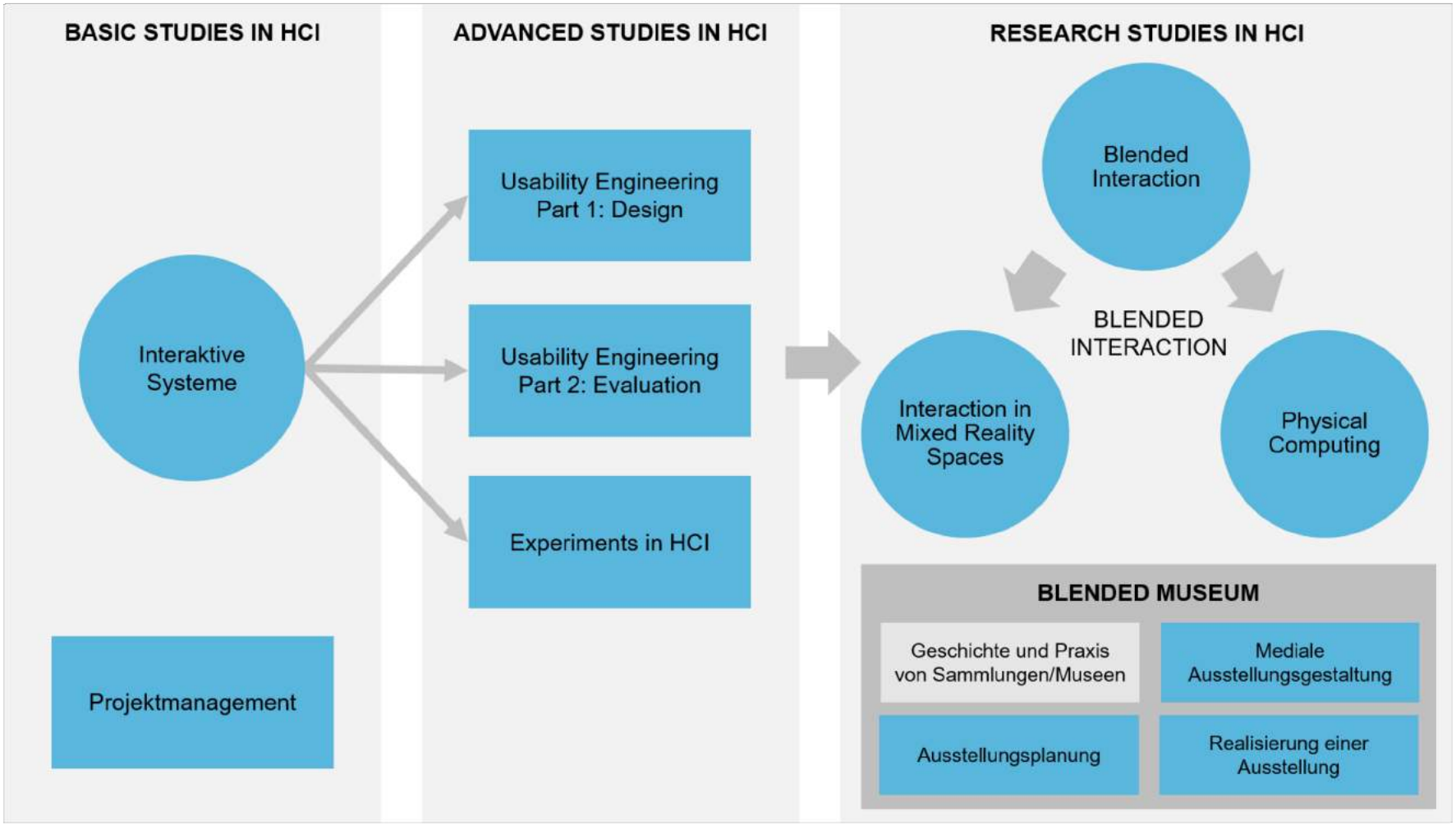
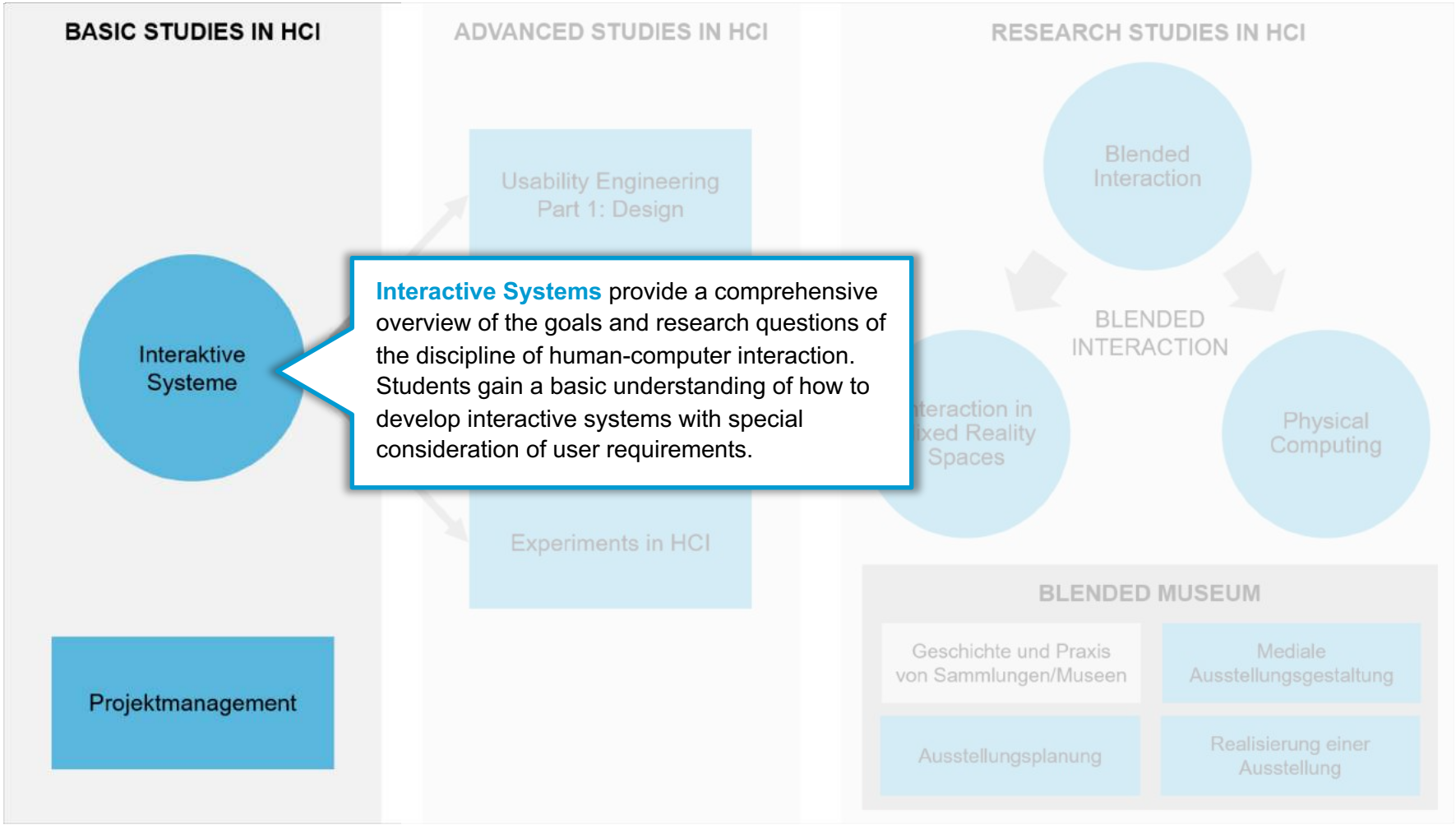
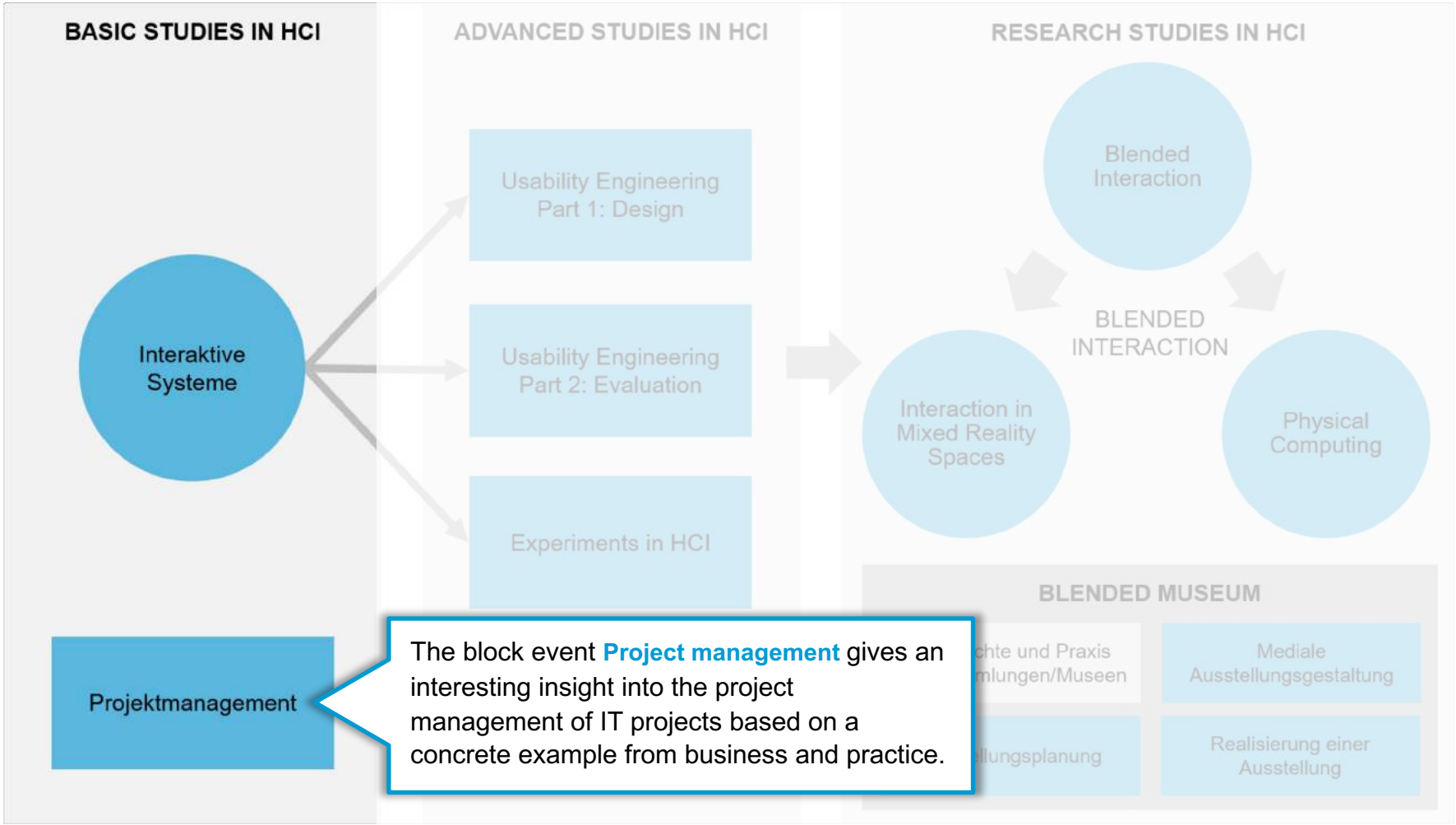


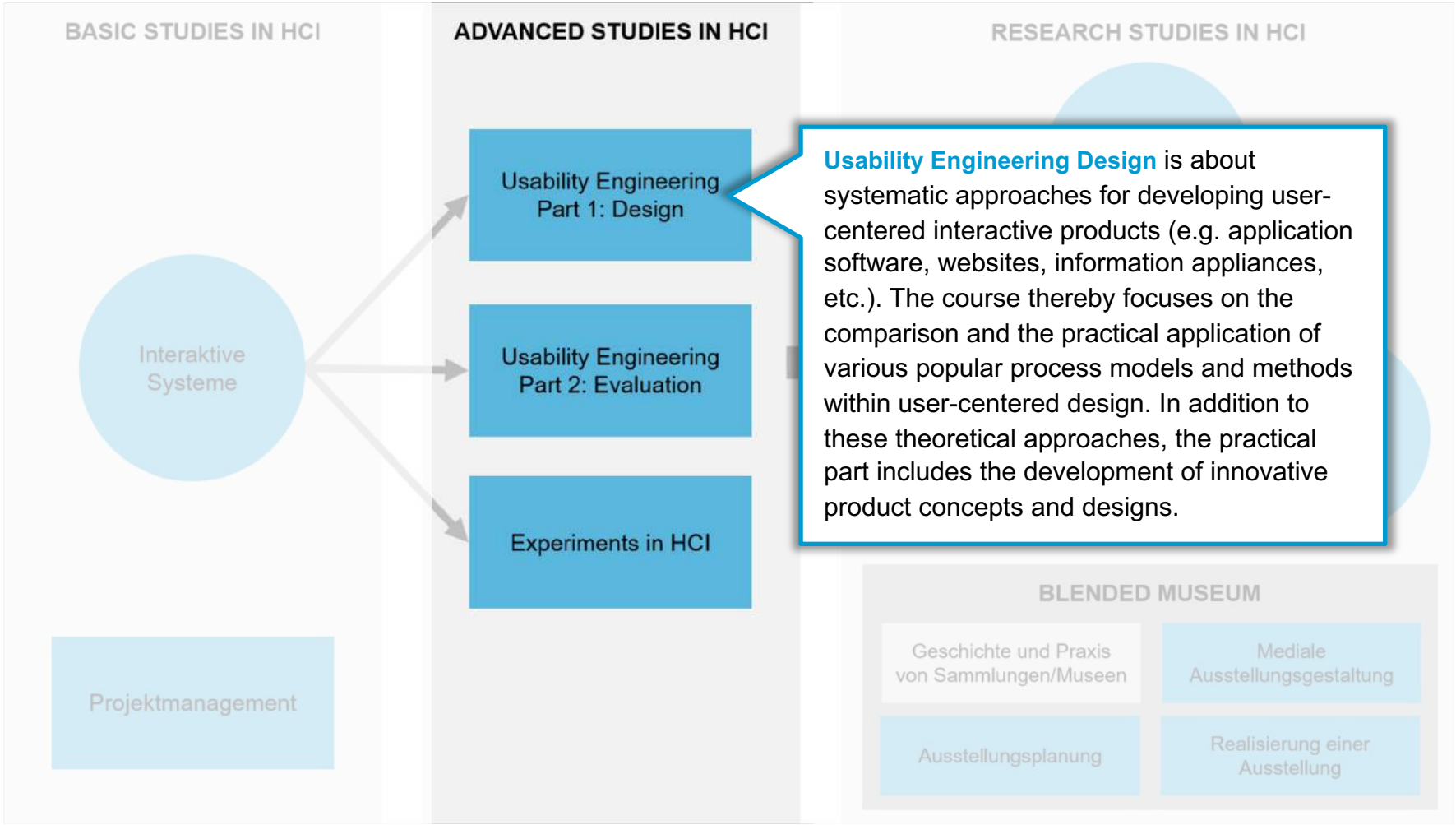
Teaching Overview



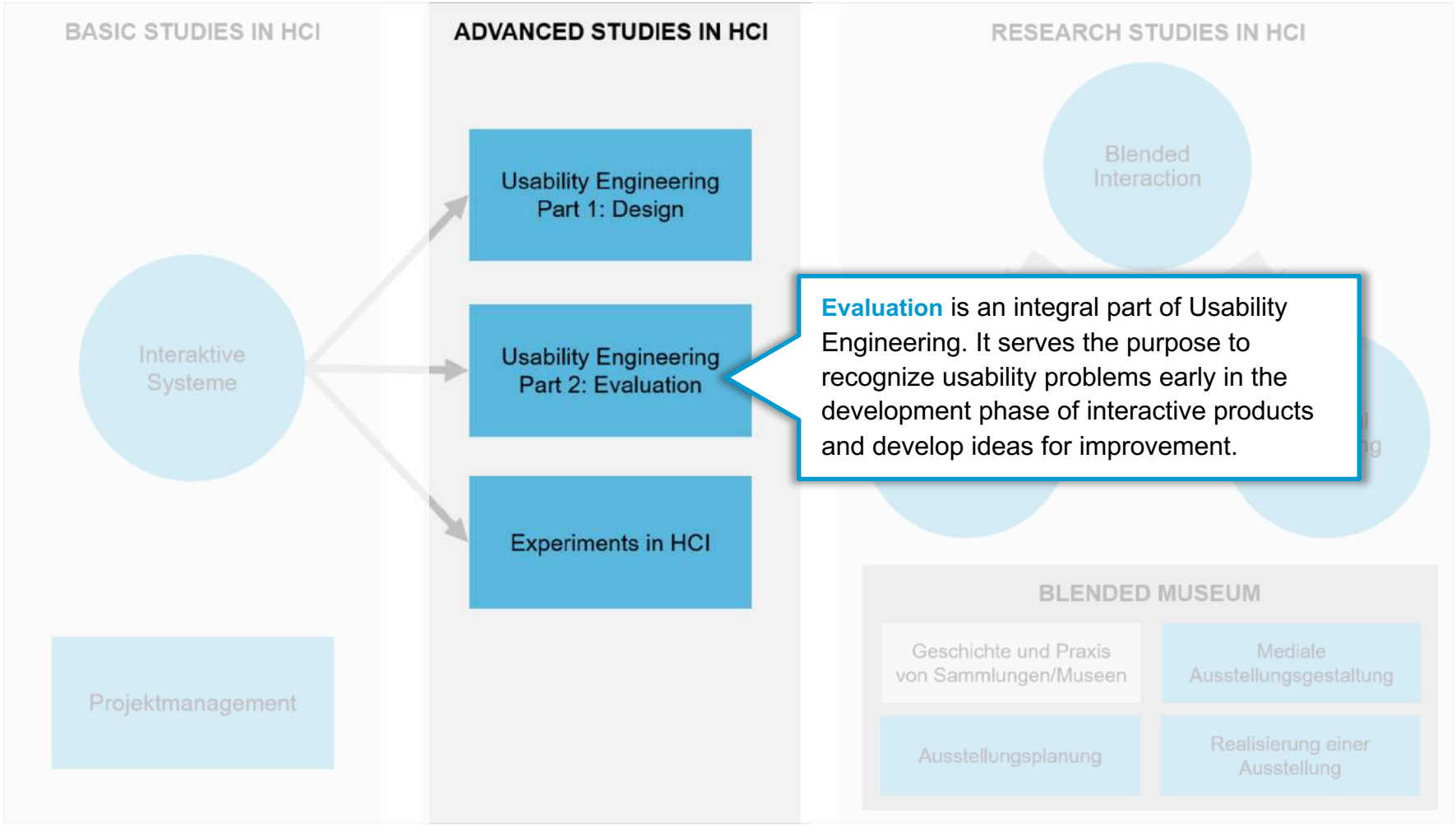
Teaching Overview



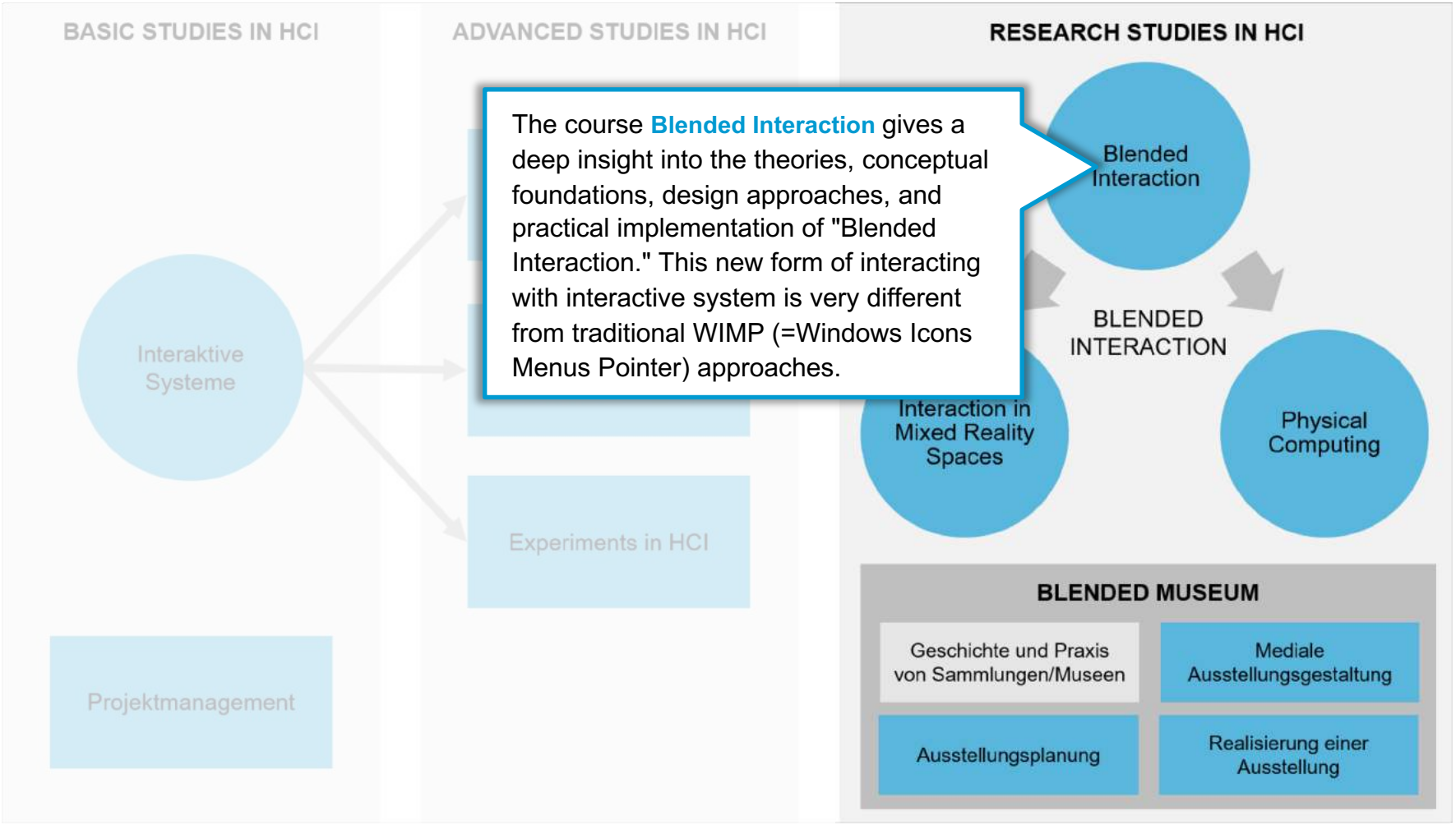
Teaching Overview



Teaching Overview

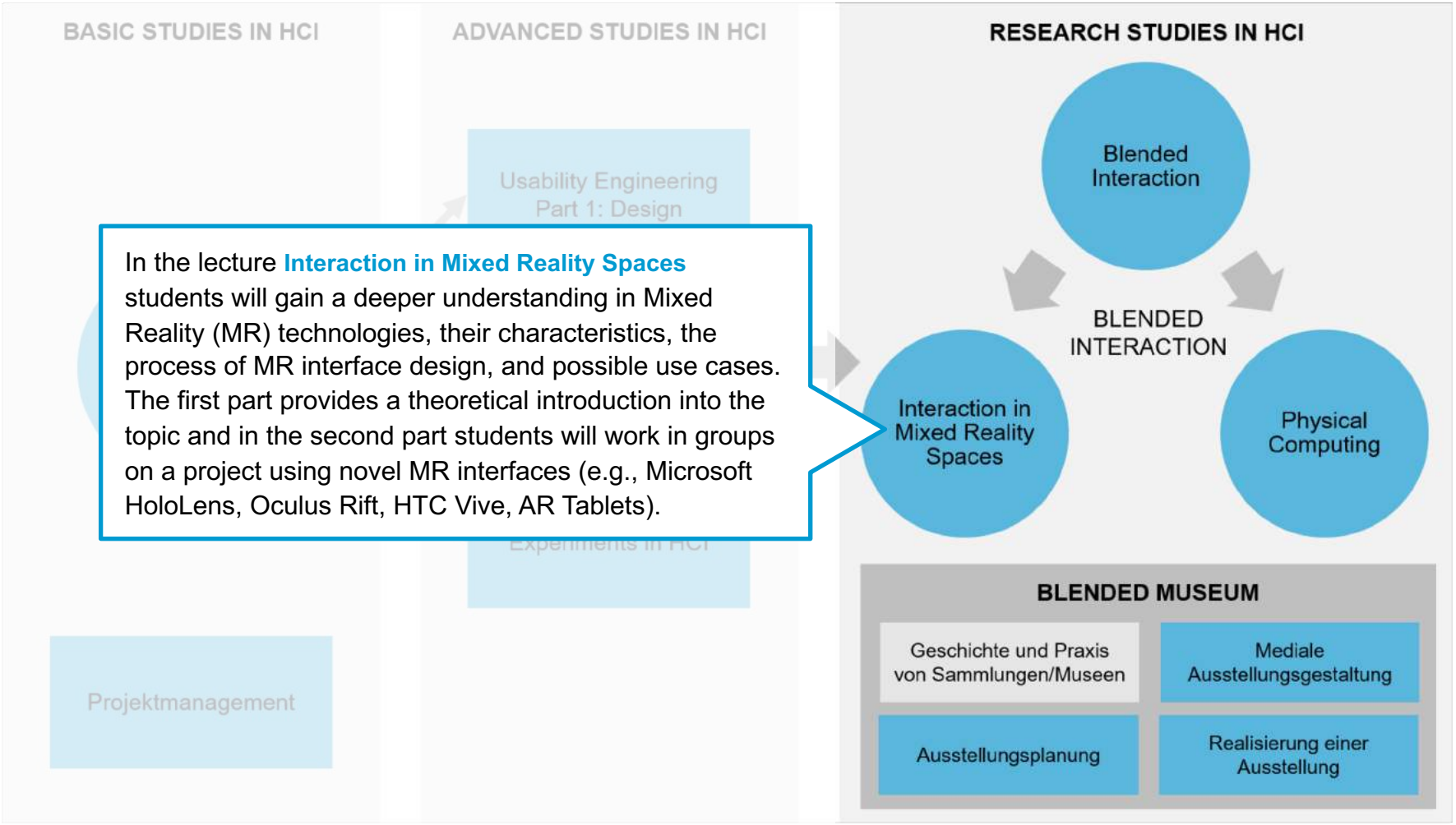


Teaching Overview



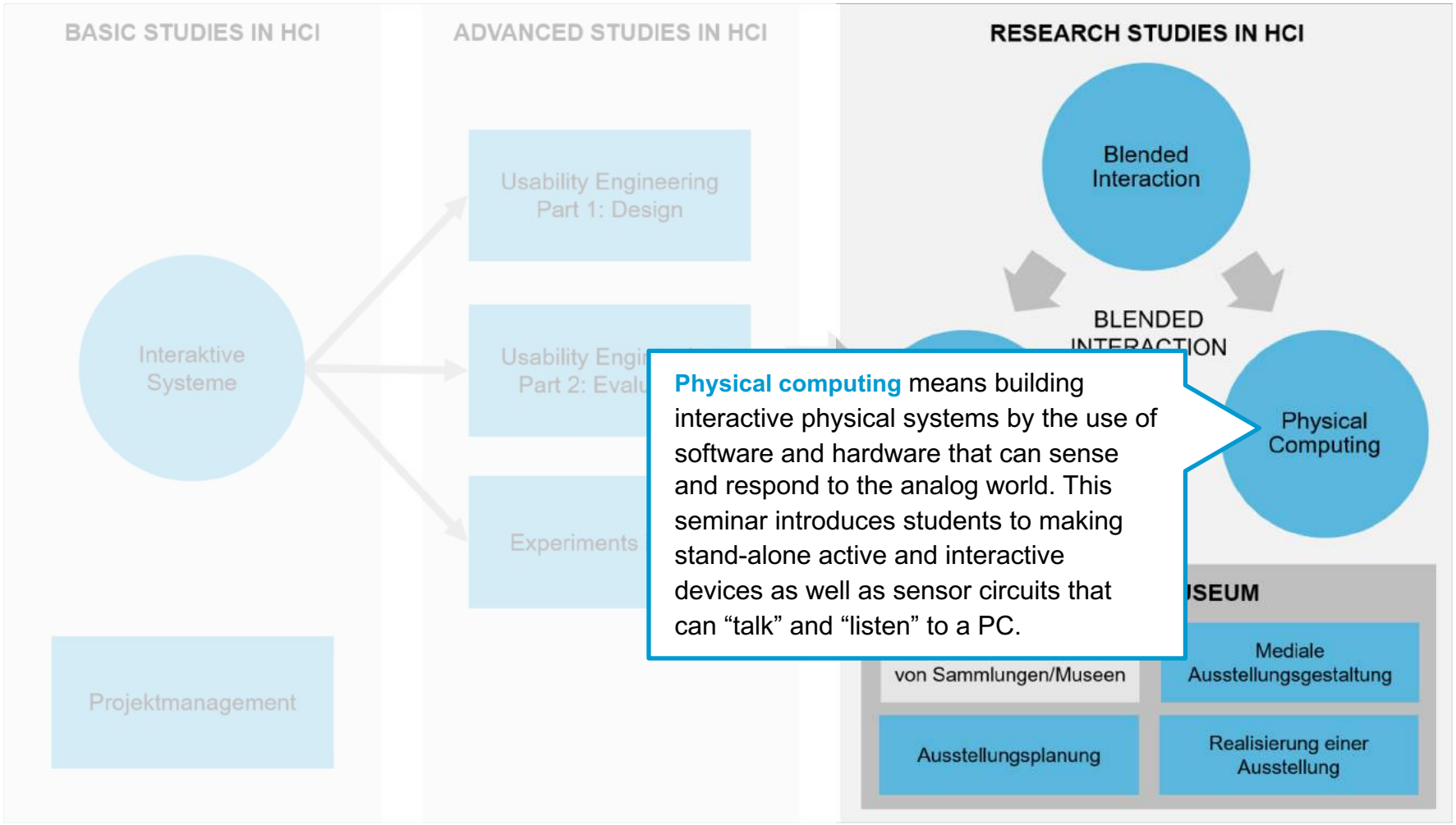
The course **Blended Interaction** gives a deep insight into the theories, conceptual foundations, design approaches, and practical implementation of "Blended Interaction." This new form of interacting with interactive system is very different from traditional WIMP (=Windows Icons Menus Pointer) approaches.

Teaching Overview

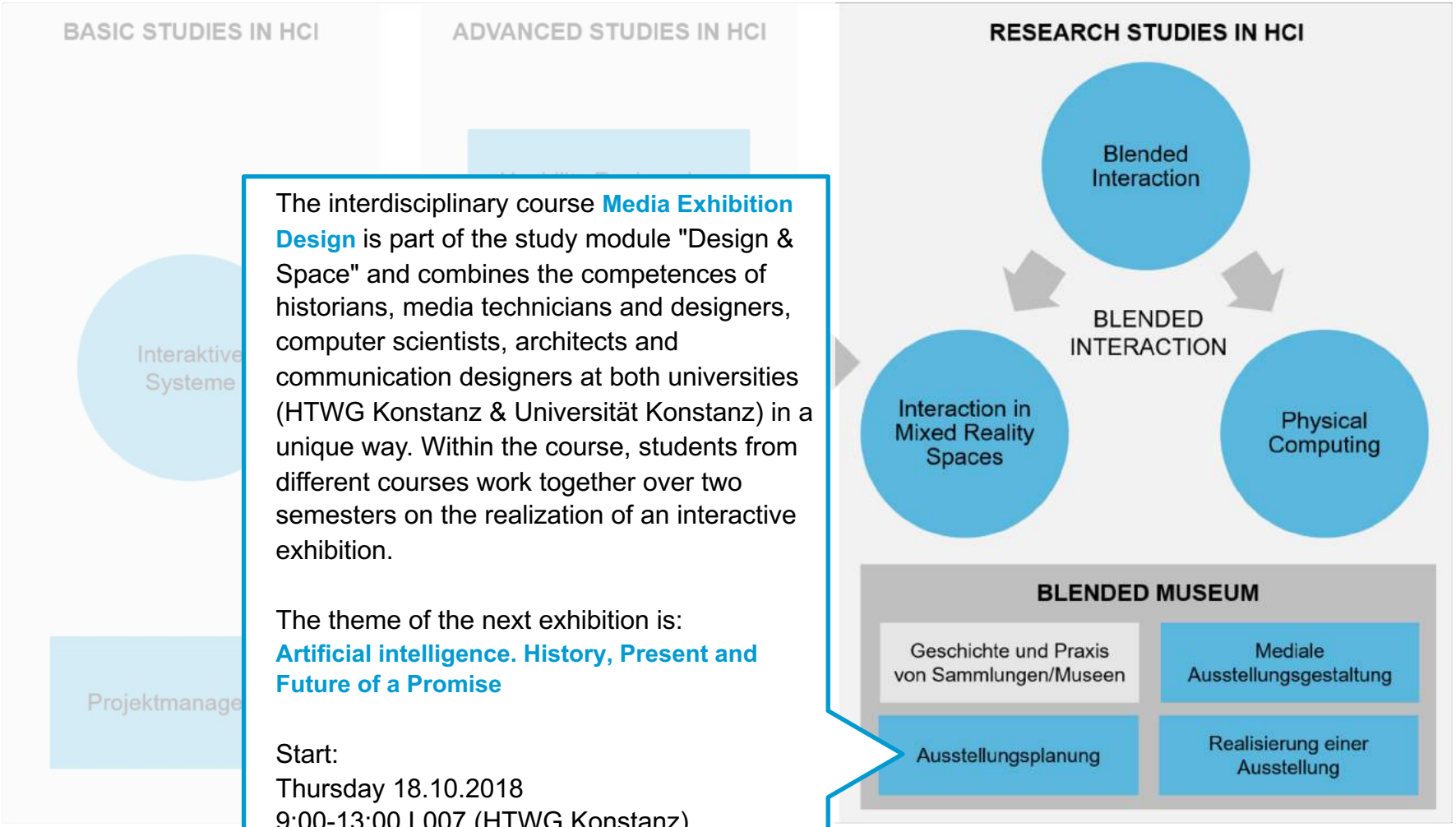


In the lecture **Interaction in Mixed Reality Spaces** students will gain a deeper understanding in Mixed Reality (MR) technologies, their characteristics, the process of MR interface design, and possible use cases. The first part provides a theoretical introduction into the topic and in the second part students will work in groups on a project using novel MR interfaces (e.g., Microsoft HoloLens, Oculus Rift, HTC Vive, AR Tablets).

Teaching Overview



Teaching Overview

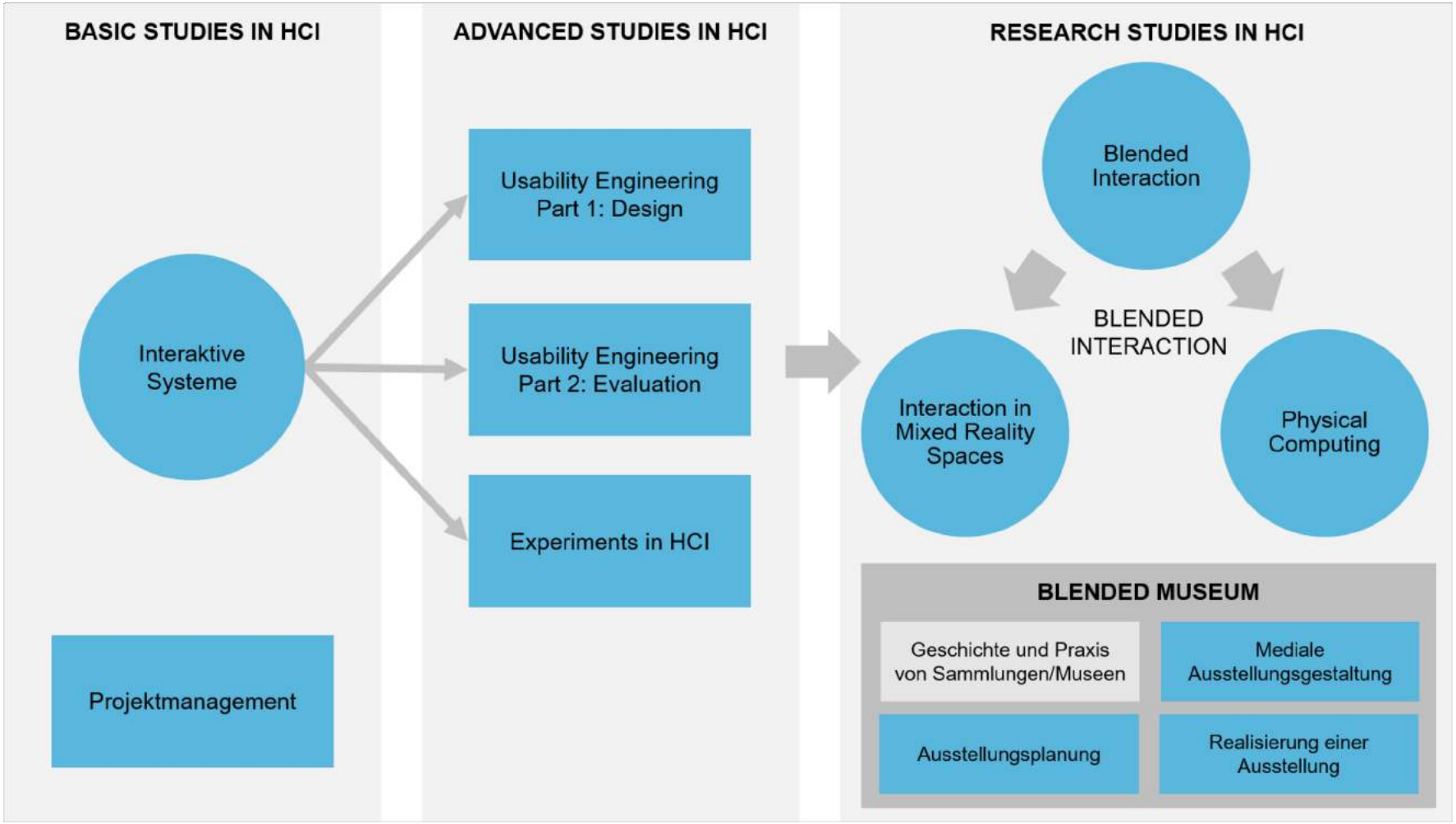


The interdisciplinary course **Media Exhibition Design** is part of the study module "Design & Space" and combines the competences of historians, media technicians and designers, computer scientists, architects and communication designers at both universities (HTWG Konstanz & Universität Konstanz) in a unique way. Within the course, students from different courses work together over two semesters on the realization of an interactive exhibition.

The theme of the next exhibition is:
Artificial intelligence. History, Present and Future of a Promise

Start:
Thursday 18.10.2018
9:00-13:00 L007 (HTWG Konstanz)

Teaching Overview



Further information can be found at:

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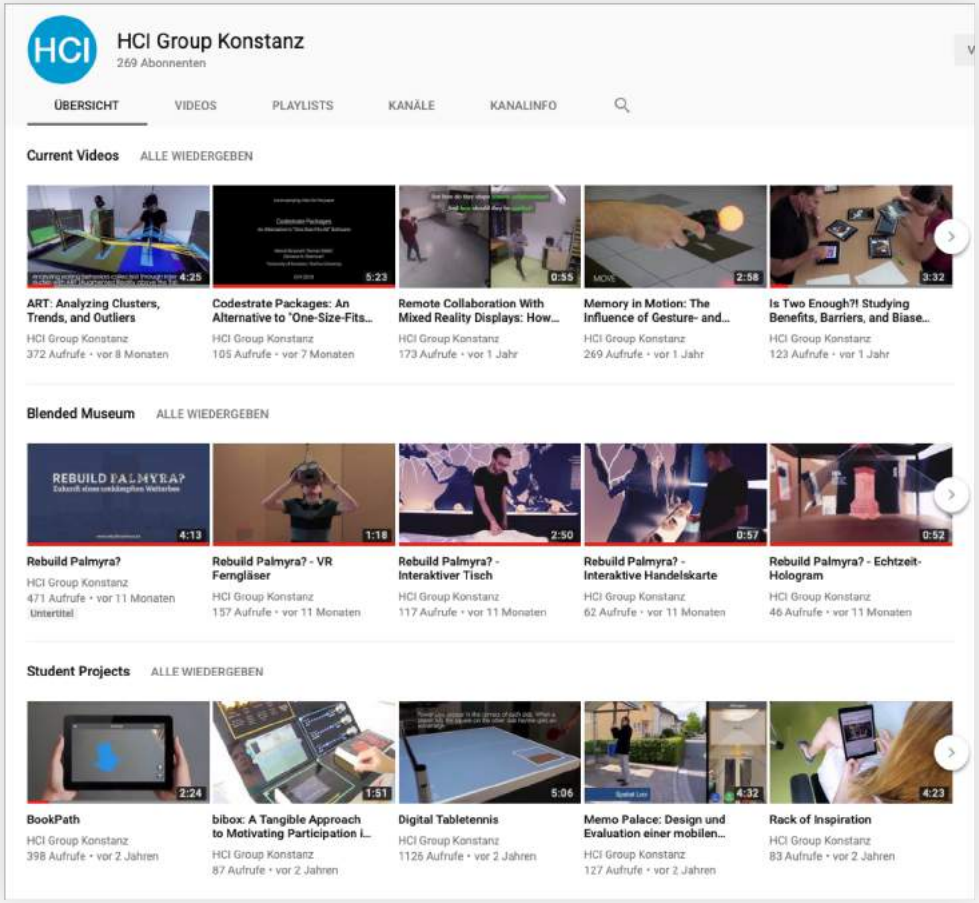

https://www.youtube.com/user/HCiKonstanz

Further information can be found at:

http://hci.u

CiKonstanz