



# The Future Learning Initiative

Prof. Dr. Manu Kapur

# Future Learning Initiative

Interdisciplinary Research shaping the Future of Learning

## Mission

Develop the **world's leading centre for research in the science of learning** and **advance ETH's reputation as the globally leading learning institution.**

## Core Team



Manu Kapur  
Director, PI



Elsbeth Stern  
Co-Investigator



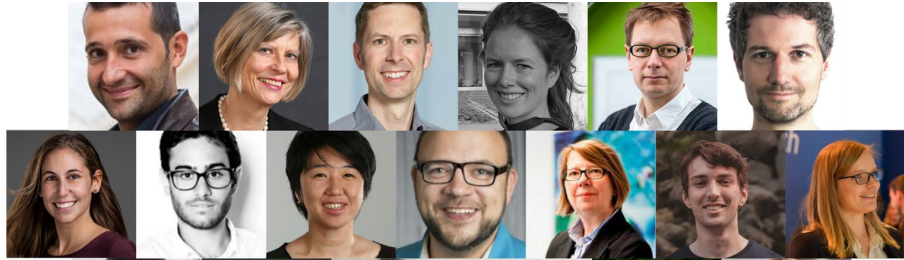
Christoph Stadtfeld  
Co-Investigator



Christoph Hölscher  
Co-Investigator

# Interdisciplinary Initiative

An interdisciplinary team ◀



▶ > 22 professors

Gender diversity ◀



▶ 12 doctoral students

11 departments ◀



▶ 10 interdisciplinary projects

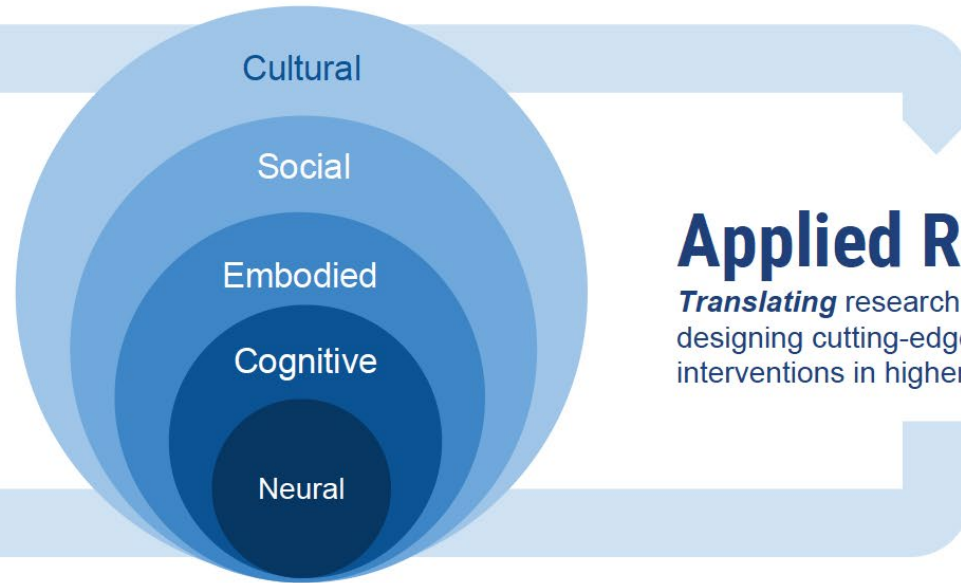




# Innovative Teaching and Learning

## Basic Research

*Understanding* the nature of learning across multiple, interacting levels: neural, cognitive, embodied, social, and cultural.



## Applied Research

*Translating* research into practice by designing cutting-edge applications and interventions in higher education.

# Projects



CVE Simulations for  
Differential Diagnosis



Mixed Reality for  
Enhanced Lab Courses



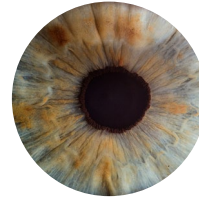
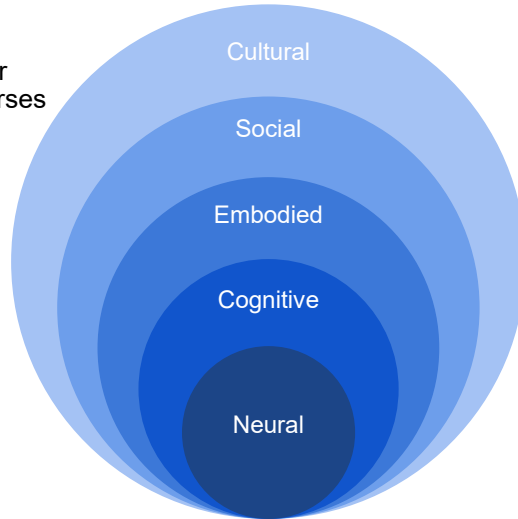
Mathematics Education



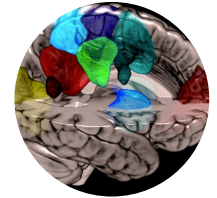
Advancing Interdisciplinarity in  
Life Science Education



Learning of Quantum  
Chemistry



Ethics  
Education



Neural Basis of  
Learning



Embodied Learning and  
Gaming



Engineering Education  
Center



Physical Spaces

# Outreach and Communication

## FLI Colloquia

Enable robust exchange of ideas between all FLI members

Every month

## FLI Website

Information about the team and projects

Updates on the Initiative



The screenshot shows the homepage of the Future Learning Initiative (FLI) website. The header features the text "FUTURE LEARNING INITIATIVE" on the left and navigation links "HOME TEAM COLLOQUIA" on the right. The main heading reads "Interdisciplinary Research shaping the Future of Learning". Below this, the text describes the FLI as a "world's leading centre for research in the science of learning" and lists its goals and research focus areas. At the bottom, there is a grid of portraits of team members and the website URL "fli.ethz.ch".

FUTURE LEARNING INITIATIVE

HOME TEAM COLLOQUIA

## Interdisciplinary Research shaping the Future of Learning

The Future Learning Initiative (FLI) leverages and builds upon our existing strengths in secondary and higher education to develop the **world's leading centre for research in the science of learning** and advance ETH's reputation as the globally leading learning institution.

FLI brings together more than 20 professors from 10 departments with the goal of synergizing existing expertise, while simultaneously accelerating impact through coordinated inter-departmental and inter-disciplinary collaboration.

Our goal is to transform the higher education system by:

1. Understanding the nature of formal and informal learning as a complex phenomenon across multiple, interacting levels: neural, cognitive, embodied, social, and cultural;
2. Translating research into practice, first at ETH Zurich and then at the gymnasium, by designing cutting-edge applications in domain-specific learning, learning environments & technologies, and learning & data sciences;

The initiative seeks to advance the science of learning through:

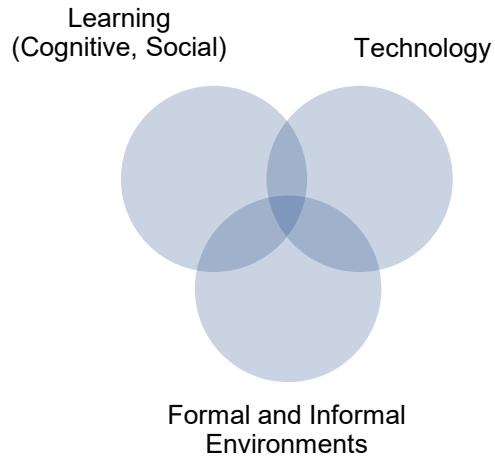
1. one new tenure-track assistant professorship on STEM learning;
2. a center for engineering education; and
3. an interdisciplinary set of projects, such as neuro-embodied basis of physics concepts, mixed reality learning environments in medical and bioengineering education, physical spaces and learning, interdisciplinary in life sciences education, embodied learning and gaming, enhancing abstract mathematical cognition, learning of ethics, as well as several longitudinal projects.

fli.ethz.ch

# Long-term Capacity Building

## New Professorship

Assistant Professor of Learning and Technology - Prof. Dr. Sarah Hofer



## Joint Doctoral Program

Joint Doctoral Program with EPFL



**EPFL**





# The Future Learning Initiative

Thank you