Summary
This course addresses the relationship between specific technological features and the learners’ cognitive processes. It also covers the methods and results of empirical studies on this topic: do students actually learn due to technologies?

Content

Keywords
learning, pedagogy, teaching, online education, MOOCs

Learning Prerequisites
Recommended courses
One of these courses is recommended:
- Machine Learning (Jaggi / Urbanke)
- Applied Data Analysis (West)

Learning Outcomes
By the end of the course, the student must be able to:
• Describe the learning processes triggered by a technology-based activity
• Explain how a technology feature influences learning processes
• Elaborate a study that measures the learning effects of a digital environment
• Select appropriately a learning technology given the target audience and the expected learning outcomes
• Apply machine learning methods to educational traces

Transversal skills
• Set objectives and design an action plan to reach those objectives.

Teaching methods
The course will combine participatory lectures with a project around learning analytics
Expected student activities
The project will include several milestones to be delivered along the semester.

Assessment methods

• Project + exam
• 50 / 50

Supervision
Office hours No
Assistants Yes
Forum Yes

Resources
Moodle Link
• http://moodle.epfl.ch/course/view.php?id=14248