

Developing technology enhanced field trips with OMLETH

Courses in many STEM programmes feature learning content which is related to places in the real world. This applies especially to geography, earth science, biology and history, but also the language subjects, economics and law have relations to place-related content.

Teaching this content in the classroom often remains decoupled and distant from the typical working environment of the respective discipline. From research on location-based mobile learning it is well-known that teaching such content at the respective location using mobile technologies can improve the learning effect by complementing conventional didactical methods (Brown et al., 2010).

The OMLETH project stands for location-based, mobile learning at ETH ("Ortsbezogenes Mobiles Lernen an der ETH Zürich") and is a web-based platform that helps teachers at all stages of a field trip: planning, execution and reflection (Sailer et al., 2015a). Teachers can create digital excursions by sketching the learning units as geographic areas on a map and adding the corresponding content. Students can carry out the learning module with any smartphone or tablet, getting access to the units in situ with OMLETH's map-based mobile app. The learning units can include storytelling, instructions for observation or game-based exploration and

can be used individually or in groups during field trips. Several courses on different age levels (primary and secondary schools as well as higher education) have been carried out so far and have been accompanied by a research study (Sailer et al., 2015b).

OMLETH's easy-to-use interface allows flexible, real-world, context-based, and experience-based learning units. Existing web-based learning resources can be easily integrated. OMLETH's innovative analytical capabilities provide comprehensive control in real-time as well as ideal content for the classroom review (Sailer et al., 2016).

In our workshop, we got introduced in OMLETH by a virtual sample and participants were asked to consider in peers the different aspects of a smartphone-based learning adventure with predefined learning goals. Findings were presented and discussed in the plenary.

Missed the workshop at the #IPGESTE conference? More information and registration for upcoming two day workshops can be found at www.omleth.ch/workshop.

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References

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ETH students carry out context-based course by the Chair for the History of Urban Design outside in the real world (photo C. Sailer)