

How students develop deep knowledge in topic domains. The future of technology-based instruction

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Active or engaged learning is currently getting much attention because it engages students and also has proven to be a very effective form of science learning. Inquiry learning with online laboratories fits very well with this approach of active learning. In this presentation, I will focus on the advantages of learning with online laboratories and discuss the inquiry processes of students and how these can be actively supported by technological means in the form of focused, flexible, and adaptive online scaffolds. An very brief introduction will be given to the Go-Lab sharing platform, including a federation of online labs (www.golabz.eu). I will discuss the effectiveness of inquiry-based learning and explore future developments, including providing students with automated and individualized feedback.