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Going digital: opportunities for tropical soil science education?

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Although the lives and future working environments of our students are digitizing at a record pace, soil science classes taught at universities in Flanders still many rely on the age old concept of ex-cathedra teaching with an occasional field session as the major focus of their learning activities and on classical exams for evaluation. Although the concept has its tried and true merit for the students in the auditorium, access to these traditional classes becomes more complex. An increasing amount of registered students are on individual programs, combine study and work, may experience limited mobility or spend time away from campus. Moreover, although many universities have programs for internationalization, it may still be very difficult for students worldwide to get a chance to attend courses at those universities or to interact with students and professors there. Finally, audio-visual material to support the content came in first for student appreciation in classroom surveys. Hence, in the framework of the 'Global Minds' program of the Flemish Council for University Development Cooperation, we decided to explore the possibilities of digital platforms for soil education at KU Leuven. More specifically, we choose to develop a MOOC – a massive open online course- on Tropical Soil Science with the support of ISRIC, the JRC and FAO.

Apart from filming and compiling content, developing this MOOC also included tackling two major course design hurdles. The first one is didactical, i.e. how to teach a field-related science to a large group of students you will never meet and that will not meet each other during the course? Main questions in this assessment were related to target audience, adjusting learning goals to the possibilities and limitations of digital teaching and on how to keep the course compelling, interactive and challenging for a remote, yet highly diverse group of students. The second one was about involving our partners in the tropics: joint projects helped gaining the knowledge presented in the course, but how to acknowledge that without the recourses for traveling everywhere to film their contributions? We choose to tackle that problem by inviting our partners abroad to submit compelling case studies to illustrate content or applications of soil surveys and maps in other land-based sciences and policies. In this contribution we will therefore share our experiences on what worked and what didn't, and invite you to a sneak-preview into some of our content that we would love to hear your opinion on.