Abstract

We describe the stages of technological development in a 4-year project designed to adapt college-level physics education to the realities of the digital era. Leveraging multiple complementary innovations, it is used as a case study in understanding more generally how technological transitions take place in an educational setting and, in particular, in the education of students in science and engineering fields.

The complete lifecycle of technological-change projects is examined including an evaluation of longer-term challenges that include the development of new competencies in teachers and support staff, and the need for investments in equipment in participating educational institutions. Québec's recent Digital Action Plan is used both as a reference funding framework for discussion, and as an example of how individual technology-based projects can indirectly benefit from broader government investments that target the college network as a whole.