Requirements Analysis Specification and Prototype for MOOC System

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ABSTRACT

In the fall of 2008, Stephen Downes and George Siemens initiated a 12-week course on Connectivism and Connective Knowledge offered by the University of Manitoba that in the end, according to Downes (2009), facilitated 2,300 students making it the first 'Massive Open Online Course'. MOOCs are a relatively new way of providing online learning to a wide target audience. Although there are different flavors of MOOC (xMOOC, cMOOC and the smaller scale SPOCs), many of the system requirements are likely to be similar. Generally there is a need for a content management system, coupled with the facility for comments and discussion from learners, and the need to scale to have tens of thousands of participants (not in the SPOCs). This paper provides information on the history of MOOC, describes differences between x-MOOC and c-MOOC platforms, analyzes the basic principles and activities that a c-MOOC system must address, and provides a system specification document that include requirements analysis & software specifications, use cases and work flows for 'actors' involved (UML), as well as the description of a prototype c-MOOC platform developed.
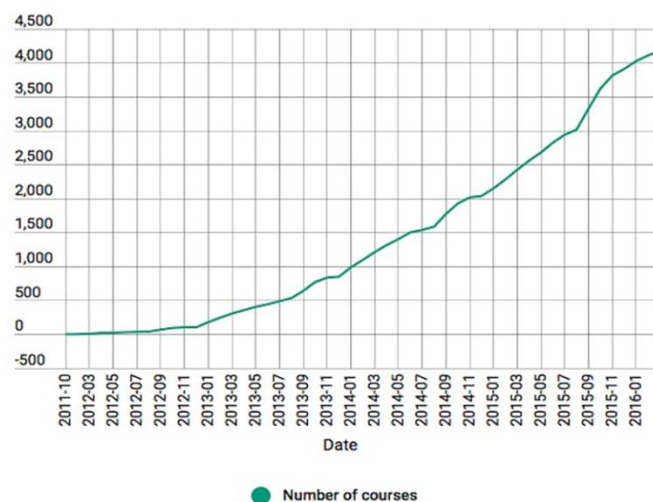
Figure 1. Growth of MOOCs

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