

Massive on-line learning: moving from web to mobile

Marco Mezzalama

Politecnico di Torino, Italy
marco.mezzalama@polito.it

Enrico Venuto

Politecnico di Torino, Italy
enrico.venuto@polito.it

Abstract

Nowadays, web and mobile technologies and new communication paradigms offer many opportunities to improve services within University Campuses.

Politecnico di Torino has developed various approaches to on-line (distance) learning, using a set of tools and methodologies to follow the rapid evolution of teaching paradigms: from traditional distance learning models to hybrid and blended models, up to the most recent flipped and MOOC approaches.

The on-line learning system is designed to be used by both face-to-face and remote students for a total of 33.000 people organized in 51 bachelors and master of science programs. Today it shows 1.000.000 logins/month and it provides access to 430.000 files of teaching materials for a total of 80.000.000 downloads/year.

Particularly relevant is the service of video recorded lectures with its 80 courses for a total of about 3.000 recorded, one hour lessons per year; this generates over 1.200.000 video streaming/downloads per year.

In this scenario, the use of mobile technologies is quickly growing, becoming the favourite medium to access services and information in the University context. According to the technological evolution, Politecnico di Torino improved its services moving from a traditional Web approach to a mobile APP model via the intermediate steps of web responsive and mobile web models.

This paper describes the strategies and the technical choices to design and implement the teaching portal of Politecnico including the new PoliTO App, the official App to step into the campus, providing learning, streaming, logistic and administrative services to student and teachers.

The paper also includes the efficiency analysis of the model which correlates the access to the video-lectures and the students' achieved performances.

Keywords: learning technologies, mobile learning, blended learning