Eteachingapps.com - a novel internet platform to create mobile teaching applications for higher education.

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Introduction
Mobile e-learning is increasingly used in undergraduate medical education. However, high costs and complexity to develop software applications (apps) for mobile devices limit their use and prevalence in higher education. Approximately 85% of undergraduate medical students at TUM own a smartphone or tablet-PC (Kühbeck et al., 2014).

Objective
To develop a internet platform for educators to independently create and manage teaching apps without the requirement of programming skills or additional software.

Programming and online database
Eteachingapps.com was developed at Technische Universität München (TUM) based on Hypertext Preprocessor (PHP) as server-side scripting language and a My Structured Query Language (MySQL) database management system.

Structure and features
Eteachingapps is accessible via the open-access website https://www.eteachingapps.com (German version: https://www.eteachingapps.de). Educators can create their own teaching app and instantly edit its content online. Students can access the apps with a webbrowser on any internet-enabled device (smartphones, tables-PCs or laptops).

Evaluation results
292 of 390 (74.9%) 3rd year medical students at TUM participated in the survey. The vast majority of students (81.9%, 220 of 267) gave an overall rating of the eteachingapps pilot app www.tum300.de of “excellent” or “very good”. The functionality of the app was rated “excellent” or “very good” for usage on smartphones (80.5%, 111 of 138), tablet-PC/iPad (81.6%, 84 of 103) or desktop-PC/laptop (93.2%, 234 of 251).

Summary and conclusions
Eteachingapps.com is a novel platform to independently create, edit and manage teaching apps for higher education that was well received by students and educators. As a non-commercial alternative to conventional apps, it will likely help to foster mobile e-learning in undergraduate medical education.