Laptops and tablets in the classroom: How to integrate electronic devices in the university

26 May 2017

Credit: Petr Kratochvil/Wikipedia

Researchers from the University of Seville have published the study "To take or not to take the laptop or tablet to classes, that is the question", which has been selected for publication by the internationally recognised review *Computers in Human Behavior*, which deals with the social implications of new technology. In the article, the socio-economic factors that determine the use of laptops and tablets in university classrooms in Seville are analysed, as well as the factors that limit their use. It also explains the possible Trojan horse effect that inappropriate use of such devices might have, especially tablets, on a lack of academic engagement.

The study, carried out by the researchers José Ignacio Castillo Manzano, Mercedes Castro Nuño, Lourdes López Valpuesta, Teresa Sanz Díaz and Rocío Yñiguez Ovando, concludes that the profile of the laptop user in the classroom is different from that of the tablet user. In the first case, maturity takes precedence, that is to say, they are students who have experience in the use of laptops in pre-university education or who have been at the

university for several years: as well as having different socio-economic characteristics like living away from their parents, without having any family member to look after. For their part, tablet users are usually female, they live with their parents and they have just left school.

The project, which has received a Special Mention for Teaching Innovation in the 23th National Conference on Teaching Applied Economics, uses microeconomic models on a sample of 412 students from the Faculty of Economic and Business Sciences of the University of Seville to analyse the profiles of the students who bring a laptop or tablet to class and the limitations on future expansion of their use.

For the authors, the high correlation between student tablet use and greater activity on social networks is worrying. For the teacher José Ignacio Castillo, these devices, especially the tablets, "are a double-edged sword, and, as other studies have also highlighted, they can be the Trojan horse in which online entertainment invades the classroom in a massive way. It would be justifiable to evaluate limiting access to university Wi-Fi for contents that have little or no academic value, at least during class hours, if we don't want the utopia to become a dystopia".

The study also showed that there are no intellectual or technical barriers to the use of these devices in a generation of clearly digital natives, so their use is not linked to the students' technical knowledge, nor even to the marks they obtained at school.

For Castillo, according to the demands stated by the students in the study, the construction of this new paradigm demands an active role on the part of universities, improving both the physical infrastructure, especially the number of plug

sockets in the classrooms, and the virtual infrastructure, especially the quality of the Wi-Fi connection. At the same time, the involvement of teachers has to be encouraged, by financing support programmes for teaching innovation, so that it is easier for teachers to encourage greater use of mobile devices in the way they teach. According to Castillo, the results of the study clearly show that the students want to get greater academic benefits from their devices in the classroom, to compensate not just for the economic investment that they have made in their laptop or tablet, but also for the personal cost of carrying them around every day.

He says, "Mobile learning or m-learning has become a new educational paradigm in developed countries as a consequence of the fact that now, students, in general, have electronic devices with which they can communicate and access information in real time". The goal of m-learning is that students learn in a more cooperative environment and with greater interaction with their teachers. However, the real use of these devices in teaching is still very far from their potential, both in Spanish university classrooms and in high schools. In this case, only a minority of students look their laptops or tablets to class regularly, specifically 17.8% and 16.8% respectively.

Provided by University of Seville