

Open Education 2030

Call for Vision Papers

School Education

Opening schools by mobile learning

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*All elements of future school education are already there in germ:
they will be flourishing in 2030.*

School education is a very slow changing and sedate system. Changes take long to develop and to implement. That is why one can see already the future taking a look at what is happening right now in some schools but what will spread within the next couple of years. A child born in 2013 will be 17 years old in 2030 – what will school education look like for him or her?

As mobile devices get more powerful and less expensive, they are the key to change education. In 2030, after having banned mobile phones for some years, all European schools have adopted a BYOD policy.¹ Before coming to school, students and teachers check the latest news on their mobile device. Every school has its own app² informing the members of the community about cover lessons, exams, the menu at the cafeteria and so on. The members use the app also for communication with the whole community, in groups or in private.

As mobile devices enable students to learn and work wherever they want to. Actually it would not be necessary to meet every day for six hours or longer in one place to learn. Nevertheless authorities stick to students' presence in school. In 2030, some schools start to work with an automatic login when students arriving in school.³ The main idea was that administration is informed directly and can react by calling them or their parents to fight absenteeism. The question of how much control is admissible is an on-going debate for years. The project is abandoned shortly after its introduction as a large number of students handed over a second mobile devices to their friends to logged in without being in school.

The use of mobile devices opens academic learning beyond classrooms and libraries. They combine different tools enabling the discovery, analyse and evaluation of everyone's living and working environment in respect of natural, physical, chemical, political, economical, architectural, social and historical conditions and their interdependence.⁴ The knowledge of the world is now accessible to everyone at any time and in any place, by this creating more equality and chances for students in remote area and from less favoured backgrounds. The artificial barriers between “schools” and “the world” are dismantled: Schools open up to the outside world, and by their tools, in a sort of a paradox, mobile devices facilitate students' and teachers' cooperation as well as individualisation of learning processes.

1 BYOD = Bring your own devices. See also UNESCO Policy guidelines for mobile learning:
<http://unesdoc.unesco.org/images/0021/002196/219641e.pdf>

2 At the moment there are several commercial and non-commercial initiatives, like e.g.
<http://schoolappkit.appspot.com/start>, <http://www.activeschoolapps.com.au/> or
<http://www1.wdr.de/themen/digital/schulapp100.html>.

3 Just like many people use foursquare.com for fun today.

4 <http://en.wikipedia.org/wiki/M-learning>.



There are no more classes as of fixed groups of assumed homogeneous students. Instead, they work freely in learning spaces instead of classrooms. These learning spaces are not rooms for one specific group of students but diversely equipped learning environments like e.g. a chemistry lab, a media centre or a plenary hall. Subjects and curricula are replaced by learning areas, tasks and skills in form of inquiry- and design-based projects like building a wooden ecological house or creating a computer game.⁵ All these learning areas are conceived in a European as well as in a global perspective: Students do not learn any longer about famous scientists and poets of one nation but about their relatedness to the development of civilisation.⁶

There are several learning fields to cover per year reuniting some of the former subjects.⁷ Students are free to choose the way they want to learn and work, individually or in teams, in the school lab or in massive open online courses.⁸ They are also free to choose the order in which they tackle the required areas. Every learning field completes with a learning product like e.g. an essay, a video, a learning diary, an online game and other. There is a set of standard products which are required like one video per year by each students or a certain number of essays. Although students are free to combine learning area and output in the way it seems appropriate to them.

The role of teachers has changed completely, whereas they are still important: Teachers are connected with colleagues from other schools from all over the world to exchange experiences, to collaborate, to share materials and to organise exchanges. Being experts in their scientific domain(s) and even more in pedagogics, they help, advise and guide students if necessary. Fundamental changes in teacher-training in the precedent years made this change possible. Teachers are also still responsible for the certification of students' work following established European standards.

Most of the time students spend collaborating and discussing with other students from all over Europe and the rest of the world. ICT and social networks will be self-evident tools not only to learn and use foreign languages but also to discover and discuss different local, regional and national perspectives on historical, social, economic and political matters.⁹

Every European student learns at least two foreign languages. Of course, every student by using his own device is learning languages by video-conferences from native speakers, students and teachers as well.¹⁰ In addition, there will be individual exchanges of a few months abroad.¹¹

On this base, it is obvious that textbooks and other learning materials in 2030 are different from what we know by now. Learning happens much more in direct or ICT based peer-to-peer interaction. There are no more single text- and workbooks for each subject but a network of diverse teaching and learning materials that can be combined individually.¹² All materials, texts, photos, videos¹³, exercises¹⁴ and so on are collected and connected via the mobile

5 See e.g. www.edutopia.org/.

6 Classroom4.eu – Towards an interactive textbook on European civilisation: www.classroom4wiki.eu

7 Ute Erdsiek-Rave/Marei John-Ohnesorg (ed.): *Bildungskanon heute*, Berlin 2012, online: <http://library.fes.de/pdf-files/studienfoerderung/08990.pdf>

8 Launch of first pan-European university MOOCs: http://europa.eu/rapid/press-release_IP-13-349_en.htm

9 eTwinning.net or classroom4.eu.

10 <http://www.glovico.org>.

11 Erasmus for all: http://ec.europa.eu/education/erasmus-for-all/index_en.htm

12 Martin Ebner/Sandra Schön: *Band 4. Die Zukunft von Lern- und Lehrmaterialien: Entwicklungen, Initiativen, Vorhersagen*, 2012, online: <http://13t.eu/oer/>

13 Learning by videos is getting more and more important. A growing number of free accessibly videos are produced by teachers and professor and put online. Every student can already by now watch lectures from

device of the student and the web. These materials are commercial as well as Open Educational Resources - chosen upon their quality. As they are digital and licensed under Creative Commons, they can be edited, updated, remixed, shared and republished.¹⁵ Some of them are produced by students:¹⁶ Writing for and teaching to other students is one of the main characteristics of education in 2030 as several forms of peer education have developed over the last decades.¹⁷

Conclusion: In 2030, schools will have opened in many ways. By the use of mobile devices many of the organisational, technical, curricular, traditional or financial obstructions preventing students from learning what is important to them and in the way they want to learn will be surmounted.

Oxford, Cambridge, Stanford or Paris. See e.g. <http://flippedclassroom.org/> or <https://www.khanacademy.org/>.

14 For example <http://learningapps.org/>

15 <http://creativecommons.org/>.

16 An interactive textbook on European civilisation and culture written by students: <http://elearningeuropa.info/en/article/Classroom4.eu---An-interactive-textbook-for-schools-on-European-civilisation-and-culture>

17 <http://peeragogy.org/> or <http://blog.peerinstruction.net/>.