



**Journal of
Interactive Media
in Education**

JIME <http://jime.open.ac.uk/2012/07>

Book review: Learning in the cloud: How (and why) to transform schools with Digital Media

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(December, 2011)**

Publication details

Learning in the Cloud: How (and why) to transform schools with digital media

**by Mark Warschauer (Professor of Education and Informatics,
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Teachers College Press, 2011, 144 pages, ISBN: 0807752495

Review

"Learning in the Cloud" by Mark Warschauer is an interesting book for those who want to learn more about how digital media can be used in schools. In particular, the book addresses a core challenge for K-12 schooling; that is, how modern interactive media can be implemented to improve education as Information and Communication Technologies (ICT) have improved other sectors of society. The book provides case-based illustrations of how technology can be used for education to answer the proposed challenge. However, the author highlights that the use of technology alone is not enough to transform education - new methodologies and the involvement of several social agents such as teachers, families and students are necessary.

It should be noted that most of the case studies are focused on American contexts, and perhaps most relevant to American readers. The book is differentiated from others on the topic by the author's reflection on the cases presented. Warschauer does not fall into an unrealistic optimism by simply enumerating cases in which technology has successfully been used in education. Neither does he fall on an exaggerated pessimism claiming that the advances of technology will never be applied in education and that 21st century education will be the same as 19th and 20th century education. The book thus presents a realistic approach, describing several cases of using digital media for education, both with success and failures, analyzing the reasons of their results in the hardware (laptop, netbook, tablet or PC), software (proprietary or free), or regarding social factors (income, level of studies, or lack of involvement of educational agents). Teachers, computer scientists and pedagogues can use these cases as the basis for reflection about best practice.

The book starts by describing two cases: one successful and the other unsuccessful. It starts the discussion that will develop during the rest of the book with a critical view of how and why digital media could be integrated in schools. There is no a real introduction to provide them with a general overview of ICT for education. Instead, readers will find the detailed description of two cases in which ICT were used for education. Speaking as someone who holds a computer engineering degree and loves computers, some explanation of concepts and other extra information would have been helpful. (I would have started the book with a more general introduction, because in my opinion, readers without sufficient knowledge about Information and Communication Technologies for Education would find the first pages a bit difficult to follow.)

The second chapter is devoted to the goals of using technology in education. Three such goals are identified: to improve the academic achievement, to facilitate new kinds of 21st-century learning, and to promote educational and social equity.

All of them are discussed with several cases. In respect of the first goal of improving academic achievement, the chapter provides some cases which suggest that tutorial software is often unsuccessful and, even sometimes counterproductive. This is because in experiments which compare classes using and not using educational software, typically, no benefits are found. The reasons can be found in the type of tutorial software being suggested, that drill and practice activities must be replaced with the use of computers as tools to help students think. The second goal of facilitating new kinds of 21st-century learning starts with a review of the new skills that students need: learning and innovation skills such as creativity, innovation and critical thinking; information, media and technology skills such as information literacy and media literacy; and life and career skills such as flexibility and adaptability, initiative, self-direction, leadership and responsibility. These skills are reviewed together with their interconnections to knowledge in K-12 education. The third goal of promoting educational and social equity has to be considered not only as a matter of bringing computers to everyone to reduce the digital divide, but according to the author. If technology is to play a vital role in promoting educational and social equity, it should be deployed as part of well-designed educational interventions.

Chapter 3 is devoted to the hardware, software and digital content tools necessary to achieve the goals previously described. Netbooks and media tablets are reviewed for hardware. Social media and cloud computing are reviewed for software. Online materials, open educational resources, and digital textbooks are reviewed for digital content. I expected a longer third chapter with more detailed explanations of the tools, the free and open source software and particularly, cloud computing software. However, the review is limited to Google Apps, Skype, Prezi or Edublogger. I suppose that the reason can be found in the reflecting and non teaching goal of the book. Nevertheless, some illustrations would have been really useful for teachers who want to have a concrete idea of what the author refers to in this chapter.

Similarly, I would have expected some kind of comparison among the hardware possibilities. For instance, Warschauer (2011:39) claims that the "iPad offers a number of advantages for education in comparison to netbooks or laptops". This is quite a strong claim that should have been supported with more data. It would have also been helpful to list the software and hardware tools described in the chapter with links to find more information about them on the Web. This could have been an excellent annexe for the book, as, in my opinion, you cannot reflect very well on the usefulness of the tools if you do not have a pretty good knowledge of the tools themselves.

The fourth chapter describes four outstanding K-12 programs with a deep analysis of each of them, highlighting that IT is just a small part of any programme of educational reform. Hence, the fifth chapter is given over to discussing innovative curricula, pedagogy and assessment. Finally, the sixth and seventh chapters conclude the book with an analysis of leadership and teacher development as two key factors needed in order to transform education with technology, as according to the author, it is not just a matter of choosing the right tools. Social agents are also needed to foster their use and maintain them.

Potential readers of the book who are looking for a list of tools to learn in the cloud and a description of how to use them will need to change their expectations. When I first saw the book, I thought that after reading it, I would have the chance to learn many tools to apply in my class. However, the book is not merely a compilation of tools to learn in the cloud, comprising tools, exemplars, designs and environments across seven chapters.

To sum up, *Learning in the cloud* is an interesting book for readers who have some previous knowledge on the use of Information and Communication Technologies for Education. The book does not have many illustrations or diagrams, maybe because it is not intended to teach information but just to make readers reflect on how digital media can impact on schools. Finally, if you are not an American teacher or student, you may feel lost sometimes because many of the book references are specific for American people.