Paper and digtital textbooks: past, present and future. Discussing a Unesco literature review on digital textbooks and digital media

Organisers:
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Theme:
History of educational media and textbook development, usage, and production

Description: The literature review on digital textbooks and digital media will be shortly presented, focusing on recommendations.

MGIEP, Mahatma Gandhi Institute of Education for Peace and Sustainable Development (https://mgiep.unesco.org/), a UNESCO centre located in India, has launched a global literature review of digital textbooks and digital education media.

Several people from IARTEM have actively participated in this work, which is at the heart of IARTEM's concerns. Therefore, while the document is not yet fully finalized, it seemed important to us to organize a discussion with the conference participants. It will be held during a symposium on Wednesday, September 11 in the late morning.

You can read the document by following this link:
http://eda.recherche.parisdescartes.fr/global-literature-review-of-digital-textbooks-and-digital-education-media/

Digital textbooks, multiple heritage from books and teaching machines to Internet platforms
Eric Bruillard

Theme of the presentation
History of educational media and textbook development, usage, and production

As part of a global literature review on digital textbooks and digital educational resources, carried out by the UNESCO MGIEP Centre, I was led to explore and organize different sources to put into perspective the history of books and textbooks and the recent history of teaching machines (Fester, 2014), hypertext and electronic books.

This work first of all makes it possible to recall the not wellknown diversity of school textbooks. So, Alain Choppin (2005) distinguished seven archetypes or models of textbooks, marking various approaches and trends: the catechetical model, the apologetic model, the juridical model, the encyclopaedic model, the playful or attractive model, the school novel, the integrated textbook.

This work helps to understand the evolution of textbooks and the associated ideological issues (Johnsen, 1993), but also to introduce a more instrumental view with teaching machines (Pressey, Skinner, Crowder…), with the strange example of the scrambled books (Crowder).

The Project Gutenberg was started by Michael Hart in 1971 and the emergence of electronic books followed, with hypertext techniques. This has led to the design of hyperbooks: the representation of information fragments and their relationships; a specific representation of concepts (terminological fragments); and a language for the creation of hypertext views adapted to the various objectives of the users.

However, the notion of digital textbook is not really associated to Abstract the models designed by hypertext research. The textbook, before being a digital object, is first and foremost an economic object and what publishers propose is essential. Therefore, three "generations" of digital textbooks have been successfully developed (Bruillard, 2015): (1) reflection of the paper textbook (PDF version of the paper manual); (2) digital enriched textbook (audios and videos enhancements, and animations); (3) the digital textbook offering the teacher the opportunity to mix textbook resources and personal resources and includes interactive exercises.

The development of OER (open educational resources) provides additional free resources and open the way for new business models and new forms of textbook development. Digital not only offers new functionalities, it also makes it possible to review the very processes of textbook production, rethink the production chains, get remote teacher collectives to work together, etc.

Digital technology makes it easier and more localizable to publish paper textbooks.
The new educational platforms through the services offered introduce some key changes. If platforms are managing interaction with students, how will teachers develop their own resources? To what extent will they be dependent on these platforms? What control will they be able to exercise? The deskilling of the teaching profession is likely to be multiplied with resource service platforms.

References

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