

Digital textbooks **Current trends in secondary education in France**

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1. Introduction

One can try to imagine what a digital textbook could be in an ideal world, and describe wonderful functionalities. But we do not live in an ideal world. Actually, the transition from paper textbooks to digital resources raises many issues, including the fact that different stakeholders have competing agendas. Besides, the transition is slow and technology itself evolves at a greater speed.

We shall present an overview of the current situation in France. It is not possible to provide a complete one, because it is unstable (the end of the paper kingdom is often announced but has not yet arrived) and not well documented. School publishers know a lot of things, but as they are concurrent, say very little. It could be worthwhile to include strategic elements from publishers, but there are not public.

In this paper, we begin by describing some specificities of the French context, regarding textbooks and more general issues (limitations of current paper textbooks, and the existence of two complementary markets...). Then we give some characteristics of the French textbook market and try to define what a digital textbook is according to publishers' offers, in connection with economical models. We present recent research findings (national experiment and focussed studies in several low secondary schools of the east suburbs of Paris). We conclude with general statements and by pointing to the possible link between digital textbooks and digital resources and open educational resources (OER) movement and the possible role of teachers' network concerning digital resources.

2. Textbooks in France: some characteristics

The textbook French context is very specific. There is a national curriculum (Ministry of education) and, as Choppin pointed in 1992, it is characterized by a triple freedom:

- of production: private publishers design, publish and distribute. No state control. No textbook designed by Ministry except in very specific cases (tiny market for example)
- of choice: teachers in each school choose what they think best
- of use: pedagogical freedom, teachers can use other resources.

The key role played by teachers' prescription (choosing textbooks, using any resource) is probably essential in the current situation. As a consequence, textbooks are written for them and have become more a tool for organizing activities in the classroom and outside the classroom, than a book to be read by the students (Bruillard, 2010).

Concerning the costs textbooks in primary and secondary:

- Primary schools (up to grade 5): Municipalities (towns) pay for textbooks
- Lower secondary schools (grade 6 to 9): State: textbooks are lent to students and are supposed to be changed each four years
- Higher secondary schools (grade 10 to 12): Parents have to pay, sometimes regions do. Local policies (according to economical level of parents)

An unexpected situation is observed. As we have just remarked, textbooks are designed for teachers, for preparing their lessons and organizing classroom situations. It is an open market, but with not much diversity. For example, a study of history books (grade 9) showed important similarities (quite all the same!), a low variety of student activities (Baldner et al., 2003). Understanding why textbooks are similar can help to draw a picture of the French context. First of all, we can invoke the constraints of official programs, in line with national curricula. But also the constraints of textbook market: do not disconcert teachers, do just a little better than the others as innovation requires an audience. But also the dynamics of textbook elaboration (Ratka, 2009); constraints of paper: heterogeneous constraints and arguments hold by heterogeneous actors.

Most of the time, textbooks implement a not very innovative didactical or pedagogical model: innovation can be risky for publishers. In order to get a sufficient number of sales, publishers do not design for the last appeared technology but for the previous one. As said one publisher: publishers do not design programs; do not develop school uses (ambiguous role of inspectors). We know, but with no precise example to show, that changing a cover can generate multiplies sales...

For several years, it has been announced that paper textbooks, which tend to no longer be books but an undefined object, are outdated Their hypertextual model would have become too complex, and could not be implemented anymore on paper. Paper textbooks were adapted for an homogeneous population, not for individualization. they have to face many contradictory constraints (tool for teacher, book for student...). Students face many difficulties to use them.

In line with the textbook market, publishers are concurrent (studies are not published) and no (or very few) research exists on textbook as objects (because there are not chosen according to official requirements, with norms). There are few grids for textbook choice, no study about readability... On the other side, studies about textbook uses are difficult, costly, require time, and cannot be limited to opinion questionnaires...

3. Some characteristics of the textbook French market

The paper textbook is still a very profitable business. According to IGEN (2013), the market structure of private educational publishers is that of an "oligopoly fringe", the sector is characterized by a high concentration. Figure 1 presents the current situation; the name of the companies and the names of know French publishers.



Figure 1. Major publishing houses in the school sector (source: IGEN 2013)

In the same report (IGEN, 2013), the different elements explaining the cost of a paper textbook are listed with their percentage in the total cost.

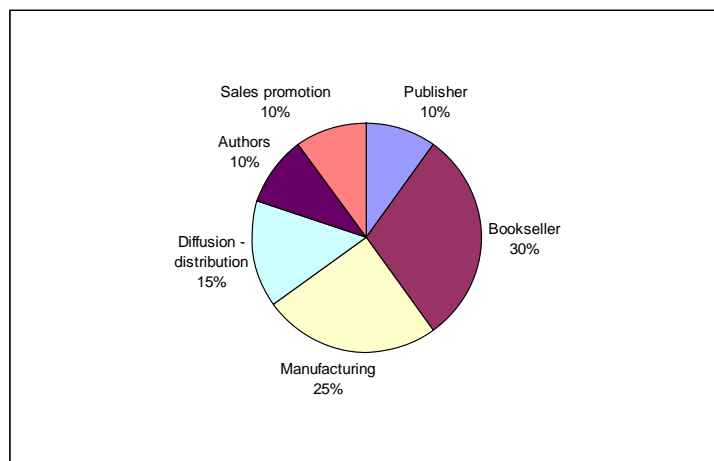


Figure 2. Cost structure of a textbook (IGEN 2013, annex, page 19)

The current cost structure of a paper textbook (figure 2) will change with the transition to digital media. For example, it is well-known in the industry of videogames, that investments are often big, and French school publishers often require some public funding to help them. But, as the paper textbook market is still flourishing, we can wonder if publishers may find an interest in digital textbooks.

Another characteristic of France, is the existence of a second market, sometimes called the parents' fear market. Educational resources for "after school" with edutainment or school support, Internet use require other characteristics: personal not collective use; game oriented for student and also similarity with classical textbooks for parents in order to reassure parents. We can wonder if this is a step towards home schooling or at home complementary education? Is it a step towards school as a market for big companies?

In such context, how is it possible to think about the introduction of digital textbooks?

Nevertheless, research and initiatives are not new concerning digital textbooks. Ten years ago, several experiments have been launched using the name "Digital schoolbag". These experiments were inconclusive, but often were given a lot of coverage.

For example, a Korean television was present during a presentation of the electronic schoolbag Vivendi in a low secondary school of the Somme (Moreuil) in the early 2000s (Bruillard, 2003; Romby, 2003). On the school website, several images and videos were celebrating the event. A photograph showed two students comparing the weight of the electronic schoolbag with that of several textbooks.

On one side of a scale is an electronic schoolbag. On the other side is a dictionary and a history textbook. The science textbook is not yet installed and the tray is already leaning ...

Schoolbag weight is a very classical argument in favour of digital technologies



Ten years after, according to a press release from the National Union of publishing¹, in November 2011, “despite an increase compared to 2010, digital textbooks represent less than 1% of the turnover of printed manuals”.

In the report previously mentioned (IGEN, 2013), it was asked what proportion of the the digital business in the turnover of textbook publishers? They have gathered some figures: 1% in Germany, 2% in Austria, between 35 and 40% in the US (notably due to national tests), no available data in Denmark and Estonia and a description of the Finnish textbooks market: 10% digital, 60% hybrid, 30% paper.

4. What is a digital textbooks... for French publishers

It is not easy to define a digital textbook. Is it a portable device or internet services, the digital Schoolbag (PDA, mobile devices...), a complementary or a substitute to paper textbooks.

Quite unusually, Wikipedia is not really helpful. The English “digital textbook” article² is a description of the digital textbook program announced by the Education Ministry of South Korea on March 8, 2007. It is a kind of advertisement (“The digital textbook is currently being tested in several primary schools and will be distributed free to every school nationwide by 2013.”; links to Korean information, and advertisement for Toshiba and Fujitsu). The only other language connection is Korean, all examples are from Korea. This page was last modified on 7 November 2012, it does not seem to be a hot topic.

It is worth noticing that in the annex of the Inspectors report (IGEN, 2013), a specific report on South Korea provides a contrasted view of the current situation, Korean society being now attentive to the consequences of an “all digital” educational policy. Teachers' unions have expressed concerns about the training of teachers and the actual costs of such a program. A whole generation of teachers does not feel able to meet the new requirements of the Smart Education. In terms of health, education policy of "all digital" seems inconsistent with the concerns expressed by the government about Internet addiction, which could affect Korea 8% of the population, or 2 million people, half of whom are aged 9-19 years. Finally, on the economic front, the ongoing negotiations between the Department and the editors have not yet identified a viable model.

Concerning Wikipedia and the French “manuel numérique”³, it is even worse, a small page with a broken link and information from the Ministry, last updated June 28, 2010 and no link with an article in another language.

Fifteen years ago (Bruillard & Baron, 1998), considering the potential of hypertext technology and computer based learning and teaching, we had the idea that digital textbooks had to be designed in connection with teaching processes. Used independently (for example by students at home), it should both be seen as a set of resources and integrate functions of teaching, managing interactivity with the student. This tension is difficult to manage. In practice, indeed, due to the lack of alternative model sufficiently recognized, the management of interactivity with the learner in a position of autonomy is often designed, even by proponents of constructivist approaches, as a tutorial guide. This invites us to rethink the complementarities between book and IT environment and devise tools to provide teachers to link theory, objectives, knowledge gaps and misconceptions of students and activities to implement. So it seemed essential to be able to provide teachers with software integrators incorporating more or less a pedagogical theory or reusable pieces, taking into account that neither the tools nor the necessary culture were present.

But what happened? Looking at current offers, we observe a very different story and other issues. In this section, we try to report publishers' point of view, on the basis of what emerges

¹ <http://www.sne.fr/img/pdf/SNE/Enseignement/CP-Manuelnumerique22-11-2011.pdf>

² http://en.wikipedia.org/wiki/Digital_textbook

³ http://fr.wikipedia.org/wiki/Manuel_num%C3%A9rique

from their web sites? It is worthwhile to notice that the specific features in France concerning textbook market have implications for what can be viewed as a textbook. As the main target is the teacher, the definition of a digital textbook is for teacher use.

According to one big publisher (Nathan)⁴, “The digital manual is, in its simple version, the digital video projector version of the paper manual with an intuitive and user-friendly interface”. But “enriched and Premium versions” are also offered, enrichment by many and varied multimedia resources: audio, video, interactive resources (enhanced digital manual); and a “customization tool”, allowing teachers to create learning sequences and student to create presentations (digital manual Premium). It is also précised that many features allow for collective use in the classroom, video projection or the TNI or individual consultation by students at home.

According to Bordas⁵, there are three categories of digital textbooks: simple, enriched, premium⁶. We find the same discourse with all publishers. For example Magnard⁷, Hatier⁸, Foucher⁹... Hachette¹⁰ express five big ideas: (1) video project in classroom and focus the attention of your students; (2) enrich your courses; (3) personalize your approaches and your lessons; (4) share; and (5) work where you want.

According to KNE¹¹, a group of digital textbooks publishers:

“based on structured content of eponymous paper textbooks, they propose the contents of the paper textbook in digital format, accompanied by easy-to-use features such as animation for easy video-projection by the teacher with or without an interactive board to build sequences, customizing the manual, preparing and conducting lessons, interacting with the class or simply consulting its manual illustrated with multimedia content.”

Concerning costs, the offers are complex, depending of the kind of digital textbooks (simple, enriched, premium...) and if the school has bought or not the corresponding paper textbook. For example, a publisher¹² shows a simple matrix (simple / premium) (users of the paper textbook / non user of paper textbook). For another publisher¹³, teachers who have recommended the corresponding paper textbook are allowed to use the digital textbook through the video projector for free.

According to a newspaper article¹⁴, publishers realize each year a 250 million euro turnover through textbooks, according Savoir Livre association¹⁵. They represent a bonanza in a very depressed publishing market when 10% of sales come from textbooks. The digital manual represents 1% of their turnover. That explains why the digital version, often modelled on the paper, is sold in addition to a few extra euros.

In the same newspaper article, Sylvie Marcé, CEO of Belin, warns not to dream about a low-cost digital manual, since design and rights purchase for images explain most of the price.

⁴ <http://www.nathan.fr/manuels-videoprojetables/>

⁵ <http://www.editions-bordas.fr/manuels-numeriques>

⁶ http://www.editions-bordas.fr/pdfs/mvp/ce_qu_il_faut_savoir.pdf

⁷ <http://www.magnard.fr/spip.php?article5264>

⁸ <http://www.numerique-hatier.com/>

⁹ <http://www.editions-foucher.fr/manuelsnumeriques>

¹⁰ http://www.enseignants.hachette-education.com/lycee_Disciplinesgenerales/pages/manuel-num/manuels-numeriques-presentation.php

¹¹ [http://supportkne2.fr/component/content/article/34-manuels-numeriques-et-ressources-multimedia-comm/134-c21-manuels-numeriques--comment-ca-marche-Difficult to get good figures.](http://supportkne2.fr/component/content/article/34-manuels-numeriques-et-ressources-multimedia-comm/134-c21-manuels-numeriques--comment-ca-marche-Difficult%20to%20get%20good%20figures)

¹² <http://www.editionsdidier.com/text/manuels-numeriques>

¹³ <http://www.bertrand-lacoste.fr/fr/actualites.html>

¹⁴ <http://www.lefigaro.fr/actualite-france/2012/09/10/01016-20120910ARTFIG00420-le-manuel-numerique-peut-mieux-faire.php>

¹⁵ <http://www.savoirlivre.com/secteur-economique/chiffres-cle.php>. The figures on this website are older.

"Publishers are also investing to develop enhanced versions, really interactive. We must stop thinking that we are sitting on a pile of gold," argues Sylvie Marcé.

As said Marc Delaunay, also from BELIN, during a roundtable¹⁶: "For now, we must not forget that it is paper that gives life to digital. Digital is a challenge for publishers, but for now it is not profitable."

It is always difficult to have accurate figures. According to GEDEM¹⁷, a group of multimedia publishers, "The market for digital resource has struggled to find its place between spending on equipment (computers, connections IWB and projectors, tablets ...) and paper textbooks. Today, communities spend most of their budget "digital education" of equipment (over 250 million); government spending for textbooks is approximately 300 million euros, to which must be added the cost of about 110 million photocopies. The market of educational software and digital textbooks is estimated at only 20 to 30 million, an average of 2 to 3 euros per year per student, for a total public expenditure of euros 7410 per year per student.

To summarize, according to the recent report from national inspectors (2013), textbook publishers have begun to develop digital products mainly from 2008 on. Three "generations" of digital textbooks have been *successfully* developed:

1. simple digital textbook, reflection of the paper textbook, which was marketed from 2008 (PDF version of the paper manual), even earlier
2. digital enriched textbook, launched in 2009, which, unlike the previous one, also contains enhancements audios, videos, and animations;
3. Finally, the digital textbook "3rd generation" marketed from 2011 on, offers the teacher the opportunity to mix textbook resources and personal resources and includes interactive exercises.

All of these tools are intended to be integrated into the collective use of the class textbook, and primarily for teachers in order to be projected in the classroom instead of the paper textbook open on the desktop students.

According to the SNE¹⁸, there are over 1000 digital titles; since 2009, every textbook is systematically bi-media (paper & digital); all with advanced interactivity (video projection, ergonomic navigation tools for interaction with the class), digital textbooks are increasingly rich and customizable; today, a majority of digital textbooks embark different media (animations, video, sound) resources and allow each teacher (and student) to customize content".

It is clear that in the eyes of publishers, the preferred model is the joint use of the paper textbook and the digital textbook.

A new product, called the Lib (for Livre interactif Belin¹⁹) is a new generation digital textbooks, accessible on tablets. As explained, a teacher can change his/her textbook, adding and editing documents, text or pages, creating his/her own courses from the textbook records or documents. Toolbox highlighter, arrows, zoom tools, selective presentation... Multimedia supplements: animated maps, interactive diagrams, videos ... Media, "Share your modified pages with your fellow teachers". More and more publishers show their interest towards this Lib technology, which can provide an answer to the requirements of teachers to adapt educational tools for their students and to the overall context of their teaching.

¹⁶ <http://www.cndp.fr/savoirscdi/centre-de-ressources/fonds-documentaire-acquisition-traitement/les-manuels-numeriques/le-manuel-numerique-evolution-ou-revolution.html>

¹⁷ http://www.refondonslecole.gouv.fr/wp-content/uploads/2012/10/propositions_gedem_1.pdf

¹⁸ <http://www.sne.fr/img/pdf/SNE/Enseignement/CP-Manuelnumerique22-11-2011.pdf>

¹⁹ http://www.editions-belin.com/ewb_pages/1/le-lib.php

But economical constraints remain, and publishers want to preserve their advantages and ask help from the government (see for example publishers' contribution for the radical reform of school system²⁰). But the picture viewed through publishers' websites and feedbacks from school experiments are not quite in line!

5. Some research

As quoted in a preceding section; research on digital textbooks is not new. It helped to foresee some possible options, to understand some situations, but lessons learned from past research are very rarely used. Political interest concerning new technology fluctuates.

During the 3 past years, we observed a renewal of the interest expressed by official discourses, conducting to a lot of initiatives:

- reports from national inspectors (Séré & Bassy, 2010), Leroy (2012), IGEN (2013)
- survey (educational ministry website),
- financial support for projects in association between publishers and researchers (a lot of different projects helping school publishers and software companies to develop some new offers)
- national consultation for a new foundation of the school of the Republic.

This interest sheds some lights on school publishers and on digital textbooks. But the results are not clear.

Digital textbooks: a national experiment

The ministry of education has decided to launch a national experiment called “digital textbooks through digital working platforms”. So, it is not directly oriented towards digital textbooks, but associated to the context of the development of digital working platforms. These platforms can be considered as a combination of a VLE (virtual learning environment) mostly devoted to pedagogy and school-work (exchange of documents between teachers and students) and a school management system (management of student absences, administrative information, grades...). The official idea was to experiment the use of digital textbooks both in the context of the classroom and at home for students.

During the 2009-2010 school year, this operation involved all the classes of 65 low secondary schools (grade 6) located in regions that have initiated a process for generalizing digital working platforms. This area represents 8000 students and 890 teachers who were able, via an extranet, online access to their digital textbooks from anywhere at any time: in the classroom, resource centre, at home, while having the corresponding paper manuals.

Not surprisingly for readers, the experiment will observe more uses in the classroom with video projector or interactive whiteboard than at home by students. The *official* results of the first year of experiment (published on the ministry website) are not very promising.

- Digital textbooks designed along the lines of printed manuals, enrichments provide real value but still too modest, interactive features being very limited or absent
- A sustained overall frequency of use for teachers / use significantly less frequent for students
- Different uses following the disciplines but little activity with new digital textbooks
- Significant differences between schools / Few marked differences between disciplines
- Suitable for collective use (lectures) but do not encourage individual work

²⁰ http://www.refondonslecole.gouv.fr/wp-content/uploads/2012/10/contribution_concertation_edit_scol.pdf

- Classroom configurations not always suited to reading
- Still insufficient training for teachers
- Hurdles are identified on the form and features of digital textbooks

For the second year, if some positive facts are given: impacts are always positive and relatively stable upon the weight of schoolbag but still disappointing results are obtained in terms of innovative teaching. According to the report, digital textbooks contribute to some extent to development of digital use in low secondary schools, despite the difficulties (in particular, technical malfunctions, at the beginning and then throughout the school year).

These technical problems reveal a desire of school publishers to protect their digital textbooks from copy: they have installed a lot of protections, causing many problems to users. As observed one teacher²¹: "Many problems are related to facilities, the publisher gave us a CD, that could be activated only once. Now the computer on which the textbook was installed is down...'

The other results of the second year of experiment were not very optimistic: digital textbooks have changed very few things despite some highly innovative textbooks and a using frequency lower than the first year.

- A significant decline in the collective use in the classroom because of dysfunctions and the development of digital media products by teachers
- Individual use by students during and outside of class remains weak but with a significant change in and outside the classroom in some local experiments encouraging use
- Uses are primarily based on the practices of teachers, than differences between disciplines

Disappointment is the main result. Many teachers expected significant improvements to deepen their use of digital textbooks. Most of them during the second year confirm both their interest in the experimentation and their disappointment towards the digital textbooks available. Students were rather motivated in particular by easing the transportation of their schoolbag, but were a little less enthusiastic than during the first year.

In conclusion, the economic model does not facilitate the dissemination and distribution of digital textbooks

Digital textbooks: an exploratory study in low secondary schools

We have conducted a study in five lower secondary schools participating in the national experiment and considered as “advanced” concerning use of ICT in education. Our investigation confirms national results. Actors are disappointed: there are technical problems and digital textbooks are considered of bad quality. The use of textbooks with interactive whiteboard leads to enhance a “frontal” pedagogy, far from interactivity and individualisation.

One exception needs to be noticed: the teacher network called Sesamath produce free textbooks but also tools which can be used by students at home. Teachers can propose exercises to be done by students and can obtain the results of students’ activities at home. So, what school publishers do not seem to be able to provide to teachers is offered by an innovative team of mathematical teachers.

A questionnaire was administered to students of grade 7, Spring 2011. It has been particularized for each low secondary school according to the digital textbooks they were

²¹ <http://www.cndp.fr/savoirscdi/centre-de-ressources/fonds-documentaire-acquisition-traitement/les-manuels-numeriques/le-manuel-numerique-evolution-ou-revolution.html>

supposed to have used during the preceding year. In total, nearly 500 questionnaires were analyzed. The analysis quickly showed a great confusion in the responses of students for whom it was difficult to distinguish between digital textbooks, and more general digital resources, which were displayed on an interactive whiteboard or visible via a computer. In particular, inconsistencies have emerged in several answers, which led us to set aside a large portion of questions.

Almost all students reported having at least access to a home computer (personal computer for almost half of them) and more than 90% say they have an Internet connection. Some students do not have access to internet at home, two-thirds have access outside the home: with friends, neighbors, CDI...

2/3 of the students reported using a computer also away from home, especially with friends (1/2) or CDI (4/10). As shown in Table 1, seven out of ten students said they most often worked alone at home, fifth with their parents, regardless of their 6th grade and whether girls or boys.

Table 1. With whom student do their homework

| With whom did you mostly do your homework | Nb. | % (*) | Examples |
|-------------------------------------------|-----|-------|------------------------------------------------------------------------------------------------------------|
| Alone | 346 | 71% | |
| With parents | 102 | 21% | "my father sometimes"; "only my mother", "my grand mother", "my grand father", "my aunt or a neighbour..." |
| With a brother, a sister | 45 | 9% | |
| With others | 45 | 9% | "friends", "a classmate"; "sometimes with mates." |

For their work at home, students still enjoy, in addition to manual digital school books ("paper manuals") documents provided by their teachers or other resources. One discipline to another, the use of digital manual is more or less (depending on the discipline, between 10 and 30% of citations, average = 1/4) but remains a minority; documents include in paper textbooks and teacher remain the most common use (on average, 2/3 on manual and paper documents the teacher).

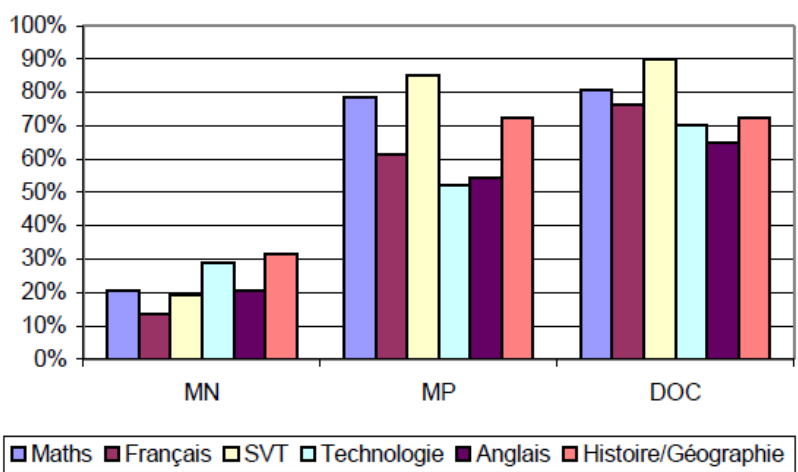


Figure 1. With which do student declare learning and revising their lessons at home?

(MN *manuels numériques*, digital textbooks / MP *manuels papier* paper textbooks /DOC documents provided by their teachers

Other students' answers provide guidance rather indirect uses of manuals (paper and digital) as well as the interactive whiteboard. It seems that three disciplines - mathematics, technology and history / geography - have, ultimately, more used and digital textbooks interactive whiteboard, with notable differences colleges, suggesting a institution or teacher effect.

Concluding remarks

To conclude, the digital textbooks offered in France are mainly improvements of paper textbooks, including new features, with an economic model still in line with paper products. School publishers try to keep their control on this market and offer few improvements. Digital textbooks do not include software managing a meaningful interaction with a student (the market of educational software including tutorial guidance is separate). As so many young students work alone (nearly 3/4), the possibility of digital textbooks to manage interaction is certainly a key point.

New economical models follow the global transition from products to services. A digital textbook, as the one of Belin (Lib), is a service provided on Internet. Digital textbooks provided by publishers and completed by teachers can be used by a specific community (passwords are linked to payment) as far as payments are made. As soon as such payment cannot be made, resources are not more accessible. A teacher can keep access to what he/she has designed, but publishers' resources are suppressed. So concerning textbooks, becoming digital, there also can become only rent for a period of time. Paper textbooks are products you buy and you can use it as long as you want (even for too long period of time, even if official programs have changed), digital textbooks are offered as limited services.

It may be noted, however, that the effects of infrastructure can be judged interesting. Teachers who have the habit of using a video projector or interactive whiteboard have established preparations taking into account the possibilities of projection. Their supports are done, they are demanding digital resources (including digital textbooks) and consider that any institution must provide them with the necessary collective projection technologies. They do not want to go back. Can augur that this will contribute to the proliferation of digital educational resources and if other conditions are met, this will encourage them to exchange and improve collectively. The educational activities with ICT should take consistency and more teachers should be able to grow and naturalize practices that will no longer be labelled innovative but well considered educationally relevant.

The important issue of articulation between paper-digital, school and outside school resources remains not really addressed, and companies try to be present on this market. Aware of this situation, Ministry of education has announced that a specific internet service will be freely offered for sixth grade student this year.

The traditional model of textbook publishing can be seen as being in decline. Several different models can arise. One possibility is that teachers will organize themselves in networks to produce and share their own content and discuss teaching practices they appreciate effective. Closely linked to the concept of academic freedom, textbook production by teachers' network can be facilitated by Internet. Sesamath advocates the importance of open and accessible format. As Sébastien Hache, one of the three founders of Sésamath, asserts: Sesamath "aims to (re) give all the keys to the teacher." Sésamath ensures that the resources it provides are fully convertible by teacher users. According to members in charge of Sesamath, the fields of individualization and personalization of learning must be understood and mastered by teachers themselves.

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Annex 1: characteristics of the Lib offer

The first column gives the available functionalities for the basic offer; the second one for the Premium offer.

| | Lib' Basic | Lib' Premium |
|------------------------------------|---------------|-----------------|
| Your application with you | | |
| Internet access | ✓ | ✓ |
| Downloading on a computer | ✓ | ✓ |
| Exportation on an USB key | ✓ | ✓ |
| Animation of your lesson | | |
| Video projection | ✓ | ✓ |
| Full screen view of a double page | ✓ | ✓ |
| Toolbox | ✓ | ✓ |
| Access to free pedagogical add-ons | ✓ | ✓ |
| Lesson personalization | | |
| Documents comparison | ✗ | ✓ |
| Personalization of a page | ✗ | ✓ |
| Page creation | ✗ | ✓ |
| Access to all textbook documents | ✗ | ✓ |
| Import of your personal documents | ✗ | ✓ |

http://www.editions-belin.com/ewb_pages/1/le-lib.php