

Educational publishers in the digital transition. A focus on digital textbooks

Educational Publishing Futures
European Schoolnet
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Outline

- What publishers are faced with
 - Public /Private relations
- Fitting ressources within global IT architectures
 - Distribution platforms
 - Digital workspaces
 - Interoperability
- Share results of research on digital textbooks
- Share thoughts on change management

Digital environment of educational publishers

Authors

Disintermediation experiments

Suppliers

- New partners
- File formats
- Standards

Institutional environment

- Pricing regulations?
- VAT?
- Pedagogical exception?

Educational publishers

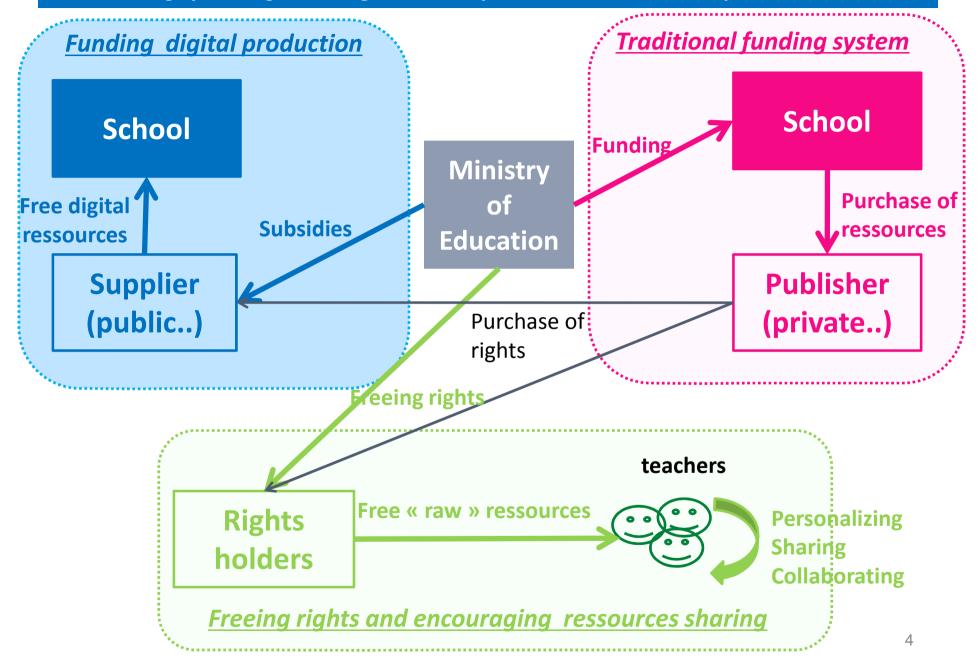
Competitors

- New entrants
- Subsidies to ressources production by Ministry
- Public competition

Clients / users

- Who finances digital ressources?
- Where are the budgets?
- How will
 distribution work?
 Interoperability
 with schools MIS

New funding systems generating uncertainty, and distorsions in competition



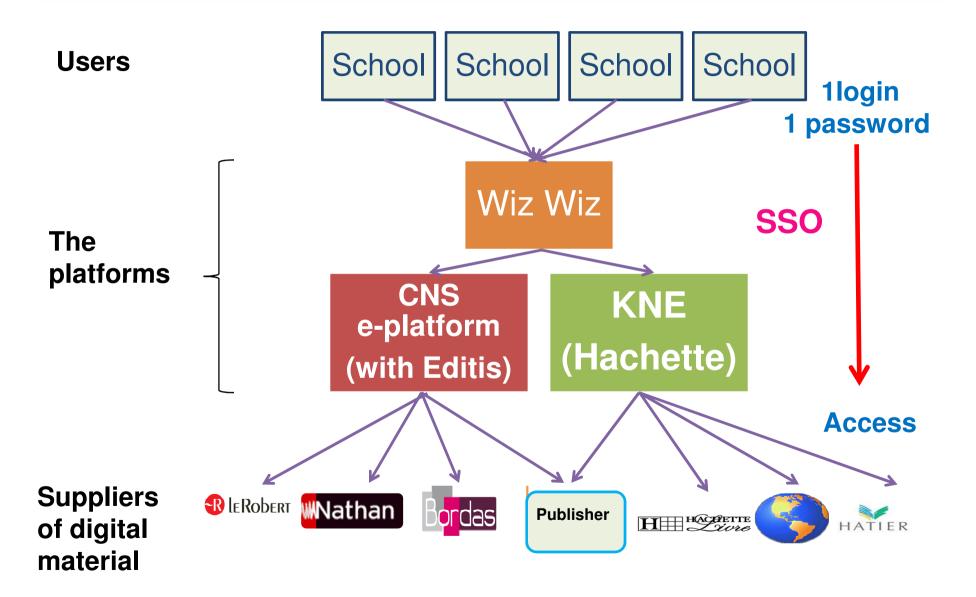
A need for clarification of the conditions of public / private competition

- Perimeter and role of Education Ministry
- Which public institutions really have an educative mission and a role to play in the production of pedagogical ressources for teaching
- Fair conditions of access to public data
- Fair pricing (using full costing) of pedagogical ressources produced by public institutions
- Public money devoted to acquisition of ressources rather than subsidies to production of ressources

The distribution of publishers digital ressources in France

- Overall architecture of digital education as conceived by Franch Ministry of Education as of 2002
 - Broadband widely available
 - Digital workspaces progressively deployed in all schools
 - Digital ressources available on line
- On-line distribution system demanded by Ministry in 2004
 - Full visibility of the range of ressources available
 - Access with Single Sign On (SSO)

Conceptual Architecture



Value of the platforms for publishers

- Provide a standard solution to plug online resources
- Certify to the publisher that users have the right to use theirs resources with SSO mecanism
- Provide user information to the publisher

Value of the platforms to the schools

- All private ressources displayed on « only » two catalogs; one soon
- One login, one password for all ressources
- Detailled usage information can be provided
- Connected with all major Digital Workspaces; adaptable to the others

Interoperability issues and other technical issues

- Schools equipments and organisation of maintenance
- Broadband performance
 - On-line vs off-line use
 - Downloading difficulties
- Digital workspace, progressively deployed in secondary schools
 - On-line connections
 - Firewalls
 - How are the digital interactions between teacher and student managed?
 - One or several Virtual Learning Environment ?
- New mobile devices

Questions

- Giving teachers a full view of the ressources available
 - Can a global catalog help?
 - How should it be structured?
 - Lessons learnt from Curriculum on line ?
 - ...
- Developing standards / Ensuring interoperability
 - Can it be done without an implicit underlying and certainly premature view of how teachers will work?
 - Avoid restraining pedagogical innovation

What is a digital textbook?

Textbook





In a viewer

- Projection
 - ❖ Zoom...
 - Compare documents
- Annotation
- Navigation
- **❖** Personnalisation by teacher
 - Lessons preparation
 - Adding own documents...

With enhancements

- Images
- Vidéos
- ❖ Sound
- Multimédia animations
- **❖ Interactive exercises**
- Hyperlinks
- ***** ...

Mostly for collective use in the classroom in 2009/2010

Example: Histoire Géographie 5ème Mathan





Print textbook (368 pages)

Iconography: 460

Maps: 190

Charts and graphs: 120

Chronologies: 24

Texts (sources): 119

Digital textbook (additions)

Vidéos and audioresources: 50

Interactive maps and charts: 78

Multimedia animations: 23

Interactive exercises: 40

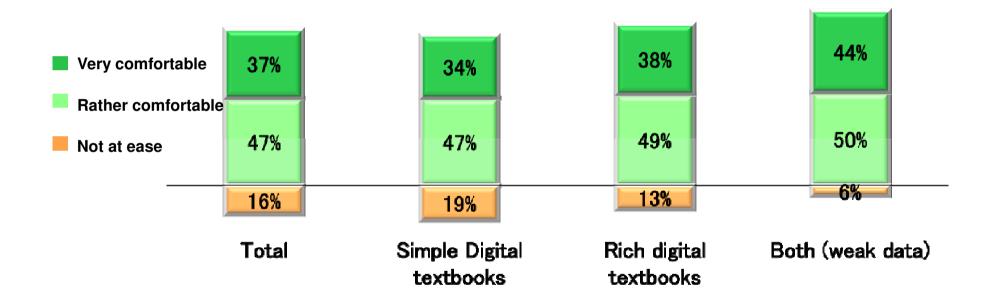
Pdf documents: 97 of which

•To be printed: 29 Activities: 31

·Révision: 22

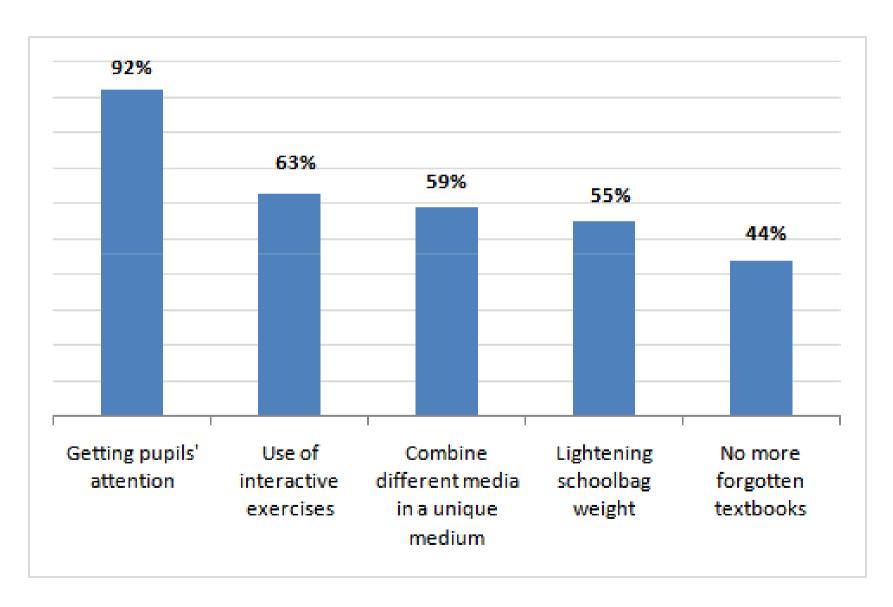
•Blind maps: 15

Teachers feel rather comfortable with digital textbooks

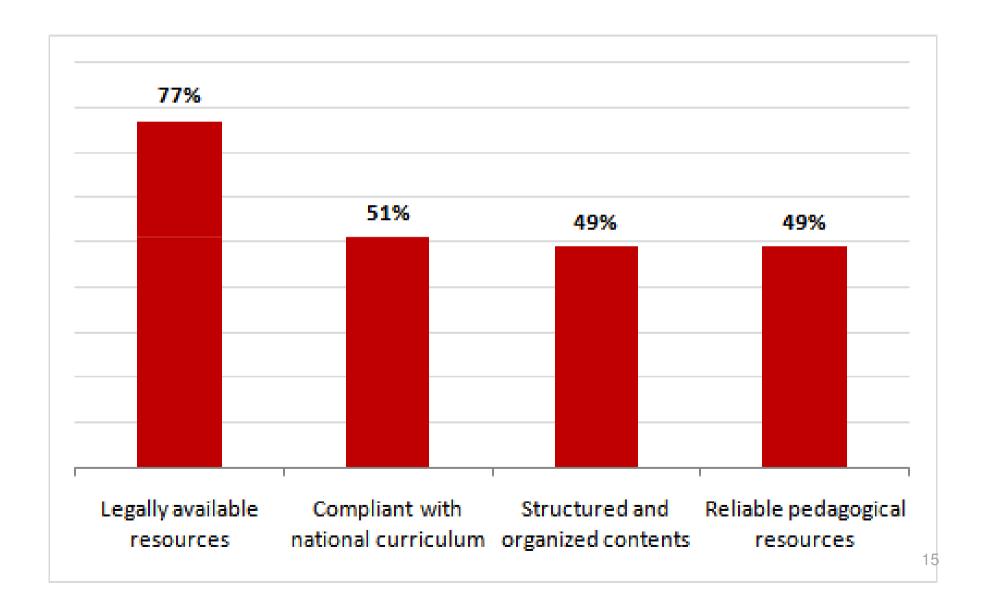




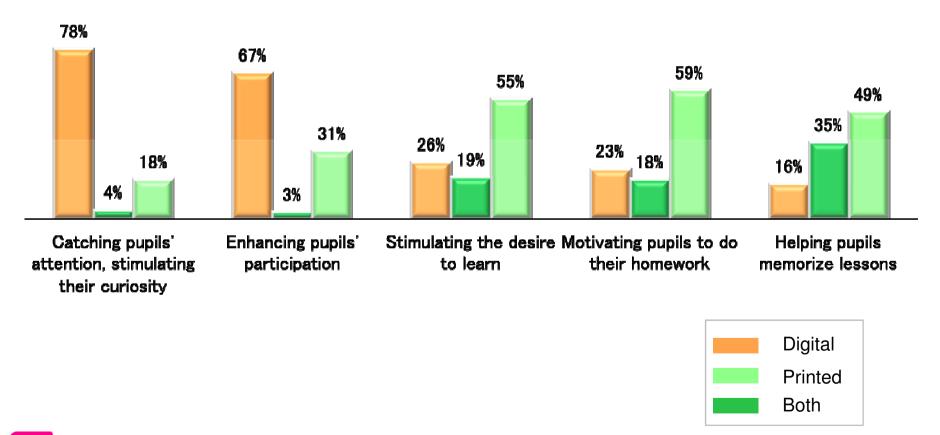
Percentage of teachers thinking that digital textbooks are better than print at...



Percentage of teachers thinking digital textbooks are better than other digital learning resources...

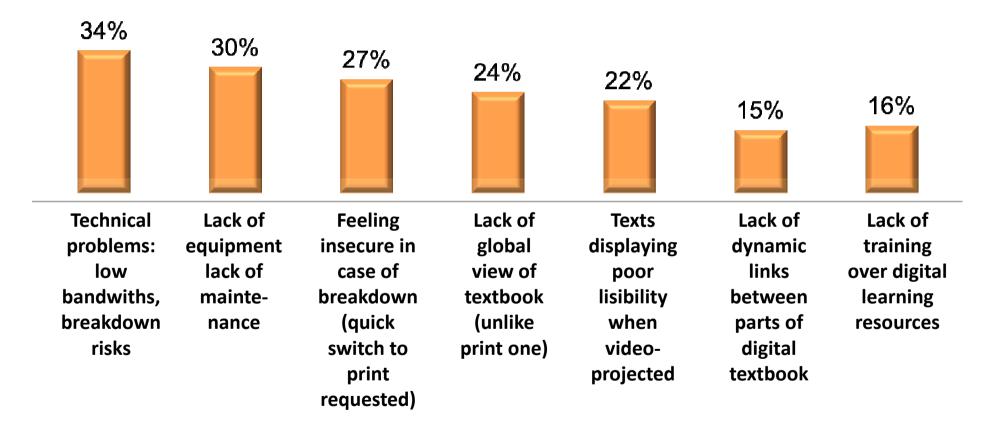


Digital and Print textbooks are complementary





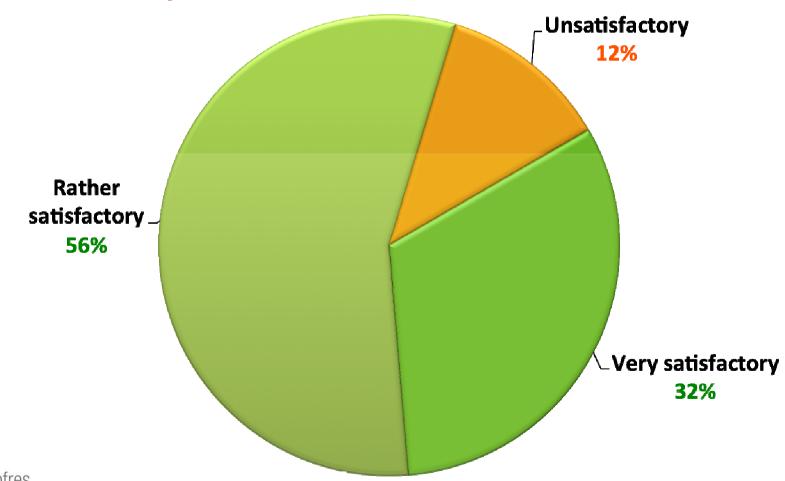
The main difficulties encountered are technical





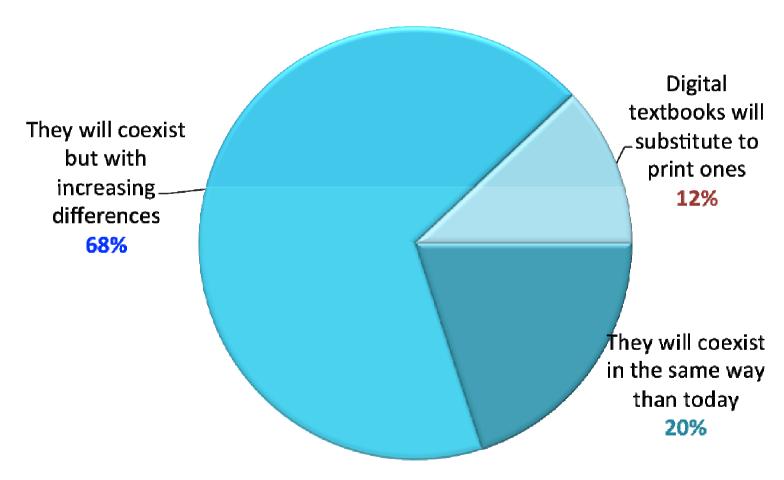
Digital and Print textbooks are complementary

Is complentarity between digital and print textbooks satisfactory?





Coexistence between digital and print





Teachers' expectations for digital ressources

- Contents that they can easily customize and integrate with their own class material
- Regular updates of contents
- Access to banks of interactive resources and exercises (focus varies according to the teacher's subject)
- Legal security
- Compliance with curricula
- Quick searching and finding (no waste of time)
- Help in building / managing consistent progressions
- Help in putting in place differentiated pedagogies

Change dynamic

TRANSITION Type of **Customized to** Collective individual needs. ... teaching Classroom Vidéoprojector 1PC/device per pupil... equipment **IWB Digital Teachers Tracking of** personalisable individual students textbooks and tools ressources Self-learning? **Digital** Pupils' textbooks e-learning? tools **Practise tools** Serious Games?..

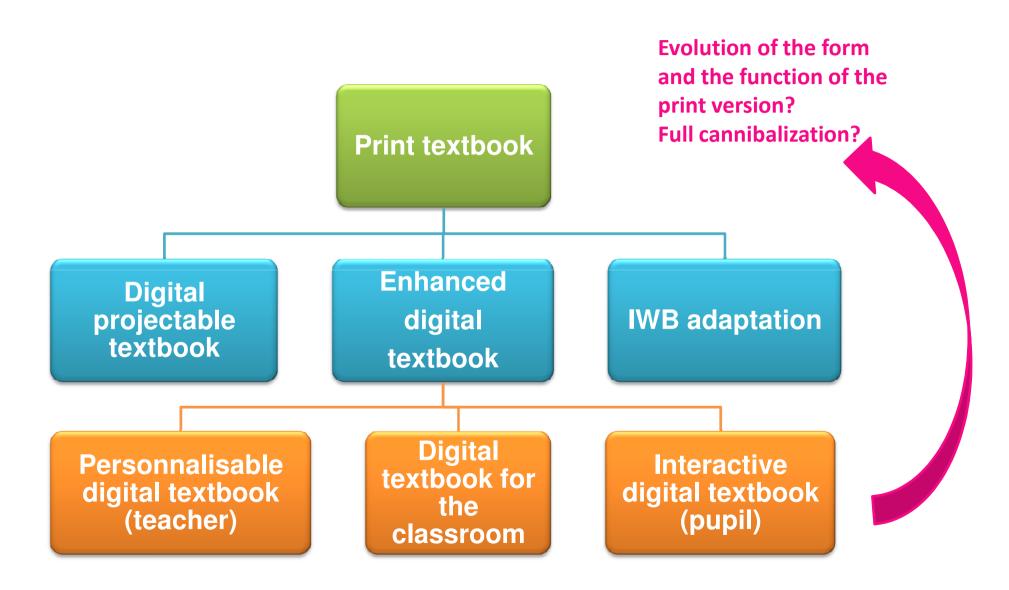
Digital textbooks in the change process

- FUNCTIONS,
 MEDIA AGNOSTIC
 - ↑ Major vehicle for changes in curricula
 - ↑ Teachers reference for compliance with curricula
 - ↑ Structuration of learning (contents, pedagogy, progressions, consistency, comprehensiveness)
 - ↑ Heart of the parents-teacherpupil triangle

DIGITAL TEXTBOOKS, AN EASY TRANSITION

- ↑ For the pupil: brings structure and rigor to digital learning
- ↑ For the teacher: enables the technical transition; prepares pedagogical evolutions
- ↑ For the classroom: allows animations and interactive enhancements; stimulates attention and motivation

The evolution of textbooks



APPENDICE

Methodology

- On-line survey to 750 teachers (1st & 4th grades of lower secondary schools) using even occasionnally digital textbooks.
- Survey performed between april 15th and may 13th 2010

Sample profile

Public	84%
Private	16%

ZEP	13%
Non ZEP	87%

Male	35%
Female	65%
< 35 years	30%
35-44 years	38%
45-54 years	20%
55 years & more	12%

History-Geography	53% *
Mathematics	27%
Biology	7%
French	7%
Foreign Languages	9%

^{*} Total above 100% (teachers declaring several topics)

