

ePUB v3.0 为电子学习带来的契机

ePUB v3.0 for e-Learning

企业与消费电子群组总监
应科院副总裁
赵盛章博士

VP & Group Director
Enterprise & Consumer Electronics
Dr. Sheng-Chang Chao

2010年11月3日



Why ebook standard for e-Learning?

为何需要针对电子教育的电子书标准？

- **Digital content consumption (数字内容消费构成)**
 - ~45% digital video, ~45% published content, ~10% music (~45%的视频, ~45%的出版物/电子书, ~10%的音乐)
 - e.g. Amazon Kindle EReader proves the e-Reading an acceptable user experience and triggers the explosive growth of Ebook (亚马逊的Kindle电子书阅读器证实电子阅读是一种可接受的用户体验并启动了电子书市场的爆炸性增长)
- **Education is the largest market of Ebook (教育是电子书最大的市场)**
 - Over 200 millions of students in Great China (在大中国地区有超过2亿的学生)
 - Huge cost saving and new market in selling Ebooks(采用电子书将极大的节省学费并创建新的电子书销售市场)
- **The education market triggers the need for Ebook standard suitable for e-Learning (教育市场开启了制定适用于教学的电子书标准的需求)**

为何要选择ePub和ePub 3.0来做电子教学?

Why ePub and why ePub 3.0?

● 为何选择ePub(Why ePub?)

- ePub标准为适应不同尺寸的显示器而设计，能够自动重排以适应不同的屏幕 (EPub is designed to be reflowable to fit to various displays with different dimensions)
- 随着电子书设备的兴起和越来越多在手机上进行的阅读，以一种电子书格式适应不同屏幕的需求越来越强烈 (With the booming of Ebook devices and more and more reading on mobile phones, one book format for all devices becomes a critical requirement)

● 为何选择ePub 3.0来做电子教学 (Why ePub 3.0 for e-Learning?)

- 当前ePub标准(2.0.1为最新稳定版)的主要缺点(Major shortage of ePub 2.0.1, the current stable version) :
 - 主要为文字+图片内容设计，不能完美支持多媒体内容如音视频等 (Mainly designed for text + image content, lacking well-defined multimedia support)
 - 无法支持读者和电子书的互动及老师学生及学生之间的教学互动 (Not designed for e-Learning, can't support user/ebook interaction and students/students, students/teacher interaction)
 - 没有标准的注释功能支持 (No standard annotation support)
- 所有这些问题都将在ePub 3.0中解决并且ePub 3.0将提供更多强大的功能 (All above issues will be solved in ePub 3.0 and it will provide more)

EPub 3.0 特性简介

EPub 3.0 feature highlight

- **强大的多媒体支持能力 (Strong multimedia content support)**
 - 支持类似HTML5的视频和音频内容
(Support for HTML5 alike video/audio content embedding)
 - 支持卡拉OK功能和语音文字同步(Support for Karaoke function and audio-text sync up)
- **更好的支持电子教学 (Better support for e-Learning)**
 - 支持注音 (Ruby text support)
 - 对于语言学习相关内容如拼音和英文等非常有用
(useful for learning Pinyin, learning English)
 - 互动功能支持 (Interactivity support)
 - 可以支持互动式教学练习及老师、学生通过学习管理系统进行的互动，以进行教学评估和促进教学改进
(useful for interactive learning exercise, students/teachers interaction via LMS enables the learning assessment and teaching/pedagogy improvement)
 - 支持交叉引用和注释的创建及分享
(Support for creation and sharing of cross referencing and annotation)
 - 对于进阶阅读和学习非常有用，并能够支持建立以学习为导向的校园社交网络
(useful for enhanced reading and learning, enables the support for learning oriented school social network)

EPub v3.0 特色功能示例

Samples for ePub v3.0 features

- 多媒体示例 (Multimedia samples)

- 音频(audio)
 - 解说及听写(narration & dictation)、英文歌曲(English song)、背景音乐(background music)
- 视频及动画(video and animation)
 - 国家地理(national geographics video)、物理原理及数学公式解说(physics and maths explanation in animation)

- 互动式活动示例 (Interactivity samples)

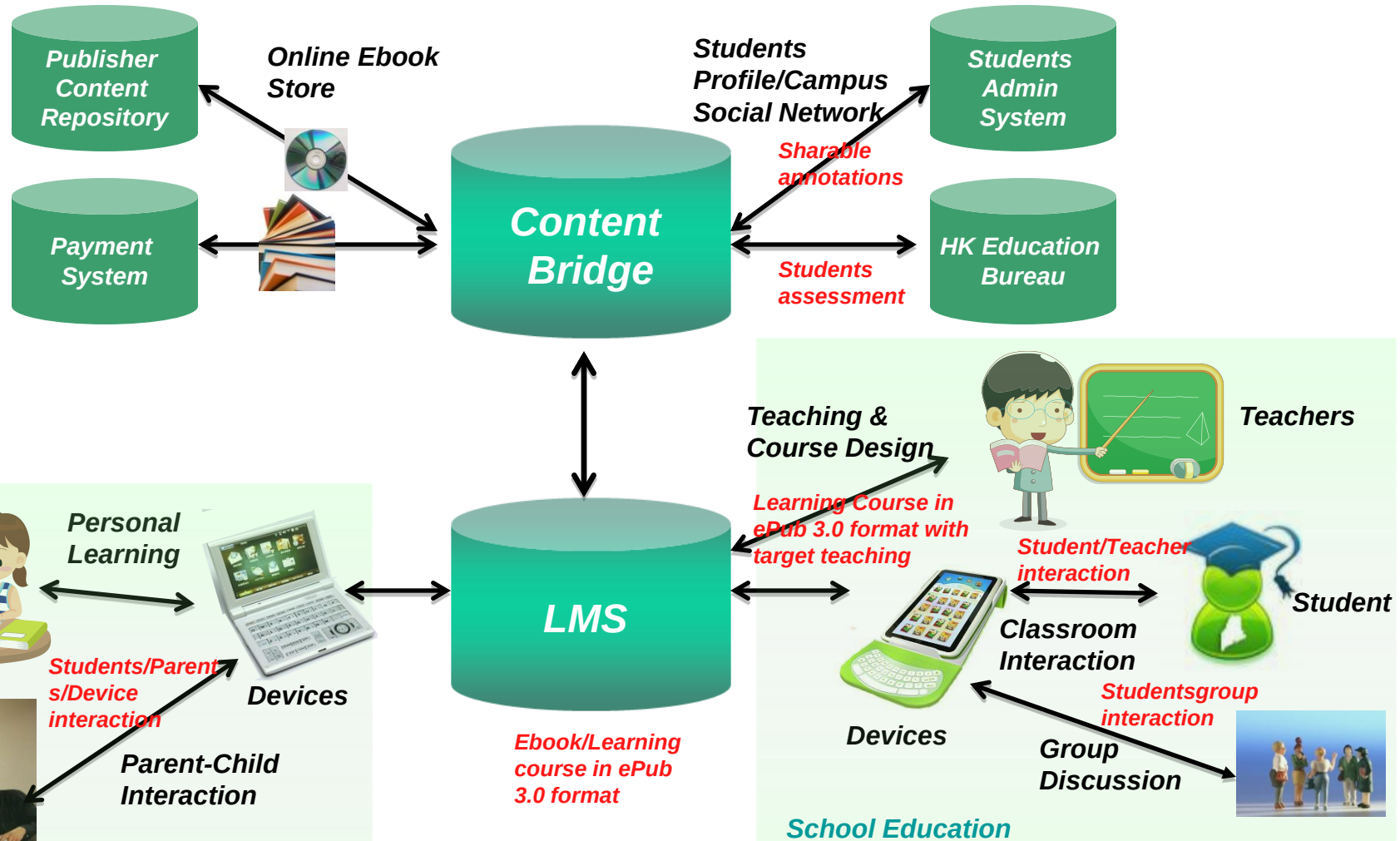
- 配对(matching)、填充(fill-in-the-blank)、选择题(choice)、游戏(game)

- 注解示例 (annotation samples)

- 自己(self): 提示和心得(hint & key points)
- 其他人(others): 批注和意见(comment)



EPub 3.0 within the e-Learning System



ASTRI Confidential

ASTRI contribution in e-Learning

- 应科院是ePub 3.0标准工作组的成员，主要在以下方面有所贡献 (ASTRI is member of ePub 3.0 standard work group and contributes mainly on following aspects)
 - 作为多媒体及互动性子工作组和读者批注子工作组的成员，应科院有以下贡献 (As the member of "rich media and interactivity" subgroup and "annotation" subgroup, ASTRI contributes on):
 - 多媒体及互动性和读者批注相关要求("Rich media and interactivity" and "annotation" requirements)
 - 多媒体格式的实现方案建议(Implementation proposal for rich media format)
 - 完整的读者批注实现方案建议(Complete annotation implementation proposals)
 - 与Daisy Consortium合作建议了音频文字同步方案(Co-sponsored a proposal with Daisy Consortium on synchronized text and audio)
- 应科院跟香港的学校和出版商合作为香港电子教育的试验计划提供了完整解决方案 (ASTRI has partnered with Hong Kong schools and publishers to provide total solution for Hong Kong e-Learning in Hong Kong school pilot programme)
 - 应科院提供了名为PAL的电子教学设备给香港的中小学 (ASTRI provides the "PAL" e-Learning device for Hong Kong schools)
 - 应科院提供了教学管理系统的解决方案给香港的中小学 (ASTRI provides the LMS solution for Hong Kong schools)
 - 应科院提供了跨平台的电子阅读软件，并在软件中支持了ePub 3.0中跟教学相关的功能 (ASTRI provides the cross platform (Windows/Mac/Android) EReader software with ePub 3.0 compliant e-Learning functions)

谢谢(Thanks)!

Any questions(会否有任何提问) ?

应科院网页：www.astri.org

