

ELECTRONIC BOOKS: A NEW GENRE OF CONTENT MANAGEMENT

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AGENDA

Content Management

Overview

Functionality of CM solution

Framework

Ebooks

Genesis

Definition

Implementations

Advantages & Disadvantages

Technologies

Evaluation of Constituents

Impact

Standards, Publishers, Bus. Models

Conclusion

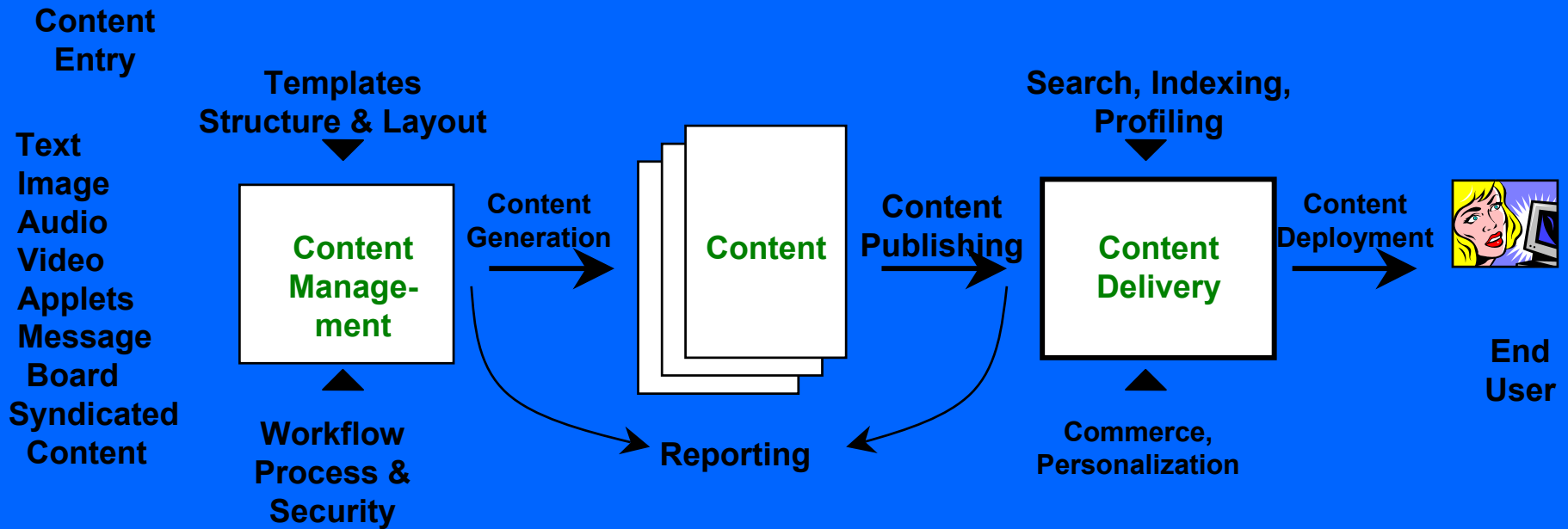
CM OVERVIEW

- **Information ~ a prized commodity for users**
- **Raw information becomes Content when given a useable form intended for purposes**
- **Content ~ any document, image, spreadsheet, record, file, generated/consumed**
- **CM ~ new name for publishing**
 - **Encompasses overall process of content publishing, retrieval & reuse**
 - **Combination of software tools & business processes that allow enterprises to effectively manage & deliver diverse information to different media in the most effective means**
 - **Workflow from author thru production consists of writers, editorial review, formatting & graphics, legal review, staging server & production server**

FUNCTIONALITY OF CM SOLUTION

- ⊗ **Easy authoring & modification of content**
- ⊗ **True multi-user system, unlimited content contributors**
- ⊗ **Flexible workflow & approvals**
- ⊗ **Content scheduling & publish content to multiple sections/sites at once**
- ⊗ **Image & video resource gallery, integration with multimedia SW**
- ⊗ **Search facility, enquiry & requests handling, traffic reporting**
- ⊗ **WAP, Palm/Pocket PC & other device support**
- ⊗ **Foreign character sets, language translation workflow**
- ⊗ **Ecom integration**
- ⊗ **Portal solutions, personalization of content**
- ⊗ **Load balancing, etc.**

FRAMEWORK FOR CONTENT MANAGEMENT



EBOOKS ~ NEW GENRE OF CM

➤ Predictions

- Rapid developments in global information infrastructure
- Increasing volume of content published in digital format
- Superior characteristics of digital publications in providing a rich multimedia environment & interactivity
- Development of technologies allow ebook to be portable

➤ Success factors for large-scale distributors of etexts

- Finding a business model that works, one that is acceptable to users & generates money
- Reassuring publishers & authors their IPR by providing controlled access to the texts
- Providing reliable, speedy access & convenient user interfaces
- Persuading academics to recommend using a service to the students, in the academic market

EBOOKS ~ NEW GENRE OF CM

✿ Market predictions

- ✿ Jupiter Research ~ 1.9 million users of ebooks in US by 2005
- ✿ IDC ~ US ebook market grow from US \$ 9 million (2000) to US \$ 414 million (2004)
- ✿ Forrester Research ~ revenue from digital delivery of custom-pbooks, textbooks & ebooks account for revenues of US \$ 7.8 billion (17.5% of publishing industry revenues) in 2005
 - ✿ Of this amount, only US \$ 251 million would come from ebooks for ebook devices

EBOOKS

● Genesis

- A phenomenon of last 5-6 years
- 3rd wave of e-publishing
- 1st wave ~ indexes from sec. publishers became searchable databases via Dialog (1970's) & on CDROMs (1980's)
- 2nd wave ~ When Web became popular, primary journals began converting to PDF for local printing or SGML format for enabling users to hot links

● Definition

- a text in digital form or book converted in to digital form or digital reading material or book in a computer file format or electronic file of words, images with unique identifiers, metadata to be displayed on computer screen or read on a computer through a network or view on a desktop/ notebook/ dedicated portable device or read on all types of computers or formatted for display on ebook readers

● Implementations

- Downloadable, Dedicated ebook readers, Web-accessible, Print-on demand

EBOOKS ~ ADV. & DISADV.

Advantages

- End user/reader ~ availability/access to titles, searching of text, customization, portability, multimedia facilities, environment
- Publisher ~ publishing speed, publishing cost, storage requirement, usage studies
- Author ~ publishing, feedback

Disadvantages

- Display ~ resolution, contrast & brightness, color
- Form factor ~ weight, dimensions, parallel use, power consumption, fragility, flexibility
- Haptic feedback ~ thickness, browsing, paper & print quality
- Other factors ~ cost, technological change, limited availability of titles, compatibility

EBOOKS TECHNOLOGIES

➤ Hardware

- Dedicated reading device ~ Gemstar devices
- Multi-purpose device ~ PDAs, Pocket PCs
- Desktop/laptop PC

➤ Software

- Ebook reading SW ~ Adobe Acrobat eBook Reader, Microsoft Reader, Palm Reader
- Ebook creating SW ~ Adobe tools (FrameMaker, PageMaker, InDesign), Read in MS Reader add-in for MS Word, Palm ebook Studio
- Ebook management SW ~ Adobe Content Server 3, MS Digital Asset Server, Palm Retail Encryption Server SW

EBOOKS CHOOSING CRITERIA

- **Functionality of the reader software from user's perspective**
 - annotations, bookmarking, copy & paste, highlighting, search, dictionary/glossary lookup, scalable text, print, output content to word processor, transactional support
- **Hardware device upon that the ebook is viewed**
 - color/grayscale, network connection, support for graphics, large documents with enough memory to display
- **Ebook producers**
 - Production to be flexible, conversion from existing formats & export to multiple formats
- **Output details**
 - Nature of ebook file & authoring features ~ read-only, forms, view & play back of rich media files, support for complex layouts, range of platforms & devices availability, hyperlinks, maintain pagination, digital signatures support

EBOOKS IMPACT

😊 Growing applications

- 😊 Govt., academic enterprises, education
- 😊 Multiple languages ~ Spanish, Portuguese, Chinese (not well served by US publishers)
- 😊 People with visual impairments ~ to replace audio book, Braille reader from NIST receives digital input from ebook reader & converts it to Braille output
- 😊 Journals, technical documentation for frequent updation

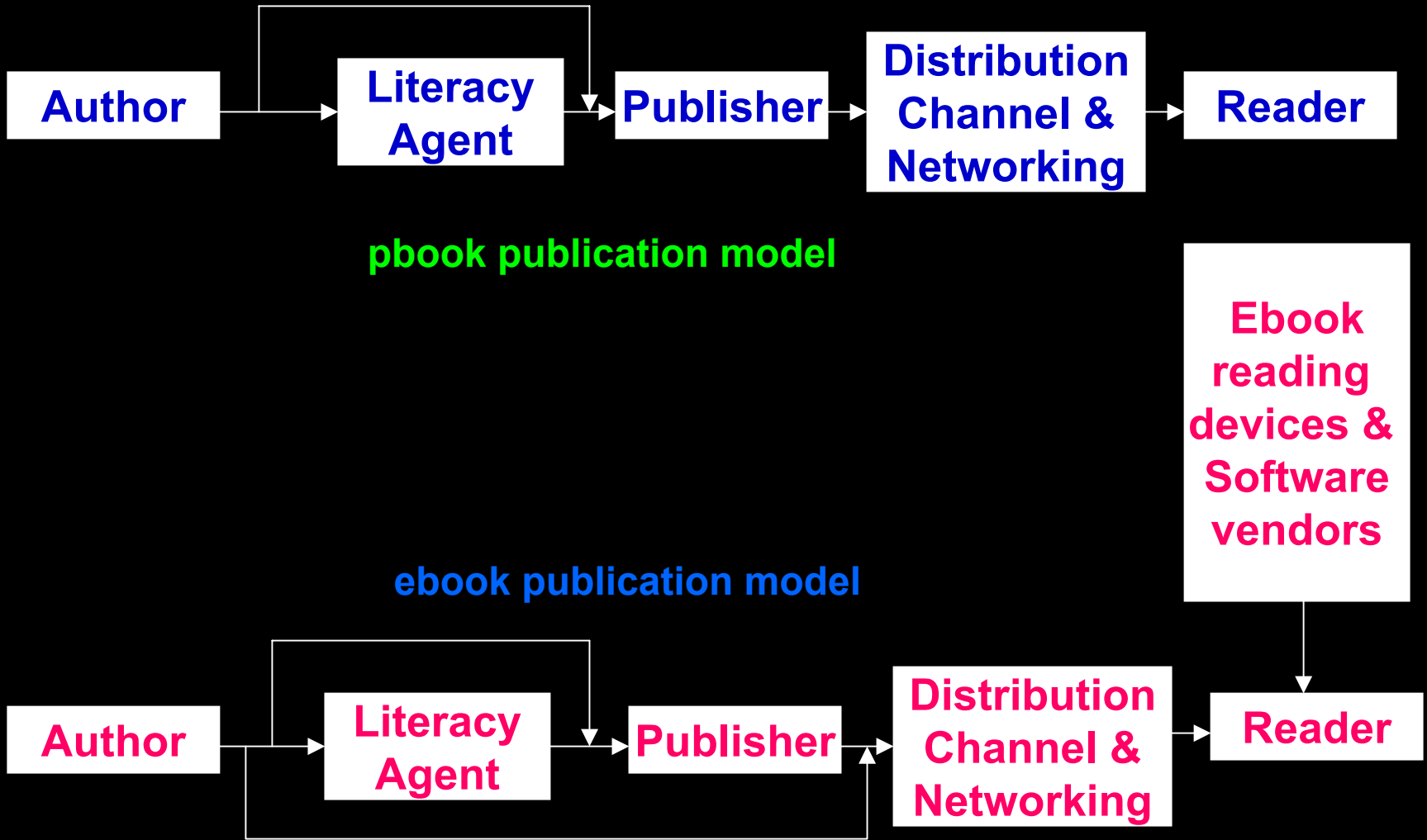
😊 Have impact

- 😊 Content/Publishing industry
- 😊 Librarians/Information professionals
- 😊 Libraries/Information Centers
- 😊 DRM

EBOOKS IMPACT Content/Publishing Industry

- ☺ **Traditional book publishers are looking at the potential of digital publications**
- ☺ **Traditional business model is imploding**
- ☺ **Publisher can build an ecom website, connect personally each customer, deliver ebooks direct, worldwide, 24X7X365**
- ☺ **Once ebook content is ready, stored in the digital equivalent of a warehouse, from that individual titles can be ordered, picked, invoiced & shipped**
- ☺ **Digital objects are moved or activated for the consumers or libraries/ICs**
- ☺ **Grouping ebook vendors**
 - ☺ **Full service HW, SW & content providers ~ Everybook (Everybook), NuvoMedia (Rocket eBook) & Softbook Press (Softbook)**
 - ☺ **SW & content-only providers ~ Librius & Glassbook, supports Palms, Windows CE devices**
- ☺ **Primary challenge due to open standards**

BUSINESS MODELS



EBOOKS IMPACT Librarians/IPs & Libraries/ICs

☺ Librarians/IPs

- ☺ Excited by compact storage, saving shelf space & staff time in issuing items, expanding collection, enhanced image of library/IC by adoption of new technology**

☺ Libraries/ICs

- ☺ Print coexists with epublications, professionals continue to rely on their skills to select materials, when to substitute digital for print, balance between ownership, access, advantages of local hosting of databases versus hosting by a third party or vendor, how to archive digital & analogue materials**

☺ Challenges

- ☺ Circulation, new licensing & distribution agreements needed for simultaneous use, licensing vs. ownership issues of ebook content for archival interest**
- ☺ netLibrary pricing models ~ perpetuity & annual renewal price**
- ☺ Evolution of digital copyright laws have impact for libraries/ICs to loan & transmit or copy ebook content**

EBOOKS IMPACT DRM

- ☺ Principal issue for ebook developers
- ☺ Basic elements of DRM solution ~ secure file format, access security, user authentication, transmission security, usage rules that are enforced after purchase & encryption
- ☺ Providers & solutions ~ Adobe PDF Merchant, WebBuy, Xerox/ Microsoft's ContentGuard, Reciprocal.com, SoftLock, netLibrary, InterTrust MetaTrust Utility, ebook publisher solutions from MightyWords.com
- ☺ Distribution cycle
 - ☺ Begins when author creates an original work & submit it to an ebook publisher
 - ☺ Publisher converts the work to an ebook format, employs DRM encryption to lock the file & generate a unique encryption key
 - ☺ Ebook distributor manages encryption key & locked file to protect the work
 - ☺ Distributor transfers the work to an ebook retailer, who sells the secure ebook online & offers ebook buyers an easy way to purchase keys to decrypt & read the work
 - ☺ Ebook buyer who visits an ebook retailer website can purchase the work & read it, using an ebook reading device, after unlocking the file with a DRM key

EBOOK STANDARDS 5 distinct areas

😊 Content format

- 😊 PDF (Abode Systems) format of choice
- 😊 OeBPS (OeBF) based on XML, HTML, CSS, growing in acceptance

😊 File format ~ defined by individual device manufacturers

- 😊 Adaptive (XML/OEB) supported by Web browsers (HTML), Microsoft Reader, Gemstar eBooks, Palm Digital Media Reader, Franklin eBook Man
- 😊 Fixed Page (PDF) – supported by Acrobat Reader, Adobe eBook Reader & PoD
- 😊 Other formats ASCII, Palm formats, Universal Book File format

😊 DRM

- 😊 EBX System (EBX) includes OeBPS and Adobe PDF
- 😊 Extensible rights Markup Language (XrML) (ContentGuard) based on XML
- 😊 Open Digital Rights Language, similar role to XrML

😊 Distribution standard

- 😊 EBX System (EBX) defines protocols that allow for sale, transfer & lending

😊 Product information standard

- 😊 ONIX International (collaborative effort of US, UK & internationally, comprising publishers & ecom vendors. XML based standard for representing book industry information

EBOOK VENDORS, THEIR BUSINESS MODEL, PRODUCT TYPE & AUDIENCE

Vendor	Business model	Product type	Intended audience
NetLibrary	Subscription to copies of individual titles with access of single-user per copy & a premium for ownership	Ebooks covering a broad range of disciplines	Libraries & academic institutions
Questia	Flat monthly subscription rate for access to the entire database. Marketing only to individuals, not libraries	Scholarly, high-quality books & journal articles in the liberal arts	Undergraduates, public library patrons & other individuals
Book24X7	Annual subscription model that is FTE-based; allowing BCR to aggregate FTE for academic institutions for greater economies. Pay for any new content added to the service during the subscription year at renewal the following year	Technical ebooks, journals & reference materials. Primarily IT	Libraries & academic institutions; public libraries
iBooks.com	Short & long-term subscription to ebooks; sales of printed works. Marketed to libraries & academic institutions. Sales directly to individuals	Digital technical reference books in IT. Online digital bookstore for discounted print copies	Library patrons, corporate customers, etc.
Cognet	SPARC initiative with favorable pricing for academic institutions. Markets annual subscriptions to libraries	Ebooks for major books, journals & reference works in cognitive science from MIT Press & other publishers	Cognitive science community of students & scholars

CONCLUSION

- ⊗ **Ebooks comprise a fascinating & useful technology**
- ⊗ **Ebook industry shows great promise & will be an interesting segment of einformation to observe as it develops & mature**
- ⊗ **Success & failure of ebooks depends not only on acceptance by users, but also on the content industry's ability to view beyond traditional business models & recognizes that ebooks could be a new genre of CM**

A pink lotus flower in full bloom, floating on a pond. The petals are a vibrant pink color, and the center of the flower is a lighter, almost white shade. The background is a soft, out-of-focus green, suggesting a natural pond setting. The text is overlaid on the center of the flower.

Thank you
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