P251 Applied Content Management on the Macintosh A Case Study on Harvard University Press

Rosemary Tietge Publishing Technology Manager Harvard University Press

Agenda

- Who am I?
- Why content management (CM)?
- Do you need a content management system (CMS)?
- What is a CMS?
- Evolution of CM at Harvard University Press (HUP)

Agenda (cont.)

- CM: HUP's Problems
- CM: HUP's Solutions
 - 4 cases with demonstrations
- What about Enterprise Content Management (ECM)
- Conclusions
- Resources
- Q & A

Who am I?

- FileMaker user for 15 years
- Publishing industry professional for 20 years
- Publishing Technology Manager at Harvard University Press for 8 years
- Former independent FileMaker consultant
- NOT a programmer

Why content mangement?

- Are key knowledge assets located in documents on end user's hard drives?
- What if one of those hard drives fails?
- What if a key user is hit by the T?
- What if someone else needs an asset?
 - Recreate, Beg, Search
- How much time do employees lose every day because you have no content management system?
- How much money does your organization lose?

Do you need CM?

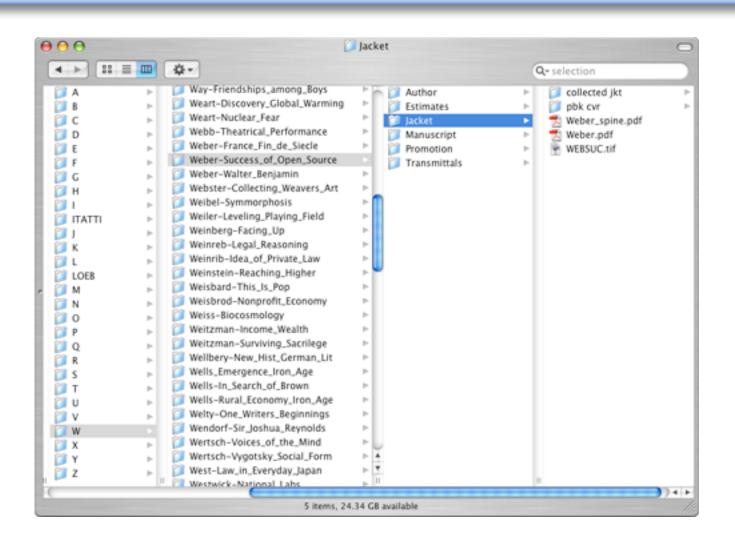
- Do you sell products?
- Do you produce a Web site and print catalog?
- Do you have a knowledgebase?

What is Content Management?

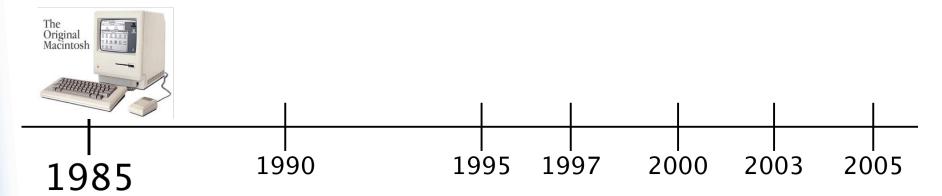
- Core components (per Gartner*)
 - Document management
 - Web content management
 - Record management
 - Document capture
 - Collaboration tools
 - Workflow

*November 2004, "What constitutes enterprise content management" http://www.gartner.com/resources/124000/124033/what_constitute.pdf

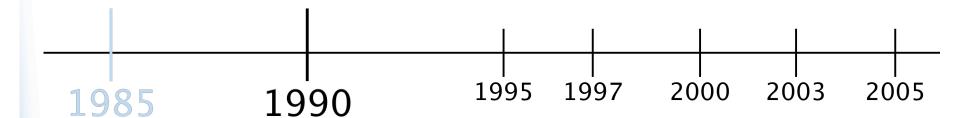
Is this Content Management?

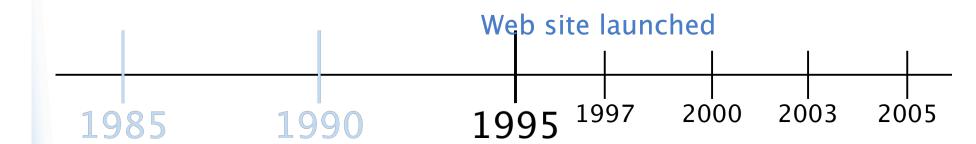


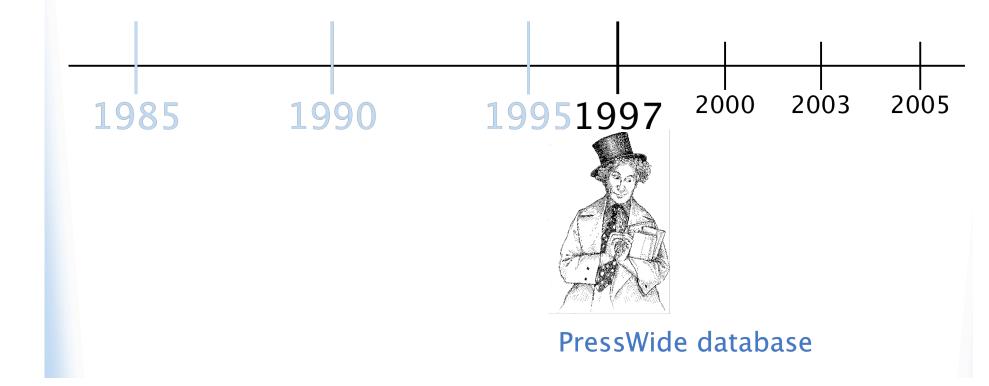
First computers used in design department

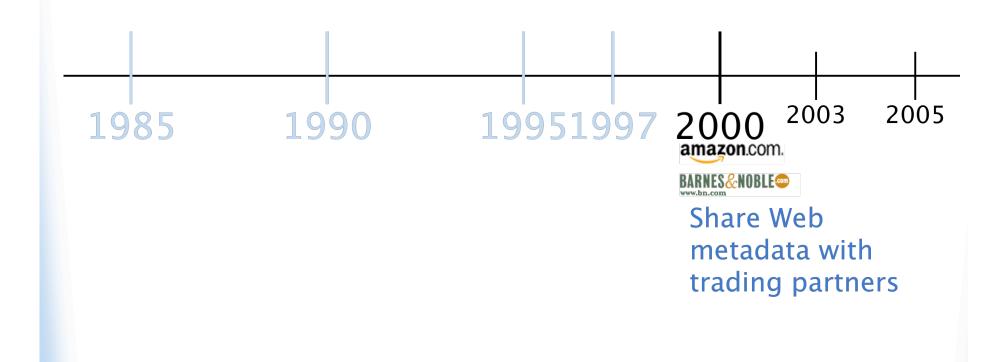


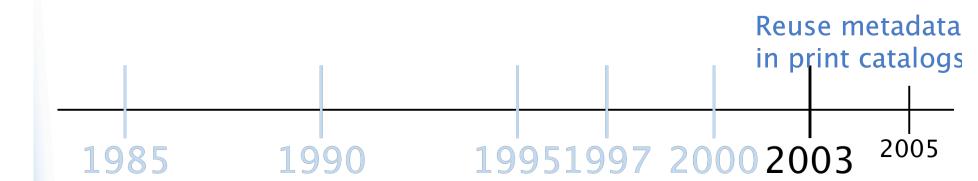
First databases



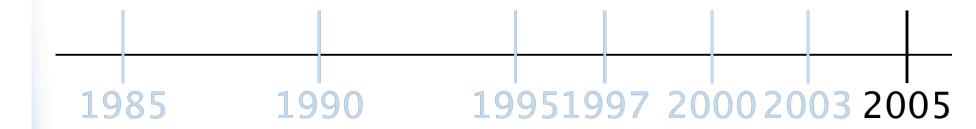








RSS Feeds CSS Pages ONIX via XSLT



CM: HUP's Problems

- Scattered valuable content
 - Quark documents
 - Static HTML pages
 - Spreadsheets and standalone databases
 - Vendors
- Resultant problems
 - Manual updates multiple times
 - Re-creation
 - Ads published with incorrect prices and catalogs mailed with misspelled author names

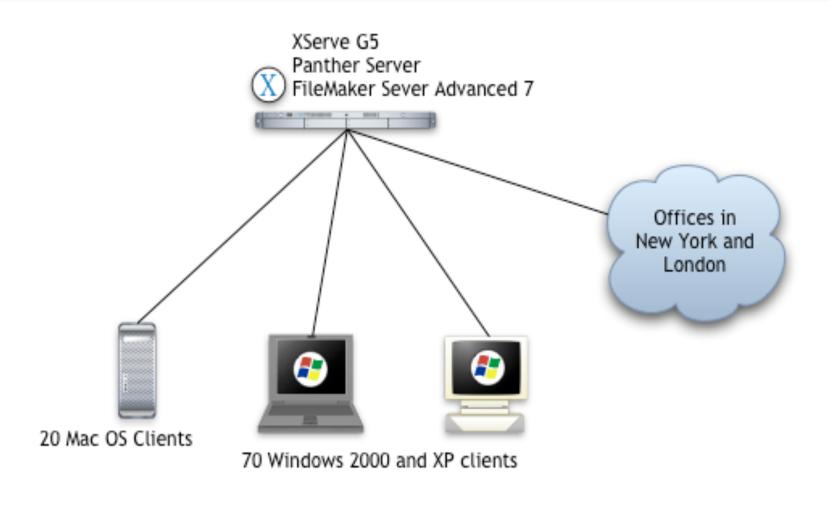
First Solution: Harpo

- Harpo = HarvardPress Online
- Launched in 1997
- FileMaker Pro 4.1
- Central database
- Final word on data



Browse Title Information Weber - The Success of Open Source Main Authors Staff Products Printings National Pri	000				Main (harpo	.hup.ha	arvard.edu)						
Weber - The Success of Open Source Weber - The Success of Open Source Main Authors Start Products Printings Record: Information Schedule Rights People Record Number 1 of 1 ())) Summary Description Categories Awards 2 Metrix Info Status 03/08/04 in Print 1 ())) Primary Author Weber, Steven All		Title Infor	mation										
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Primary Author Weber, Steven Complete Title The Success of Open Source Record: 1 Translated from Title Language Former Title Originating Pub Length \$20 actual pages 11/19/03 History Update Copub Originating Pub Length \$20 actual pages 11/19/03 History Update Copub Originating Pub Length \$20 actual pages 11/19/03 History Update Contract Date 01/21/2001 Approved by Syndics 02/10/2003 MS Due Contract Of/15/2002 Alight Changed This Week Simultaneous Ed Yes No Undecided Brief Description This book is about the phenomenon of open source software—software—software where the source codes that construct is are not proprietary but are openly shared with the world community of programmers. What's fascinating is that Quick Finds Author Last Name: 10 Title Keyword: Open source 10 BookCode: 10 List: 10 List:		Information	Schedule	Rights	People				Record	Number 1 of 1	1))I	
Brief Description This book is about the phenomenon of open source softwaresoftware where the source codes that construct it are not proprietary but are openly shared with the world community of programmers. What's fascinating is that Go Title Keyword: Open source Go BookCode: Go List: Go Code: Go Code	Record: 1 Found: 1 Total: 7028	Primary Author Complete Title Translated from Title Language Former Title Acquisitions ed. List Orig. Job Num. Series 1 / Vol. Series 2 / Vol. Copub Originating Pub Length Illustrations	MAA All S04 Co 10837N 320 actual p	es Awards &	Matrix Info	Edit	Contract Date Approved by Syndics	Due	Done 01/21/2001	In Print		Menu List View Find Print Summary New Product All Changed Changed	
		Brief Description This book is about the phenomenon of open source softwaresoftware where the source codes that construct it are not proprietary but are openly shared with the world					FS Cloth S04 0-674-	-01292-5 W	EBSUC \$29	9.95 Acade WO	A		
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Harpo Infrastructure



Next Solution: Basic CM

- Developed over 5 years 1999 2004
- FileMaker 5 and 6
- Added descriptive copy to database
- Developed tools for end users to create
 - Web catalog
 - Complete catalog / books in print
 - Subject catalogs
 - XML data exchange
- Focus on simple tools integrated with "the Macintosh way" and how designers—not techies—work and think

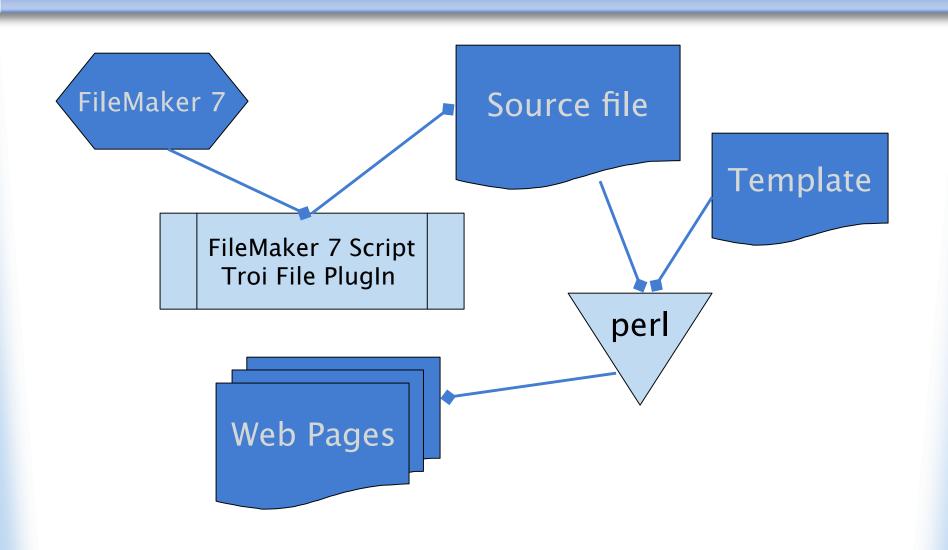
Demos

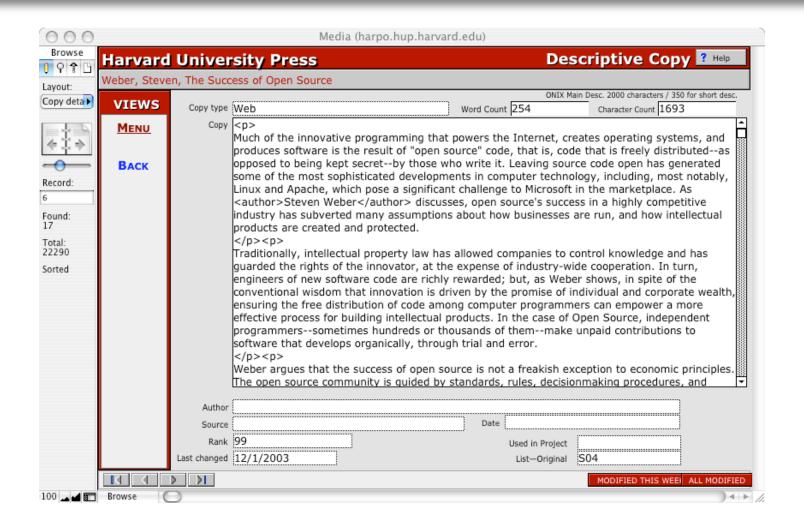
- 4 examples
 - Web catalog
 - Complete catalog
 - Business brochure (subject catalog)
 - ONIX (XML data exchange)
- Each example
 - Defines problem
 - Shows the workflow
 - Shows solution screenshots
 - Presents solution demonstration

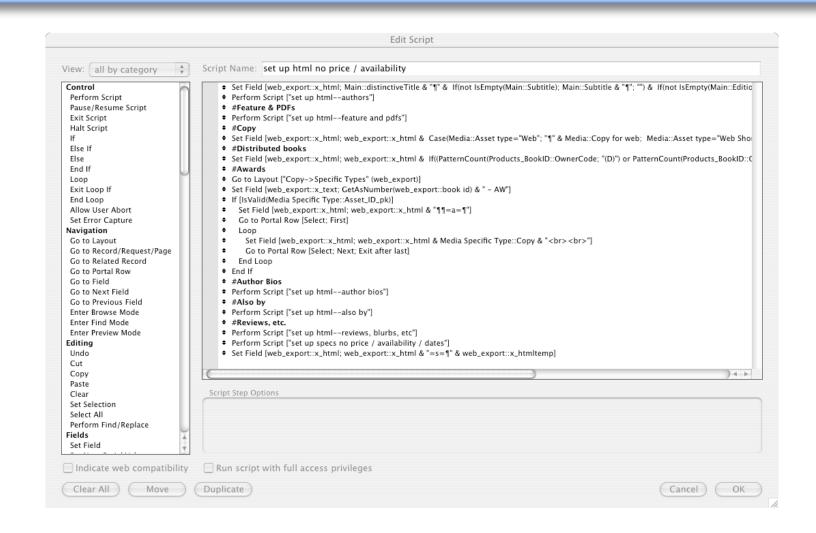
Web catalog: Problem

- 5,200 titles in print
- Three Web pages per title
 - Main page, reviews, table of contents
- Require static pages
 - Search engines
- Make frequent updates to individual pages
- Two people maintain site

Web catalog: Workflow







The Success of Open Source Steven Weber Much of the innovative programming that powers the Internet, creates operating systems, and produces software is the result of "open source" code, that is, code that is freely distributed -- as opposed to being kept secret -- by those who write it. Leaving source code open has generated some of the most sophisticated developments in computer technology, including, most notably, Linux and Apache, which pose a significant challenge to Microsoft in the marketplace. As Steven Weber discusses, open source's success in a highly competitive industry has subverted many assumptions about how businesses are run, and how intellectual products are created and protected. Traditionally, intellectual property law has allowed companies to control knowledge and has guarded the rights of the innovator, at the expense of industry-wide cooperation. In turn, engineers of new software code are richly rewarded; but, as Weber shows, in spite of the conventional wisdom that innovation is driven by the promise of individual and corporate wealth, ensuring the free distribution of code among computer programmers can empower a more effective process for building intellectual products. In the case of Open Source, independent programmers--sometimes hundreds or thousands of them--make unpaid contributions to software that develops organically, through trial and error. <q\> =h=

 Berkeley. No reviews are available at this time.

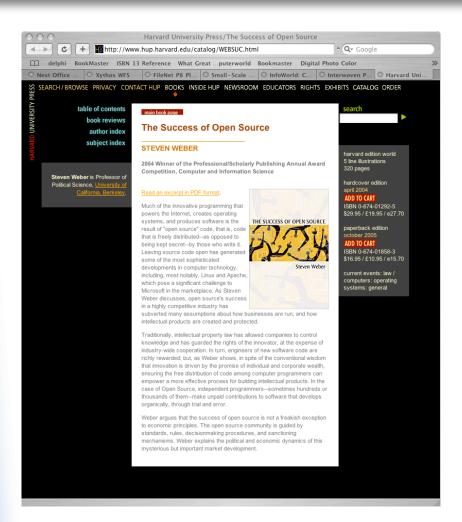
5 line illustrations

Current Events: Law / Computers: Operating Systems: General

Hardcover edition ISBN 0-674-01292-5

320 pages

```
#!/usr/bin/perl
use strict;
use bytes;
#set variables for template and source locations, etc. Discover environment variables
foreach my $file (@files)
  chomp $file;
  if ($file = ~ /^[0-9A-Za-z]*$/o) {
     print "\nReading \"$file\" .. ";
     my $file path = $wd."/".$source folder."/".$file;
     my @file = &open file read($file path);
      #These next few block parse the book file into sections, in the
     #following manner:
      # -- the file is iterated through to populate the %sections hash.
           this process is described in that loop
     my %header conv = (
        '=b=' => "bio",
         '=ab=' => "alsoby",
         '=s=' => "specs",
         '=c=' => "credits",
         '=a=' => "award",
         '=r=' => "reviews",
        '=toc=' => "contents",
         '=l=' => "links",
        '=d=' => "distributor",
        );
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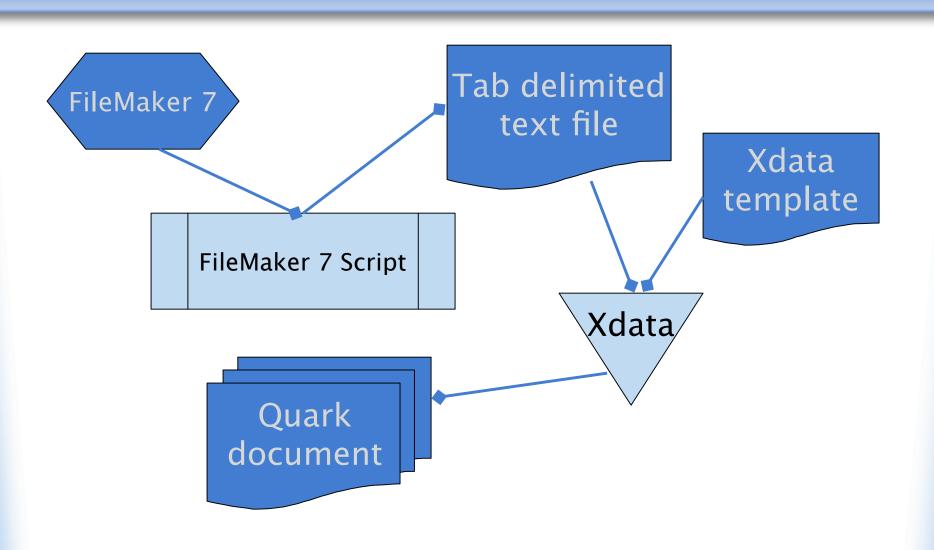


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Complete Catalog: Problem

- \$12,000 / year to an outside vendor
- Difficult to keep data up to date
- Printed once a year
- Data stale as soon as catalogs were printed

Complete catalog: Workflow



Complete Catalog: Solution

2970	Weber, Eugen	France, Fin de Siècle BP SCH Cloth
	BP	Paper 0-674-31813-7 WEBFRX 19.50
2970	Weber, Eugen	<pre>KB>Gaspard, Francoise A Small City in France FS</pre>
	FS	Paper 1995 0-674-81097-X GASSMX 18.
6294	Weber, Steven	The Success of Open Source FS 320 illus.
8991	Webster, Laurie D.	Collecting the Weaver's Art: The William Claflin Co
4133	Wedell, George	<pre>Katz, Elihu Broadcasting in the Third World: Promis</pre>
2972	Weems, Mason L.	The Life of Washington BP JHL Pap
2973	Wei-Ming, Tu (ed.)	Confucian Traditions in East Asian Modernity: Moral
	FS	Paper 1996 0-674-16087-8 TUCONX 25.
2974	Weibel, Ewald R., M.D	. The Pathway for Oxygen FS
	FS	Paper 0-674-65790-X WEIPAX 33.50
2974	Weibel, Ewald R., M.D	. Symmorphosis: On Form and Function in Shaping L

Complete Catalog: Solution

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  Series2, Vol2, Pages, Art, Type, Description, Year, ISBN, Code, Price, Discount,
  Rights, status, list, NumProducts
«set defaultisstyled to true
«put 'F03" into currentlist
«put "SO4" into nextlist
«if recordnumber = 1»«put 1 into currentauthor»«put 1 into prevauthor»«endif
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Complete Catalog: Solution

Wang, Hui and Theodore Huters (ed.) China's New Order: Society, Politics, and Economy in Transition. 256pp Cloth 2003 0-674-00932-0 WANCHN \$22.95

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Ward, Janie see Gilligan, Carol

Ware, Susan Beyond Suffrage: Women in the New Deal.

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Streetcar Suburbs: The Process of Growth in Boston, 1870-1900, 2nd ed... Paper 0-674-84211-1 WARSTX \$18.95

Warnke, Martin Political Landscape: The Art History of Nature. (EAC) Cloth 1995 0-674-68616-0 WARPOL \$46.50x NA

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Warshow, Robert The Immediate Experience: Movies, Comics, Theatre, and Other Aspects of Popular Culture, 320 pp

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Wason, P. Psychology of Reasoning: Structure and Content.

Paper 0-674-72127-6 WASPSX \$18.95x Wasserman, Jeffrey see Manning, Willard

Wasserstein, Bernard Vanishing Diaspora: The Jews in Europe Since 1945.

Cloth 1996 0-674-93196-3 WAS VAN \$31.00 COBEE

Weber, Steven The Success of Open Source. 320pp illus. Cloth 2004 0-674-0 1292-5 WEBSUC \$29.95

Wedell, George see Katz, Elilm

Weems, Mason L. The Life of Washington. Belknap (JHL)

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Weibel, Ewald R., M.D. The Pathway for Oxygen.

Cloth 1984 0-674-6579 1-8 WEIPAT \$63.50 x

Paper 0-674-65790-X WEIPAX \$33.00x

Symmorphosis: On Form and Function in Shaping Life. 280pp illus.

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Weiler, Paul C. Governing the Workplace: The Future of Labor and Employment Law.

Cloth 1990 0-674-35765-5 WEIGOV \$52.00x

Leveling the Playing Field: How the Law Can Make Sports Better for Fans. 368pp. Cloth 2000 0-674-00165-6 WEILEV \$33.00

Paper 2001 0-674-00687-9 WEILEX \$18.95x

Medical Malpractice on Trial, 240pp

Cloth 1991 0-674-56120-1 WEIMED \$44.00x

Howard Hiatt, Joseph P. Newhouse, William G. Johnson, Troyen Brennan and Lucian Leape A Measure of Malpractice: Medical Injury, Malpractice Litigation, and Patient Compensation.

Cloth 0-674-55880-4 WEIMEA \$42.00x

Weimer, David L. see Gormley, William T., Jr.

Weinberg, Daniel see Danziger, Sheldon H.

Weinberg, Steven Facing Up: Science and Its Cultural Adversaries. 300 pp illus.

Cloth 2001 0-674-00647-X WEIFAC \$26.00x

Paper 2003 0-674-0 1120-1 WEIFAX \$16.95

Weinreb, Lloyd Natural Law and Justice.

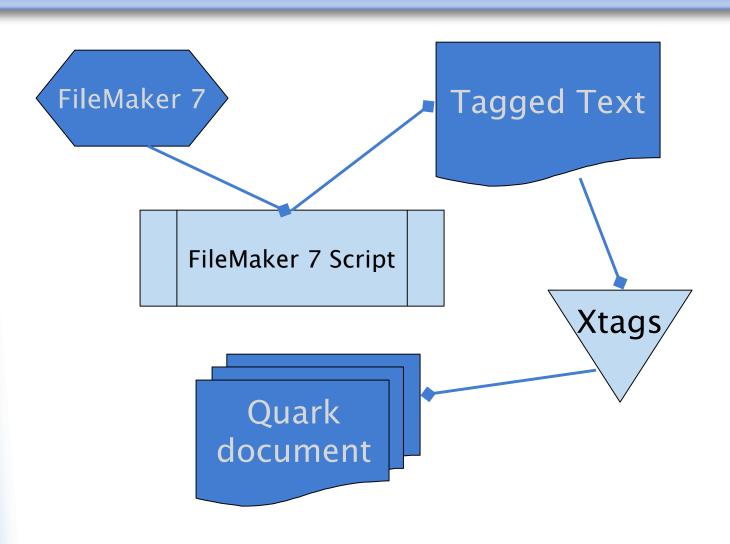
Paper 1990 0-674-60426-1 WEINAX \$23.00x

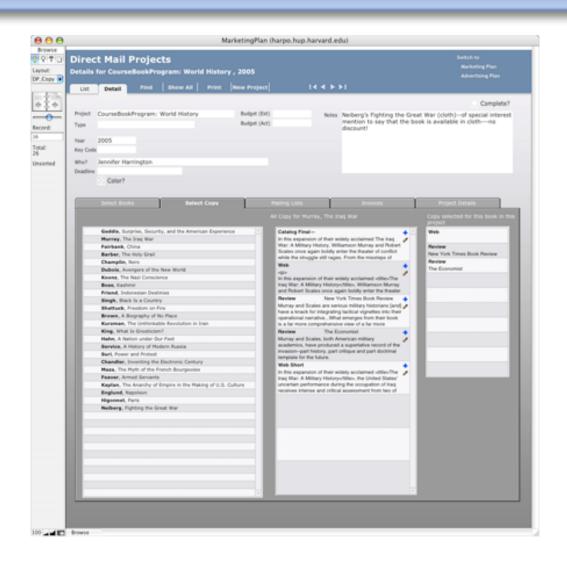
Oedipus at Fenway Park: What Rights Are and Why There are Any. Cloth 1998 0-674-63092-0 WEIOED \$4150x

Direct Mail: Problem

- Minimum of 20 projects per year
- Gather data from many sources
- Re-key or copy and paste from past projects
- High error rate
- Three designers

Direct mail: Workflow





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@Copy:<f"?">As Weber shows, in spite of the conventional wisdom that innovation is driven by the promise of individual and corporate wealth, ensuring the free distribution of code among computer programmers can empower a more effective process
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corporate wealth, ensuring the free distribution of code among computer programmers can empower a more effective process for building intellectual products. In the case of Open Source, independent programmers make unpaid contributions to software that develops organically, through trial and error. Weber argues that the success of open source is not a freakish exception to economic principles and explains the political and economic dynamics of this mysterious but important market development.

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In the world of open-source software, true believers can be a fervent bunch. Linux, for example, may act as a credo as well as an operating system. But there is much substance beyond zealotry, says Steven Weber, the author of <I>The Success of Open Source<I>...An open-source operating system offers its source code up to be played with, extended, debugged, and otherwise tweaked in an orgy of user collaboration. The author traces the roots of that ethos and process in the early years of computers...He also analyzes the interface between open source and the worlds of business and law, as well as wider issues in the clash between hierarchical structures and networks, a subject with relevance beyond the software industry to the war on terrorism.

<\m>Nina C. Ayoub, <I>Chronicle of Higher Education<I>

Steven Weber has produced a significant, insightful book that is both smart and important. The most impressive achievement of this volume is that Weber has spent the time to learn and think about the technological, sociological, business, and legal perspectives related to open source. <I>The Success of Open Source<I> is timely and more thought provoking than almost anything I've come across in the past several years. It deserves careful reading by a wide audience.

<\m>Jonathan Aronson, Annenberg School for Communication, University of Southern California @datalines:<@\$><t40z7f"?">2004 5 line illustrations 320 pp.
Cloth \$29.95 £19.95

ISBN 0-674-01292-5 Book Code: WEBSUC

sharing and pirating. This vexed ground the realm of so-called "intellectual property," gives rise to a whole new-kind of class conflict, one that pits the creators of information—the hacker class of researchers and authors, artists and biologists, chemists and musicians, philosophers and programmers—against a possessingclass who would monopolize what the hacker produces. Drawing in equal measure on Guy Debord and Gilles Deleuze, A Hacker Manifesto offers a systematic restatement of Marxist thought for the age of cyberspace and globalization. In the widespread revoltagainst-commodified-information, McKenzie Wark sees a utopian promise, beyond the property form, and a new progressive class, the hacker class, who voice a shared interest in a new information commons.¶ What Ken Wark's book does is take us deep into the philosophy of hacking: it gives us a new way of seeing those irreverent folks who play for keeps with digitalculture. Think of his book as a lexicon that says "playwith-digital-culture-like-you-would-play-with-DNAcarefully." It's not-every day that you get a book that takes you deep into the realm of practical analysis of the ways that we abstract thought and action in searchfor more kicks on-line, and for almost all aspects of control in digital culture from the top down "Hacker-Manifesto" says—this is about exploration, this is about freedom. Inside out, upside-down, information alwayswants to be free, and this is the book that shows us why. —Paul D. Miller a.k.a. Dj Spooky-that Subliminal Kidauthor of Rhythm Science

Ours is once again an age of manifestos. Wark's book-

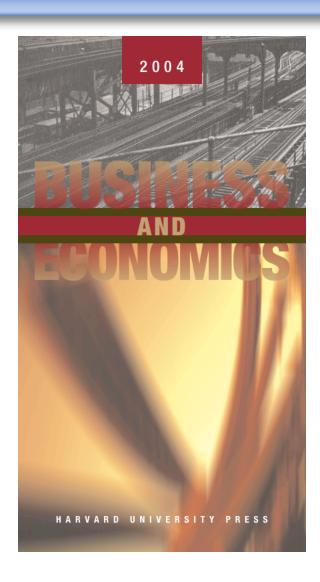
The Success of Open Source¶

Steven-Weber¶

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—Nina C. Ayoub, Chronicle of Higher Education | We can blindly continue to develop, reward, protect, and

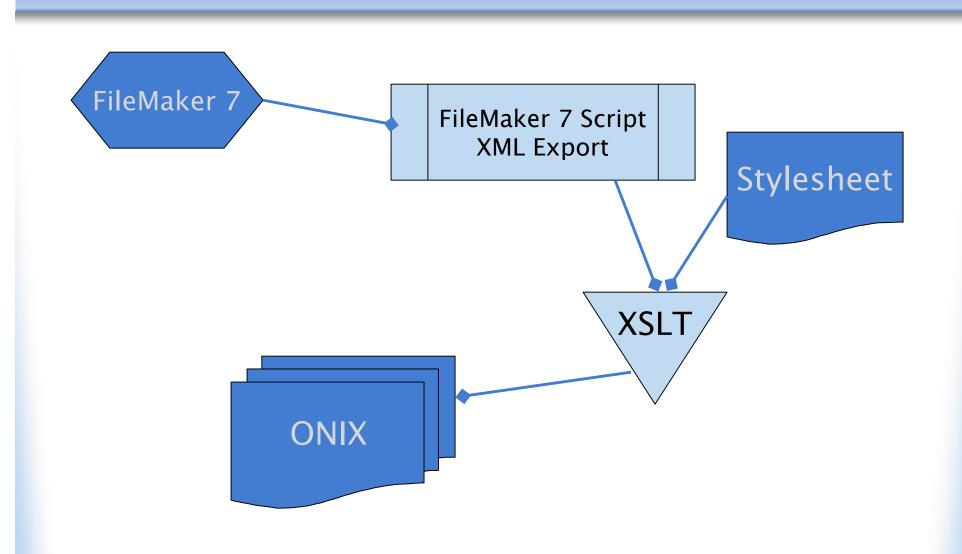


INNOVATION THE MISSING DIMENSION RICHARD-K-LESTER AND MICHAEL I. PIGREN Richard K. Lester and Michael J. Hars examine innovation stategies in a met of the contany's most dynamic state a. Through eye opening case studies of new purduct development in fields such as qell ghones, medical devices, and blue jeans, wor fundamental pr necothes process, analysis natural problem abling dominate management and engineeting gractic. The other, interpretation, norwidely understood, or seen noggined although, or the smill on make clear, it is absolutely-crucial twinnowains. Utilikey rabbem abling, interpretation ordinates and despite a undergray, the wellgaring of creatively in the secondary. By emphasizing interpretation, and shing, interpretation ordinates and despite a undergray to wellgaring of creatively in the secondary. By emphasizing interpretation, and boning how these two radically different processes can be combined. Learn and Finelshook gives management designed the concepts nd makrokup nev produce flowing (Smoustins—The Mining Dimension does have a causal focus; but it is such a broad-ranging co-enge of the important subject of instancia in that it annully addit many, dimensions to the mader? thinking, A worthvilde experience 4 —ROBERT W. ALVINET FOREIT. CO., NOTOROUSE. Finally, a boole that blows part the one-cize-fits-all answers of politicians and business pundits, thrownian — The Missing Dimension ers the standard of understanding how to compete in a global company, "4" —BOB EUDERI, EDITOR AT LARCE, TECHNOLOGY REVIEW, AND A VITHOR OF ENGINES OF TOMORROWY Trie petry-clear that the future of a leading-edge commany now retro during capacity to introduce. It is not all clear what incidual and persons particularly from time amon. But ding on a few doorly-observed cone modes, Learer and Poses write as now interesting, plantificated, well from owns: elsear about the way new products and processes come time orderence and communes flourish. Their ideas have been all not graft out to high camanical for the daing, management and government. Yet also produce the products and produce the product and produce the products and produce the products are produced to the product and produce the pro 2004-1-Lime Blue - 240-pp - Clash - \$24.95 - £16.95 f EEN+0-674-01381-9 - Earle Code: LESD+0+9 THE SUCCESS OF OPEN SOURCE As Weber shows, in spits of the conventional wisdom that innovation is driven by the gramise of individual and corporate wealth, ensur As What shows, in a pix of the conventional window that innovation is driven by the promise of individual and corporateweith, enter ing the first elimination of code among computer operationes or an improve a more efficiency procure for intuiting intellectual products. In the case of Open Source, independent programmers are in unpaid columnitation to contract the develope organizably, through with and service what is empressed to the interference of the contract dynamics of this experience into important market developeration to extensive principles and explaine the political and excendents dynamics of this experience into important market developeration. The contract is an experience of the experience in the case of the contract dynamics of this experience is not a first and the contract of the interference of the experience of the experience of the contract of the experience of t -NINA C. ANOUR, CHRONICLE OF HIGHER EDUCATION "We are hirld), commerce over the mean over the second sec sdam exercis of shirthook andine 5 swhije hang if whi (on lor (WEBSLIC brief) 2004-5-lime Blue - 320-gg - Clash - \$20.95 - £10.954 ISEN 0-674-01.202-5- Early Croke-WEESUC1 TWENTY-FIVE-YEARS -BEHIND -BARS The Proceedings of the Twenty-fifth Anniversary of the U.P.C. at the Smithsonian Institution, September 30, 1999 EDITED-BY-ALAN L HABERMANN The last code is now as the care of commerce, transparation, was bouring, manufacturing, and reading, and its influence has up sad to primally every industry in the industrialised world. When this voluntary product code was first introduced in 1974, it ded to the world

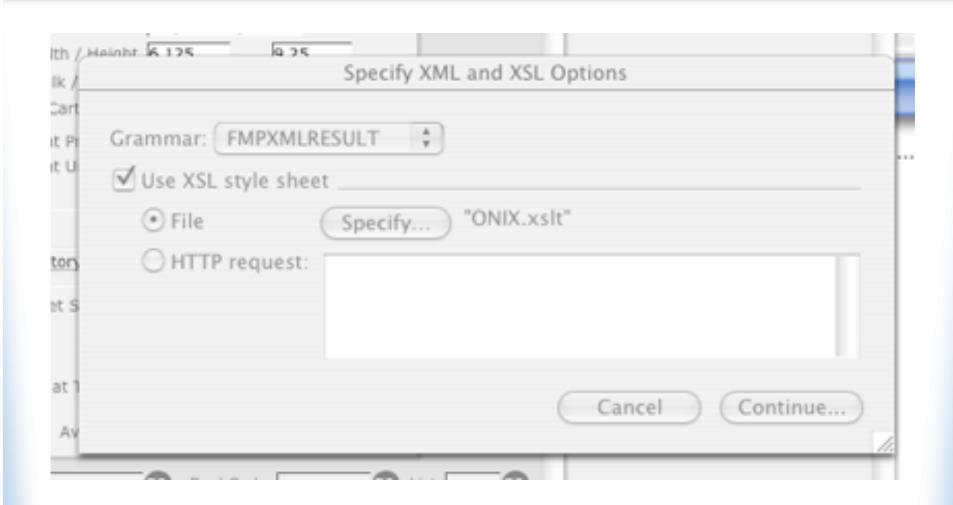
ONIX: Problem

- Replaced vendor specific formats
- Remains difficult to pull all the data together
- Non-technical staff person responsible for creating and distributing

ONIX: Workflow



ONIX: Solution



ONIX: Solution

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                          -DATA-Much of the innovative programming that powers the Internet, creates of
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                             systems, and produces software is the result of "open source" code, that
                              code that is freely distributed-as apposed to being kept secret-by those
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                              write it. Leaving source code open has generated some of the most sophis
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                             developments in computer technology, including, most notably, Linux and
                              which pase a significant challenge to Microsoft in the marketplace. As S
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                             Meber discusses, open source's success in a highly competitive industry
                              subverted many assumptions about how businesses are run, and how intelle
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                             products are created and protected. Traditionally, intellectual property
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                              allowed companies to control knowledge and has guarded the rights of the
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                              innovator, at the expense of industry-wide cooperation. In turn, engineer
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                             new software code are richly rewarded; but, as Weber shows, in spite of
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                              conventional wisdom that innovation is driven by the promise of individu
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                              corporate wealth, ensuring the free distribution of code among computer
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                             programmers can empower a more effective process for building intellectu-
                              products. In the case of Open Source, independent programmers-sometimes
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                              or thousands of them-make unoxid contributions to software that develops
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ONIX: Solution

```
<xsl:template match="fmp:ROW">
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             cproduct>
                 <xsl:call-template name="PR1_RecordReference"/>
545
                 exsl:call-template name="PR2_ProductIdentifier"/>
546
547
                 <xsl:call-template name="PR3_ProductFormCode"/>
                 <xsl:call-template name="PR3_BookFormDetail"/>
548
                 <xsl:call-template name="PR5_Series"/>
549
550
                 <xsl:call-template name="PR6_Set"/>
                 <xsl:call-template name="PR7_Title"/>
551
                 <xsl:call-template name="PR8_Contributor"/>
552
                 <xsl:call-template name="PR10_Edition"/>
553
                 <xsl:call-template name="PR11_Language"/>
554
                 <xsl:call-template name="PR12_Extents"/>
555
556
                 <xsl:call-template name="PR13_Subject"/>
                 <xsl:call-template name="PR14_Audience"/>
557
558
                 <xsl:call-template name="PR15_OtherText"/>
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                 <xsl:call-template name="PR16_ImageLinks"/>
                 <xsl:call-template name="PR17_Prizes"/>
560
                 <xsl:call-template name="PR19_Publisher"/>
561
562
                 <xsl:call-template name="PR20_PubStatus"/>
563
                 <xsl:call-template name="PR21_TerritorialRights"/>
564
                 <xsl:call-template name="PR22_Dimensions"/>
                 <xsl:call-template name="PR23_RelatedProducts"/>
565
                 <xsl:call-template name="PR24_SupplierAndPrices"/>
566
567
             duct>
        </xsl:template>
568
569
570 🛡
        <xsl:template match="fmp:FMPXMLRESULT">
             <!-- PROCESS EACH RECORD -->
571
             <ONIXmessage release="2.1">
572 🗢
573
                 <xsl:call-template name="Header"/>
                 <xsl:apply-templates select="fmp:RESULTSET/fmp:ROW"/>
574
575
             </ONIXmessage>
576
         </xsl:template>
    </xsl:stylesheet>
```

What's Next: ECM

- Enterprise content management
- Expand beyond marketing data
 - Add images to database
 - Link Harpo to Zeppo
 - Store documents in FileMaker
- Use XML export for other cases
 - Web: XML export with CSS
 - Catalogs: XML export to InDesign

Conclusions

- Why content management (CM)?
- Do you need a content management system (CMS)?
- What is a CMS?
- Four examples of how a simple CMS works at HUP

Resources

Tools

- www.filemaker.com/xml
- www.editeur.org for information about ONIX
- www.troi.com
- www.emsoftware.com
- Books
 - XML in a Nutshell, Harold and Means, O'Reilly
 - Special Edition Using FileMaker Pro 7, Lane, Bowers, Love and Moyer, Que
- rosemary_tietge@harvard.edu