

The Value of Purchasing E-book Collections From A Large Publisher

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Miami University Libraries

I THINK WE SHOULD GIVE IT ANOTHER SHOT.

WE SHOULD BREAK UP, AND I CAN PROVE IT.



HUH.



MAYBE YOU'RE RIGHT.

I KNEW DATA WOULD CONVINCE YOU.

NO, I JUST THINK I CAN DO BETTER THAN SOMEONE WHO DOESN'T LABEL HER AXES.



Overview

- Background
- User attitudes toward e-books at Miami University
- Springer e-book collections & SpringerLink
- OhioLINK's EBC
- Methodology
- Findings: titles used, the Pareto principle, the long tail, inflationary effect, downloads by book type, past usage as a predictor of future use, the value equation
- Conclusions
- Next steps
- Questions & Comments

Background & Context

- Miami University – public university, 16,000 students, known for quality teaching and learning, relatively small graduate student population (less than 10%)
- Transitioning to a mostly digital library
- Experimenting with a variety of providers, platforms, pricing and selection models
- OhioLINK (publisher deals), PDA pilot with ebrary, preparing a test of STLs, selectors are beginning to privilege e-books.

Q Methodology Study in 2008 & Large-n Survey in 2009 (n=735)

- Book Lovers (34%)
 - have an inherent affinity for the print form
- Technophiles (23%)
 - are strongly interested in the possibilities of new technology as regards the book
- Pragmatists (17%)
 - are the most neutral of the four, as they are most interested in content and see pros and cons of both formats
- Printers (26%)
 - printers prefer print books but are distinguished from Book Lovers in that they have specific difficulties with the usability of e-books

Where Do We Go From Here?

- Ramp up our e-book collections (local and consortial)
- Many more questions than answers: single or multi-user access? unlimited usage or a ceiling? owned or leased? local load or vendor/publisher platform? collection level, title-by-title, PDA, STL/PPV?
- Time to assess some of our experiments to-date. What does the data tell us?
- What's the value of purchasing e-book collections from a large publisher?
- Preliminary study that focuses on the 2008 Springer e-book collection and its use over a three-year time period.

Springer E-Books at SpringerLink

HOME MY SPRINGERLINK BROWSE TOOLS HELP SHOPPING CART LOG IN

Book Series About

Search Within This Book

GO


Browse This Book

Look Inside Contents ESM

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- A Novel Real-Time MPEG-2 Video Watermarking Scheme 45-51

COMPUTER SCIENCE BUY A PRINT COPY (USD 24.95)

LECTURE NOTES IN COMPUTER SCIENCE
Volume 5450, 2009, DOI: 10.1007/978-3-642-04438-0




Digital Watermarking
7th International Workshop, IWDW 2008, Busan, Korea, November 10-12, 2008.
Selected Papers

Hyoung-Joong Kim, Stefan Katzenbeisser and Anthony T.S. Ho

Link Out to this Book at Miami University - Ohio:

Find It! Find It!

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Front Matter Download PDF

Lecture Notes in Computer Science 5450

Commenced Publication in 1973
Founding and Former Series Editors:
Gerhard Goos, Juris Hartmanis, and Jan van Leeuwen

[View E-Book at SpringerLink](#)

OhioLINK Electronic Book Center (EBC)

- What is it?
- What's in it?
- What about the publisher's platform?
- What publishers are included?
 - ABC-Clio
 - Chadwyck-Healey (ProQuest)
 - Gale
 - Oxford University Press
 - Sage
 - Springer
- What else is in the EBC?

Springer E-Books in the EBC



[Front Matter](#)

1. **A Robust Watermarking Scheme for H.264**
2. [Detection of Double MPEG Compression Based on First Digit Sta](#)
3. [A Time Series Intra-Video Collusion Attack on Frame-by-Frame V](#)
4. [A Novel Real-Time MPEG-2 Video Watermarking Scheme in Cop](#)
5. [Reversible Data Hiding Based On H.264/AVC Intra Prediction](#)
6. [Scalability Evaluation of Blind Spread-Spectrum Image Watermar](#)
7. [Run-Length and Edge Statistics Based Approach for Image Splicir](#)
8. [Scale-Space Feature Based Image Watermarking in Contourlet Do](#)
9. [A Practical Print-and-Scan Resilient Watermarking for High Resol](#)
10. [Adaptive SVD-Based Digital Image Watermarking](#)
11. [Robust Audio Watermarking Based on Log-Polar Frequency Index](#)
12. [Adaptive Threshold Based Robust Watermark Detection Method](#)
13. [A Digital Forgery Image Detection Algorithm Based on Wavelet H](#)
14. [Blind Detection of Digital Forgery Image Based on the Local Entr](#)
15. [Exposure Time Change Attack on Image Watermarking Systems](#)
16. [Steganalysis Based on Difference Image](#)
17. [A Novel Steganographic Algorithm Resisting Targeted Steganalyti](#)
18. [A Novel Approach for JPEG Steganography](#)
19. [A High Capacity Steganographic Algorithm in Color Images](#)
20. [A Novel Method for Block Size Forensics Based on Morphologica](#)
21. [Non-malleable Schemes Resisting Adaptive Adversaries](#)
22. [An Algorithm for Modeling Print and Scan Operations Used for W](#)
23. [Space Time Block Coding for Spread Spectrum Watermarking Sys](#)
24. [Formal Analysis of Two Buyer-Seller Watermarking Protocols](#)
25. [Detection of Hidden Information in Webpage Based on Higher-Or](#)
26. [Secret Sharing Based Video Watermark Algorithm for Multiuser](#)
27. [GSM Based Security Analysis for Add-SS Watermarking](#)
28. [Video Watermarking Based on Spatio-temporal JND Profile](#)
29. [On the Performance of Wavelet Decomposition Steganalysis with](#)

A Robust Watermarking Scheme for H.264

1. A Robust Watermarking Scheme for H.264 [\[PDF Full Text\]](#)

– 1 –

A Robust Watermarking Scheme for H.264 star Jian Li 1 , Hongmei Liu 1 , Jiwu Huang 1 , and Yongping Zhang 2 1 School of Information Science and Technology Sun Yat-sen University, Guangzhou, China, 510006 2 Research Department, Hisilicon Technologies CO., LTD Beijing, China, 100094 isshjw@mail.sysu.edu.cn

Abstract. As H.264 receives many applications, it becomes more and more im- portant to develop copyright protection methods for the new standard. Water- marking technology combined with video codec is considered a possible solution. In this paper we propose a new robust watermarking scheme for H.264, which makes the following contributions: 1) embed the watermark in a H.264 new syn- tax element named reference index; 2) propose a modifying the current block algorithm to improve the robustness of the scheme; 3) modify the current block by means of a geometry method, which makes the modifying algorithm degrade the video quality as slightly as possible. Experimental results have demonstrated the good performance of our scheme.

1 Introduction H.264 is gradually accepted to be a dominant video coding standard. It is time to develop copyright protection methods appropriate to it. Watermarking is widely considered a possible solution. Since digital video is generally stored and distributed in compressed format, it is time-consuming to decode and re-encode video for embedding watermark. The approach of hiding watermark in video bitstream is more reasonable to practical applications. However such scheme is closely related with specific video cod- ing standard. In most cases, applying existing algorithms to a new standard is difficult. A few literatures have discussed the issues mentioned above. Ho et al. [1] proposed a hybrid watermarking scheme. Authors embedded the robust watermark into special DCT coefficients of I-frames, and extracted it from video bitstream directly. Literature [2] extended the method to P-frames. But Ho's scheme is sensitive to some attacks fol- lowed by recompression. The reason is that syntax elements for embedding watermark tend to be changed or lost in the second coding process. Noorkami and Mersereau in literatures [3] and [4] gave a robust algorithm scheme with controllable detection per- formance. To reduce the complexity of the algorithm, authors embedded watermark in the residual of I-frames and thus avoided decompressing the video; to gain robustness against prediction mode changing, like [5], they extracted watermark from the decoded video sequence. They also extended the method to P-frames in [6]. Noorkami's scheme was more robust, but its detection process was very complex. star This work was supported by NSFC (90604008, 60633030), 973 Program (2006CB303104) and NSF of Guangdong (06023191). H.J. Kim, S.

Methodology

- Copyright year 2008 & added to OhioLINK's EBC in 2008
- n= 2,529 Springer e-book titles
- Compiled usage from 2008-2010 using Standard COUNTER BR2 reports & OhioLINK EBC download reports
- Springer's eBook Title List
- SPSS



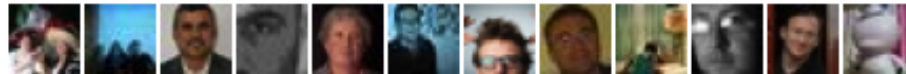
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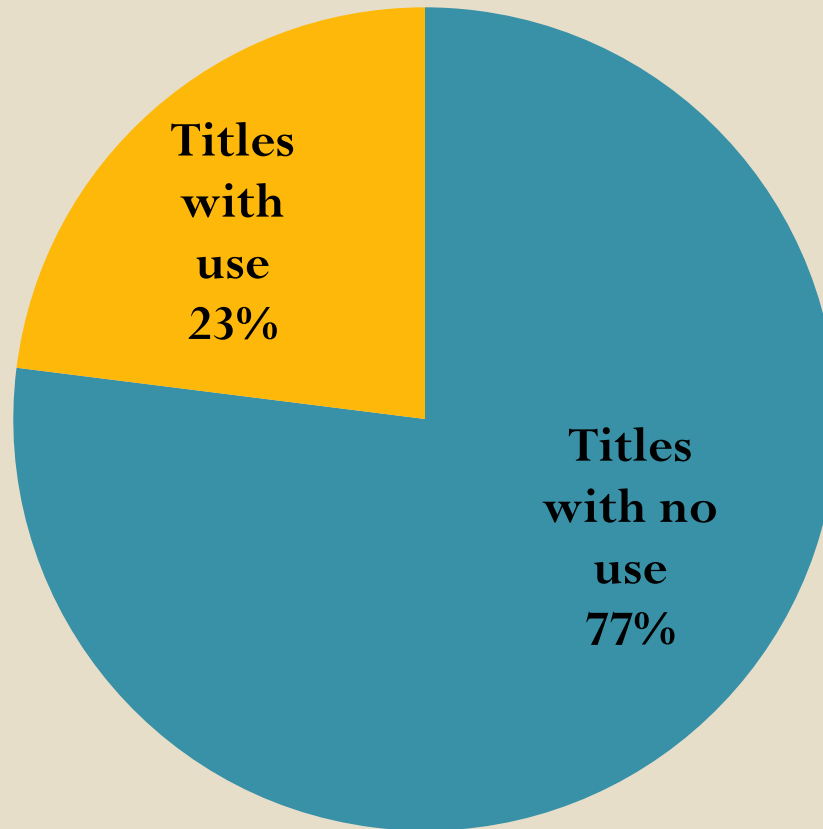
In God we trust. Everyone else, bring data:
on.nyc.gov/oHMCKo #NYC #Smoking
#PublicHealth

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Title Use: 2008-2010, n=2,529



Benchmarks

Galvin, Thomas J. and Allen Kent. "Use of a University Library Collection: a Progress Report on a Pittsburgh Study." *Library Journal* 102, no. 20: (1977): 2317-201

- 40% of print books are unused six years after purchase

Springer e-books: an average of 194 titles accessed for first time each year

- 2008 – 209 titles used for the 1st time
- 2009 – 240/308 titles used for the 1st time
- 2010 – 133/213 titles used for the 1st time

Trend shows that 54% of our e-books will be unused after six years

More Benchmarks

Bucknell, Terry. "The 'Big Deal' Approach to Acquiring E-Books: A Usage-Based Study." *Serials* 23, no. 2 (2010): 126-134.

- fewer than 40% of the purchased Springer e-books have not been used within two years of purchase

Sprague, Nancy, and Ben Hunter. "Assessing E-Books: Taking a Closer Look at E-Book Statistics." *Library Collections, Acquisitions, & Technical Services* 32 (2009): 150-57.

- ~19% of e-book titles have been accessed at least once
- 43,723 books from NetLibrary & Ebrary

Pareto Principle

80/20 Rule

20% of used titles
(116/582)



80% of total downloads
(6,370/7,963)

Long Tail: Infrequently Used Titles

- 188/582 titles had 1 use
- 82/582 titles had 2 uses
- 48/582 titles had 3 uses

OR

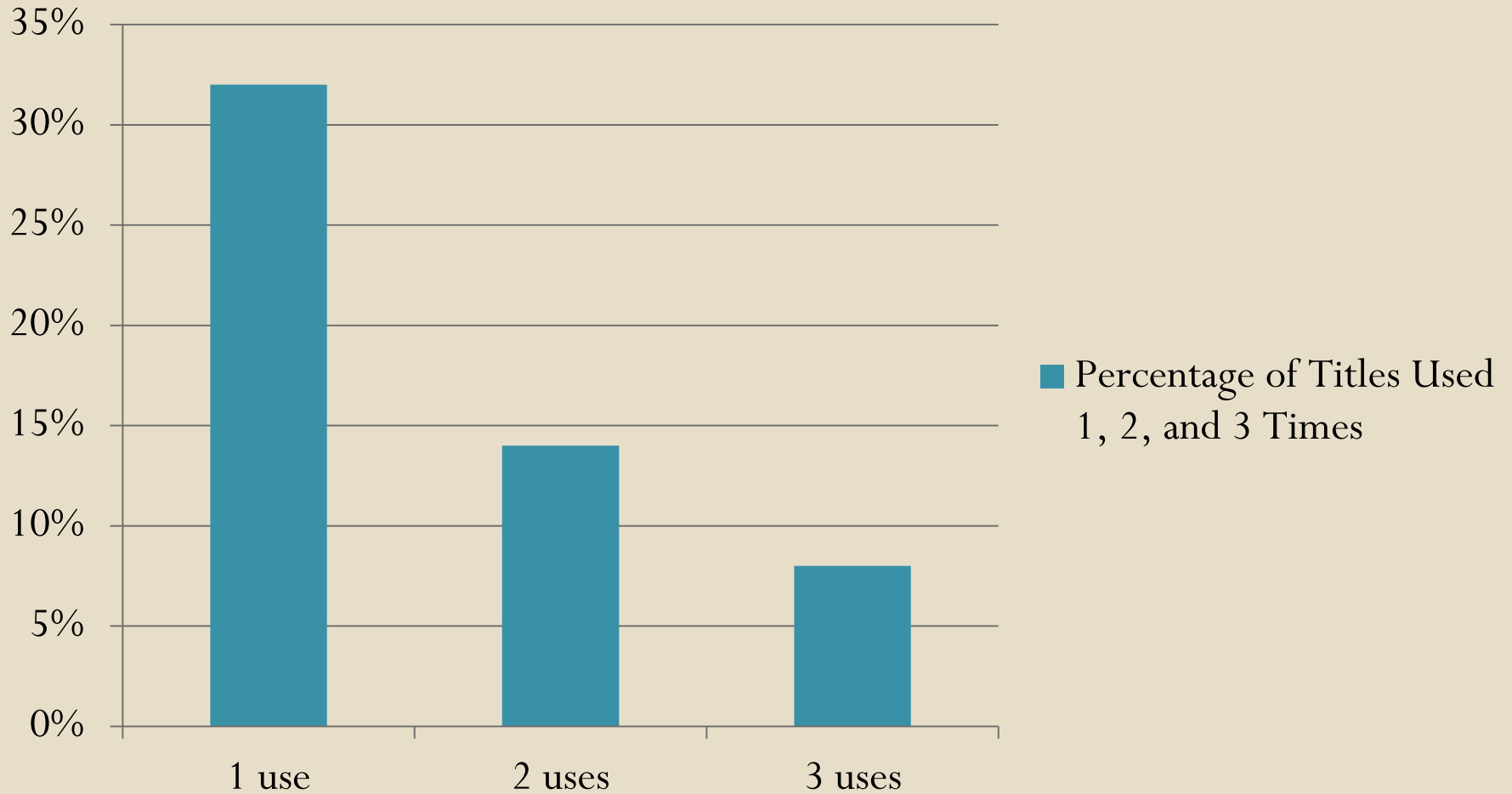
318/582 titles had 3 uses or less (54.6%)

Constitute 6.2% of the total downloads (7,963)



Long Tail: Infrequently Used Titles

Titles With 3 Uses or Less

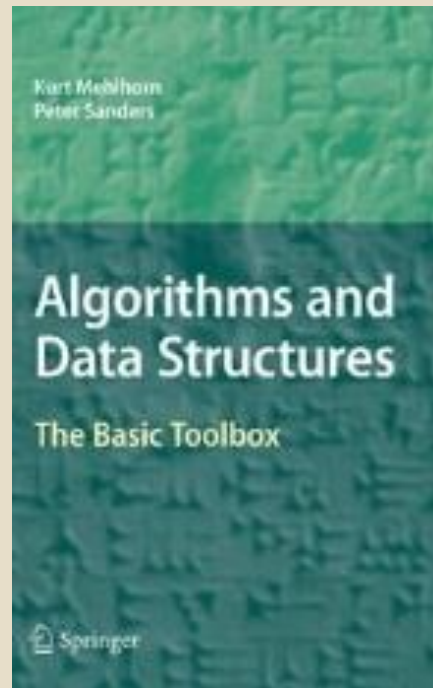


Few High Use Titles Dominate

#1 Title

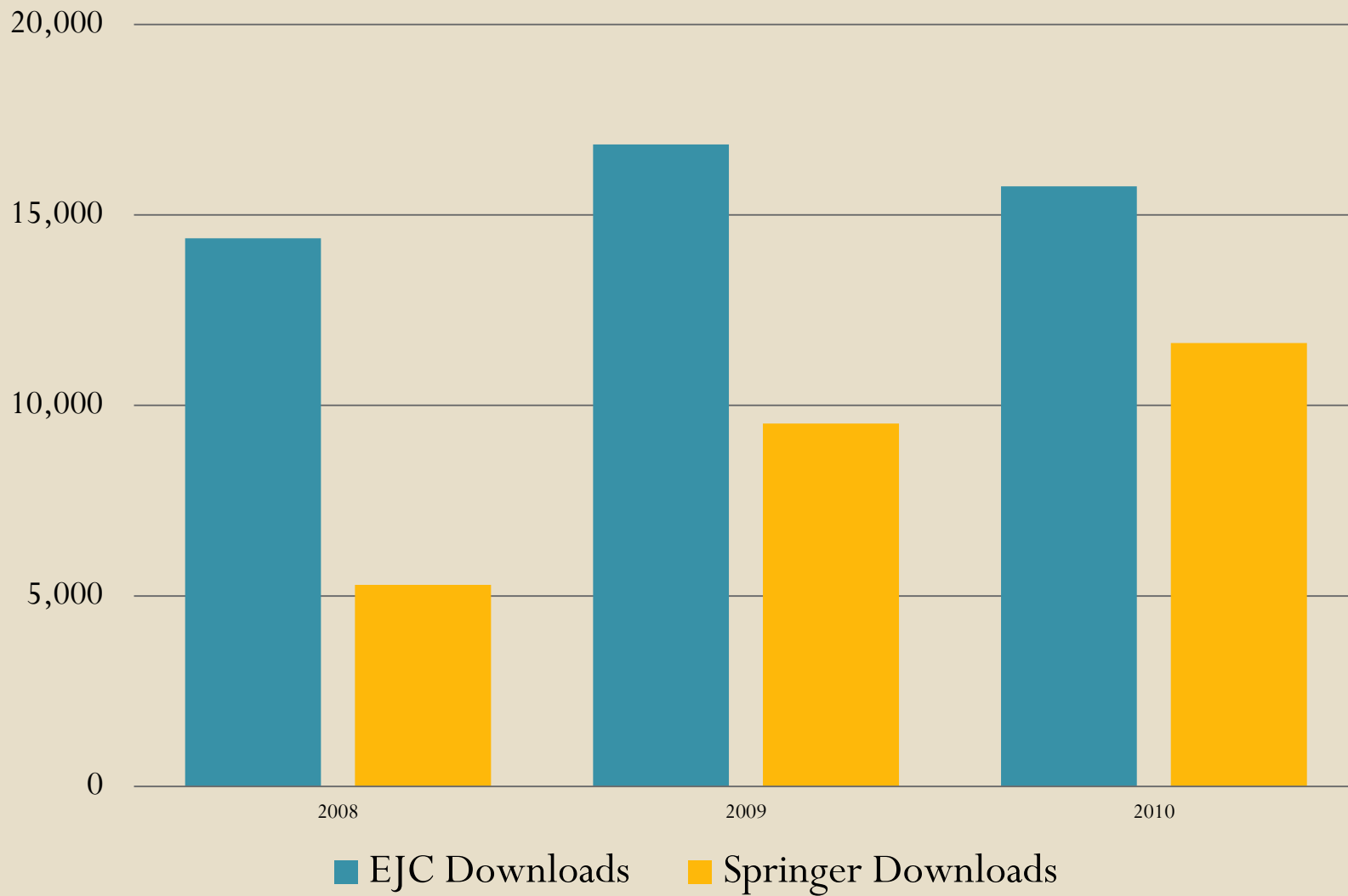
Algorithms and Data Structures

2,264 uses (or 28.4%) of the total uses over 3 years



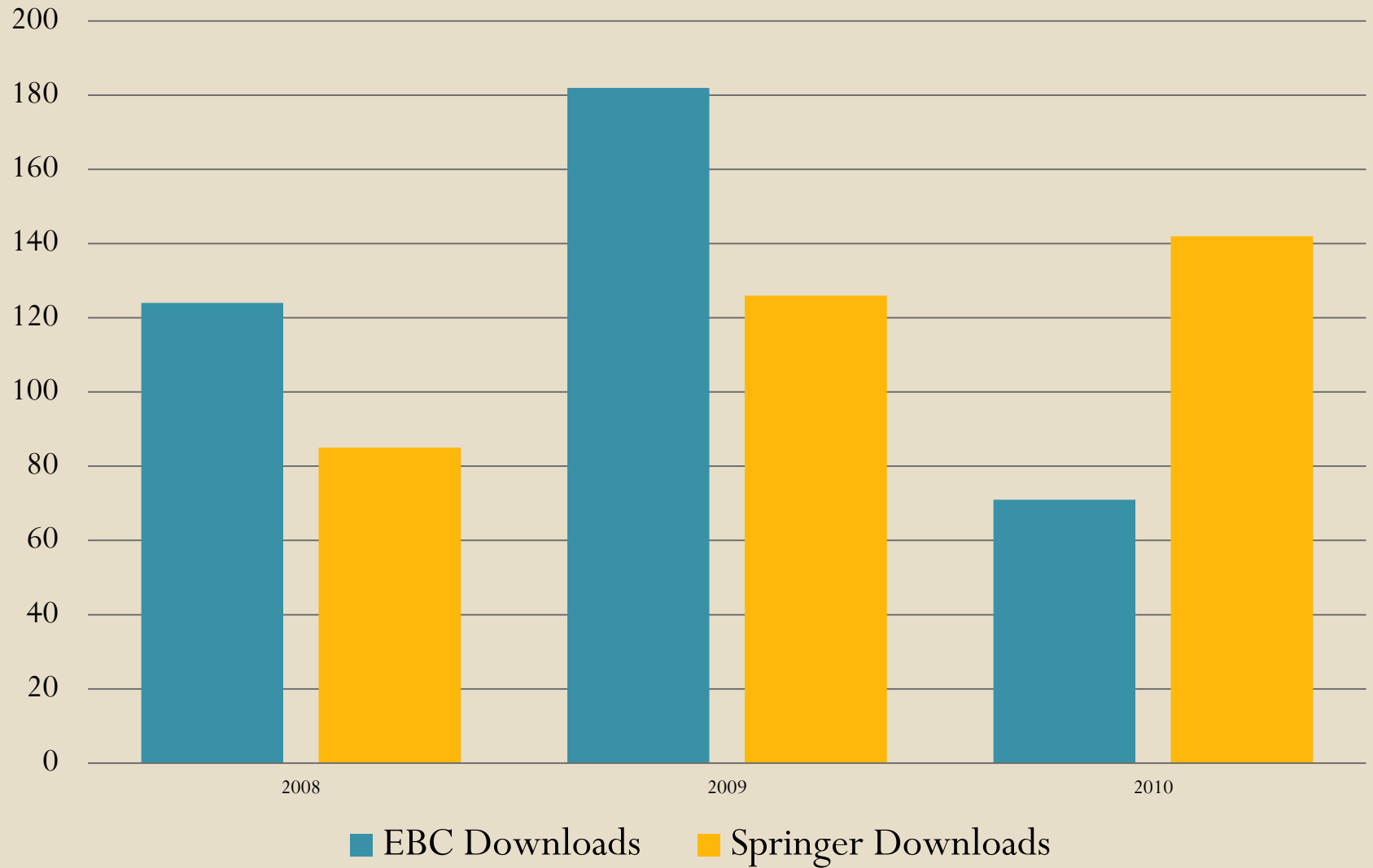
Inflationary Effect: E-Journals

E-Journal Downloads

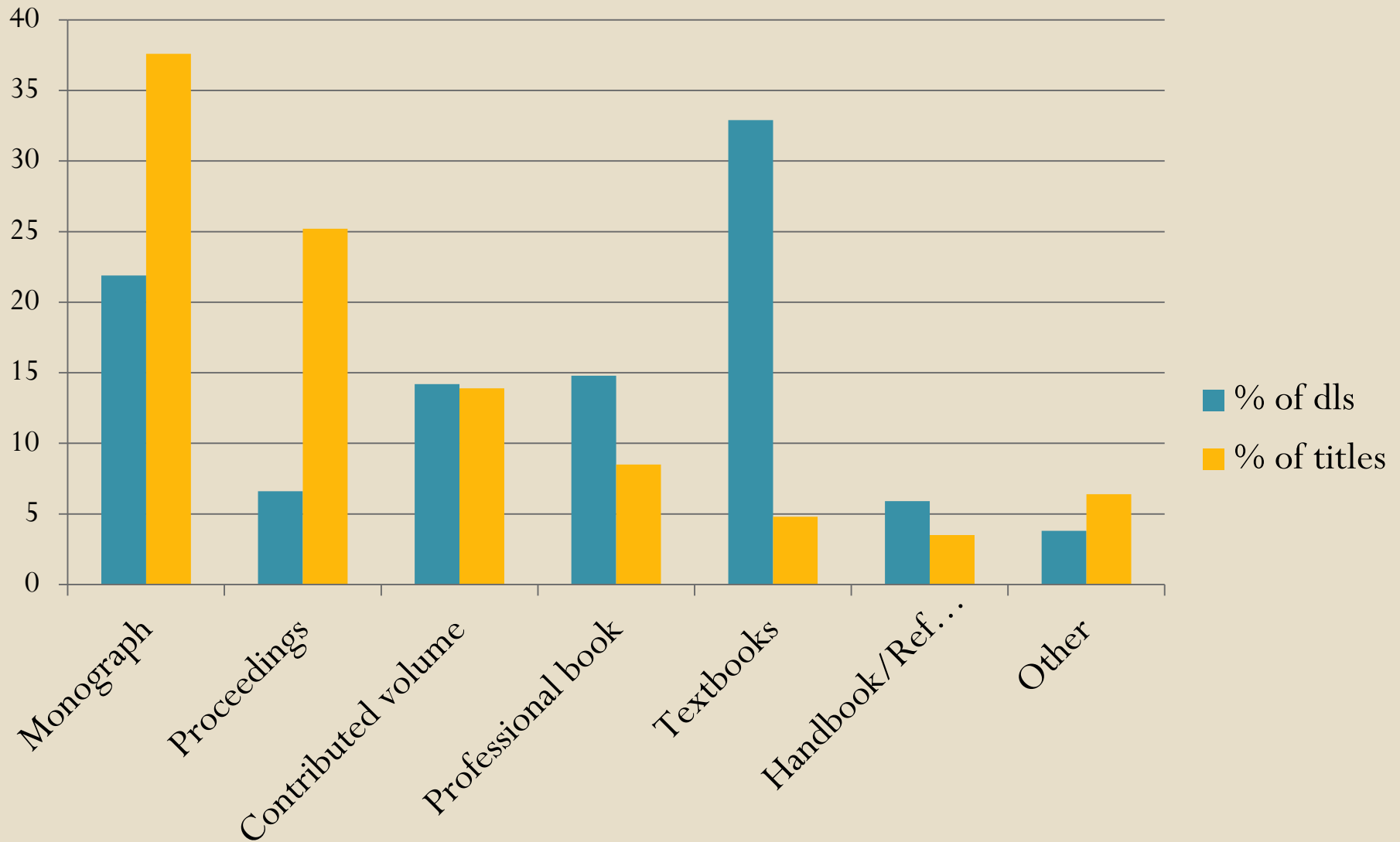


Inflationary Effect: E-Books

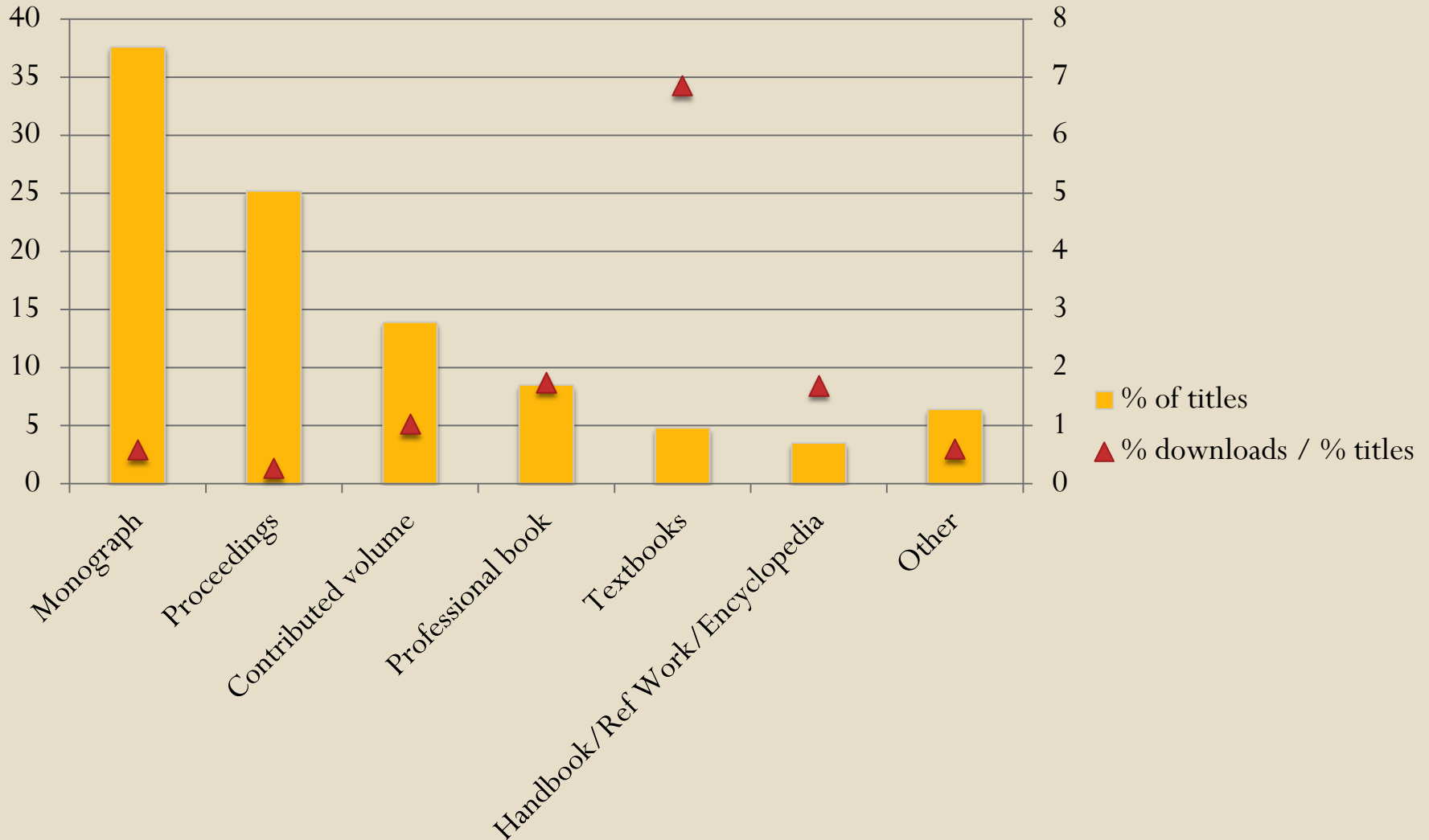
E-Book Downloads



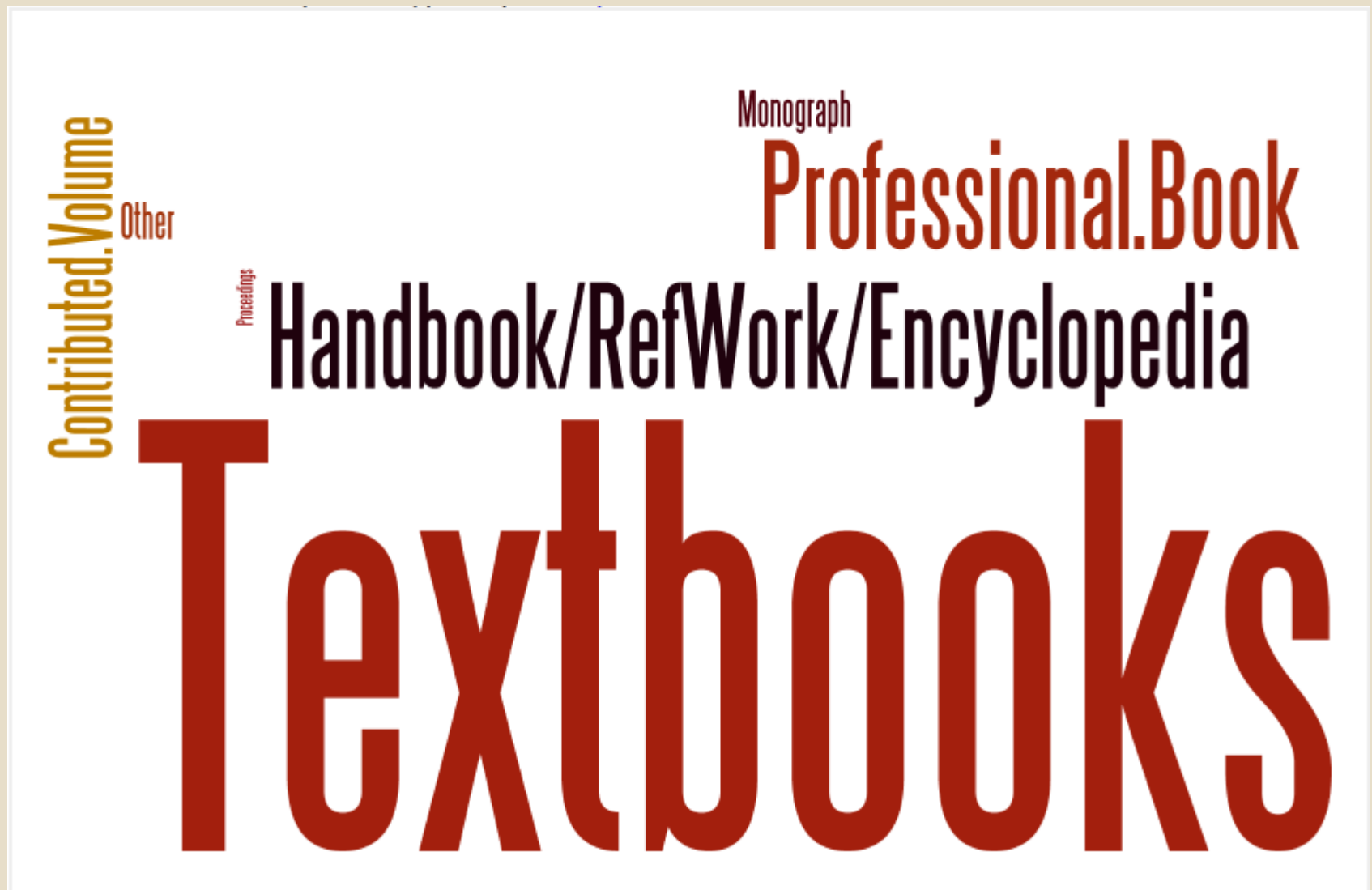
Downloads by Book Type



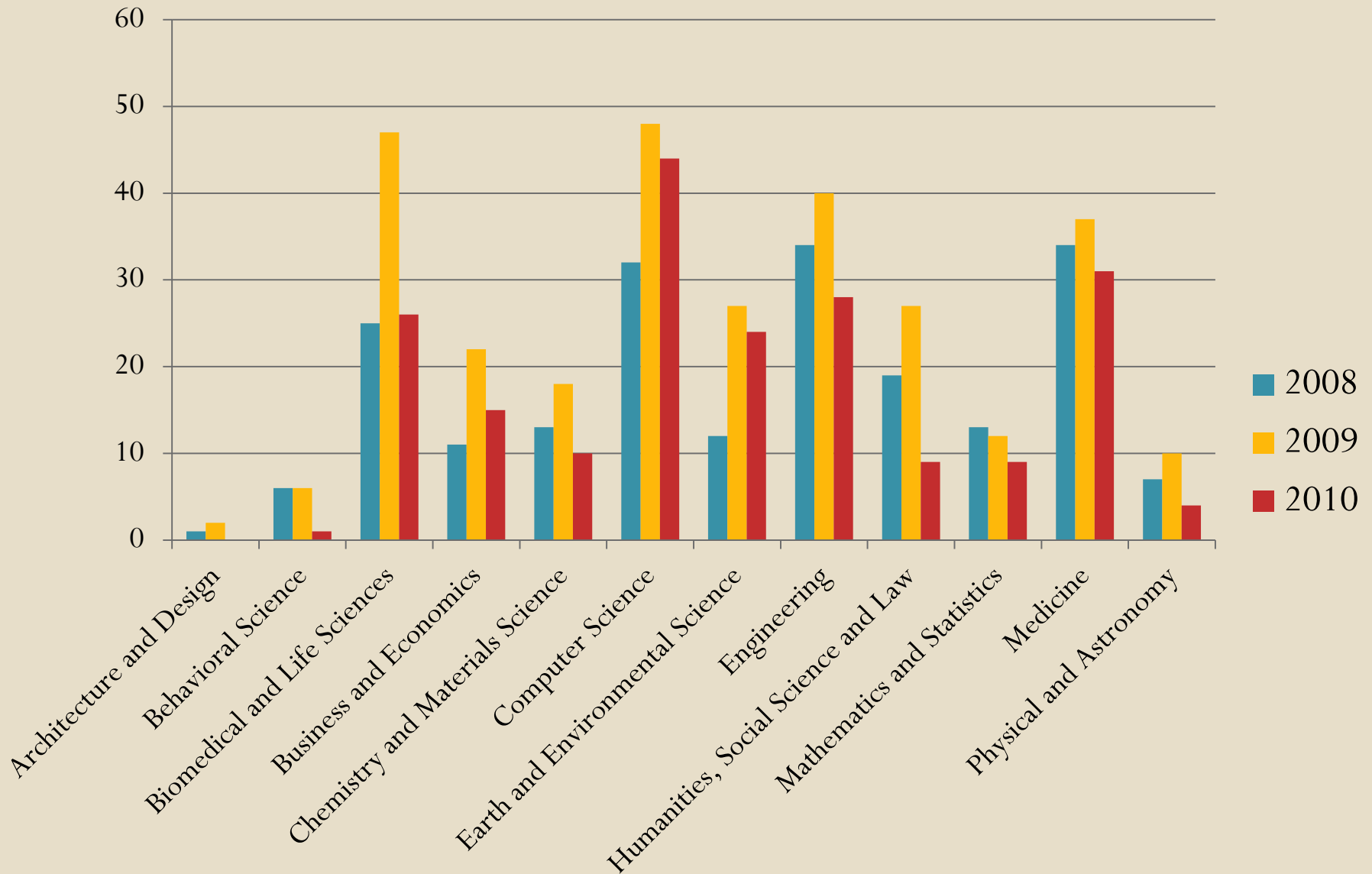
Number of Downloads by Book Type



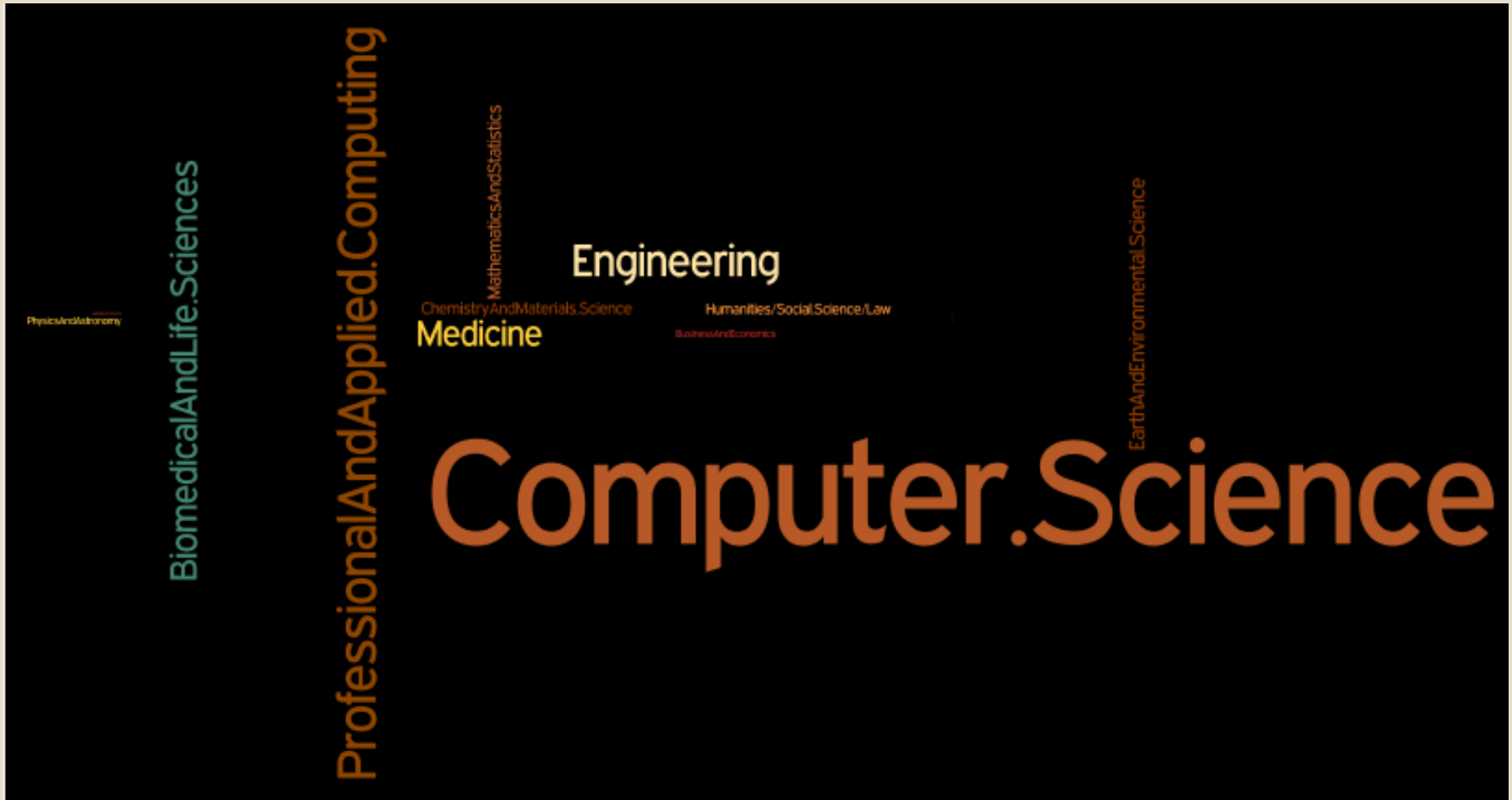
Book Type Word Cloud



Number of Titles Used by Subject Area



Subject Area Word Cloud



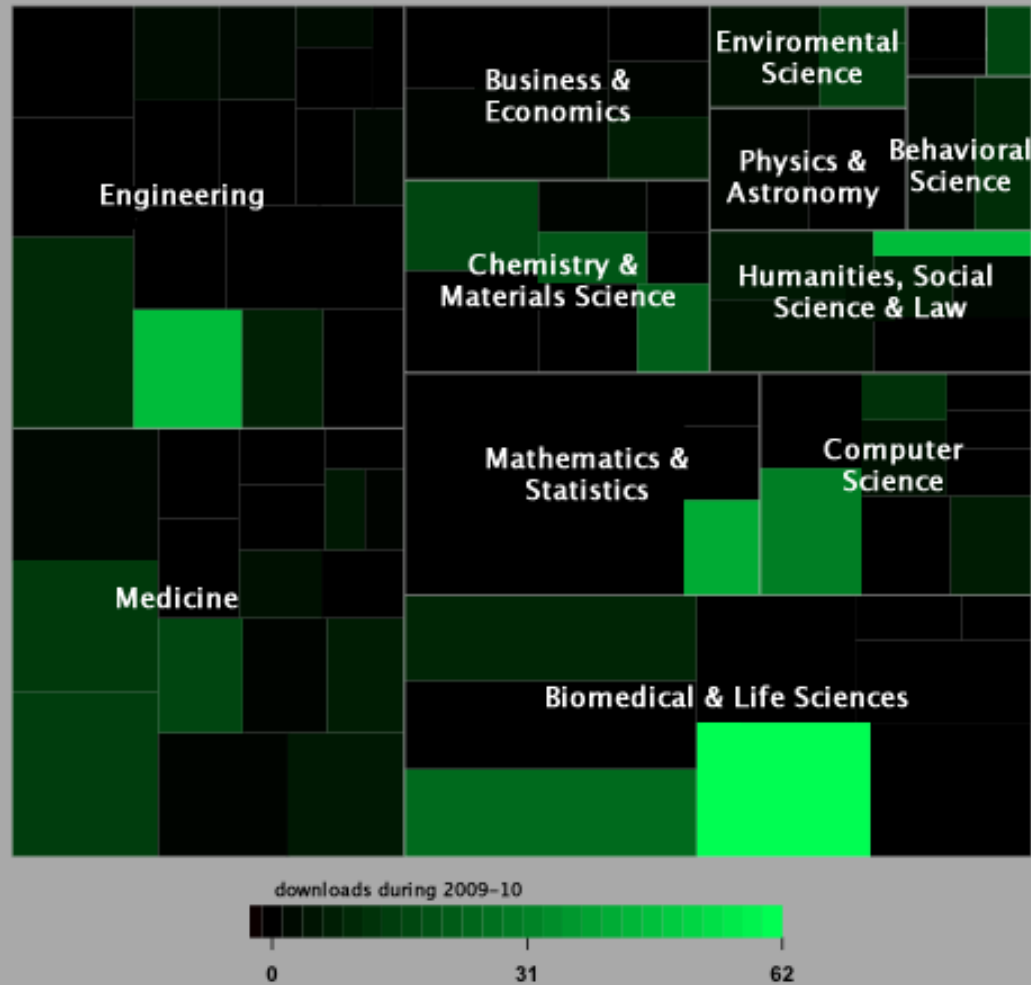
[View Subject Area Word Cloud at Wordle](#)

Past Usage Predicts Future Usage

- Usage pattern shows that many titles that were well used (4 or more) in 2008 received additional usage in 2009 and 2010.
- There are 87 titles with 4 or more uses in 2008.
- Of these 87 titles 35 or 41.2% had 1 or more used in 2009, and 20 or 23.0% had 1 or more uses in 2010.

Past Usage Predicts Future Usage

Below are heavily used titles (4 or more downloads) during 2008. Each rectangle represents a book (87 in total). Size represents number of downloads in 2008 and brighter green indicates more usage during 2009 - 2010.



Value of the Big Deal

- Our price tag to OhioLINK is a good value and becomes a better value over time with additional usage
- Cost per download also seems to be a good value when compared with others (e.g. Elsevier study of ScienceDirect e-books which determined cost per use is \$5.10 per chapter).
- Having the choice to select only a subset of subjects might be useful

80/20 – 116 titles @ \$100.00

318 titles with 494 downloads @ \$6 per download

~\$14,500

Conclusions

- 77% percent of the titles in this study were not used from 2008-2010
- Underperforming asset?
- Pareto rules!
- A few high use titles dominate & the long tail accounts for a very small percentage of the total downloads.
- Platform matters -- e-books that are cross-searchable with e-journal content is appealing (SpringerLINK is a dream come true for Pragmatists and Technophiles)
- One word: textbooks
- Title use peaks across all subject areas in 2009 and it's all about STEM with Computer Science as the most used collection.
- Heavy use begets more use as time goes on ...

Next Steps

- Continue to evaluate different e-book purchasing and pricing models.
- No single approach
- PDA & PPV/STL
- Marketing
- Easy access and better usability (comprehensive search)
- Look for solutions that provide even more e-book titles, available at the time of publication, with multiple purchasing and pricing models
- Continue to investigate the Springer collections with more years and more titles or at the consortial level
- OUP

- Questions or Comments?

Works Cited

Bucknell, Terry. "The 'Big Deal' Approach to Acquiring E-Books: A Usage-Based Study." *Serials* 23, no. 2 (2010): 126-134.

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Li, Chan, Felicia Poe, Michele Potter, Brian Quigley, and Jacqueline Wilson. "UC Libraries Academic e-Book Usage Survey: Springer e-Book Pilot Project." May 2011. http://www.cdlib.org/services/uxdesign/docs/2011/academic_ebook_usage_survey.pdf

Sprague, Nancy, and Ben Hunter. "Assessing E-Books: Taking a Closer Look at E-Book Statistics." *Library Collections, Acquisitions, & Technical Services* 32 (2009): 150-57.

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