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Digital Statutory Supplements for Legal Education: A Cheaper, Better Way

C. Steven Bradford and Mark Hautzinger

I. Introduction

It seems like an offer only an idiot would accept: pay \$40, \$50 or more for a bulky, non-searchable print version of information that is not copyrighted and is readily available for free on the Internet. We concede it's a horrible deal, but we hesitate to call those who accept it idiots, because this is precisely the deal that hundreds of thousands of law students accept from Thomson West, Aspen, Foundation Press, and other legal publishers every semester.

The product is the statutory supplement—collections, typically in paperback, of subject-specific statutes and regulations that are required for dozens of law school courses, from civil procedure to business associations to environmental law to basic income taxation. Statutory supplements have been around for decades. Hundreds of law professors require them and most law students buy them, often grudgingly, and lug them from class to class.

C. Steven Bradford is the Earl Dunlap Distinguished Professor of Law, University of Nebraska College of Law. This research was funded in part by a Ross McCollum Summer Research Grant. I have presented some of the ideas in this article at three conferences: (1) Creating Digital Statute Books and Casebooks, CALI Annual Conference on Law School Computing, Boulder, Colo., June 20, 2009; (2) The Future of Casebooks: Can Anyone Deliver What I Want?, CALI Annual Conference on Law School Computing, Las Vegas, Nev., June 18, 2007; and (3) Materials for the Classroom: The Usual Suspects and New Ideas, AALS Section of Teaching Methods, AALS Annual Meeting, Washington, D.C., Jan. 4, 2007. Thanks to the participants at those conferences for their helpful comments and questions. Thanks also to my colleague Bill Lyons for his helpful comments on an earlier draft. Finally, thanks to my co-author and former research assistant, Mark Hautzinger, and to my current research assistant, Tyler Bartruff, for their assistance.

Mark Hautzinger earned his J.D. in 2009 from the University of Nebraska College of Law.

1. Although these books often contain regulations, forms, and other materials in addition to statutes, they are commonly called statutory supplements or statute books.

Statutory supplements are expensive—usually cheaper than casebooks,² but the difference is misleading because the constant change in statutes and regulations makes it difficult for students to resell the supplements. A law student could easily spend \$500 or more just on statutory supplements during three years of law school.³ It's not an astronomical sum when compared to law school tuition, but it's not pocket change, either.

Students should not have to pay so much for statutory supplements. Commercial casebook publishers add little value to the freely available, non-copyrighted material in statutory supplements, and commercial publishers have no real comparative advantage in producing them. Even if one concedes that published casebooks are an essential part of legal education and that commercial legal publishers have an essential role in producing them,⁴ statute books are different. With little effort, law professors could produce many statutory supplements required for their courses for free, just as they produce course syllabi and other handouts. And they could provide those materials in a more convenient digital form, not in the bulky print format offered by the commercial casebook publishers.

No new technology is required. No special expertise is needed. No huge expenditures are necessary to make this happen. We have done what we propose and the time and effort required were minimal. We produced a digital Securities Regulation statutory supplement for Professor Bradford's two classes in Spring 2009. It is freely available on the Internet for anyone who wants to review or use it.⁵

That digital statute book saved students \$900—an average of \$45 each.⁶ Nine hundred dollars is not a huge sum, but that is the savings for two small

2. For instance, the securities regulation casebook authored by John Coffee and Hillary Sale, *Securities Regulation* (11th ed., Foundation Press, 2009), has a list price of \$153.00. See West Academic Faculty Online Store, <http://www.westacademic.com/Professors/ProductDetails.aspx?productid=149196&tab=1> (last visited Jan. 14, 2010). The 2009 edition of the statutory supplement prepared by Tom Hazen for the same course, *Securities Regulation: Selected Statutes, Rules and Forms* has a list price of \$45.00. See West Academic Faculty Online Store, <http://www.westacademic.com/Professors/ProductDetails.aspx?productid=145052&tab=1> (last visited May 11, 2009).
3. Assuming a price of \$40 a book, a student who took thirteen courses requiring statute books would pay \$520. Thirteen courses requiring statute books in three years of law school seems plausible.
4. Even that proposition is questionable. See, e.g., Matthew T. Bodie, *The Future of the Casebook: An Argument for an Open-Source Approach*, 57 *J. Legal Educ.* 10 (2007); Robert Laurence, *Casebooks are Toast*, 26 *Seattle U. L. Rev.* 1 (2002).
5. See *Digital Securities Law: Statutes and Regulations*, <http://www.unl.edu/bradford/Digital%20Statute%20Book.html> (last visited July 9, 2009).
6. Twenty of twenty-four students who responded to a survey used the digital statute book exclusively; the other four used both the digital statute book and a printed book. The print alternative was Thomas Lee Hazen, ed., *Securities Regulation: Selected Statutes, Rules and Forms* (2009 ed., West). Its list price is \$45. See West Academic Faculty Online Store, <http://www.westacademic.com/Professors/ProductDetails.aspx?productid=145052&tab=1>

classes at a single law school. Multiply that by all the law school courses that require statutory supplements and the possible savings are phenomenal. The Association of American Law Schools consists of 171 law schools.⁷ If only one professor at each of those schools offered this digital option to a single class of twenty students, the savings for a single semester would be more than \$150,000.

II. The Advantages of Digital Statute Books

The savings alone justify a move to open-source, digital statute books, but digital materials also have other advantages over traditional, printed statute books. Some advantages are pedagogical; some relate to ease of use.

A. Cost Savings

Digital statute books are cheaper to produce.⁸ The editorial work is the same for digital and print statute books and is minimal in either case. No one must write or edit the text; the only editorial work is to convert the publicly available material into book format. And the cost to produce and deliver digital materials is much less. No ink or paper is used. No physical delivery is required. No bookstore is needed. Digital materials can be delivered to both faculty and students on demand over the Internet.

B. Physical Advantages: Portability and Durability

Print statute books are heavy and bulky. The print securities statutory supplement Professor Bradford has used for his Securities Regulation course in the past⁹ weighs 4.8 pounds; the corporate law supplement he assigns for his Business Associations course¹⁰ weighs 5.6 pounds, has more than 2,300 pages and is almost three inches thick. Statutory supplements are “overstuffed with statutes, regulations, interpretations and model codes that the class will

(last visited May 11, 2009). An abridged version is available for a list price of \$33, but it does not include all of the materials needed for one of the two classes. See West Academic Faculty Online Store, <http://www.westacademic.com/Professors/ProductDetails.aspx?productid=149396&tab=1> (last visited May 11, 2009).

7. See Association of American Law Schools, What Is the AALS?, <http://www.aals.org/about.php> (last visited June 9, 2009).
8. Since law publishers don't share cost data with the public, the exact production cost difference is uncertain. However, existing undergraduate digital books cost about half the retail price of their hard-copy equivalents. See A Report of the Advisory Committee on Student Financial Assistance, Turn the Page: Making College Textbooks More Affordable 21 (May 2007), available at <http://www.ed.gov/about/bdscomm/list/acsfa/turnthepage.pdf>.
9. Hazen, *supra* note 6.
10. Melvin Aron Eisenberg, ed., *Corporations and Other Business Organizations: Statutes, Rules, Materials, and Forms* (2008 ed., Foundation Press).

never discuss,”¹¹ undoubtedly to ensure that no law professors will refuse to adopt the book because it is missing something they cover in class.

Digital statute books weigh nothing and take up no physical space. Students must carry a laptop computer to class to use the digital books (at least until a suitable e-book reader is available), but they only need one device for all their digital materials and most students already carry laptops to class.¹² One laptop clearly weighs less and is less bulky than one laptop *plus* statute books.

Digital books also are easier for students to handle once they get to class. The average law school classroom seat is not designed for multiple books plus a laptop. Professor Bradford’s students often sit with laptops on the table space, casebooks and (sometimes) casebook supplements occupying the rest of the table, with statute books perched on their laps. With digital statute books, students have one less item to juggle.

Digital statute books also are more durable than physical statute books. For the most part, the printed statute books published by commercial publishers hold up well. But these are, after all, paperbacks. Their spines break and pages fall out. Professor Bradford is a high-intensity user compared with many of his students, but they have reported similar problems.

Digital books do not deteriorate. They can be erased accidentally or lost when a computer drive crashes. But those problems are remedied easily by backing up the file. Print statute books also get lost on occasion and it is expensive and possibly illegal under current copyright law to back up print books.

C. Timeliness

Print statute books, like casebooks, “are out of date the moment they are printed,”¹³ and certainly by the time they get to students. This is inevitable; it takes time to print and deliver the books to local stores. The print statute book Professor Bradford assigned in his Spring 2008, Securities Regulation course included changes through October 1, 2007, more than three months before the class started.¹⁴ The cutoff date for the other major securities statutory

11. Matthew Bodie, *The Future of the Casebook: An Argument for an Open-Source Approach*, 57 *J. Legal Educ.* 10, 14 (2007).

12. Except for the unfortunate ones whose professors have prohibited the use of laptops in class. *See, e.g.*, Kevin Yamamoto, *Banning Laptops in the Classroom: Is It Worth the Hassles?*, 57 *J. Legal Educ.* 477, 483 (2007); Eric Finkelstein, *No Logoff in Fight Over Laptops in Class: Law Students, Professors Debate Classroom Bans*, *Nat’l L. J.*, June 26, 2006, at 6.

13. Bodie, *supra* note 4, at 10.

14. *See* Thomas Lee Hazen, ed., *Securities Regulation: Selected Statutes, Rules, and Forms* (2009 abridged ed., West 2008). This is actually a pretty good turnaround time for a print statute book.

supplement was March 1, 2007, almost a year before Professor Bradford's spring class began.¹⁵ Sometimes, a statute book's exact cutoff date is unspecified.¹⁶

Digital statute books need not be printed or physically distributed, so they can be updated immediately before the class begins. The digital securities statute book Professor Bradford used in class beginning on Jan. 12, 2009, was current as of Dec. 29, 2008.

D. Ease of Use/Pedagogical Advantages

Digital statute books offer potential pedagogical advantages over printed statutes and books. Digital statutes are easier for students to work with. The material can be cut and pasted directly into student notes and outlines. Professors can paste digital statutory materials into PowerPoint presentations and handouts. Printed statutory materials, on the other hand, must be retyped or scanned.

It is easier to find material in digital statutes. Students can search for specific text or section numbers. A hyperlinked table of contents can make it easier to move around in the materials. Print books have no search or hyperlink function and it is often difficult just to find the appropriate table of contents.¹⁷

Finally, a digital statute book is more likely to be available when the student needs it. Because of the weight and bulk of print books, students sometimes don't carry them on days a particular class doesn't meet; if they want to study in their spare time, the statutes and regulations are unavailable.¹⁸ Even on days when the class does meet, students sometimes forget to bring the right text, forcing them to share with others or do without. Digital statutes are available whenever and wherever students have their laptops (or any other e-reading device). Students are much less likely to forget laptops than a given text.

E. Readability

No discussion of electronic materials is complete without addressing the bogeyman of readability: black-and-white print is unquestionably easier to read than computer screen text.¹⁹ Screens have improved dramatically over the

15. See John C. Coffee, Jr. & Hillary A. Sale, eds., *Federal Securities Laws: Selected Statutes, Rules and Forms* (2007 ed., Foundation Press).

16. See, e.g., Eisenberg, *supra* note 10.

17. Printed statutory supplements often have multiple tables of contents—a basic one at the front with a page reference for each distinct set of materials (a particular statute, for instance), and a more detailed table of contents within each set of materials. See, e.g., Eisenberg, *supra* note 10.

18. It is not just students. This has occurred for Professor Bradford on trips or when he works from home.

19. See generally Debra Moss Curtis & Judith R. Karp, In a Case, On the Screen, Do They Remember What They've Seen? *Critical Electronic Reading in the Law Classroom*, 30 *Hamline L. Rev.* 247, 249-261 (2007) (discussing the differences between reading on screen and reading in a book).

years and recent developments suggest even more advances.²⁰ But computer screens have not reached the point yet where most readers want to read novels on them.²¹

A statute book is not a novel. One does not read continuously through it. Students read most statutes and regulations in the same, jumpy, small-bits-of-text-at-a-time manner involved in web browsing. In fact, what Cory Doctorow calls the “cognitive style” of computers²² may fit statutes and regulations better than a printed book—precisely because of the text search and navigation features available on a computer.

Moreover, this generation of law students is much more comfortable with computer screens than past generations. With the omnipresence of cell phones, digital audio and video players and laptop computers, many of today’s students read on computer screens all the time.

III. Creating a Digital Statute Book

To create a digital statute book, one must find the desired materials in digital form, and then put them in a format suitable for student use. The first step was relatively easy for us; the relevant federal securities laws and regulations are publicly available in digital format and are not copyrighted. Professors preparing digital statute books for other courses might find this step more difficult. The second step—deciding on a format and reformatting the materials—was the harder one for us, but even that was not overly complicated or time-consuming.

A. Source Materials

Materials that might be included in a statutory supplement—federal and state statutes and regulations, uniform and model acts, restatements of the law—vary in availability. Some are freely available online in various digital formats; others are unavailable.

Some materials that might be included in a statutory supplement are available to law students and law professors through Lexis or Westlaw, but we decided not to use these services. Though we believe that creating a statutory supplement for students is consistent with our law school’s contracts with Westlaw and Lexis, we worried that those agreements might limit the future direction of the project. We also were concerned that Westlaw or Lexis might

20. For example, Amazon has produced a version of its Kindle e-book reader in a larger format directed specifically to the textbook market. *See Amazon Introduces Big-Screen Kindle*, N. Y. Times, May 6, 2009, p. B7. The iPad recently introduced by Apple is another example. *See* <http://www.apple.com/ipad/> (last visited Feb. 18, 2010).

21. *See* Cory Doctorow, *You Do Like Reading Off A Computer Screen*, Locus Online, Mar. 13, 2007, available at <http://www.locusmag.com/Features/2007/03/cory-doctorow-you-do-like-reading-off.html> (last visited Feb. 11, 2010). Even this complaint is overstated. Professor Bradford has read books on his 15-inch laptop screen and 24-inch LCD monitor, and he now regularly reads all law review articles on his computer.

22. *Id.*

modify their contracts if faculty-created statutory supplements significantly affected their publishing businesses. Therefore, we avoided Lexis and Westlaw entirely.

Some materials that might be included in a digital statute book are available online through the Legal Information Institute at Cornell University.²³ The LII is a non-profit activity of the Cornell Law School, and its web site is one of the best, if not the best, starting point for online legal resources. However, the LII is, for the most part, a secondary source; it obtains its materials from other online resources.²⁴ Instead of using LII, we decided to go directly to the primary sources.

1. Federal Statutes

The United States Code is available online in digital format.²⁵ The online version of the Code is provided by the Office of the Law Revision Counsel of the U.S. House of Representatives, the same office responsible for the printed Code.²⁶ The online version is consistent with the latest print edition but also includes updates with amendments not yet included in the print version.²⁷ To create an up-to-date version of the federal statutes, these amendments must be incorporated manually.

2. Federal Regulations

The Code of Federal Regulations is available online. The Electronic Code of Federal Regulations, or e-CFR, is a joint venture between two federal government agencies, the Government Printing Office and the Office of the Federal Register in the National Archives and Records Administration.²⁸ The e-CFR is updated daily and is usually current within two business days.²⁹

23. See Cornell University Law School, Legal Information Institute, <http://www.law.cornell.edu/> (last visited July 30, 2008).

24. In addition, the LII claims a copyright on its formatting and organization of the materials available on its web site and we wanted to avoid copyright restrictions.

25. See Office of the Law Revision Counsel, <http://uscode.house.gov/> (last visited June 9, 2009). Files may be downloaded as ASCII text files or as .pdf files. See Download the United States Code, <http://uscode.house.gov/download/download.shtml> (last visited June 9, 2009).

26. See Office of the Law Revision Counsel: About the Office and the United States Code, <http://uscode.house.gov/about/info.shtml> (last visited June 9, 2009). See also 2 U.S.C. 285b(3) (requiring the Office of Law Revision Counsel to “prepare and publish periodically a new edition of the United States Code”).

27. See Office of the Law Revision Counsel: About the Office and the United States Code, *supra* note 26.

28. See GPO Access, Electronic Code of Federal Regulations, <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=40014c700a8903f5594c817482ebcccd&c=ecfr&tpl=%2Findex.tpl> (last visited June 9, 2009).

29. *Id.*

Amendments and new rules are incorporated into the e-CFR as of their effective date but the online version also includes hyperlinks to amendments that have not yet taken effect.³⁰

The e-CFR is not yet recognized as an official edition of the Code of Federal Regulations but the government plans to make it an official compilation as soon as “all remaining technical and performance issues are resolved.”³¹ According to its sponsors, the plan is to continue “to make...[the e-CFR]... available for free, in perpetuity.”³²

3. State Statutes and Regulations

The availability of state statutes and regulations in digital form varies by state.³³ The online versions have official status in only a few states,³⁴ and some of the online versions are incomplete³⁵ or raise issues of authenticity.³⁶ In many states, a complete set of administrative regulations is unavailable online.³⁷ Thus, the inclusion of state materials in a digital statute book is a hit-or-miss proposition. Washburn Law School maintains a web site, Washlaw, which allows for an easy search for state materials.³⁸

4. Uniform and Model Acts and Other Copyrighted Materials

Many courses use model or uniform acts and commentary, such as the uniform acts adopted by the National Conference of Commissioners on Uniform State Law (NCCUSL), the model acts adopted by the American Bar

30. *Id.*

31. *Id.* The Administrative Committee of the Federal Register (ACFR) has statutory authority over the Code of Federal Regulations. See 44 U.S.C. § 1510(c). Once the remaining issues are resolved, the Government Printing Office and the Office of the Federal Register will propose to the ACFR that the e-CFR become an official edition of the CFR. See GPO Access, Electronic Code of Federal Regulations, *supra* note 28.

32. See GPO Access, Electronic Code of Federal Regulations, *supra* note 28.

33. See American Association of Law Libraries, State-by-State Report on Authentication of Online Legal Resources Appendix A (March 2007), available at http://aallnet.org/aallwash/authe_n_rprt/AutheFinalReport.pdf (last visited Feb. 11, 2010)..

34. *Id.* at 37. A few states have made the online repository the official publication, and no longer publish print versions of some or all of the state statutory or regulatory materials. See *id.*, at 35.

35. California, for example, excludes the building standards title, which includes copyrighted materials from model code providers. *Id.* at 86. As of March 2007, much of the Colorado administrative code was still “under construction.” *Id.* at 88. The coverage in Vermont is “uneven and incomplete.” *Id.* at 182.

36. *Id.*, at 74.

37. See *id.* at 90 (Connecticut); see *id.* at 92 (Delaware); see *id.* at 130-131 (Mississippi); see *id.* at 144 (New Jersey); see *id.* at 148 (New York).

38. See Washlaw: Legal Research on the Web, <http://washlaw.edu/> (last visited June 9, 2009).

Association, or the restatements and commentaries adopted by the American Law Institute.³⁹ The online availability of these materials varies.

The American Bar Association publishes a number of model codes and model acts, including, for example, the Model Rules of Professional Conduct and the Model Business Corporation Act. Some materials, like the Model Rules of Professional Conduct, are available online;⁴⁰ others, like the Model Business Corporation Act, are not.⁴¹

All of the Uniform Acts adopted by NCCUSL are available at an archive maintained by the University of Pennsylvania Law School.⁴² The uniform acts are available in .pdf, ASCII text or WordPerfect formats. Unfortunately, they are not available as Word documents.⁴³

The American Law Institute publishes both restatements of the law and additional materials, like Principles of the Law and codifications like the Model Penal Code and the Uniform Commercial Code. These materials are unavailable online.

For some courses, such materials are essential. For instance, the ABA's Model Business Corporation Act and NCCUSL's Uniform Partnership Act and Uniform Limited Partnership Act are indispensable in a Business Associations course.

39. The Business Associations course is a good example. One popular statutory supplement includes all or part of the Restatement (Second) of Agency, the Restatement (Third) of Agency, the Uniform Partnership Act, the Revised Uniform Partnership Act (1997), the Revised Uniform Limited Partnership Act (1976), the Uniform Limited Partnership Act (2001), the Uniform Limited Liability Company Act (1996), the Revised Uniform Limited Liability Company Act (2006), the Model Entity Transactions Act 2007, the Revised Model Business Corporation Act, the Uniform Commercial Code, the Uniform Fraudulent Transfer Act, the ABA Model Rules of Professional Conduct, the American Law Institute Principles of Corporate Governance: Analysis and Recommendations, and the American Bar Foundation Commentaries on Debentures. *See supra* note 10.
40. *See* American Bar Association, Model Rules of Professional Conduct, *available at* http://www.abanet.org/cpr/mrpc/mrpc_toc.html (last visited June 9, 2009).
41. The Model Business Corporation Act is available online with revisions through 2002. However, the Act has been amended several times since 2002, and the most recent version is not publicly available. *See* Model Business Corporation Act (3d ed. 2002), www.abanet.org/buslaw/library/onlinepublications/mbca2002.pdf (last visited June 9, 2009).
42. *See* University of Pennsylvania Law School, NCCUSL Drafts and Final Acts, http://www.law.upenn.edu/bll/archives/ulc/ulc_final.htm#final (last visited June 9, 2009). This archive contains not only final acts approved by NCCUSL, but also drafts of other statutes. *See id.* at <http://www.law.upenn.edu/bll/archives/ulc/ulc.htm#drafts> (last visited July 30, 2008).
43. *See id.* at http://www.law.upenn.edu/bll/archives/ulc/ulc_final.htm#final (last visited June 9, 2009).

Unfortunately, these materials, unlike federal and state statutes and regulations, are copyrighted.⁴⁴ A statute book containing these materials can be assembled only with the permission of the copyright holders,⁴⁵ and they vary in their willingness to accommodate a project like this. We did not need this material for our digital securities statute book, but we contacted the copyright holders to see how willing they would be to license their materials.

The American Bar Association rejected our request to include the Model Business Corporation Act in a set of digital corporate law materials. The ABA licenses this material for use in commercially published print statute books, but it was unwilling to license its materials for a digital supplement that would be provided free to students, whether or not we paid a licensing fee.⁴⁶

The American Law Institute was more receptive than the ABA. We asked if we could include their Principles of Corporate Governance in a set of digital corporate law statutory materials. The ALI was unwilling to allow us to use the Principles for free, but they were willing to allow the Principles to be included in a digital supplement for a flat, nominal annual fee.

We also contacted NCCUSL about the possibility of including several uniform acts—the Uniform Partnership Act, the Uniform Limited Partnership Act, and the Uniform Limited Liability Company Act—in a digital corporate law supplement. NCCUSL also was more accommodating than the ABA but never provided a definitive answer to our request. We terminated the discussions when the ABA rejected our licensing request.

B. Formatting

The first step is finding the material; the next is formatting it for student use. A number of different formats are possible including, .pdf files readable by Adobe Acrobat Reader; web-based .html format; proprietary word processing formats used by WordPerfect and Word; and .txt text files. We ultimately decided to make the digital securities statute book a .pdf document.

I. Criteria

Eight criteria guided our choice of format. First and foremost, we wanted it to be something students could access without purchasing additional software. Second, we wanted statutes and regulations that were easily navigable. Third, we wanted it to let students perform text searches. Fourth, we wanted it to let students highlight and underline. Fifth, we wanted it to permit students to add notes and comments. Sixth, we wanted it to allow students to copy text electronically from the materials and paste it elsewhere, including their notes and outlines. Seventh, we wanted the materials to be free of digital rights

44. See Bodie, *supra* note 4, at 30–31.

45. An alternative would be to use the text of the act as adopted by a given state, particularly if it uses a numbering system matching the section numbers of the model act.

46. They were willing to consider licensing the statute for use in a specific course at a given law school but not for materials available to all law students nationwide.

management (DRM) software that would limit student use. Finally, we wanted the materials to be free or available for a nominal sum to students.

A. ACCESSIBILITY

The first and most important requirement was student accessibility. We wanted students to access the digital statute book with software they owned or that is available for free. We would not be helping them if we forced them to buy expensive software or a special reader to access a free statute book. We also wanted software that even technically unsophisticated users would find easy to use. Those preferences limited us to materials that can be read with a web browser like Internet Explorer or Mozilla Firefox, the free Adobe Acrobat Reader, or Microsoft Word.⁴⁷

B. NAVIGABILITY

Students need to be able to move around in the materials. They need an index that will let them orient themselves, find a statute or regulation, and locate a section within that statute or regulation. They need to be able to move back and forth from index to statute to regulations and from section to section within a particular statute or regulation with little effort. If it takes thirty seconds or more to find a section, the materials are unsuitable for classroom use.

Fortunately, both Adobe Acrobat and Microsoft Word enable the creation of a multi-level, collapsible index that facilitates navigation. Using frames and hyperlinks, a similar result is possible for .html documents. The ease with which such an index can be created varies, but it is possible for all of the formats we considered.

C. TEXT SEARCHING

A major advantage of digital media over printed text is the ability to search for a rule number or string of text. All the formats we considered include full text-searching capability. Numerous search engines, such as Google and Bing, are available for .html documents, and both Adobe Reader and Microsoft Word include a built-in search function.

D. HIGHLIGHTING AND UNDERLINING

Many students (and professors) like to highlight and underline and some of them like to do it in multiple colors. We wanted to choose a format that would let students highlight and underline and save material in its marked-up form.

47. We never seriously considered WordPerfect. Word is ubiquitous; WordPerfect is not. Word is not a free product, but many universities have site licenses that allow students to purchase a full-featured copy of Microsoft Word for a nominal price. At the University of Nebraska-Lincoln, for example, students may buy Microsoft Office 2007 Professional Suite for only \$14.99. See University of Nebraska-Lincoln, Software Deals for Students, <http://shop.unl.edu/software.php> (last visited July 29, 2008). In any event, WordPerfect reads most Word documents well, so using the Word .doc format would not freeze out WordPerfect users.

Both Microsoft Word and Adobe Reader include these functions. In Word, one can highlight in multiple colors, underline text, or even change the color of text. Adobe Reader also permits these tasks but only if the creator of the .pdf document enables these features.⁴⁸

Browsers like Microsoft Internet Explorer and Mozilla Firefox, employed to read .html documents, are more problematic. Neither Explorer nor Firefox has built-in highlighting or underlining features. Plug-ins that add these functions to the basic browser can be downloaded for free but, in our opinion, they are not as good as the equivalent functions in Adobe Reader and Microsoft Word. We also were uncomfortable forcing students to find and install these plug-ins before using the digital statutes.

E. ADDING NOTES AND COMMENTS

Both Microsoft Word and Adobe Acrobat Reader allow users to post notes and comments (in the case of Acrobat Reader, only if the person creating the document has enabled the comment features). Neither tool is particularly good, but they work, and documents may be saved with the comments. As with highlighting, neither the Explorer nor Firefox browsers contain a comment tool, but plug-ins are available that add note and comment functions.

F. COPYING AND PASTING

All the formats we considered—.html, .doc, and .pdf—let students cut and paste text into other documents. This task is easy in all three formats, although minor formatting problems sometimes arise when pasting .html or .pdf material into Word or WordPerfect documents.

G. DIGITAL RIGHTS MANAGEMENT

We did not want the digital statute book to be encumbered by digital rights management (DRM). For those who don't download music and have never heard of the Digital Millennium Copyright Act,⁴⁹ DRM software limits the ability of users to copy digital materials or convert them to other formats. Until recently, most commercial music was sold with digital rights protection; almost all commercial digital video is still protected by DRM.⁵⁰

48. The person creating a .pdf document in Adobe Acrobat does this easily by clicking on the Comments menu, then clicking on "Enable for Commenting and Analysis in Adobe Reader." Anyone reading the document in Acrobat Reader may then activate a Commenting toolbar that allows one to highlight, underline, and add comments, among other things.

49. Digital Millennium Copyright Act, Pub. L. No. 105-304, 112 Stat. 2860 (Oct. 28, 1998).

50. See John Y. Kim, *The Great Kaleidoscope: New Hope in the Digital Rights Debate*, 27 *Temp. J. Sci. Tech. & Envtl. L.* 339 (2008).

The limited digital materials produced so far by the commercial casebook publishers have incorporated DRM—usually by forcing students to go to a dedicated web site or to use proprietary software to use the materials.⁵¹ For commercial publishers, the desire for such restrictions is understandable. In the absence of DRM, a single student could purchase one copy of a statute book and freely distribute it to everyone else. DRM appears to be disappearing in the music world. Most commercial music originally was sold online with significant DRM restrictions, but, in the face of pressure from sellers like iTunes and Amazon, most digital music is now available in a DRM-free format.⁵² Similarly, some books are offered free in unrestricted digital form in the hope that this will lead to greater sales of the printed book.⁵³

We are philosophically opposed to digital rights management but also rejected it for other reasons. We wanted to let students use the digital statute book in any way they found helpful—cutting and pasting it into their notes; printing all or part of it; and sharing their annotations. We didn't want to force students to go to a protected web site to view materials, to use proprietary software, or to download plug-ins that disable functions of their existing software. We also wanted materials to be as portable as possible (which eliminates the possibility of DRM control that forces students to use the materials on a protected web site). Finally, since we decided to offer the materials for free, it did not matter to us whether students copied the book.

H. PRICING

A key goal was to save students money, so cost was an important issue. We wanted to provide the statutory materials to students for free or, at worst, for nominal charge. Pricing might have become an issue if we had to license copyrighted material, but we included no copyrighted material in this digital statute book. The only cost was our time and effort involved, which was surprisingly small.⁵⁴

51. For example, the Thomson West Interactive Casebook series is accessed via a password-protected web site. See Interactive Casebook Series, <http://www.interactivecasebook.com> (last visited June 9, 2009). StatutesOnDemand, Thomson West's limited experiment with digital statutes, offers downloadable documents in .pdf format, but those files are protected by digital rights management. See StatutesOnDemand, <http://statutesondemand.com/Default.aspx> (last visited June 9, 2009). StatutesOnDemand uses a plug-in for Adobe Reader; the files cannot be accessed without that plug-in, which limits transferability. See *id.* at <http://statutesondemand.com/faq.aspx> (last visited June 9, 2009).
52. See Kim, *supra* note 50, at 349–351.
53. See, e.g., Cory Doctorow, Giving It Away, *Forbes*, Dec. 1, 2006, available at http://www.forbes.com/2006/11/30/cory-doctorow-copyright-tech-media_cz_cd_books06_1201doctorow.html (last visited Feb. 11, 2010).
54. Most of our time and effort was spent figuring out what we wanted to do and how to do it. That is a nonrecurring cost.

2. OUR CHOICE

Any formats we considered, .pdf, .doc, or .html, probably would have been satisfactory, but we ultimately decided to format the digital statute book as a .pdf document. We chose this format instead of Word for two reasons: We found it easier to create a hyperlinked index using the Adobe software and unlike Adobe Reader, Microsoft Word is not free and some students do not use it. We chose .pdf over .html primarily because we thought it would be easier for students to highlight and annotate a .pdf document.

IV. The Experiment: A Digital Securities Regulation Statutory Supplement

We tested the practicality of digital statute books by preparing one for Professor Bradford's two securities law classes in Spring 2009—Securities Regulation; and Securities Brokers, Mutual Funds, and Investment Advisers.

A. The Two Classes

The Securities Regulation class is a typical introduction to federal securities law. It covers the regulation of the distribution and trading of securities, focusing on the Securities Act of 1933 and the Securities Exchange Act of 1934, with minor attention to state "blue sky" laws. Students use a traditional, problem-oriented casebook—*Securities Regulation: Cases and Materials*, by James D. Cox, Robert W. Hillman, and Donald C. Langevoort.⁵⁵ This book, by Aspen Publishers, includes cases, problems, regulatory releases, textual notes, and questions.

The statutory and regulatory materials needed include the Securities Act, the Securities Exchange Act, the regulations adopted by the Securities and Exchange Commission under both statutes, and certain Securities Act and Exchange Act forms. The class also deals briefly with the Uniform Securities Act, which is copyrighted. But Professor Bradford's discussion of the Uniform Act is minimal and the relevant provisions of the Uniform Act are fully described or quoted in the casebook. Therefore, Professor Bradford decided he did not need to include the Uniform Act in the supplement.⁵⁶

The Securities Brokers, Mutual Funds, and Investment Advisers class covers three related topics: the regulation of brokers under the Securities Exchange Act; the regulation of investment companies under the Investment Company Act; and the regulation of investment advisers under the Investment Advisers Act. For this class, students needed all statutes and regulations used

55. James D. Cox, Robert W. Hillman, and Donald C. Langevoort, *Securities Regulation: Cases and Materials* (5th ed., Aspen 2006).

56. The Uniform Securities Act is available online. See *Uniform Securities Act*, <http://www.law.upenn.edu/bll/archives/ulc/securities/2002final.htm> (last visited June 9, 2009). In the future, to facilitate further student exploration of the Uniform Act, we may include a hyperlink to the act in the digital securities book.

in the Securities Regulation class, plus the Investment Company Act, the Investment Advisers Act, and the SEC regulations and forms associated with those two statutes.

Students in the Securities Brokers class do not use a traditional casebook. Instead, they use a combination of materials prepared by Professor Bradford and materials prepared by Professor Larry Barnett at Widener University entitled “Readings on the Investment Company Act and the Investment Advisers Act.” These materials are distributed to students in digital (.doc) format and some students do not print them. This provided a good opportunity to see how digital statute books interact with digital casebooks, something that is more likely to occur in the future.⁵⁷

We originally planned to create two separate statutory supplements, one for each course. However, because the materials needed for the two courses overlapped, we ultimately decided to prepare only a single supplement for both courses.⁵⁸

B. Preparing the Materials

We downloaded .txt file versions of the federal securities statutes and regulations from the online U.S. Code⁵⁹ and e-CFR web sites.⁶⁰ We obtained copies of the SEC forms from the SEC’s own web site.⁶¹

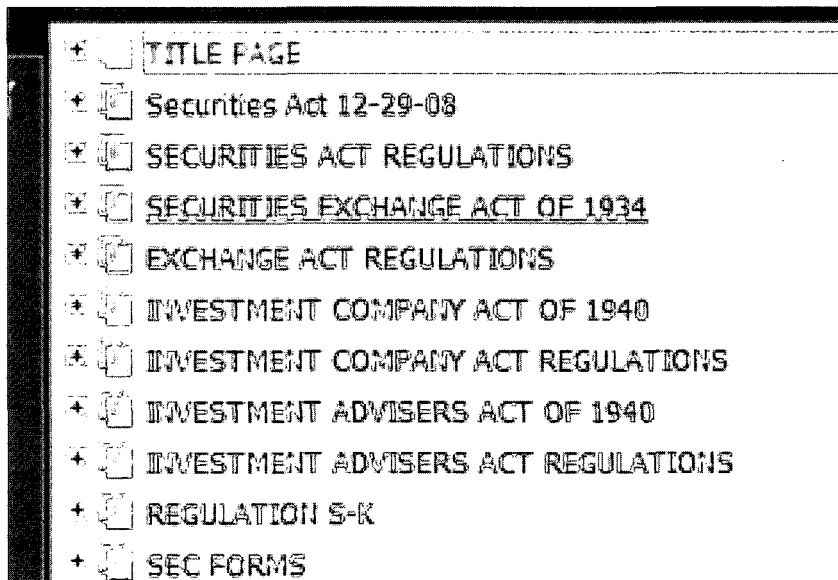
Most of the SEC forms were already in .pdf format and needed no further editing.⁶² We edited the rest of the materials in Microsoft Word.⁶³ When we pasted the source material into Word documents, some of the original formatting, particularly the indentation of paragraphs and subparagraphs was lost. Fortunately, we could restore the outline alignment without line-by-line

57. In class, Professor Bradford used the statute book in digital form, but used printed copies of the course materials. He decided that it would be too hectic to keep track of both the digital statutes and the digital course materials on his relatively small laptop while simultaneously running PowerPoint slides off the classroom computer. Younger faculty members who grew up multitasking on a computer might be able to do this more easily.
58. As discussed in section V.C.3 *infra*, a couple of students complained that the digital statute book slowed their computers significantly. In the future, we might create a separate statute book for the Securities Regulation course to reduce the file size of the digital book used in that class.
59. See U.S. House of Representatives, Office of the Law Revision Counsel, <http://uscode.house.gov/lawrevisioncounsel.shtml> (last visited June 9, 2009).
60. See GPO Access, Electronic Code of Federal Regulations, *supra* note 28.
61. See Securities and Exchange Commission, <http://www.sec.gov/> (last visited June 9, 2009).
62. See Securities and Exchange Commission, Forms List, <http://www.sec.gov/about/forms/secforms.htm> (last visited June 9, 2009).
63. We decided to make the materials available in .pdf format, but even Adobe recommends editing pdf documents outside of Adobe Acrobat using word processing software. See Editing PDFs in the Adobe Acrobat 9 Pro help files, which suggest users “reserve... substantial revisions for your source application.”

reformatting.⁶⁴ Formatting took two hours or so for each set of regulations and two to three hours for each statute. Detailed instructions on how to do this using Microsoft Word are available on Professor Bradford's web site.⁶⁵

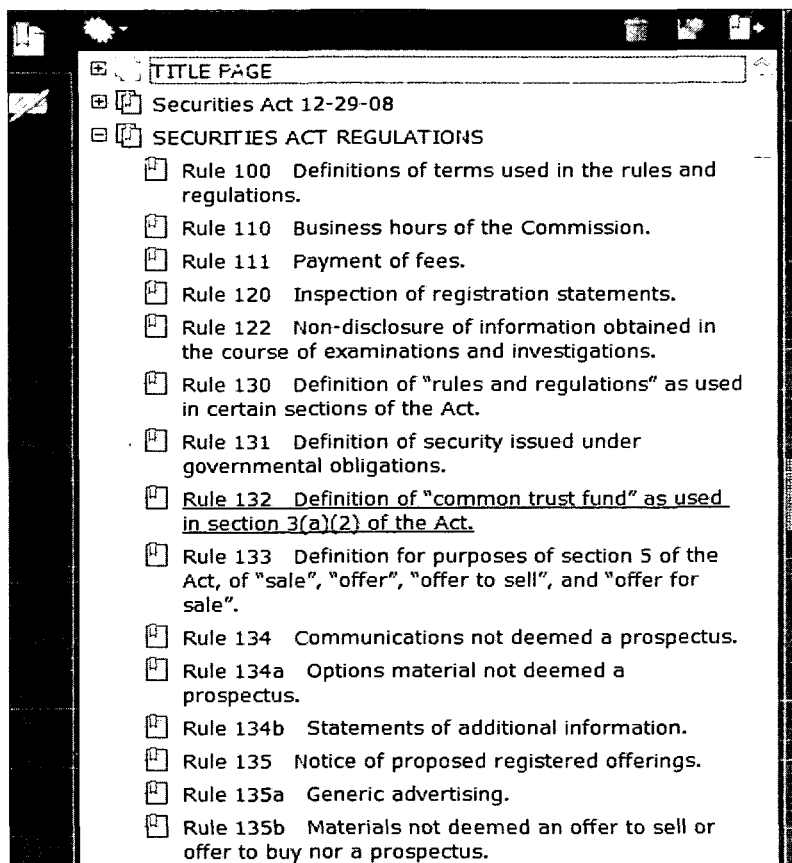
We separately formatted each statute or set of regulations, as well as a title page. When each Word file was complete, we converted it into a .pdf file using the Adobe Acrobat plug-in in Word 2007. We then merged these individual .pdf files into the digital statute book using the "Combine" function in Adobe Acrobat.⁶⁶

The digital statute book includes a hyperlinked table of contents. We used the Acrobat plug-in for Word to automatically tag section headings. Then, in Adobe Acrobat, we used those tags to automatically generate bookmarks. Here is an example of what the index looks like. The first screen shot is of the index fully collapsed:



64. The "we" in this sentence and the next was Mr. Hautzinger. Professor Bradford initially did reformat the Securities Act of 1933 line by line but that took too much time and effort. Mr. Hautzinger developed a more efficient formatting method.
65. See <http://www.unl.edu/bradford/Digital%20Statute%20Book.html> (last visited July 16, 2009). This reformatting may seem to take a lot of time and effort but it is a one-time effort for the statutes. Once the statutes are properly formatted, the only additional effort required from year to year is to track and incorporate amendments into the existing materials. Originally, the plan was to update all the materials, statutes and regulations in this manner, but we decided this would be inefficient for the regulations, which are amended regularly. For example, we found 33 final rules releases from the SEC in the period May 1, 2008-April 30, 2009. We decided it would be easier to recreate the regulations each year from scratch than to cut and paste all the changes. The statutes change less often, so we plan to cut and paste any changes into the files we have already created.
66. In the Adobe Acrobat file menu, select Combine, then Merge Files Into a Single PDF.

The second screen shot shows one of the collapsible indices expanded:



We cannot fully describe the digital statute book in this article; we invite readers to review it directly. It is available on Professor Bradford's web site.⁶⁷ Anyone may download and copy it, subject to a Creative Commons Attribution-Noncommercial-Share Alike license.

C. Distribution to Students

The digital statute book was posted on Professor Bradford's web site two weeks before classes began and students were given the URL. Professor Bradford also offered to put the statutes on a CD or USB drive, but no students asked for this. To accommodate students who might not want to use the digital materials, Professor Bradford suggested a print alternative; this

67. C. Steven Bradford, *Digital Securities Law: Statutes and Regulations*, available at <http://www.unl.edu/bradford/Digital%20Statute%20Book.html>. For a description of Creative Commons Attribution-Noncommercial-Share Alike license, see <http://creativecommons.org/licenses/by-nc-sa/3.0/us/> (last visited Feb. 11, 2010).

book was available in the university bookstore.⁶⁸ Only four students chose the print book and they also used the digital book at least part of the time.⁶⁹

Some readers might object that the choice between free digital materials and costly printed materials was unfair. Some students might have chosen the digital materials because they were cheaper, though they would have preferred the printed materials.⁷⁰ That objection misses the point; cost affects people's choices and to talk about preferences independent of cost is silly. The important question is whether the less costly alternative performs adequately.⁷¹

D. Use of the Materials at Other Schools

We did not publicize the materials to students or faculty outside the University of Nebraska College of Law. The materials were posted on a public web site, so anyone who stumbled across them could download and use them. But we wanted to test them with a small number of students before making them available nationally. As far as we know, no students or faculty at other schools used the materials in the Spring 2009 semester.

V. Overall Evaluation of the Experiment and Possible Future Changes

Near the end of the semester, we surveyed the students in both classes to see if they used the digital statute book, and, if they did, what they thought of the experience. Twenty-four of the twenty-five students enrolled in the two classes responded.⁷² The survey form, with a full compilation of all student answers, is available on Professor Bradford's web site.⁷³

68. The alternative was the 2009 edition of Securities Regulation: Selected Statutes, Rules and Forms. *See supra* text accompanying note 9.
69. *See* Student Survey, *infra* note 73, Questions 1, 3. As far as we know, none of the students who used the digital statute book printed it in its entirety. It does appear, however, that some students printed individual sections of the statutes or rules for particular classes. *See id.*
70. Not surprisingly, several students indicated that cost was an important advantage of the digital statute book. *See* section V.A, *infra*.
71. Professor Bradford chose his current car rather than a Porsche 911 GT2 primarily because of the cost of the Porsche. He is reasonably sure the Porsche would be better, but his less expensive car performs adequately.
72. Eighteen students were enrolled in Securities Regulation and eleven students were enrolled in Securities Brokers, but a few students were enrolled in both classes, so the total number of students was only 25.
73. Spring 2009 Student Survey available at <http://www.unl.edu/bradford/Digital%20Statute%20Book.html> (last visited July 16, 2009) (hereinafter Student Survey).

After the exam in each course, we sent a follow-up e-mail asking students about their experiences using the digital statutes on the exams.⁷⁴ This e-mail and a compilation of the student responses also are available on Professor Bradford's web site.⁷⁵

A. The Student Experience

Twenty of the twenty-four students who responded to the survey used the digital statute book exclusively. The other four students used both the digital statute book and the print statute book. Two of those four estimated they used the digital statute book 50 percent of the time and the other two used the digital statute book 20 percent of the time.⁷⁶ Of those four students, three indicated they preferred to use a print book when they were working on another document on their computers, rather than using split screens or navigating back and forth. Two of the four indicated that they simply preferred printed text.

The students' overall response was positive. Seventeen students indicated they preferred the digital statute book to print books they had used in other classes and only three indicated they preferred print.⁷⁷ Almost all of the students who used the digital version indicated that they would choose it again if they had a choice.⁷⁸

One of the survey questions asked students what aspects of the digital statute book they found most appealing. The leading responses fell into these categories: the ability to navigate within the materials (11); the ability to highlight and annotate (9); price (7); portability (7); the ability to copy, cut, and paste (4); and the ability to search (4).⁷⁹

Another survey question asked students what they found least appealing about the digital statute book. The negative responses were more diverse but the leading issue was navigation, particularly within subsections of a statute. Four students complained about some issue with navigation; three of them noted problems navigating within a section of the statute.⁸⁰ The only other

74. A few of the full surveys were returned after the exams; that is why the full survey includes comments about using the digital statute book on the exam.

75. See Spring 2009 Post-Exam Student Survey, <http://www.unl.edu/bradford/Digital%20Statute%20Book.html> (last visited July 16, 2009) (hereinafter Post-Exam Survey).

76. See Student Survey, *supra* note 73, Question 1.

77. See *id.*, Question 9. The four remaining students either expressed no clear preference or indicated that they preferred print for some purposes and digital for others.

78. See *id.*, Question 11.

79. See *id.*, Question 9.

80. See *id.*, Question 10.

multiple responses were: problems with the computer running slow or freezing (2); the inability to search (2); and the inability to create more bookmarks (2).⁸¹ Some of these issues are discussed more below.

B. Professor Bradford's Experience

Professor Bradford used the digital statute book exclusively.⁸² He used it to prepare for class, highlighting and annotating the copy on his laptop. He cut and pasted from the digital statute book when he wanted to include statutory or regulatory language on PowerPoint slides or in handouts. And he used the digital statute book for reference as he taught. He took the print copy to class each day as a backup, but neither Professor Bradford nor any of the students ever needed it.⁸³

Professor Bradford planned to project statutes and regulations in class directly from the digital statute book. He often projects statutes and regulations using PowerPoint slides, believing this is an effective way to force students to grapple with the actual language of the rules. However, the version of the digital statute book Professor Bradford kept open on his laptop during class included his own highlighting and annotations, and he wanted students to analyze the rules on their own. He could have projected a clean, unannotated version of the digital statute book, but it was easier just to incorporate the relevant statutory and regulatory language into PowerPoint slides.

Professor Bradford's overall evaluation of the experiment was positive and he plans to continue using the digital statutes. He had two complaints, each of which was also reflected in the student survey responses. First, the highlighting and annotation features in Adobe Reader can be cumbersome and slower than highlighting and annotating on a printed copy.⁸⁴ Second, as with some students, Professor Bradford found it difficult to navigate within very long sections during class. It was easier to find specific sections but harder to find material within a long section.⁸⁵ Even when Professor Bradford found the relevant passage, he sometimes had to wait for his students to catch up.

81. See Student Survey, *supra* note 73, Question 10.

82. A professor could allow her students to use the digital statute book without using it herself. The professor's choice need not mirror the students' choices, but we wanted to test the teaching efficacy of the digital statute book, not just its utility to students.

83. In addition to the version on his laptop, Professor Bradford installed a copy of the digital statute book on the classroom computer; he never used that digital backup either.

84. On the other hand, one cannot easily remove or edit highlighting or annotation on a printed book, something that is easy to do in the .pdf version. And, on a digital copy, one never has the problem of insufficient space in the margins in which to fit annotations.

85. When using a print statute book, Professor Bradford often provides page numbers so students can locate a particular section more quickly. That speeds up the use of the print book, so it is not clear that using the digital book materially changed the total class time spent navigating within the materials.

C. Particular Issues

I. Navigation

Student views on navigation within the materials were mixed. Some said it was harder to move around in the digital statute book than in a print statute book. Others rated navigability as the best feature of the digital statute book. Except for the problem discussed in the next paragraph, we suspect this difference reflects students' relative comfort browsing digital materials of any sort.⁸⁶

Several students indicated that it was easy to get lost within long sections of the statutes or regulations, a problem Professor Bradford also experienced. Each section of the statutes and regulations was bookmarked, so it was easy to find specific sections. However, subsections were not bookmarked. The hierarchical structure of the statute is indicated by progressive indentation, as shown in the illustration below. But the level of indentation is not always obvious in a long passage, making it difficult at times to keep track of location in long sections.

(2) Judicial review

Within -

(A) 10 days after the date the respondent was served with a temporary cease-and-desist order entered with a prior Commission hearing, or

(B) 10 days after the Commission renders a decision on an application and hearing under paragraph (1), with respect to any temporary cease-and-desist order entered without a prior Commission hearing.

the respondent may apply to the United States district court for the district in which the respondent resides or has its principal place of business, or for the District of Columbia, for an order setting aside, limiting, or suspending the effectiveness or enforcement of the order, and the court shall have jurisdiction to enter such an order. A respondent served with a temporary cease-and-desist order entered without a prior Commission hearing may not apply to the court except after hearing and decision by the Commission on the respondent's application under paragraph (1) of this subsection.

(3) No automatic stay of temporary order

The commencement of proceedings under paragraph (2) of this subsection shall not, unless specifically ordered by the court, operate as a stay of the Commission's order.

(4) Exclusive review

Section 9(a) of this Act shall not apply to a temporary order entered pursuant to this section.

(e) Authority to enter order requiring accounting and disgorgement

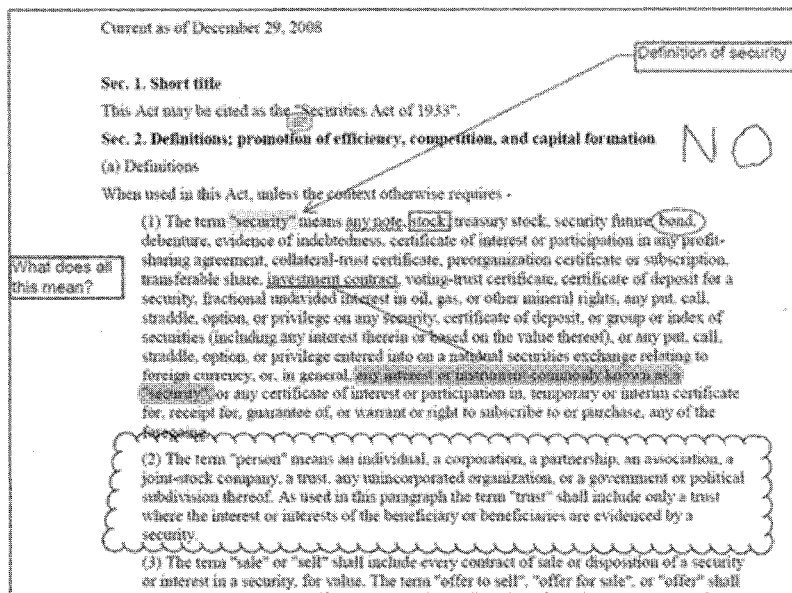
In any cease-and-desist proceeding under subsection (a) of this section, the Commission may enter an order requiring accounting and disgorgement, including reasonable interest. The Commission is authorized to adopt rules, regulations, and orders concerning payments to investors, rates of interest, periods of accrual, and such other matters as it deems appropriate to implement this subsection.

86. A few of the students' navigation problems involved basic problems with computers. For example, one student complained it was "impossible to just use the mouse to try to manually move the scroll bar a tad to get the subsection you want," apparently not realizing that clicking on the arrow key on the scroll bar adjusts the view a line at a time. See Student Survey, *supra* note 73, Question 6. We wrongly assumed that all students would be adept at things like this.

A few students complained about their inability to add their own bookmarks. We agree that personalized bookmarking would be a nice feature but the Adobe Reader software does not allow it. One can only add bookmarks to a document in the full-featured (and expensive) Adobe Acrobat software. A JavaScript file that adds a bookmarking function to Adobe Reader is available on the Internet,⁸⁷ but we were hesitant to suggest it to students, some of whom may not be technologically adept.⁸⁸

2. Highlighting and Annotation

Adobe Reader allows students to annotate statutes in a number of ways. They can highlight, in different colors. Students can add text boxes, with or without arrows pointing to material. Students can underline text, in various colors and styles. Students can put circles or boxes around text. Students can add comment boxes that pop up when clicked. Students who are adept with a mouse or who have touch screens with pens can write in freehand on the statutes. The screen capture below shows a number of different possibilities.⁸⁹



87. See Adobe PDF Tips & Tricks, <http://pdf-tips-tricks.blogspot.com/2007/11/how-to-add-bookmark-capability-in.html> (last visited June 9, 2009).

88. The best alternative in Adobe Reader is probably the Comment function. Students can add comments to .pdf documents in Adobe Reader and one can view those comments in a separate navigation panel. Students simply could add comments wherever they want their own bookmark and use the Comments navigation panel to find them—but that panel would show all their comments, not just the ones they intended as bookmarks, and those student comments would not be integrated into the section-by-section table of contents.

89. The actual annotations are in color, but here are only printed in grayscale.

Unfortunately, these Adobe Reader functions can be cumbersome. It is difficult to both underline and highlight the same text. Highlighting in multiple colors involves a two-step process: first highlighting in the default color, then opening a Properties pop-up to change the color. The same two-step process is required to change underlining colors or styles.

Given these difficulties, we were unsurprised to see student complaints about the highlighting and annotation features. Some students said they would have preferred highlighting and annotating a print book. What surprised us were the positive comments; despite these issues, some students preferred highlighting and annotating in the digital book. These students just may be more comfortable with computers and electronic materials.

3. Speed of Use

Some students complained their computers ran more slowly when using Adobe Acrobat to read the digital statute book. Professor Bradford did not experience these problems on his laptop computer and he usually has open a number of different programs and windows. However, Professor Bradford's laptop is newer, with a fast processor and ample RAM; it is understandable that the digital book might run slower on older computers, especially if their operating system is Microsoft Vista. The digital statute book is 18 megabytes and the file size increases with annotations and highlighting. Moreover, Adobe Reader is notoriously slower than many word processing programs.

4. Formatting Issues

The digital statute book had minor formatting problems, one of which was our fault and will be corrected in later editions. First, a few lines of text were missing at two points in one statute. The problem resulted from sloppiness—our failure to follow our own formatting instructions for that statute. Professor Bradford “solved” the problem by distributing handouts with the added lines.

The second formatting problem was minor: a few statutes did not indent properly. Here is an example:

(3) "Affiliated person" of another person means (A) any person directly or indirectly owning, controlling, or holding with power to vote, 5 per centum or more of the outstanding voting securities of such other person; (B) any person 5 per centum or more of whose outstanding voting securities are directly or indirectly owned, controlled, or held with power to vote, by such other person; (C) any person directly or indirectly controlling, controlled by, or under common control with such other person;

(D) any officer, director, partner, copartner, or employee of such other person; (E) if such other person is an investment company, any investment adviser thereof or any member of an advisory board thereof; and (F) if such other person is an unincorporated investment company not having a board of directors, the depositor thereof.

This occurred only a few times and we are unsure why—perhaps stray code in downloaded materials. It is an annoyance, but it will be corrected manually in future versions of the digital statute book.

5. Use on Exams

We were concerned about students' use of the digital statute book for exams. Professor Bradford requires students to take exams on their computers with Exam4 software, and we were worried they might have trouble navigating between the exam and the statute book on a single computer monitor. As far as we know, no one had any such trouble. The post-exam comments were positive, and a few students even volunteered that they found it easier to take the exam with the digital statute book.

D. Possible Future Changes

We plan to change future editions of the digital statute book in response to student comments and Professor Bradford's experience. First and foremost, it is clear that some students need more instruction on how best to use the digital book. Second, we want to make it easier to navigate within long sections. Third, we want to enhance the statutes by adding internal hyperlinks.

I. Additional Instruction in Using Adobe Reader

The first edition of the digital statute book includes basic instruction on Adobe Reader.⁹⁰ We explain how to view the index and how to highlight or add comments. The survey responses make it clear that this is insufficient, that some students need more information on how to use Adobe Reader.

First, some students had trouble activating the highlighting and commenting features. One student had an older version of Adobe Reader that he said did not include those features.⁹¹ A couple of students tried to use the .pdf reader Apple includes in its Mac software; that reader does not include commenting functions. Professor Bradford made it clear to students in the syllabus for each

90. The Title Page includes the following instructions:

1. Table of Contents

a. To access the table of contents, click on the Bookmarks tab in Adobe Reader. (If the Bookmarks tab is not visible, choose Navigation Tabs in the Adobe Reader View menu, then select Bookmarks.)

b. To make navigation easier, I suggest you keep the Bookmarks frame open as you use the materials. You can change the relative sizes of the bookmarks and text panes by clicking your mouse on the line between them and moving the division line to the desired location.

c. You can move to any location in the materials by clicking on it in the Bookmarks tab.

2. Highlighting and Comments: You can highlight or add comments to these materials. In the Adobe Reader Tools menu, choose Commenting, then click on the Show Commenting Toolbar. You can highlight, underline, or add notes or comments to the text. Just remember to save the revisions when you exit the materials.

91. We are unsure why this student did not download the newest version of Adobe Reader, unless he did not realize it is available for free.

course that students would need Adobe Reader for the statutes; at least one Mac user assumed the native .pdf reader on her Mac *was* Adobe Reader. In the future, we will make it clear that students must download the latest version of Adobe Reader.⁹²

Second, a few survey comments revealed students' unfamiliarity with Adobe Reader's search function, especially within .pdf documents. This surprised us; the Find function in Adobe Reader is easy to locate and use,⁹³ and the survey comments indicate that other students found this function helpful in navigating the digital statute book. In the next version of the digital securities statutes, we will discuss how to search.

Third, the digital statute book's instructions on highlighting and commenting are terse. We say:

2. Highlighting and Comments: You can highlight or add comments to these materials. In the Adobe Reader Tools menu, choose Commenting, then click on Show Commenting Toolbar. You can highlight, underline or add notes or comments to the text. Just remember to save the revisions when you exit the materials.

In the future, we will provide students with more instruction on how to highlight and underline in multiple colors, how to add comments and sticky notes, and how to add callouts.⁹⁴ We also may hyperlink from the digital statute book directly to Adobe's own online discussion of these features.

2. Bookmarking Subsections in the Statutes

We plan to address navigation problems noted by some students. We bookmarked each section of the statutes and regulations but not subsections, and students sometimes got lost in long passages. Some sections, particularly definitions, go on for several screens and it is hard to find subsections. In the future, we will bookmark subsections in the statutes but probably not in the regulations.

3. Internal Hyperlinks in Statutes

Our goal this year was to produce a usable, bare-bones version of the materials, with enhancements to come later. One enhancement we may add is internal hyperlinks. If, for instance, the text of section 12 of the statute refers to section 5, a hyperlink would take the reader to section 5. We also would like to

92. One student suggested Foxit Reader, another .pdf application. *See* Foxit Reader 3.0 for Windows, <http://www.foxitsoftware.com/pdf/reader/> (last visited July 10, 2009). Foxit, available for free, is trimmer and less cumbersome than Adobe Reader, so we may suggest it to students as an alternative to the Adobe product.

93. It can be accessed either by typing Control-F or through the Edit menu.

94. When a student indicated she had trouble highlighting, Professor Bradford reviewed these features briefly in class, but this instruction should be included in the digital book itself, especially if the digital book is to be used in other professors' classes.

include internal hyperlinks to defined terms, even if those definitions are not expressly cross-referenced in the statute. Every time a defined word appears, a hyperlink would take students to the section defining that word.⁹⁵

Internal hyperlinks would not just make it easier to use the digital statute book; they also have a pedagogical purpose. Students should be looking for these kinds of connections, and anything that will encourage students to explore connections in the statutes has pedagogical value.

VI. The Commercial Casebook Publishers' Response

A. Introduction

Our initial experiment with digital statute books was a success. Students saved money, and the digital materials performed as well as, or better than, equivalent print supplements, according to many students.

Anyone could have done what we did. We are comfortable with computers and electronic materials but have no special technological expertise. And producing the digital statute book did not take an extraordinary amount of time or effort.

We hope the digital securities statute book is only a first step, that other professors will prepare such supplements for other subjects.⁹⁶ The move to digital statute books may be inevitable. The digital generation has entered law school and is working its way into the academy. Over time, more students will demand, and more law professors will provide, digital alternatives to today's expensive, cumbersome print statute books. As software and technology advance, creating (and using) materials like this will become even easier.

But what about the big commercial casebook publishers such as Thomson West (and its subsidiary Foundation Press), Aspen, and LexisNexis? They make a great deal of money selling print statutory supplements.⁹⁷ How will they respond to competition from digital supplements like ours?

The commercial publishers' digital efforts have been half-hearted. Thomson West, for example, offers .pdf copies of statutes and rules under the label "Statutes on Demand."⁹⁸ But statutes and regulations are available for only two subjects, Corporations and Securities Regulation,⁹⁹ and access to

95. We still are unsure about hyperlinking all defined terms. In some cases, there are so many this could be distracting.

96. Professor Bradford would be happy to advise any law professor who wishes to do something similar in another subject area.

97. The exact amount is unclear, but publishers' representatives have told Professor Bradford privately that statutory supplements are profitable. Statute books sell for less than casebooks, but, because statutes and regulations change frequently, new editions come out every year, limiting the resale market that cuts into casebook profits.

98. See StatutesOnDemand, What is StatutesOnDemand?, <http://statutesondemand.com/Default.aspx> (last visited June 9, 2009).

99. *Id.*

the digital materials costs almost as much as print statute books.¹⁰⁰ Moreover, students must download a DRM plug-in for Adobe Reader and go through a special set-up procedure before they may access the files.¹⁰¹ Tellingly, this product is relegated to a separate web site and is not even mentioned on the main Thomson West site.¹⁰²

B. Digital Statute Books are Different

The reluctance of commercial casebook publishers to embrace digital statute books may be momentary; as demand for digital books increases, commercial publishers may become more active in providing them. Or their slow response to this new technology may reflect a deeper problem: an inability to adjust to a new market that offers lower profit margins and does not value the commercial publishers' existing advantages.¹⁰³ The advantages that make commercial publishers successful in marketing print casebooks—editorial control, marketing, printing facilities, and distributional ties—are relatively unimportant in producing digital statute books.

Commercial casebook publishers succeed in part because of their editorial reputations. A professor who chooses a casebook published by Aspen or Thomson West can be confident the company has vetted the authors, sought editorial review from others in the field, and proofread the book. Editorial expertise is less important for digital statute books. The content is standard and law professors can easily verify whether the book has the required content. Little proofreading is required, as the materials are publicly available in their original form.

100. The full set of Corporations materials costs \$43.00; the full set of Securities Regulation materials costs \$36.00. See StatutesOnDemand, Professor Page, <http://statutesondemand.com/Professors.aspx> (last visited June 9, 2009). A professor may create a customized set of materials at a lower price. However, a barebones set of materials for a basic securities course—the Securities Act; Securities Act rules; the Exchange Act; Exchange Act rules; and forms under both statutes—would exceed the limit for the reduced pricing. *Id.*
101. See StatutesOnDemand, Download FAQ's, <http://statutesondemand.com/faq.aspx> (last visited June 9, 2009).
102. StatutesOnDemand does not appear on the Thomson West home page for professors and is not accessible via either the "Technology Tools" or "Product Lines" links on that page. See Thomson West, Faculty Online Store: Welcome Faculty!, <http://www.westacademic.com/professors/default.aspx>. It also is not listed in either the Corporations or Securities Regulation sections of the web site under "Statutes and Court Rules." See Thomson West, Faculty Online Store, <http://www.westacademic.com/Professors/ProductSearchResults.aspx?searchtypeasstring=BROWSE-BY-ANY&subject=33&tab=5>; and <http://www.westacademic.com/Professors/ProductSearchResults.aspx?searchtypeasstring=BROWSE-BY-ANY&subject=133&tab=5> (last visited June 9, 2009). The Thomson West home page offers a search tool, but a search for StatutesOnDemand produced nothing.
103. See Clayton M. Christensen, *The Innovator's Dilemma: The Revolutionary Book That Will Change the Way You do Business* (Harper 1997) (explaining why industry leaders sometimes fail to adapt to disruptive technological change).

The sophisticated printing facilities and distribution networks of commercial publishers like Thomson West and LexisNexis also are unnecessary for digital statute books. The big publishers may have low-cost, high-speed presses to produce thousands of books quickly at relatively low cost. They may have well-established ordering and shipping networks to get print books to university bookstores quickly and efficiently. But digital statute books are neither printed nor shipped. Bookstores are unnecessary; the materials are available online.

The casebook publishers also have strong marketing operations—networks of sales representatives regularly contact law professors and ensure they get examination copies. But that marketing edge matters less today, especially for digital books. Producers of a new digital statute book could notify professors of its availability by e-mail or via the many subject-area blogs to which many professors subscribe. E-mail is low cost, and the e-mail addresses of professors teaching in selected fields are available from the Association of American Law Schools for a fee.¹⁰⁴ Many professors who teach the same subject know each other, so it would be easy to create a stir by word of mouth. And examination copies are irrelevant in the digital world; anyone with a computer and the right URL has an instant examination copy.

In short, the competitive advantages that have made the commercial publishers successful in producing print casebooks do not transfer to digital statute books. As others begin to offer low-cost digital statute books, commercial publishers will have to adapt and offer their own digital works at lower prices, or they will be pushed aside. The days of charging \$45 for publicly available material are numbered.

C. Maintaining Market Share

Commercial casebook publishers will not cede the market for statutory supplements without a fight. So what can they do to fight off challenges from free or low-cost digital alternatives? Publishers could bundle digital statutory supplements with casebooks—providing casebook and statute book together for a single price. Even without bundling, commercial publishers still have a significant advantage producing statutory supplements with copyrighted materials.

1. Bundling Statute Books with Casebooks

Course materials now are delivered in one book, the casebook, and statutory materials are delivered in a separate text, the statutory supplement. Any statutory supplement works with any casebook. A student using a casebook published by West could still use a free digital statute book instead of the more expensive West statute book.

104. With a few hours' work, anyone with a copy of the latest AALS directory could create their own list without paying the fee.

Commercial publishers could try to freeze out free supplements by bundling theirs with their casebook, combining the casebook and the relevant statutes and regulations into a single product. Students could always use another statute book, but they could not avoid paying for the bundled statute book. Many law professors are so notoriously insensitive to price in choosing casebooks that commercial publishers might even be able to charge as much for the bundled books as they do now for the two separate texts.

The anti-competitive nature of bundling is obvious, but it also could benefit students. A publisher could create hyperlinks among the cases, textual explanations, and statutes and regulations, and make it easier for students to integrate all the materials in their studies.¹⁰⁵

2. Supplements Including Copyrighted Material

Commercial legal publishers have an advantage producing statutory supplements that include substantial amounts of copyrighted material. As indicated, some copyright holders are reluctant to license their materials for digital statute books,¹⁰⁶ and many statutory supplements include a sizeable amount of copyrighted materials.¹⁰⁷ These supplements are likely to be offered only in print versions until copyright holders will license digital materials.

Even if the copyright holders agree to license their materials for digital use, major commercial casebook publishers may still hold an advantage. Copyright holders are likely to charge a licensing fee, just as they do for print versions of their materials, and commercial publishers may hold economy-of-scale advantages in aggregating these permissions across many different supplements, and passing that cost on to student users. If the copyright holders insist on digital rights management, large publishers may have an advantage over individual law professors or small providers in designing

105. The Aspen Study Desk is a first move in this direction. See <http://www.aspenlaw.com/>. Aspen has not yet incorporated statutes into the Study Desk mix, but at least one Aspen representative has indicated an interest in doing so. The combined casebook/statutory supplement is not necessarily good from a pedagogical standpoint. One of the skills that law students learn in regulatory classes is how to work their way through statutes and regulations. A text that automatically provided them with the relevant statutes and regulations would not necessarily force them to develop those skills. Of course, as the statutes and regulations themselves become increasingly accessible in digital form, it's not clear that the "statute-searching" skill will be all that important in the future.

106. See *supra* section III.A.2.

107. The supplements used for Business Associations and Corporations courses are a good example. They typically include the Model Business Corporation Act; at least one version each of the Uniform Partnership Act, the Uniform Limited Partnership Act, and the Uniform Limited Liability Company Act; at least one version of the Restatement of Agency; and often the American Law Institute Principles of Corporate Governance. Copyrighted materials include, the MBCA by the American Bar Association; the Uniform Acts by the National Conference of Commissioners on Uniform State Laws; and the Restatement and the Principles of Corporate Governance by the American Law Institute.

and imposing such controls. Thus, unless the copyright holders permit free student use, commercial publishers may continue to control this part of the supplement market.

Providers of free statutory materials to students could substitute the statutes of given states for copyrighted model and uniform acts. A digital Business Associations supplement might, for example, include the Model Business Corporation Act as adopted by Nebraska instead of the MBCA itself. This solution is imperfect. States adopting uniform acts often include non-uniform amendments and the state section numbers do not always match the uniform/model act numbers. This makes it harder for students to correlate casebook references to materials in the statute book. For some subjects, the official comments to the model and uniform acts are almost as important as the statutes themselves. State statutes would not include these official comments, and publishing them would pose the same copyright issue as publishing the statutes themselves. Finally, some materials, such as restatements of law prepared by the American Law Institute, are not adopted and republished by state legislatures, so state law is not an alternative.

VI. Conclusion

We had two goals for this project. One, to make a free digital securities law statute book available to students, is almost accomplished. Professor Bradford intends to update the digital securities statute book, use it in his future classes, and make it available to students and professors nationwide. Students now have for free a better product than those offered by commercial casebook publishers.

But we hope this is just a beginning. Our second goal is to spark a revolution in the way statutory materials are provided to law students. To that end, we have tried to provide a roadmap to help other professors undertake in their fields what we have done in securities regulation. We hope that other professors will follow or, even better, improve on our efforts.