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**ELECTRONIC REAL ESTATE DOCUMENTS:
CONTEXT, UNRESOLVED COST-BENEFIT
ISSUES AND A RECOMMENDED
DECISIONAL PROCESS**

SAM STONEFIELD*

Electronic documents will soon begin to replace paper documents in many if not all phases of residential real estate transactions.¹ This transition from paper to electronic documents will occur for the same reasons that papyrus rolls replaced clay tablets several thousand years ago: as familiarity and acceptance builds and the technology improves, the advantages of the newly available medium will far outweigh the costs and disadvantages.² There will be

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1. For purposes of this essay, an electronic document is, under the Federal Electronic Signatures in Global and National Commerce Act, an "electronic record," which is a document "created, generated, sent, communicated, received, or stored by electronic means." 15 U.S.C. § 7006(4) (2000) [E-SIGN]. The technical specifications for electronic real estate documents will likely follow those being set by the Mortgage Industry Standards Maintenance Organization ("MISMO"), using the XHTML language standard with standardized fields for data entry. <http://www.mismo.org>. Documents using the MISMO standards are being referred to as SMART documents (Searchable, Manageable, Archivable, Retrievable, and Transferable). *Id.*

2. "When the Aramaic language and alphabet arose in the 6th century B.C., the clay tablet book declined because clay was less suited than papyrus to the Aramaic [as opposed to cuneiform] characters." 26 THE NEW ENCYCLOPEDIA BRITANNICA, 459 (1990). Another lesson from ancient history is that clay tablets and papyrus coexisted

approximately 6.5 million sales of single-family homes in 2002³ and 5 million mortgage refinancings.⁴ Each of these transactions will use many standardized documents, generated electronically on personal computers and then converted into paper form for execution, transmission, recording, and storage.⁵ Using the documents in their original electronic form will create numerous efficiencies, generate significant cost savings and greatly improve the accessibility and usability of the public real estate records.

The technology to implement the transition from paper to electronic documents is currently available.⁶ Most lenders are using electronic documents in the pre-closing stages of real estate transactions.⁷ A few consumer transactions have been executed and recorded electronically.⁸ Additionally, a growing number of tax liens

for thousands of years and were then both replaced. The Museum of Printing History: Guided Tours, at <http://www.printingmuseum.org/guidedtours.html> (last visited Dec. 3, 2002).

3. The Mortgage Bankers Association has predicted that single-family home sales will be in the 6.5 million range, up 5% from 2001. Press release, Mortgage Bankers Association, Home Purchase Mortgages To Reach Record High (July 12, 2002), <http://www.mbaa.org/news/2002/pr0712a.html>. There were 5.3 million existing single-family home sales in 2001, [http://www.realtor.org/Research.nsf/files/Revisions99-01.pat/\\$FILE/Revisions99-01.pdf](http://www.realtor.org/Research.nsf/files/Revisions99-01.pat/$FILE/Revisions99-01.pdf) (last visited Oct. 11, 2002), and 909,000 sales of new homes, [http://www.realtor.org/Research.nsf/files/Newhomesale.pdf/\\$FILE/Newhomesale.pdf](http://www.realtor.org/Research.nsf/files/Newhomesale.pdf/$FILE/Newhomesale.pdf) (last visited Oct. 11, 2002).

4. Telephone interview with Phil Colling, Research Analyst, Mortgage Bankers Association, (Sept. 10, 2002). Refinancings in 2002 will likely constitute 49% of new mortgages, down from 57% in 2001. *Id.* Mr. Colling based his refinancings estimate on the data on loan originations found at <http://www.mbaa.org/marketdata>.

5. One industry expert has estimated that there are 225 documents per residential loan. Len Tichy, *Paperless Mortgage: Possible? Feasible? Practical?* (Mar. 13, 2002), at http://www.mbaa.org/present/2002/tichy_0314.pdf.

6. Several industry task forces, for example Mortgage Industry Standards Maintenance Organization (MISMO) at www.mismo.org, the Property Records Industry Association (PRIA), at <http://faxxon.cifnet.com/taskforce/>, and LegalXML, at <http://taskforce.cifnet.com/xmlworkgroup/>, have been working for several years to establish technology standards for hardware and software applications for use with electronic documents. Useful descriptions of the available software applications are available at vendor Web sites. *See, e.g.*, Ingeo Systems, Inc. at www.Ingeo.com; Hart InterCivic at www.hartintercivic.com; iLumin Corporation at http://www.ilumin.com/dhs/dhs_overview.asp; eOriginal corporation at <http://www.eoriginal.com/Solutions/index.html>; VMP Mortgage Forms at http://www.vmpforms.com/news/press_release.htm; Eagle Computer Systems at www.ecsplus.com.

7. *See infra* Part I-A.

8. Jose Arroyo of Weston, Florida electronically executed the note and mortgage for refinancing his home and the mortgage was electronically recorded in the Broward County, Florida office on July 24, 2000, and those documents were soon thereafter purchased by Fannie Mae. Robyn Friedman, *Paperless Trail: Pioneering Home Buyers Work Entirely Online*, CHI. TRIB. ONLINE ED., Jan. 12, 2001, at www.chicagotribune.com/classified/realestate/makingthedeal/chi-010112closing.htmlstory. Another individ-

and mortgages—real estate documents that do not require consumer signatures—are being executed and recorded electronically in counties throughout the nation.⁹ However, the shift from a paper to a paperless electronic paradigm will not occur simply because a new technology appears.¹⁰ People and institutions must *choose* to adopt the new technology after careful consideration of the costs and benefits. While lender and secondary market interest in electronic documents is strong, many issues remain unresolved, including the public costs of the necessary technology upgrades (and the sources of funds to meet these costs), consumer acceptance or non-acceptance, and the support of recording officials and state legisla-

ual transaction was executed on October 2, 2001, the day after the effective date of the Federal E-SIGN legislation, in Salt Lake County, Utah, with the loan purchased by Freddie Mac. There have also been partially electronic pilot transactions in Maricopa County, Arizona, Southern Essex County, Massachusetts, and Monroe County, New York. See Carmelo D. Bramante, *Choosing the Digital Future: The Use and Recording of Electronic Real Estate Instruments*, Western New England College School of Law Electronic Recording Conference (Oct. 26, 2001), at http://wneclaw.wnec.edu/events/elecRE/wnec_law_ER.pdf.

9. Recording offices in several California counties (Orange, Riverside, and most recently San Mateo Counties) have received and recorded thousands of standard single-party documents, such as mortgage releases and municipal tax liens, from a limited set of preapproved electronic filers. Press Release, Ingeo Systems, Inc., Orange County, California, Clerk-Recorder's Office to Install Additional Electronic Recording Capabilities (Sept. 4, 2001), at <http://www.Ingeo.com/content.asp?pid=66>; Press Release, Ingeo Systems, Inc., Riverside County, California Records Thousands of Tax Liens Electronically (Dec. 3, 2001), at <http://www.Ingeo.com/content.asp?pid=98>; Press Release, Ingeo Systems, Inc., San Mateo County, California Launches Electronic Recording Project (July 18, 2002), at <http://www.Ingeo.com/content.asp?pid=161>. Similar systems are now operating in three New Jersey counties, *E-Recording of Deeds Increasing*, FOR THE RECORD (Prop. Records Indus. Joint Task Force), Jan./Feb. 2002, at 2, <http://faxxon.cifnet.com/taskforce/newsletters/2002janfeb.pdf>, in Fairfax County, Virginia; Vonronica White, *Mortgages: Fairfax County Takes First Step Toward E-Filing of Consumer Mortgage Records*, 78 BANKING REP. 317 (2002), and in Lancaster County, Pennsylvania, Press Release, Ingeo Systems, Inc., Lancaster County, Pennsylvania Recorder's Office Initiates Electronic Recording Project (Jan. 16, 2002), at <http://www.ingeo.com/content.asp?pid=103>. Small pilot programs involving mortgage releases were successfully completed in Snohomish and Thurston Counties, Washington in the summer of 2001. Telephone interview with Carolyn Ableman, Chief Deputy Auditor, Snohomish County, Washington (Sept. 3, 2002). For an evaluation of the Snohomish County pilot program, see Kelli Hofferber, *Electronic Document Recording in "The Last Mile": Lessons Learned from a Pilot Project in Electronic Recording*, WHITE PAPER (Hart InterCivic), Oct. 22, 2001, at http://www.eslate.com/solutions/eRecording_white-papers.pdf. Approximately 30% of all documents recorded in Maricopa County, Arizona are also filed electronically. *Arizona's Maricopa County Plans E-Recording Increase*, FOR THE RECORD (Prop. Records Indus. Joint Task Force), May/June 2002, at 4, <http://faxxon.cifnet.com/taskforce/newsletters/2002mayjun.pdf>.

10. The classic work, of course, is THOMAS KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* (1962), addressing the many issues that combine to form a paradigm shift.

tures. How quickly and in what manner the transition occurs will depend on private and public assessments of the costs and benefits of a change, as well as a series of political and business decisions that will need to be made over the next several years.

On October 25, 2001, the Western New England College School of Law hosted a conference, entitled "Choosing the Digital Future: The Use and Recording of Electronic Real Estate Instruments," that addressed the transition to electronic documents.¹¹ The goal of the conference was to present information about electronic real estate transactions to New England and New York recording officials, legislators, lawyers, judges, lenders, and title insurers and to begin a discussion of the many decisions they need to make in the upcoming years. Leading national experts, including Professor Dale Whitman,¹² Carmen Bramante of Fannie Mae, and David Whitaker, formerly of Freddie Mac and now of counsel at Goodwin Proctor, gave outstanding presentations. Technology vendors showcased their wares, and Mark Bellenger of Vested Technologies demonstrated the execution of electronic documents using eOriginal technology.¹³ Drawing on his experiences with the Iowa Bar Association and the Iowa legislature, Dean Arthur Gaudio¹⁴ discussed the many issues involved in drafting state legislation that specifically addresses electronic recording of electronic real estate instruments.

This symposium issue of the *Western New England Law Review* supplements the conference presentations and interactions.

11. For a description of the conference and its agenda, see <http://www.wneclaw.wnec.edu/events/elecRE/default.html>. Many people and organizations contributed to the success of the conference. I would like to acknowledge and thank First American Title Insurance Company and the Connecticut Attorneys Title Insurance Corporation for their sponsorship of the conference, and Jim Czapiga of First American and Mike Agen of CATIC for their strong support. Finally, I want to thank Felicity Hardee and the law firm of Bulkley, Richardson & Gelinas, Springfield, Massachusetts, for underwriting the conference luncheon.

12. James E. Campbell, Missouri Endowed Professor of Law, University of Missouri-Columbia School of Law.

13. Mr. Bellenger was assisted by Robert Michel, Executive Vice-President of Hampden Savings Bank of Springfield, Massachusetts, Denise Brown, Esq., of Seabury & Brown, Springfield, Massachusetts, and Michael Agen, Esq. of Connecticut Attorneys Title Insurance Corporation.

14. Dean Gaudio was formerly the Reporter for the Iowa Electronic Recording System (IERS) and was recently appointed as the Reporter for a committee of the National Conference of Commissioners on Uniform State Laws (NCCUSL) that will draft an electronic land records statute titled the Uniform Real Property Electronic Recordation Act (URPERA). For more information about the URPERA, see <http://www.nccusl.org/nccusl/draftingprojects.asp#urpera>.

The articles by Professor Whitman¹⁵ and Dean Gaudio,¹⁶ together with their other work in this area,¹⁷ provide a comprehensive treatment of the legal, policy, and practical issues involved in electronic recording. The focus of this article, however, is an exploration of the reasons behind the slow and uneven pace of the transition to electronic documents despite their many advantages. The article begins with an overview of the context in which electronic real estate documents are developing, a context with elements that both favor and disfavor their prompt adoption. It then reviews the advantages and disadvantages of electronic real estate documents and suggests that the assessment of costs and benefits for the necessary public sector activities (such as recording act changes, technology enhancements in recording offices, and the funding of these enhancements) is a quintessentially political task. The article concludes by describing a process that is being used in several states to perform the political task of addressing electronic real estate document issues—the creation of a task force that involves a broad range of interested parties—and by recommending the use of the task force process in all jurisdictions.

I. THE CONTEXT

Electronic documents are developing in a context that strongly favors their eventual acceptance and adoption but also suggests that the scope of their initial use will be limited. This section begins with a discussion of the fragmented and decentralized nature of real estate transactions, with its many players and numerous documents in a multi-step process involving loan origination, loan closing, recording, secondary market sales, and servicing.¹⁸ It then discusses the broader context in which real estate transactions take place, an environment where businesses and governments are moving into e-commerce and e-government, and in which the real estate industry

15. Dale A. Whitman, *Are We There Yet? The Case for a Uniform Electronic Recording Act*, 24 W. NEW ENG. L. REV. 245 (2002).

16. Arthur R. Gaudio, *Electronic Real Estate Records: A Model for Action*, 24 W. NEW ENG. L. REV. 271 (2002).

17. Dale A. Whitman, *Digital Recording of Real Estate Conveyance*, 32 J. MARSHALL L. REV. 227 (1999); Arthur R. Gaudio, in RUFFORD G. PATTON & CARROLL G. PATTON, *PATTON ON TITLES* (2d ed. 1957 & Supp. 2002).

18. Although the real estate brokerage business is beginning to use electronic documents, this article does not discuss the role of real estate brokers or the documents that they typically prepare in real estate transactions, such as listing agreements and purchase and sale agreements.

itself is nationalizing (and internationalizing) to secure access to capital and rationalizing to assure uniformity and to reduce costs.

This consideration of context prompts the observation that, while some participants such as lenders, title insurers, and the secondary market giants are strong proponents of electronic documents, consumers/homebuyers, recording officials, and state legislatures, whose consent and support is critical, have yet to demonstrate their commitment to electronic documents. This section suggests that the extent of consumer acceptance and the commitment of recording officials and state legislatures will significantly shape the nature and pace of the transition from paper to electronic documents. It concludes by presenting a matrix showing several adoption scenarios, each depending on the level of consumer acceptance and public support.

A. *The Real Estate Transaction: Many Different Tasks, Documents, and Participants*

Many discussions of electronic real estate documents focus primarily on the electronic recording and searching of documents in county and municipal recording offices. This focus is understandable: the recording function is critical; many of the cost savings and other benefits of electronic documents depend on electronic recording and the searchable databases provided by digital records; and obtaining the support of highly decentralized recording officials is difficult. Nevertheless, a recording-only focus can ignore the many non-recording functions of the standard residential real estate transaction and the far greater number of documents typically generated that are *not* recorded.¹⁹ Document recording is but one part of the real estate transactional process that also includes loan origination, loan closing, loan sales to the secondary market, and loan servicing.²⁰ As the brief summaries in the next paragraphs discuss,

19. Only the deed, mortgage, and release of the prior mortgage of the forty or more documents generated in the typical residential real estate transaction are usually recorded. A multitude of documents, from the loan application and underwriting material to the note, HUD-1, and numerous written authorizations and disclosures, are not recorded but are essential parts of the "loan file."

20. The Mortgage Industry Standards Maintenance Organization (MISMO), divides the mortgage industry and electronic documentation issues into four groups: Origination (application, underwriting, and closing); Secondary Market (securitization, bulk pool transfer, funding, and pricing); Servicing (loan set-up and transfer; investor reporting, and default reporting); and Real Estate Services (appraisal, and flood, title, credit, and mortgage insurance). *XML Implementation Guide: General Information - Version*

many participants performing these non-recording functions are already using electronic documents.

1. Loan Origination

Lenders are already using electronic documents extensively in originating loans. While still using paper documents for the required disclosures and the commitment letter, most lenders have made significant progress in replacing paper with electronic documents in the underwriting process. The most widely used technology is Automated Underwriting (AU) systems, typically either the Fannie Mae Desktop Underwriter® and Desktop Originator® systems or the Freddie Mac Loan Prospector®.²¹ Lenders use their AU systems to send and receive necessary information electronically, from credit and employment inquiries and responses to property appraisals. Major commercial lenders that buy loans originated by mortgage brokers offer them a better price if they prepare their loan documents electronically.²² While lenders have not yet achieved integrated and wholly electronic loan origination procedures (in fact, one commentator has called such procedures the “unicorn of real estate”²³ because of their elusiveness), adoption of new technology at the origination stage has been rapid and accelerating.²⁴

2 (MISMO), 2002, at http://www.mismo.org/mismo/docs/MISMOGeneralGuide2_x3.pdf.

21. “All top originators used automated underwriting—most for 100 per cent of their originations.” Terri Davis & Anne Davis, *Top Lenders Harness Technology*, MORTGAGE BANKING, Mar. 2002, at 94, 97. For descriptions of the Fannie Mae and Freddie Mac Automated Underwriting systems, see Desktop Originator for Lenders, at http://www.efanniemae.com/singlefamily/technology_tools/other/desktoporiginator/about.jhtml?role=ou, and Loan Prospector, at <http://www.freddiemac.com/lp/> (each last visited Dec. 18, 2002).

22. See, e.g., *Insight* (Ellie Mae Newsletter), Aug. 20, 2002, at http://www.elliemae.com/newsletter/newsletter_081502.htm (advertising reduced interest rates from Bank of America, 0.25 points lower; IndyMac and New Century Mortgage, 1.25 points lower).

23. Michelle C. Crowe, *The ‘Unicorn of Real Estate’: Why Automated Transaction Management System Remains Elusive*, INMAN NEWS, July 23, 2001, at www.inman.com/InmanStories.asp?ID=25430.

24. “When [Freddie Mac’s] Loan Prospector was first introduced in 1995, it evaluated 38,000 loans [I]n 2001, that number was up to 7.3 million.” Charlyne H. McWilliams, *Mortgage IT All-Stars*, MORTGAGE BANKING, Mar. 2002, at 87, 89 (quoting Peter Masselli, senior vice-president of mortgage services for Freddie Mac).

2. Loan Closing²⁵

The loan closing process is particularly document-intensive. Lenders prepare a package of closing documents and send that package to the closing agent (attorney, escrow agent, or title company) for presentation to and execution by the seller and buyer. The documents are numerous and typically include, in addition to the deed, note, mortgage and HUD-1, twenty or more ancillary documents.²⁶ Lenders and closing agents will achieve significant efficiencies if they are able to substitute electronic for paper documents.

Some lenders and closing agents have taken modest steps towards the electronic future. Instead of sending packages of closing documents to their closing agents by courier or overnight mail, a growing number of lenders are sending the documents electronically, either by e-mail or through a Web site.²⁷ However, even

25. The summary in the text assumes a basic familiarity with the real estate closing process. For a detailed explanation, see George Lefcoe, *Conveyancing Procedures*, in 11 THOMPSON ON REAL PROPERTY §§ 94.01-94.09 (David A. Thomas, ed., 2002).

26. An illustrative but non-exhaustive list of possible documents would include: a Homestead Declaration, Signature/Name Affidavit, IRS Form W-9 and 4506 for each buyer, Impound Account Authorization, Private Mortgage Insurance Disclosure, Hazard Insurance Disclosure, Mortgage Payment Letter, Escrow Statement, Occupancy Declaration, Mortgage "Survey," Flood Plain/Insurance Notice, Smoke Detector Certificate, Municipal Lien Certificate, Tax Payment Letter, Title Insurance Policy, Insurance Binder, Lead Paint and Insulation Disclosures/Representations, Underground Oil Tank or other Environmental Disclosure/Representation, Agreement (with respect to corrections, etc.), Errors and Omissions Representation and Agreement, Borrower's Certification and Authorization, and Truth-in-Lending Disclosure.

Several factors, particularly the need to comply with consumer protection laws and to anticipate and guard against liability, and the desire to assure the loans' eligibility for sale to the secondary market, have created the large and steadily growing number of documents. All lenders seeking to preserve the option of selling a loan to the secondary market must comply with the origination requirements of that market, defined in the Fannie Mae and Freddie Mac guides. See Fannie Mae Guide, at www.allregs.com/efnma/toc/toc.asp?path:fnma/selling [hereinafter Fannie Mae Guide]; Freddie Mac Single-Family Seller/Servicer Guide, at <http://www.freddie.com/sell/guide/> [hereinafter Freddie Mac Guide].

27. It is reported that Wells Fargo Home Mortgage, Inc. electronically delivered more than 40,000 closing packages to its closing agents in December 2001. *TechNewz*, MORTGAGE BANKING, Mar. 2002, at 109. Numerous conveyancing attorneys have described these electronic deliveries from many lenders in personal conversations with the author. See also Steven H. Winkler, *Trends Shaping Real Estate Industry*, 167 N.J. LAW J. 1190 (2002), WL 167 N.J.L.J. 1190; Amy Johnson Conner, *Electronic Conveyancing: Cyber Real-Estate Transactions (And E-Signatures) May Be Closer To Reality Than You Think, And Experts Say Massachusetts Lawyers Should Get Up To Speed*, MASS. LAW. WKLY., Oct. 15, 2001 (quoting Joel A. Stein, a Braintree lawyer and board member of the Massachusetts Conveyancing Association, stating that "[a]t this point, the only real

when the documents arrive in electronic form, most closing agents still “paper out” the electronic documents when they conduct a traditional closing by printing them and having the parties sign those documents.²⁸

The law, the technology, and at least the secondary market buyer are now in place for electronic closings. The Federal E-SIGN²⁹ and state UETA³⁰ statutes establish the validity of appropriately executed electronic documents.³¹ More attorneys and closing agents are becoming equipped with the technology to do electronic closings: the seller and buyer affix their electronic signatures to electronic documents at the closing table (or over the Internet). On June 28, 2002, in a long-awaited announcement, Fannie Mae published its standards for purchasing electronically-executed notes and stated its willingness to purchase e-notes that complied with these standards.³² It is likely that lenders will soon begin to offer electronic mortgage loan products to their customers and to encourage or require that their closing agents conduct electronic closings.

The precise model for the electronic real estate closing is still “under construction.”³³ Participants at the Western New England College School of Law conference predicted that the initial electronic closings will occur in actual offices, not cyberspace, and will closely resemble the traditional paper closing, with the buyer and

aspect of [electronic] conveyancing that we’re seeing here is . . . some attorneys are getting their packages delivered electronically from some of the lenders”).

28. Winkler, *supra* note 27.

29. Electronic Signatures in Global and National Commerce Act, 15 U.S.C. §§ 7001-7031 (2002) [hereinafter E-SIGN].

30. UNIF. ELEC. TRANSACTIONS ACT (Nat’l Conf. of Comm’rs on Unif. State Laws 1999) [hereinafter UETA].

31. For more information on E-SIGN, UETA, and electronic signatures see, for example, JANE K. WINN & BENJAMIN WRIGHT, *THE LAW OF ELECTRONIC COMMERCE* (4th ed. 2001 & Supp. 2002); Carol A. Kunze, *Consumers Online: FTC, UCITA/UETA, E-SIGN and Consumer Protection Law*, 649 PRACTISING L. INST./PAT. 469 (2001); Robert A. Wittie & Jane K. Winn, *Electronic Records and Signatures under the Federal E-SIGN Legislation and the UETA*, 56 BUS. LAW. 293 (2000); Patricia Brumfield Fry, *Introduction to the Uniform Electronic Transactions Act: Principles, Policies and Provisions*, 37 IDAHO L. REV. 237 (2001).

32. Announcement 02-08 from Robert J. Engelstad, Senior Vice President, Fannie Mae, *Amends these Guides: Selling and Servicing, Selling Electronic Mortgages to Fannie Mae*, (June 28, 2002), www.efanniemae.com/singlefamily/pdf/02-08.pdf [hereinafter Announcement 02-08].

33. Through a project called SPeRS (Standards and Procedures for Electronic Records and Signatures), the Electronic Financial Services Council is in the process of developing sample standard procedures for lenders to use in electronic transactions. <http://www.spers.org/>; <http://efscouncil.org/> (last visited Dec. 20, 2002).

seller (sometimes together, sometimes separately) executing documents in the closing agent's office. While the form of the documents will change from paper to electronic, the parties, the documents, and the transaction will remain the same: *plus ça change, plus ça même chose*. Fannie Mae's initial instructions on electronic notes, requiring careful documentation of the parties' identities and of their compliance with the E-SIGN and UETA consumer consent provisions, will be most easily met with traditional office closings.³⁴

In a fully-electronic closing, the documents are electronic and are executed with electronic signatures. Conference participants were divided in their predictions as to how closing agents will present the documents for review and electronic signing.³⁵ Some thought that the closing agent would use only the electronic documents, preloaded into the computer, and would work through the "electronic pile" of closing documents one-at-a-time solely on the computer screen.³⁶ Others thought that the closing agent would have the traditional stack of paper documents alongside the computer, would refer to the paper documents until it is time for signing, and would then turn to the electronic documents, scroll down the screen to the signature line, and have the buyer execute the electronic signature.

Conference participants also predicted that, no matter how the electronic closing is conducted, lawyers and closing agents will continue to provide residential homebuyers and refinancers with both paper copies and a CD-ROM (containing the electronic documents) at the conclusion of the electronic closing. After completing one of the most important transactions of their lives, consumers will

34. Announcement 02-08, *supra* note 32, at 3.

35. Western New England College School of Law conference participants were also divided on the type of electronic signature that would be used. A conference demonstration used a "digitized" signature, an electronic representation of a handwritten signature; similar to the signing pad at the checkout counter of many retail stores. The other types of electronic signatures are the "digital" signature, a hash code appended to a message that identifies and authenticates the sender, and message data using public key infrastructure (PKI) encryption. See Whitman, *supra* note 17, at 248-56; see also Hofferber, *supra* note 9.

36. Richard Jones, Managing Director and Chief Technology Officer of Countrywide Home Loans described the ideal electronic closing environment this way: "The closing agent has a digital certificate [and] a digital-signature pad, you select a package of documents electronically, get the customer to sign one time on a digital signature pad, and then you click all the way through them and you're done—closed all electronically, and you did not print one piece of paper." Neil Morse, *Waiting For the Future*, MORTGAGE BANKING, May 2002, at 103.

want to hold the deed to their new house in their hands (even if the original is electronic and they are only holding a copy).³⁷

3. Closing Agent to Recording Office

After the closing, the closing agent takes the documents to be recorded, typically the deed, mortgage, and any releases of the prior mortgage and other encumbrances, and presents them, with a check for the fees and taxes, to a clerk at the recording office for recording. Since a title rundown must be performed at the recording office immediately prior to recording a deed and new or replacement mortgage, the document filing is usually done in person and can take from a few minutes to several hours. However, with electronic documents, both the title rundown and the transmission to the recording office can be performed instantaneously electronically from the closing agent's office.

4. Recording Documents

The recording process is comprised of several distinct tasks: intake (receiving, logging, and time stamping the documents); collection (of required fees); indexing; copying and recording; returning; and maintenance and storage. It involves handling and copying many documents several times. In a number of jurisdictions, there are significant delays from the time the documents are first presented until the time that they are filed, indexed, and returned.

Electronic recording of electronic documents will likely have two main effects. First, the process of recording the documents and returning them to the closing agent will be accelerated. This acceleration will result in significant time savings and—when realized—cost savings from lower interest rates. Second, the information contained in electronic instruments will be quickly, easily, and accurately arrayed, indexed, displayed, and searched. Title examiners and the public will be able to perform both grantor-grantee and tract searches, as well as full-text searches of all electronic documents, from the electronic database.

5. Closing Agent to Lender

Before the lender can complete a sale of the mortgage loan to

37. E-SIGN and the UETA require that the consumer be given a paper copy of the electronic document unless the consumer consents to receiving an electronic copy. E-SIGN, 15 U.S.C. § 7001(c)(1); UETA § 8 (Nat'l Conf. of Comm'rs on Unif. State Laws 1999).

the secondary market, the lender must have received the completed loan package, including the recorded documents, from the closing agent. Currently, the completed loan package with all paper documents is sent to the lender by courier or express mail. Electronic loan packages will be encrypted and sent securely by e-mail or over the Internet.

6. Lender to Secondary Market

Each secondary market institution has a detailed guide that specifies the requirements and conditions for the sale of mortgage loans, including the documents that must be used and how and to whom these documents are to be transmitted.³⁸ While involving additional compliance measures for certifying compliance with the purchaser's e-loan standards,³⁹ electronic delivery will be quicker and less expensive than the current express mail delivery.

7. Lender to Servicer

Lenders typically either retain the servicing rights to mortgage loans sold on the secondary market and earn fees for servicing those loans, or sell those servicing rights to another entity. For electronic document purposes, servicing is another instance where files and documents (including bills to the borrower and reports to the owner of the loan) need to be created, managed, transferred, and stored. Electronic documents offer improved accuracy and efficiency in performing the servicing functions.⁴⁰

38. For the Fannie Mae and Freddie Mac requirements, see Fannie Mae Guide, *supra* note 26 and Freddie Mac Guide, *supra* note 26. For an overview and introduction to the Fannie Mae and Freddie Mac guidelines, see Sam Stonefield, *The Fannie Mae Selling and Servicing Guides*, § 3A.08 and *The Freddie Mac Single-Family Seller/Servicer Guide*, § 3A.09, in REAL ESTATE FINANCING (2000).

39. See, e.g., Announcement 02-01 from Robert J. Engelstad, Senior Vice President, Fannie Mae, *Amends these Guides: Selling and Servicing, Electronic Transactions for Fannie Mae Mortgages*, (Jan. 25, 2002), www.efanniemae.com/singlefamily/pdf/ga02-01.pdf [hereinafter Announcement 02-01] (describing aspects of Fannie Mae's requirements for purchasing loans executed with electronic documents); Announcement 02-08, *supra* note 32 (same).

40. These last two stages are the back-end of the mortgage transaction and are also document and information-intensive. A technology consultant stated,

One of Fannie Mae's and Freddie Mac's key areas of focus seems to be how they benefit on the back-end side as far as servicing and master servicing. If you're a large servicer with a \$50 [billion] to \$200 billion mortgage portfolio, you want to be able to store, access and manage records efficiently. I think that it makes a lot of sense to concentrate on and consolidate the back-end servicing side.

Len Tichy, *Stalking the Elusive Paperless Tiger*, MORTGAGE BANKING, Mar. 2002, at 58,

This brief summary has demonstrated the steps, documents, and participants in a typical real estate transaction. Notwithstanding the forces described in the next two subsections, it will take some time before electronic documents are used exclusively at all stages of these transactions.

B. *General Trend Towards Electronic Documents and Electronic Transactions*

E-Commerce and E-Government are not just buzzwords. They describe the trend in business and in government to structure transactions electronically to maximize efficiencies and information accessibility while minimizing or eliminating paper documents. While still small, the volume of electronic commerce has been growing steadily.⁴¹

The government use of electronic documents has increased exponentially. More and more courts are accepting—and some are requiring—electronic documents and electronic filing,⁴² and court and other records are increasingly available on-line.⁴³ The Internal Revenue Service encourages the electronic filing of individual tax returns and requires the electronic submission of a growing volume of business data.⁴⁴ The Federal Securities and Exchange Commission accepts electronic submissions of securities filings and makes those documents available online through its Edgar system.⁴⁵ A

64 (alteration in original) (quoting Craig Focardi, senior analyst for TowerGroup, a Needham, Massachusetts research and advisory firm that specializes in the impact and direction of technology in the financial services industry).

41. In the second quarter of 2002, retail e-commerce sales totaled \$10.243 billion, up 24.4 percent from the second quarter of 2001. Total retail sales for the second quarter of 2002 were \$825.5 billion. *Retail E-Commerce Sales in Second Quarter 2002 were \$10.2 Billion, Up 24.2 Percent from Second Quarter 2001*, Census Bureau Reports, U.S. DEP'T OF COM. NEWS, Aug. 22, 2002, <http://www.census.gov/mrts/www/current.html>.

42. See, e.g., Judicial Council of California, *Electronic Filing Projects in California Superior Courts*, at <http://www.courtinfo.ca.gov/programs/efiling/projects.htm> (last visited Sept. 27, 2002) (describing court e-filing in California); see generally *Electronic Filing and the Courts*, 40 JUDGE'S J. 1 (Summer 2001) (issue on electronic court filings).

43. An example well known to real estate lawyers is the PACER system used by the bankruptcy courts. PACER, a subscription service, allows real-time access to the dockets of bankruptcy courts. This service is exceedingly valuable in avoiding an inadvertent violation of the automatic stay provision of the bankruptcy code.

44. Amy Hamilton, *IRS Technology to Allow Free Flow of Tax and Accounting Data*, 2002 TAX NOTES TODAY 132-35 (July 9, 2002); Nancy Hyde, *Magnetic Media Reporting and Electronic Filing Requirements*, in *Tax Practice & Procedures* (Mark H. Ely, ed.), 32 TAX ADVISER 720 (2001).

45. SEC Filings and Forms (EDGAR), at <http://www.sec.gov/edgar.shtml> (last modified May 25, 2001).

growing number of Article 9 filings are done electronically.⁴⁶ The Federal Department of Education has authorized universities and state student loan agencies to process student loans electronically.⁴⁷ The National Electronic Commerce Coordinating Council advocates best practices and new uses for electronic documents in government.⁴⁸

C. *Nationalization, Rationalization, and Growing Uniformity*

The transition to electronic documents will continue the well-documented trend toward the nationalization of the residential real estate industry and the growing uniformity of its practices—a trend driven by the development of the secondary mortgage market and shaped by a regulatory framework established by federal law.⁴⁹ In order to assure product quality for the investors in their mortgage-backed securities and similar products, Fannie Mae and Freddie Mac developed the FNMA/FHLMC uniform instruments.⁵⁰ The required use of these uniform instruments has assured that residential deeds, mortgages, and notes used in Alaska and Florida are virtually identical to those used in Maine, Arizona, and California: uniformity on a national scale. These entities also established standardized requirements and procedures for the originating, closing, selling, and servicing of mortgage loans, again imposing a degree of uniformity on a fragmented and decentralized group of much

46. T. Bogenrief, *Revised Article 9—Filing and System Issues*, 34 UCC L. J. 541, 549 (2002) (reporting that, in Kansas, over 60% of UCC filings are electronic).

47. *Standards for Electronic Signatures in Electronic Student Loan Transactions* (U.S. Dep't of Educ.), Apr. 30, 2001, at 1, <http://ifap.ed.gov/dpcletters/attachments/gen0106Arevised.pdf> (revised as of July 25, 2001). See also Ralph Hosterman, Director Student Loans & Scholarships, Penn State University, *Our Path to Electronic Signatures in the Perkins Loan Program*, (May 15, 2002), www.coheao.com/resourcedocs/E-SIG%20COHEAO.ppt (outlining Penn State's use of electronic signatures); Press Release, Connecticut Student Loan Foundation, CSLF Student Loan Foundation Implements Electronic Signature Process (Nov. 16, 2001), www.cslf.com/press/pr200111161.pdf (announcing Connecticut Student Loan Foundation's use of electronic signatures).

48. The National Electronic Commerce Coordinating Council Web site at <http://www.ec3.org> ("Mission [is] to promote electronic government based on emerging issues and best practices through an alliance of associations.").

49. See Grant Nelson & Dale Whitman, *Government Intervention in the Mortgage Market*, 45-146, REAL ESTATE FINANCE LAW (3d ed. 1993); Robin Paul Malloy, *The Secondary Mortgage Market—A Catalyst for Change in Real Estate Transactions*, 39 S.W. L.J. 991 (1986); Michael H. Schill, *Uniformity or Diversity: Residential Real Estate Finance Law in the 1990s and the Implications of Changing Financial Markets*, 64 S. CAL. L. REV. 1261 (1991).

50. Stonefield, *supra* note 38, § 3A.10.

smaller entities.⁵¹

Two other factors have contributed significantly to this trend towards nationalization and uniformity. First, the secondary market requirement of title insurance led to the growth of regional and national title insurance companies and their emergence as a major force, not only in title insurance, but in the loan closing process.⁵² Second, two pieces of federal legislation, the Truth In Lending Act (TILA)⁵³ and the Real Estate Settlement Procedures Act of 1974 (RESPA),⁵⁴ established detailed national disclosure requirements, exemplified by the ubiquitous HUD-1.⁵⁵

This growing standardization has set the stage for electronic real estate documents. Most industry participants are already following the same procedures, using the same forms, and creating these forms electronically with standardized software on personal computers. The transition to electronic instruments is a small and predictable (albeit not inevitable) next step, one strongly supported by the national institutions.⁵⁶

51. See Fannie Mae Guide, *supra* note 26; Freddie Mac Guide, *supra* note 26. See also Stonefield, *supra* note 38, §§ 3A.06, 3A.08-.09.

52. "Today, the majority of lenders require both residential and commercial mortgage loan applicants to obtain lender's title insurance as a condition precedent to receiving the loan." JOYCE D. PALOMAR, TITLE INSURANCE LAW, § 1:3, 1-10 (2002). Title insurance closing activities—and the legal challenges to those activities—are described in Joyce Palomar, *The War Between Attorneys and Lay Conveyancers—Empirical Evidence Says "Cease Fire!"*, 31 CONN. L. REV. 423 (1999), and Michael Braunstein, *Structural Change and Inter-Professional Competitive Advantage: An Example Drawn From Residential Real Estate Conveyancing*, 62 MO. L. REV. 241 (1997).

53. 15 U.S.C. § 1601-93(r) (1998).

54. 12 U.S.C. § 2601-17 (2001).

55. The HUD-1 is required by RESPA and is used in virtually every residential loan. The earlier federal loan programs, such as the VA and FHA programs, also had a number of required forms, but those programs were and are comparatively smaller and, in their formative periods, were less insistent on uniformity.

56. Some fear that the strong support will lead to coercion. A recurrent¹ theme in informal discussions with recording officials and attorneys before, at, and after the conference has been that, if the states do not authorize and implement electronic recording in a timely manner, Fannie Mae and Freddie Mac will impose it on the states. Such an imposition will emerge either through federal legislation that *requires* recording officials to accept electronic documents for recording, or by the development of a *private* land records system analogous to the MERS system for recording interests in notes. For more information about the MERS systems, see <http://www.mersinc.com/index1.htm> (last visited Oct. 7, 2002). Notwithstanding Fannie Mae's allusions to the creation of a national registry for electronic notes, Announcement 02-08, *supra* note 32, Fannie Mae Guide, *supra* note 26, and the considerable resonance of the theme among recording officials, this author is skeptical of the claim.

D. *Consumers, Recording Officials, and State Legislatures*

The secondary market giants, the national mortgage lenders (and their trade associations), the title insurance industry, and the federal government have all contributed to the nationalizing activities discussed above. Consumers, recording officials, and state legislators have thus far been only bystanders and passive participants. However, their support or lack of support for electronic documents will significantly shape the pace and direction of the upcoming transition.

1. The Consumer⁵⁷

In the near future, homebuyers will have a choice between using paper or electronic documents and it is not yet known how they will exercise that choice in the largest and most important transaction in most people's lives, the purchase of a home. Prior acts of standardization did not require explicit consent and did not give consumers an affirmative choice of documents. For example, the TILA and RESPA disclosures are legally mandated, whether the consumer wants them or not.⁵⁸ The uniform instruments and other standard forms are presented to consumers on a take-it-or-leave-it basis; residential lenders generally will not permit borrowers to substitute customized forms for the Fannie Mae/ Freddie Mac Uniform Instruments.⁵⁹

Lenders cannot similarly impose electronic documents. No federal law *requiring* consumers to use electronic documents exists or is likely to appear. In fact, to the contrary, the detailed consent and disclosure requirements of both E-SIGN and UETA laws assure that electronic transactions are valid only if the consumer explicitly consents and has the capacity to engage in such a transaction.⁶⁰ Under federal and state laws, the consumer will have the choice to use either paper or electronic documents, and, unlike the case of the uniform instruments, it is likely that the marketplace will provide the consumer with opportunities to exercise that

57. This discussion of "the consumer" focuses on consumer consent, not on the techniques of consumer protection. It takes as a given the consumer protection features (disclosure, consent, documentation) in current laws and explores how consumers will exercise the choice that they will have between paper and electronic documents.

58. See 15 U.S.C. § 1601-93(r) (TILA); 12 U.S.C. § 2601-17 (RESPA).

59. Lenders will likely accept customized forms presented by the lawyers for Bill Gates and other very wealthy individuals with whom they have other banking relationships.

60. 15 U.S.C. § 7001(c)(1).

choice. Given the continued coexistence of paper and electronic document regimes, if an all-electronic lender were to impose a take-it-or-leave-it policy, a consumer who prefers paper documents will likely be able to find another lender willing to make the same loan using paper documents.⁶¹

How will consumers exercise this choice? The nature and strength of consumer preferences for paper or for electronic documents is not yet known but is critical to the success of electronic real estate transactions. It is possible that consumers will prefer electronic documents because of their speed, convenience, or other positive attributes. However, intuition and some early evidence suggest that, for the purchase of a home, consumers will initially prefer the comfort and reassurance of paper documents.⁶² If the initial preference is indeed for paper, then the real estate industry will seek to change that preference by educating consumers as to the advantages of electronic documents while addressing concerns about privacy and security. If the preference for paper persists, lenders will need to adopt a more aggressive strategy to attract consumers. Such a strategy would probably include the use of differential pricing to attract consumers by offering lower interest rates, points, and fees for loans executed with electronic as opposed to paper documents.⁶³ Some lenders are already offering discounts for electronic products to mortgage brokers,⁶⁴ and it is likely that simi-

61. While it is doubtful that paper document lenders will be able to compete in pricing with all-electronic lenders in the intermediate or long run, one would expect that, in the short run at least, some paper document lenders will use aggressive pricing as well as pointed marketing in an attempt to retain or gain market share.

62. "Borrowers may resist a process that removes a tangible document that is prima facie evidence of what they owe or own." Tichy, *supra* note 40, at 62. A Florida homeowner closing on the sale of his home said, "It hasn't been around long enough for me to feel comfortable When you put your John Hancock on a document, you know it's on firm soil legally. I don't want to be an Internet guinea pig." Friedman, *supra* note 8. Reports have indicated that consumers are cautious about electronic documents and have concerns about security and fraud. Carrie A. O'Brien, *E-SIGN: Will the New Law Increase Internet Security Allowing Online Mortgage Lending to Become Routine?* 5 N.C. BANKING INST. 523, 527-28 (2001), WL 5 NCBNKI 523.

63. In an analogous context, two attorneys have suggested that "[c]reditors attempting to encourage the use of on-line credit transactions may find it necessary to offer substantial incentives . . . to compensate for the additional time and energy necessary in navigating the consumer-consent provisions of E-SIGN." Robert A. Cook & Nicole F. Munro, *Giving Consumer Disclosures On-Line: Is E-SIGN the Path to the Paperless Loan?* 57 BUS. LAW. 1187, 1195 (2002). For electronic mortgages closed at the office of the closing agent, the compensation will not be for the additional time and energy, but for overcoming the nervousness and discomfort associated with a new form of documents.

64. See, e.g., Ellie Mae Newsletter, *supra* note 22; IndyMac Bank Broker Center,

lar discounts will be needed to convince consumers to make the transition. This differential pricing itself may generate some political attacks, such as accusations of exploitation of the "digital divide" and attempted regulation.⁶⁵ One of the many services performed by the task forces discussed in Part III will be the creation of a forum to anticipate, discuss, and resolve such issues, as well as to help in the development of additional strategies to increase consumer knowledge of and support for electronic transactions.

2. Recording Officials and State Legislators

The second and third groups, whose needed support has not yet been obtained, are county and local recording officials and state legislators. There are 3524 recording jurisdictions nationwide,⁶⁶ mostly counties but, in Connecticut, Rhode Island, Vermont and parts of Virginia, cities and towns and, in Hawaii, statewide.⁶⁷ The recording offices vary greatly in size and recording activity. One hundred four recording offices serve populations greater than 500,000; 1618, nearly half of the recording offices nationwide, serve populations less than 25,000.⁶⁸ Large offices may record 3000 to

at <http://www.indymac2b.com/rates/comparisons.asp?partner=1&from=elliemae> (each last visited Dec. 18, 2002).

65. The charge will be false, for the most part. At least initially, most lenders will execute electronic real estate transactions at the closing agent's office, which will supply all the necessary technology. The consumer will not need to have a computer, Internet service provider, SmartCard, or PKI password. However, if the lender wants to make the required pre-closing disclosures electronically, and do so by sending them to the borrower's home or business (as opposed to making the electronic disclosures in the lender's office), then the lender must establish that the borrower has the equipment and services necessary to receive the disclosures electronically. The lender must also receive the consumer's consent to such electronic disclosures. Besides being cumbersome, it also means that consumers who are on the wrong side of the "digital divide" cannot obtain such loans. See Cook & Munro, *supra* note 63, at 1195.

66. Posting of Carl R. Ernst, Publisher, THE REAL ESTATE RECORDING GUIDE, to Large Volume Recording Offices (Jan. 2000), at <http://www.ernstpublishing.com/roundtable/top%20100%20counties.doc> [hereinafter Roundtable] (announcing the creation of The Land Recording Roundtable, an Internet discussion group for recording offices and others associated with the property records industry).

67. For citations to the recording statutes of each jurisdiction, see 11 THOMPSON ON REAL PROPERTY § 92.04(b) n.43 (David A. Thomas, ed., 2002). Even among the jurisdictions that record on a county-wide level, there is considerable variety. The two most common titles are Office of the Clerk (or County Clerk) and Register of Deeds. County Recorder, Office of Recorder, Recorder of Deeds, and just plain Register are also used. Less common are Clerk of the Circuit Court (Maryland and Virginia), Office of Judge of Probate (Alabama), and Parish Recorder (Louisiana). *Id.*

68. Roundtable, *supra* note 66. The largest five recording offices (and their 1997 populations) were Los Angeles County (9,145,219), Cook County, Illinois (5,076,786),

5000 documents per day;⁶⁹ whereas small counties may record less than 500 documents per year.⁷⁰

Unlike market-oriented entities like lenders, title insurers, and closing agents, recording officials do not and should not focus solely on efficiency and cost saving: they have a broader and more public agenda. Most of the individuals that supervise recording offices are elected officials. Further, many offices perform other public functions such as elections, maintenance of vital statistics, and issuance of licenses in addition to recording. When they focus on recording, they follow both the laws of their jurisdiction and well-established recording customs and practices, both of which are built around paper, not electronic documents, and neither of which will be easy to change.

A thoughtful campaign to build support for electronic documents by a significant number of recording officials is beginning to show results. A growing number of recording officials are expressing an interest in new methods, especially in larger counties that are burdened with the increasing volume of documents and diminishing budgets. Two national organizations of recording officials have worked diligently for several years to educate their members about both the benefits and challenges of electronic recording. These organizations have also helped the secondary market, title insurers, and lenders understand how the proposed introduction of electronic documents looks *from the recording official's perspective*.⁷¹ Recording officials face new costs without new funding; unknown, conflicting, and changing technical standards, equipment

Harris County, Texas (3,158,095), San Diego County, California (2,722,650), and Maricopa County, Arizona (2,696,198). *Id.*

69. Ann Richards: 'Larger Counties Have Got to Embrace Technology,' FOR THE RECORD (Prop. Records Indus. Joint Task Force), May/June 2002, at 3, <http://faxxon.cifnet.com/taskforce/newsletters/2002mayjun.pdf>.

70. Interview with Dean Arthur Gaudio, in Springfield, Mass. (Feb. 12, 2002) (providing this "rough estimate" based on his experience with smaller counties in Iowa and Wyoming).

71. The two organizations are the National Association of County Recorders and Clerks (NACRC), <http://www.nacrc.org>, and the International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT), <http://www.iacreot.org>. They have joined with a number of private entities (including Fannie Mae, the American Land Title Association (ALTA), Stewart Title and other title insurance companies and a number of technology vendors) to form the Property Records Industry Joint Task Force (PRIJTF), <http://faxxon.cifnet.com/taskforce/> (PRIJTF has been renamed the Property Records Industry Association). For an overview of the Task Force background and objectives, see *PRIJTF Background*, MISMO Conference (Sept. 10-14, 2001), at ftp://taskforce.cifnet.com/xmldocuments/WG%20Presentations/PRIJTF_MISMO.ppt.

requirements; and operating protocols; and a lack of clear legal authority under state law. The Property Records Industry Joint Task Force has supported and contributed to the important work on developing electronic document standards and on publicizing those standards among its membership. However, as demonstrated with its standards on other, non-electronic, recording issues such as indexing, its fine work is advisory only and depends on either voluntary compliance by recording officials and the public or statutory mandates from the state legislatures for implementation.⁷²

Even if all 3524 recording officials were eager to implement electronic recording today,⁷³ they could not do so unilaterally; they would need the support of their state legislatures. An electronic recording system needs a solid legal foundation, best provided by legislation that specifically and comprehensively addresses the many issues raised by electronic land records.⁷⁴ Additionally, the new hardware, software, training, and maintenance will require the funding of both capital expenditures and ongoing operating expenses. Thus, state legislatures will be called upon to enact a new recording statute, to authorize bonding, and to either appropriate new funds or, where possible, to approve a new, dedicated recording fee to pay for the acquisition, installation, and servicing of the new technology.

At least for the foreseeable future,⁷⁵ no federal law is going to force recording officials to accept and record electronic documents or to force state legislatures to make electronic recording technology grants. Proponents must win the support of these officials on a state-by-state basis, and the best available vehicle for securing that support is a state electronic recording task force, as discussed in the final section.

72. For example, the PRIJTF adopted a useful set of new indexing standards, <http://faxxon.cifnet.com/taskforce/papers/indexfinal.htm> (last visited Sept. 29, 2002). Unlike the Fannie Mae/Freddie Mac uniform instruments or the Fannie Mae and Freddie Mac guides and directives, which are mandatory for anyone wanting to do business with Fannie Mae or Freddie Mac, the PRIJTF indexing standards are suggestive only.

73. An unlikely event since, as Professor Whitman and others have pointed out, some recorders may feel that electronic recording—with the possible threat of staff reductions or centralized state control—is not in their political best interests. See Whitman, *supra* note 15, at 247.

74. See Whitman, *supra* note 15, at 250; Gaudio, *supra* note 16, at 274.

75. At the conference, several speakers expressed a concern that, if the states did not “get their act together,” the federal government would step in and impose a federal electronic recording regime. See *supra* note 36 and accompanying text.

E. *A Matrix with Four Scenarios*

The two important variables that will influence the pace of the transition to electronic documents are the acceptance of consumers and the commitment of recording officials and state legislatures.⁷⁶ Will consumers want to participate in electronic real estate transactions? Will state legislatures revise state recording acts to clearly accept electronic documents for recording, and will they provide the funding or, more likely, authorize a new, dedicated recording fee for the upgrades and changes necessary for an electronic recording system to function well? The stronger the consumer acceptance and recording official and legislative commitment, the quicker the transition.⁷⁷

The following matrix uses several variables: consumers and public officials (combining both recording officials and state legislatures), and strong or weak acceptance of electronic documents, to depict (in an overly-simplified manner) four possible scenarios.⁷⁸

		Consumer Acceptance			
		Weak			
Commitment by Public Officials	Weak	Scenario 1 Weak; Weak	Scenario 2 Strong; Weak		
	Strong	Scenario 3 Weak; Strong	Scenario 4 Strong; Strong		
		Strong			

76. See J. David Browning, *Servicing eMortgages*, National Technology in Mortgage Banking Conference (Mar. 12-15, 2002), at http://www.mbaa.org/present/2002/browning_0314.pdf (noting that the preparedness of recording officials and consumer acceptance were two of the main “challenges of getting to a paperless mortgage”).

77. One variable, consumer acceptance, will likely influence the other, in the sense that strong consumer acceptance of electronic documents will increase their use, increasing pressure on recording officials and state legislatures.

78. The matrix reflects two simplifying assumptions. First, it treats recording officials and state legislatures as one group—public officials—although they obviously have distinct interests and perspectives. Second, it also presents only two polar positions—weak or strong—although both consumers and public officials have viewpoints that span the spectrum of possible positions.

Consumers exhibit either strong or weak acceptance of electronic documents, and public officials express either a strong or weak commitment to and authorization of electronic recording.⁷⁹ While electronic documents can and will be used under each scenario, the nature and extent of the use will differ depending on whether the acceptance and commitment is strong or weak.

Current conditions generally match those of Scenario 1: consumer understanding and acceptance of electronic documents is weak, and public officials have thus far shown only tepid commitment and support. As discussed in Part I-A, many lenders are using electronic documents under these conditions, but on a limited basis, such as in the loan origination process and as internal and business-to-business documents that 1) are not recorded and 2) do not require the consumer's electronic signature and consent.⁸⁰ Fully electronic transactions that use electronic documents from loan origination through closing, recording, secondary market sale, and servicing will be possible only under the conditions specified in Scenario 4, which require strong consumer acceptance and strong commitment by public officials.

During the current period of transition from paper to electronic documents (from Scenario 1 to Scenario 4), dual paper and electronic systems will coexist in many different variations, most of which will fit under Scenarios 2 or 3. The conditions specified in Scenario 2, weak consumer acceptance but strong public commitment to electronic recording, exist today only for pilot programs in selected jurisdictions.⁸¹ In those counties, a limited number of closing agents and municipalities are executing simple electronic documents like mortgage releases and tax liens that do not require consumers, consent and recording them electronically. This targeted use of electronic documents and electronic recording yields efficiencies and cost savings for lenders, and recorders.⁸² It is a modest step but, as one leading official has said, "[I]f we can capture [twenty-five to thirty] percent of [property closings] electronically, that's [sic] going to save us a considerable amount of time. This is going to be a good tool for meeting demand without increas-

79. Each scenario assumes the continued strong support from the secondary market and lenders.

80. *See supra* Part I-A-1 (discussing loan origination).

81. *See supra* note 9 and accompanying text (describing pilot projects in several jurisdictions).

82. For an excellent report on one pilot project, see Hofferber, *supra* note 9.

ing staff.”⁸³

Under the conditions specified in Scenario 3—strong consumer acceptance, but weak public commitment to electronic recording—electronic documents will be used for all documents except those that have to be recorded (the deed, mortgage, release of any prior mortgages, and any other recordable instruments). The parties will separately execute the recorded documents as paper documents and then make electronic copies to place in the electronic loan file, along with affidavits of recording and certificates of compliance with other specific recordkeeping requirements. The paper deed and mortgage will be recorded locally; the electronic note (now more accurately described as an “electronic record”⁸⁴) will be listed, but not “stored,” in a national registry.⁸⁵ A custodian will hold an electronic loan file containing the electronic record and more than 200 other loan-related documents.⁸⁶ Under Scenario 3, lenders and closing agents will be able to realize most of the efficiencies and cost savings promised by electronic documents and discussed in the next section, even without electronic recording. A prognosticator might reasonably predict that lenders will begin to experiment with strategies to increase consumer interest in electronic loans and that differential pricing, featuring lower-cost electronic loan products, will soon hit the marketplace.

II. ASSESSING COSTS AND BENEFITS

Electronic documents will replace paper documents only if a strong consensus emerges that the benefits of electronic documents

83. Tod Newcombe, *Salt Lake County Recorders Office Goes Electronic*, Gov'T TECH., Oct. 2001, at http://www.govtech.net/news/features/news_feature.phtml?docid=30000000003164 (quoting Mark Monacelli, county recorder of St. Louis County, Minnesota and chairman of the Land Records Committee for the National Association of County Recorders, Election Officials and Clerks).

84. 15 U.S.C. § 7006(4) (2002).

85. *eVault Issues and Recommendations - Version 1.0*, (MISMO eMortgage Workgroup, eVaulting Focus Group) Oct. 11, 2001, at http://www.mismo.org/mismo/docs/draftspc/draft/EM_EV_eVault_IssuesRecommendations_V1-0.pdf.

86. In its recent eNote guidelines, Fannie Mae has authorized precisely this type of use. Lender Letter 02-08, *supra* note 32.

We are now ready to begin purchasing eMortgages from lenders that meet the legal, technological, and operational requirements that are necessary to create valid and enforceable eMortgages. . . . Because of the limited number of recording jurisdictions that accept electronic documents for recordation, most (but not all) eMortgages will initially consist of a paper security instrument and an electronic note (eNote).

Id.

outweigh their costs and disadvantages. The considerable and enthusiastic discussions of the many benefits of electronic documents have not been matched by comparable analyses of the costs, nor has there been virtually any discussion of how to do the balancing and final assessment. This Part attempts to begin that analysis and discussion.

A. *Benefits*

The use of electronic documents in real estate transactions will produce efficiencies and enhancements that will yield both direct and indirect economic benefits, as well as important public policy gains for public land records. First, all users will achieve administrative cost savings. The ability to enter data once and then to use it repeatedly, instead of re-entering the information on many different forms and making and saving numerous paper copies, saves time and reduces errors. Additionally, the ability to transmit documents speedily and inexpensively within and between offices saves money (postage and courier costs) and time. Finally, the ability to store as well as retrieve records electronically saves time, space, and personnel and permits more advanced, interconnected uses of the information contained in the documents. Reports from early adopters and pilot programs suggests that these administrative cost savings will be real and significant.⁸⁷

Second, the increased efficiency and speed of electronic transactions should reduce the originating lender's cost of money. If transactions are completed more quickly—for example, if lenders can reliably plan on fifteen-day loan origination times instead of sixty- or ninety-day times—then they can enter into fifteen-day delivery contracts with the secondary markets, thereby obtaining cheaper money.⁸⁸ While not the only factor, one important reason

87. Kelly Elder, *E-Signatures Coming Soon To a Screen Near You*, THE WARREN GROUP (2002), at <http://www.thewarrengroup.com/home/wp/mtrm/mtrmq42000/031113200000006.asp> (quoting an electronic real estate vendor who estimates cost savings as high as \$1200 per transaction); Tichy, *supra* note 40, at 65 (quoting a lender who reported that efficiently using technology in its back-end operations “has yielded a savings of more than half the number of staff it formerly took to handle the same function”). Some county recorders have stated that just basic electronic upgrades such as electronic indexes and scanning have produced labor savings of 15%. MINN. SEC'Y OF STATE, ERERTF BUSINESS ANALYST SERVICES PROJECT: COST BENEFIT ANALYSIS 11 (2002) [hereinafter MINNESOTA TASK FORCE REPORT] (summarizing potential costs and benefits of participating in electronic real estate recording) (on file with the Western New England Law Review).

88. A delivery contract obligates the lender to deliver certain mortgage loans to the secondary market purchaser by a certain date and the purchaser to buy those loans

for the expected reduction in time is the increased speed of recording and the quicker return of the recorded documents to the lender, permitting speedier delivery to the secondary market. If electronic documents are used but electronic recording is not available, the industry will need to develop alternative methods to achieve this faster execution and delivery or the savings will be only partly realized.⁸⁹

A third source of cost savings, important to the management of a large volume of sophisticated transactions but difficult to monetize, will come from the improvements in reporting, oversight, and compliance made possible by electronic documents. Fannie Mae, Freddie Mac, and other secondary market purchasers impose extensive requirements and conditions on those who sell and service loans in the secondary market.⁹⁰ With paper documents, monitoring compliance with these requirements and conditions is time-consuming and expensive. Electronic documents executed and maintained in accordance with agreed-upon standards will improve the quality and decrease the cost of compliance efforts.⁹¹

The final source of direct economic benefits will come from gains from a further “re-engineering” of the transactional process. On the one hand, electronic documents do not change anything. An electronic real estate transaction uses the same documents and the same parties as a paper transaction; it retains the substance and changes only the form: *plus ça change, plus ça même chose*. On the

for a set price. The shorter the time period between the formation of the delivery contract and the date of delivery, the lower the risk of interim interest rate changes and therefore the lower the interest rate in the delivery contract. The head of a company that prepares loan documents for lenders has said, “The biggest cost in our business is the cost of interest rate hedging (trying to guess what interest rates are going to be) and if we can eliminate that . . . our industry will change forever.” *Acceptance, Outlook and Hurdles*, THE E-SIGN PERSPECTIVE (October Research, Corp., The Legal Description, ed.), 2001, at 32 (on file with the Western New England Law Review).

89. If electronic documents are successfully implemented in all areas except recording (Scenario 3), and significant delays plague the recording process in some jurisdictions, it is likely that the market will provide a way to work around these delays. One technique would be to have title insurers provide, and the secondary market accept, a certificate of recording (issued on the date of actual recording) and then have the paper deed and mortgage converted into electronic documents and added to the electronic loan file at a later date.

90. See, e.g., Fannie Mae Guide and Freddie Mac Guide *supra* note 26. State and federal regulatory authorities also have extensive compliance programs.

91. Secondary markets should be able to realize these improvements in compliance even if recording offices do not accept electronic documents. In such a case (Scenario 3), the recorded documents will be executed and recorded on paper and converted to electronic documents for storage in the electronic loan file.

other hand, an electronic transaction offers greater and easier connectivity between the various participants, which may facilitate a system redesign (or tinkering) providing additional efficiencies and savings.⁹²

Who will reap the benefits of these cost savings? Those lenders that figure out how to originate electronic loans efficiently will certainly benefit. Additionally, in the very competitive residential lending market, it is likely that lenders will pass some of the savings on to borrowers, in the form of lower prices for loans executed with electronic documents.

In addition to the direct savings electronic documents will produce indirect economic, and direct social, benefits. Most notably, their use will result in enhanced accessibility and searchability of public land records. As Professor Whitman has demonstrated, the creation of full-text-searchable digital records accessible through the Internet will empower more people to search more capably, and from remote locations.⁹³ The availability of parcel identification numbers will permit more efficient parcel or tract searching in the public land records. While these search enhancements will not be fully realized for some time,⁹⁴ it is necessary to invest in and implement these technologies now in order to secure the benefits of the increased search capability in future years.

Another indirect economic benefit will come from the "cadastral power" generated by connecting the database of the electronic real estate records with other databases, such as tax records and GIS surveys.⁹⁵ Proponents believe that the synergies made possible

92. To the extent that this reengineering further simplifies and automates the closing process, most people will count the cost savings as a benefit; some people will regard the secondary effects (the further routinization and "deprofessionalization" of real estate closings) as a cost. See *infra* note 114 and accompanying text.

93. Whitman, *supra* note 15, at 264; Whitman, *supra* note 17, at 246.

94. The electronic search can search only the electronic records. Unless the existing photocopied or microfiche records are converted to electronic records, a title examiner will have to conduct a traditional search for the earlier years (often using an electronic grantor-grantee index) and an electronic search for the "electronic" years. Some jurisdictions are scanning existing documents and creating electronic files as "gif" images. While electronic documents, these "gif" files are not full-text searchable and therefore not as useful as the "pure" electronic document. See Bramante, *supra* note 8.

95. Cadastre is defined as "an official register of the quantity, value, and ownership of real estate used in apportioning taxes." WEBSTER'S THIRD NEW INT'L DICTIONARY 311 (1976). See *Concept for a Multipurpose Cadastre*, at <http://www.ncgia.ucsb.edu/giscc/units/u164/graphics/figure01.html> (illustrating cadastral interaction in a chart). See also NATIONAL RESEARCH COUNCIL, NEED FOR A MULTI-PURPOSE CADASTRE (National Academy Press, 1980); NATIONAL RESEARCH COUNCIL, PROCEDURES AND STANDARDS FOR A MULTIPURPOSE CADASTRE (1983). A good illustration of cadastral

by these connections will increase the frequency and value of the public and private uses of these troves of information.

Improvements in title law will provide another indirect economic benefit, one of interest at least to law professors and title examiners. It will be possible, simple, and convenient to conduct more extensive and elaborate title searches in electronic real estate records than in the existing records. For example, if there were an integrated statewide electronic records system, a title examiner could easily conduct a statewide search to determine whether the prospective new owner of Greenacre had previously granted and recorded, in another recording office in the state, a mortgage on Blackacre that contained an after-acquired property clause. The fact that electronic documents will be full-text-searchable and interconnected on a state-wide (as opposed to only a county- or city-wide) basis will make such a search easy and economical to perform. One would expect that, within a reasonable period of time, jurisdictions with electronic recording will revise their title standards to reflect the new capabilities of electronic searches. These new title standards would redefine the chain of title concept,⁹⁶ which would likely in turn influence the treatment of priority issues such as after-acquired property clauses.⁹⁷

In a summary of the advantages of electronic documents, Freddie Mac lists two other benefits: convenience and environmental friendliness.⁹⁸ Eliminating or significantly reducing the number of paper documents reduces the need for paper, obviously reducing the logging and processing necessary to produce that paper. The extent of the convenience depends on the nature of the electronic transaction. In one model, the all-electronic Internet mortgage loan, the consumer performs the entire transaction, from loan shopping and loan application to loan closing, over the Internet from the convenience and comfort of his or her own house. Provided that

work (again, without connection to public land records) is the State of Florida Land Boundary Information System (LABINS), at <http://www.labins.org/> (last visited Sept. 9, 2002).

96. RUFFORD G. PATTON & CARROLL G. PATTON, 1 PATTON ON LAND TITLES, §§ 69-70 (2d ed. Supp. 2001). Professor Joyce Palomer notes that the likely effect of electronic documents on title searches will be to hold "subsequent purchasers and mortgages . . . to at least inquiry notice" of the information that they could obtain through an electronic search. *Id.*

97. For a discussion of the current unsettled law of after-acquired property clauses, see Nelson & Whitman, *supra* note 49, § 9.3; RESTATEMENT (THIRD) OF PROPERTY: MORTGAGES § 7.5 (1997).

98. Freddie Mac & Electronic Mortgages, at http://www.freddie.mac.com/single_family/elm/.

the web sites are well-designed and working properly, this model can be very convenient for the consumer. However, the model favored by Fannie Mae and Freddie Mac, and therefore likely to be adopted in the short run, is a more traditional model: the electronic documents are executed by the borrower in person, at the closing office, and in the presence of a notary public.⁹⁹

B. *Costs*

The introduction of electronic documents will also have both direct and indirect economic costs. The direct costs will involve the purchase, installation, training on, and servicing of new or enhanced hardware and software.¹⁰⁰ While the equipment requirements are not onerous—modern office computers, appropriate software, a high-speed Internet connection, and for the central state facility and large-volume recording offices, adequate servers¹⁰¹—they require both initial capital outlays and ongoing operational expenses.

There has been little public information on, or discussion of, the costs of the transition to electronic documents. Thus, the following numbers, from three different public sources, are presented not as firm figures but rather as estimates designed to prompt further discussion and the production of better, more reliable data. An administrator in the State of Iowa has estimated the statewide capital costs of a statewide electronic recording system as \$5.7 million for a centralized system and \$62 million for a decentralized system.¹⁰² Given that Iowa has 100 recording offices,¹⁰³ this estimate is for capital cost amounts of \$57,000 to \$620,000 per recording office. One pilot county has stated that the cost of the software for its pilot program (which is similar to several other pilot programs) was \$75,000.¹⁰⁴ The Minnesota Project report,¹⁰⁵ citing an unnamed recorder whose county is equipped for electronic recording, listed the

99. See discussion *supra* Part I-A (explaining the incorporation of electronic features into the traditional office closing).

100. This discussion addresses only the direct economic costs of equipping public recording offices and does not discuss the comparable costs for lenders, closing agents and other private sector participants. The estimates are admittedly crude and are offered simply to focus attention on the topic and to stimulate additional, more detailed and informed cost estimates.

101. See Hofferber, *supra* note 9, at 3 (discussing equipment requirements); MINNESOTA TASK FORCE REPORT, *supra* note 87, at 5 (same).

102. Gaudio, *supra* note 16, at 292, n.64.

103. *Id.* at 293, n.63.

104. Tod Newcombe, *Signed, Sealed and Electronically Delivered*, GOV'T TECH., Oct. 2002, at <http://www.govtech.net/magazine/story.phtml?id=25337&issue=10:2002>.

105. See *supra* note 87 (discussing the purpose of the Minnesota Task Force).

cost at \$100,000.¹⁰⁶ For discussion purposes, this essay will take a middle course and estimate initial capital costs of \$80,000 per recording office.¹⁰⁷

Given their variety in size, recording activity, and preexisting computing equipment, the needs of the 3524 recording offices¹⁰⁸ will differ greatly. Nevertheless (oversimplifying greatly and crudely), assuming that each recording office required \$80,000 of equipment and services, the cost of a full-scale national build-out would be \$288 million. That sum is large but not overly forbidding. In jurisdictions that record at a county level, the \$80,000 per office figure yields a reasonable figure: \$1.68 million in Massachusetts (with twenty-one recording offices)¹⁰⁹ and \$4.96 million in New York (with sixty-two recording offices).¹¹⁰ For less populous states with many counties, the costs are higher: \$8.4 million in Kansas (with 105 recording offices); \$8 million in Iowa (with 100 recording offices); and \$8 million in North Carolina (with 100 recording offices).¹¹¹ And for Connecticut, Rhode Island, and Vermont—states that record on a town basis—the figures are higher still.¹¹²

As with the benefits, there will be indirect as well as direct economic costs. One indirect cost is the risk of different types of fraud and theft. While individual fraud may be less likely with electronic than with paper documents,¹¹³ the new electronic databases of offi-

106. MINNESOTA TASK FORCE REPORT, *supra* note 87, at 14.

107. This \$80,000 figure ignores the sharp price differential between centralized and decentralized systems and avoids speculating on whether costs will come down with increased volume and competition or will rise from what might be artificially low initial estimates.

108. *See supra* note 66 and accompanying text (3524 recording jurisdictions nationwide).

109. Massachusetts has fourteen counties and twenty-one recording offices. NACRC, Land/Property Records Interest Group, *Basic Recording Facts*, at <http://www.nacrc.org/interestgroups/LandPropRecordsAdmin/reports/basicRecordingFacts.htm> (compiled by Carl R. Ernst, Ernst Publishing Co. LLC) (last visited Dec. 19, 2002).

110. New York has sixty-two counties and recording offices. *Id.*

111. *Id.*

112. *Id.* In Connecticut, with 169 cities and towns serving as recording offices, the amount would be \$13.5 million. In Vermont, with 246 cities and towns, the amount would be an astounding \$19,680,000, surely the most expensive recording system in history. In Rhode Island, the comparable figures are thirty-nine cities and towns and \$3.12 million. In states with many recording jurisdictions containing small populations and a corresponding low recording volume, these cost pressures are likely either to delay the introduction of electronic recording (until the costs have significantly declined) or to prompt the reorganization of the recording function.

113. *See Whitman, supra* note 15, at 258-59 (discussing UETA standards for automated error-checking of electronic documents). *But see* Derek Witte, Comment, *Avoiding The Un-Real Estate Deal: Has the Uniform Electronic Transactions Act Gone*

cial real estate records will create an attractive new target for sophisticated cyber-criminals and will require additional security to prevent attacks.¹¹⁴ There are trade-offs in system design between security on the one hand and efficiency, ease of use, and cost on the other. For example, designing the electronic recording gateways so that they automatically accept documents with data entered in all required fields (and require no human review or approval) produces the most efficient and least costly system, but also means that the gatekeeping role (albeit minimal) of recorders will be lost. Another example is the role of notary publics and notarization. Relying on the enhanced security afforded by digital signatures, some models of electronic real estate transactions would eliminate the notarization requirement for electronic real estate documents. Decision-makers will need to compare the risks of eliminating notaries with the cost savings and efficiencies.¹¹⁵

Privacy is another concern, one to which the Technology Committee co-chair of the Property Records Industry Joint Task Force has recently pledged "top priority."¹¹⁶ Under most models, electronic documents will be available online and readily searchable. From one perspective, this enhanced public access will be a significant advance. However, making personal information more easily available also raises privacy concerns, caused in large part by the practice of many closing agents of putting the social security numbers of the property owners on the recorded deeds and mort-

Too Far?, 35 J. MARSHALL L.R. 311, 318-19 (2002) (favoring the traditional real estate transaction to a paperless transaction, based on its ability to prevent fraud).

114. For a discussion of security issues, see ATT'Y GEN.'S TASK FORCE ON ELECTRONIC RECORDATION, REP. TO THE LEG. ON ELECTRONIC RECORDATION (1999) [hereinafter CALIFORNIA TASK FORCE REPORT] (on file with the Western New England Law Review). The June 30, 1999, report of the California task force drew special attention to security issues. In a separate statement by a task force member, San Diego Deputy District Attorney Jeffrey Broderick, emphasized "the many perils and plagues of electronic recordation. Viruses, ineptitude, greed: the plagues of electronic recordation are many: cyber terrorism, organized crime, crafty rogue swindlers. . . . a criminal with power tools, if you will, with his foot to the floor, computerized, zipping through cyber space." *Id.* at vii-viii.

115. Each state will decide whether to retain or abandon the traditional notarization requirement. The president of the National Notary Association has called the threatened elimination of the requirement "an emerging crisis." Press Release, National Notary Association, New "Emerging Crisis" Will Increase Document Fraud, National Notary Association President Warns (July 20, 2000), at <http://www.nationalnotary.org/news/TaskForce%20Newsrsls.html>.

116. *Computer Security Has Become Top Priority For Task Force Members*, FOR THE RECORD (Prop. Records Indus. Joint Task Force), May/June 2002, at 2, <http://www.faxxon.cifnet.com/taskforce/newsletters/2002mayjun.pdf>.

gages.¹¹⁷ While this public posting of social security numbers is not a new problem, the greater searchability of electronic records significantly increases the risks of misuse. There is also increasing concern about unrestricted electronic access to certain information, particularly about the property owned by police officers and, at times, victims of violent crimes, especially domestic violence.¹¹⁸

The use of electronic documents will have an impact on several long-time participants in residential real estate transactions, such as lawyers, private title plants, and recording officials, among others. These impacts will be viewed as efficiency gains by some and social and economic costs by others. Electronic recording will continue and advance the rationalization and the routinization of real estate closings. The electronic transaction, with its premium on speed and uniformity, will put added pressure on the closing process and make the closing agent even more of a cog in an electronic machine. For lawyers who still handle residential closings, this additional automation is a further “deprofessionalization” of the closing process and, to some, looks like yet another effort by lenders and title insurers to drive lawyers out of the residential conveyancing business. On the other hand, other lawyers and entities, including Connecticut Attorneys Title Insurance Corporation, the lawyer-owned title insurance company operating in New England, believe that new and affordable office technology makes it possible for even small offices to succeed in an increasingly competitive environment—if those lawyers remain technologically up-to-date.¹¹⁹

The most useful, and therefore the most valuable, real estate title records at the present time are not the public land records but the tract-based, private title plants developed and maintained by title insurance companies. Once public electronic land records have been operational for the search period required by the applicable title standard, they will function as a public title plant. This will

117. *Making Personal Information Public Under Scrutiny*, FOR THE RECORD (Prop. Records Indus. Joint Task Force), Mar./Apr. 2002, at 1, <http://www.faxxon.cifnet.com/taskforce/newsletters/2002marapr.pdf>.

118. These privacy concerns are not limited to electronic land records. See Jennifer Lee, *Dirty Laundry, Online for All to See*, N.Y. TIMES, Sept. 5, 2002, at G1 (reporting that court records and other documents are increasingly available on the Internet).

119. Telephone Interview with Michael Agen, Manager and Title Counsel, Western Massachusetts Branch, Connecticut Attorneys Title Insurance Co., Springfield, Mass. (Mar. 21, 2002). *But see* Palomer, 31 CONN. L. REV. 423, *supra* note 52, at 440 (1999) (questioning “whether lawyers in private practice will be willing or able to make investments in technology and in learning time to keep up”).

permit any trained title examiner to perform tract-based and grantor-grantee title searches. While not reducing the value of the private title plants for the “back titles” that predate electronic records, full-text searchable electronic land records will eliminate for future titles this particular competitive advantage currently enjoyed by title insurance companies.

A final indirect impact concerns recording offices and officials. Although the precise contours will be defined and debated differently in different jurisdictions,¹²⁰ the implementation of electronic recording will almost certainly entail some centralization and the transfer of some control from local and county recorders to state agencies. A state agency would then establish uniform state standards and oversee systemic technology issues.¹²¹ As Professor Whitman elaborates, the state-by-state resolution of this issue will be difficult and important.¹²²

C. *The Assessment and Balancing of Costs and Benefits*

The process of assessing and balancing the costs and benefits of electronic documents differs in the private and public sectors. The many actors in the private sector regularly make these assessments when they make private business decisions, such as whether to invest in electronic commerce technology and whether to offer and market electronic products. While there has been considerable discussion of electronic mortgages in the trade press and conferences,¹²³ there has been little investment or product activity. Technology investment by the mortgage industry has been flat or declining,¹²⁴ several electronic-only lenders such as Mortgage.com

120. Whitman, *supra* note 15, at 269-70.

121. Even the California Task Force Report and the Texas electronic filing statute, both of which make county participation in electronic recording optional and voluntary for each county, endorse oversight by some statewide authority. CALIFORNIA TASK FORCE REPORT, *supra* note 114, at 6 (recommending that the California Attorney General be the regulatory authority for electronic recording); TEX. LOC. GOV'T CODE ANN. § 191.009 (Vernon 2002) (stating that county clerks may accept electronic filing if it complies with the rules adopted by the Texas State Library and Archives Commission).

122. Whitman, *supra* note 15, at 269-70.

123. See, e.g., Jeff Lebowitz, *How New Technology Elbows Out the Incumbents*, MORTGAGE BANKING, Mar. 2002, at 42; Davis & Davis, *supra* note 21, at 94. See also conferences, activities, and discussions sponsored by the Mortgage Bankers Association at www.mbaa.org, and the American Bankers Association at www.ambankers.org.

124. Jeff Lebowitz, MORTECH, LLC, *Technology Adoption in the Mortgage Industry*, at <http://www.mbaa.org/present/2002/lebowitz0313.pdf> (describing mortgage industry as “slow to adopt new technology”).

have gone bankrupt or merged;¹²⁵ the major lenders do not yet appear to be offering electronic loans.¹²⁶ While the cost-benefit balancing of the private sector actors is likely to change, and investment and product activity to accelerate now that industry standards are emerging and Fannie Mae has formally announced its willingness to purchase electronic loans,¹²⁷ the process point is the same: the private sector makes decisions with its pocketbook.

The public sector makes its decisions with actual votes and public decisions of elected officials (or those exercising powers delegated by elected officials), acting through public processes after public discussion. The decision to use public funds to support electronic documents is quintessentially political, not technical or mathematical. Currently, the assessment and balancing is ultimately made through a formal governance process involving the legislative and executive branches of state governments. A more inclusive process, involving a broad array of groups and interests, including lenders, consumers, lawyers and other closing agents, title insurance companies, and recording officials, would enhance and inform the formal process. The best model for this more inclusive process is an electronic recording task force.

III. A RECOMMENDED DECISIONAL PROCESS: STATE TASK FORCES

A successful transition to electronic real estate documents will require the cooperation and support of both the private sector and public sector at the national, state, and local levels. The interests and perspectives of the individual members of such a large and diverse group of participants are different and sometimes conflicting. The best (and perhaps only) way to obtain widespread cooperation and support is to develop processes that bring the participants together to discuss problems, develop solutions, and build support for the funding and legislative changes necessary to implement these

125. Carrie A. O'Brien, *supra* note 62, at 534 ("Of the forty online mortgage companies in business a year ago, about half are bankrupt or slowly headed in that direction."); Lebowitz, *supra* note 123, at 44 (describing that one year after launching their businesses, "three technology innovators . . . were in the process of corporate retrenchment or dissolving their operations").

126. No electronic loan products were offered on the Web sites of Countrywide (<http://www.countrywide.com/>), GE Capital Real Estate (<http://www.gecapitalrealestate.com/>), Wells Fargo (http://www.wellsfargo.com/home_center/), Bank of America (<http://www.bankofamerica.com/>), or CitiMortgage (<http://www.citimortgage.com/>) (each last visited Oct. 2, 2002).

127. Announcement 02-08, *supra* note 32.

solutions. Ad hoc task forces can provide a useful forum for such discussion and actions. National task forces, under way for several years, are beginning to produce positive results. Several task forces are operating at the state level, and more state task forces are needed.

There are several examples of effective national groups. One multi-member organization, Mortgage Industry Standards Maintenance Organization (MISMO),¹²⁸ has been instrumental in developing uniform technology standards for the real estate industry.¹²⁹ Co-sponsored by the two organizations that represent recording officials, the National Association of County Recorders and Clerks (NACRC) and the International Association of Clerks, Recorders, Election Officials and Treasurers (IACREOT), the Property Records Industry Joint Task Force (PRIJTF) has hosted numerous discussions of electronic recording with recording officials and has issued several reports.¹³⁰ A group called Legal XML is developing XML (extensible machine language) standards for legal and government applications.¹³¹ The National Conference of Commissioners on Uniform State Laws has recently authorized the drafting of a uniform act on the recording of electronic documents and has formed a broad-based study committee to assist the drafting.¹³²

While this national activity is necessary and productive, the crucial public decisions in the next several years will be made at the state level. States will decide whether and in what amount to pro-

128. www.mismo.org.

129. One of the most important documentation of standards of e-mortgages is MISMO eMortgage Workgroup, *eMortgage Guidelines and Recommendations*, at www.mismo.org/mismo/docs/drftspc/draft/EM_WG_eMortgageGuidelinesRecommendations_V1_Draft_RC2.pdf (Feb. 25, 2002).

130. The Property Records Industry Joint Task Force, now the Property Records Industry Association (PRIA), also has private sector members, including Fannie Mae, the American Land Title Association (ALTA), Stewart Title/Landata and other title insurance companies and a number of technology vendors. MISMO Conference, at <ftp://taskforce.cifnet.com/xmldocuments/WG%20Presentations/PRIJTF-MISMO.ppt>. See generally NACRC Web site, at www.nacrc.org/startingpt.html (last modified July 27, 2002); IACREOT Web site, at www.iacreot.com (last visited Sept. 9, 2002); and PRIA Web site, at www.faxxon.cifnet.com/taskforce/ (last updated Sept. 6, 2002).

131. Legal XML Web site, at www.legalxml.org/ (last visited Oct. 2, 2002).

132. Press Release, Uniform Law Commissioners, New Drafting and Study Committees to be Appointed (Aug. 23, 2002), at http://www.nccusl.org/nccusl/pressreleases/pr_082302_new_comm.asp (announcing the NCCUSL's approval of an Electronic Recording Act drafting committee at its annual meeting held July 26 through August 2, 2002). At that same meeting, the Executive Committee of the NCCUSL approved a drafting committee on a Uniform Certificate of Title Act. This Act will address the titling of motor vehicles and watercraft, and the drafting committee was also charged with examining electronic recordkeeping. *Id.*

vide funding for electronic recording, and whether to authorize a new or increased recording fee as a dedicated funding source for the electronic recording efforts. A request for new funding will compete with other proposals, and strong and unified support from a diverse group of interested parties will increase the likelihood of success. States will also consider whether to enact new legislation for electronic recording. In the course of reviewing any proposed law, state legislatures will consider the general architecture of an electronic recording system, including issues of centralization versus decentralization; whether to require notarization; ways of protecting security, privacy, and consumer choice; and the impact of electronic documents on other legal doctrines.¹³³ State task forces can help to inform and to influence those decisions and to develop strategies and coalitions to support the decisions that are made.

As the debate develops state-by-state, many groups and individuals, among them recording officials, abstractors, closing agents and attorneys, lenders large and small, title insurance companies, and state technology officials, will offer their views on both general and specific electronic recording issues. The separate and unstructured presentation of these disparate views may well result in discord and deadlock, not cooperation and support. An electronic recording task force with participation of all interested groups can provide an effective alternative to unstructured lobbying by separate groups.

At least a dozen states have established electronic recording task forces.¹³⁴ While organized somewhat differently,¹³⁵ each task

133. One issue is the chain of title standard and the after-acquired property doctrine. *See supra* notes 96-97 and accompanying text. Another issue might be the interface with foreclosure law, which in many judicial foreclosure states requires the production of the original note at the time of the filing of the foreclosure complaint.

134. According to Carmelo D. Bramante, Director of E-Mortgage for Fannie Mae, there are task forces operating in California, Colorado, Florida, Iowa, Michigan, Minnesota, South Dakota, Texas, Utah (Salt Lake County), Vermont, and Washington. Bramante, *supra* note 8. There is an advisory committee in Racine County, Wisconsin. Register of Deeds, Racine County, Wisc., *Electronic Recording*, at <http://www.racineco.com/registerofdeeds/erac.htm> (last visited Oct. 3, 2002). A task force in Virginia produced a report that contains some discussion of electronic recording issues but was focused more broadly. JOINT LEGIS. AUDIT & REV. COMM'N OF THE VA. GEN. ASSEMB., THE FEASIBILITY OF MODERNIZING LAND RECORDS IN VIRGINIA, Va. S. DOC. No. 20, (1997), <http://jlarc.state.va.us/Reports/Rpt198.pdf> (last visited Sept. 9, 2002). The Washington State Electronic Task Force reports that Arizona, Missouri, and Georgia also have statutes or task forces relating to electronic recording, digital signatures, or electronic commerce. Washington State Electronic Task Force Web site, at <http://www.co.snohomish.wa.us/taskforce/> (last visited Dec. 3, 2002). Connecticut has a Law Revision Commission project dedicated to Electronic Recording of Land Records.

force is charged with investigating electronic recording and recommending the steps necessary to produce a workable electronic recording system. Each task force has broad participation, typically including several county recorders, representatives from the banking industry, the mortgage banking industry, realtors, title insurance companies, closing agents, the state bar association, the Attorney General's office, the Information Technology office, often the Secretary of State's office, a state tax office, and Fannie Mae.

While still in the midst of their work, it is clear that the task forces will generate increased attention to electronic documents at the state level, in part by bringing the latest national information to the various state constituencies. They will also study and make recommendations on a number of critical issues, including costs and funding, the need for new legislation (and, if needed, its scope and content), and the choice between an integrated statewide system and voluntary, decentralized systems.¹³⁶ The work of the task

Connecticut Law Revision Commission Projects Web site, at <http://www.cga.state.ct.us/lrc/Projects.htm> (last visited Dec. 4, 2002).

135. The Connecticut project operates as a committee of the Connecticut Law Revision Commission. The California, Minnesota, and Texas task forces are statutory. CAL. GOV. CODE § 27279.4 (West 2002) (establishing an Electronic Recordation Task Force); 2000 Minn. Laws 291 (establishing a task force to study and make recommendations for electronic filing and recording system); TEX. LOC. GOV'T CODE ANN. § 195.008 (Vernon 2002) (establishing Electronic Recording Advisory Committee). The California task force operated under the auspices of, and was chaired by, the Attorney General, CALIFORNIA TASK FORCE REPORT, *supra* note 114, at 4-5, while the Minnesota Task Force has an independent legal identity, its own budget and staff and its own chair. Washington's task force is an ad hoc group that is supported by the Washington State Association of County Auditors and the Washington Association of County Officials, Washington State Electronic Task Force Web site, *supra* note 134.

According to Dean Arthur Gaudio, in Iowa, the State Bar Association attempted to establish a task force including county recorders, abstractors, and a variety of other groups and individuals. That effort failed when many invited parties did not attend the scheduled meetings or participate in the drafting and discussion sessions. Accordingly, the Bar Association proposed the Iowa Electronic Recording System [IERS] bill that was supported only by the Bar Association. Although a gubernatorial and legislative decision not to pass any legislation that required new funding was the primary reason that the proposed bill was not enacted, opposition from groups who refused to participate in the earlier discussion contributed to the bill's difficulties and has led to subsequent redrafting. Interview with Dean Arthur Gaudio, reporter for the Iowa State Bar Association, in Springfield, Mass. (Feb. 12, 2002) (concerning the IERS bill). *See also* Gaudio, *supra* note 16, at 291 (discussing, in depth, the IERS bill, and providing a copy of the legislation).

136. The first task force report, issued on June 30, 1999, by the California Task Force, did not publicly discuss many of these issues, probably because it did its work in 1998 and 1999, well before most of the recent advances in electronic document thinking and practices. CALIFORNIA TASK FORCE REPORT, *supra* note 114. Since that time, the Federal E-SIGN statute has been enacted (along with over thirty-five additional state

forces will produce better information about costs. A Minnesota Task Force consultant has drafted a detailed set of work specifications that include extensive information about costs,¹³⁷ and the Connecticut Law Revision Commission identified costs as a priority item for investigation and discussion.¹³⁸ Minnesota and Connecticut plan to engage and to develop each state's respective resolution of the many centralization/decentralization issues.¹³⁹ One subcommittee of the Washington State Task Force has developed standards for collecting and allocating the excise tax electronically; another subcommittee has determined that, given that Washington already has both an electronic recording and an electronic signature statute,¹⁴⁰ new state legislation is not needed.¹⁴¹

UETA adoptions), 15 U.S.C. § 7006(4) (2000); a variety of groups have proposed model standards; and there have been additional pilot programs and significantly more discussion of problems and issues. For a description of pilot projects in several jurisdictions, see *supra* notes 8 and 9 and accompanying text. While the California Task Force noted in its report that the Orange County, California pilot project was successful in achieving "decreased costs of doing business, decreased document processing times and expedited public access to records," CALIFORNIA TASK FORCE REPORT, *supra* note 114, at 4, and generally supported the further development of electronic recording, albeit cautiously, "with appropriate regard for consumer and business efficiency and for the security of the systems used to maintain official records," *id.* at 7, the California Task Force avoided several critical issues. Their report contained no discussion of, and made no findings concerning, the costs of implementing a system either on a statewide or county-wide level. Nor did it make a recommendation, for or against, additional state funding for the establishment of electronic recording systems. It did recommend against any change in recording fees. See *generally id.* Also, again without providing any reasons, the Task Force stated that electronic recording in California should occur only on a voluntary basis, if and when each county recorder individually decides to participate, and not as part of a statewide plan. *Id.* at 6. Regardless of their final views, future task force reports are likely to be more complete and are unlikely to neglect the discussion of such important issues as costs and statewide versus local systems.

137. ELECTRONIC REAL ESTATE RECORDING TASK FORCE, WORKPLAN REPORT TO THE MINNESOTA LEGISLATURE (Jan. 15, 2001) [hereinafter MINNESOTA WORKPLAN] (on file with the Western New England Law Review).

138. Memorandum from the Connecticut Law Revision Commission, to the Members of the Electronic Recording of Land Records Study Committee 6 (May 6, 2002) (on file with the Western New England Law Review).

139. Interview with Bert Black, counsel to the Minnesota Task Force, in Springfield, Mass. (Oct. 26, 2001); Telephone Interview with Jo Roberts, Senior Attorney, Connecticut Law Revision Commission (Apr. 18, 2002). The California Task Force recommended an optional, voluntary model. See *supra* note 121 and accompanying text. The Texas electronic recording statute also sets forth an optional approach. TEX. LOC. GOV'T CODE ANN. § 191.009(a) (Vernon 2002) (stating that "[a] county clerk may accept instruments by electronic filing").

140. The electronic recording statute is WASH. REV. CODE § 65.04.030 (2002); the digital signature statute is WASH. REV. CODE § 19.34.030 (2002).

141. Telephone interview with Carolyn Ableman, Chief Deputy Auditor, Snohomish County, Wash. (Sept. 3, 2002).

The Minnesota Task Force has also begun to examine sources of revenue to pay for a new electronic recording system. In particular, it is exploring several alternatives: an annual appropriation; bonding; and/or authorization of a new or increased recording fee dedicated to electronic recording, which could be imposed on all recorded documents (or only on electronic documents).¹⁴² The task force is also contemplating a differential fee, one for paper and another for electronic documents. Since paper documents require more staff time, imaging and binding materials, and storage space, the fee for recording paper documents might be higher. On the other hand, since electronic documents require special capital outlays, perhaps the electronic fee should be higher.¹⁴³ Based on the findings of the Snohomish County, Washington pilot, the task forces should consult with users such as title companies and closing agents about their likely reaction to fees, especially if imposed only on electronic documents.¹⁴⁴

The state task forces will continue to address many security and privacy issues. Discussions with and presentations to the task forces can help to clarify the choices in both system design and implementation and the security issues raised by each choice. Task force deliberations and findings can both improve security and, through discussion in public forums and other methods of publicity, can address and dispel security fears that are unfounded and hyperbolic. With respect to the particular concern about the public posting of private information such as social security numbers and military records, task forces can help to educate closing agents and lenders about the harm of putting such information on recorded documents. If the problems continue, they can develop document formatting standards that will, for example, reject a social security number data field and can also press for restrictive legislation.¹⁴⁵

142. MINNESOTA TASK FORCE REPORT, *supra* note 87, at 10-16; MINNESOTA WORKPLAN, *supra* note 137, at 30.

143. MINNESOTA TASK FORCE REPORT, *supra* note 87, at 15-16. A Texas statute forbids charging a higher fee for an electronic document. TEX. LOC. GOV'T CODE § 195.006. The sense of the Washington Task Force is that allocations from the special recording fee will be sufficient to pay for their electronic systems. Telephone interview with Carolyn Ableman, Chief Deputy Auditor, Snohomish County, Wash. (Sept. 3, 2002).

144. Hofferber, *supra* note 9, at 6-7 (noting that title companies in the project indicated they would be willing to pay a fee for the ability to record "time-critical" mortgage documents, but not a transaction fee or a digital signature fee).

145. There are several bills in Congress to limit access to social security numbers and the General Accounting Office is interested in discussing the issue. Mark A.

Task forces will also address the privacy issues involved with access to electronic public records.

Task forces can decide on the number, type, and scope of electronic recording pilot projects. In addition to selecting both large and small counties for pilots, task forces should consider one or more pilots devoted only to non-consumer transactions, as described in Scenario 3¹⁴⁶ and as implemented in the California and Washington pilots. Given the limited volume of electronic consumer transactions likely in the next several years, increasing the volume and improving the effectiveness of Scenario 3 transactions seems more promising.

Overall, in addition to studying and making recommendations on a range of specific issues, state task forces can play an important educational role, informing public officials and consumers about the advantages of electronic documents and building support for standards and expectations. As electronic lending begins to accelerate, the “noise” from lenders seeking to promote their products and, perhaps, from consumer groups or politicians opposed to some aspects of those electronic products is likely to intensify. Task forces can help consumers and officials to filter that noise and to make intelligent choices. Through these educational efforts, as well as their recommendations on specific issues, well-organized task forces are likely to play a useful role.

This essay began with a prediction: that electronic real estate documents will soon begin to replace paper documents in many, if not all, phases of residential real estate transactions. It has described the costs and benefits of electronic documents, and the many forces supporting and impeding their widespread adoption. It now concludes by urging all those participating in the process to use their best efforts to address the obstacles and to work towards a successful transition to a world of electronic real estate transactions and electronic recording.

Monacelli & Carolyn Ableman, *Land Records Interest Group*, NACRC BULLETIN, (Spring 2002), at 11, <http://www.nacrc.org/newsletters/spring2002.pdf>.

146. See *supra* Part I-E (showing that Scenario 3 is weak public commitment but strong consumer acceptance to electronic recording).