Cornell Law Faculty Working Papers   Faculty Scholarship

10-23-1998

Contents of Legal Information on the Internet: U.S. Perspectives

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ContentsofLegalInformationontheInternet: U.S.Perspectives
- ClaireM.Germain -

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Keywords: Internet;leg aldata;legalresearch;WorldWideWeb; UnitedStates;accesstodigitallegalinformation;longterm archiving.

Summary: Thisarticleexaminesthecontentsoflegaldataand informationontheInternet,withaspecialfocusontheUnitedStates. Itthe nevaluatesthequalityofthedata,itsimpactonlegalresearch andaccesstolegalinformation,andaddressessomeissuesraisedby thedigitalmedium,suchasitsreliabilityandpermanentaccess concerns.

Mots-Clés: Internet;basesdedonnéesjuridi ques;WorldWideWeb; rechercheendroit;Etats -Unis;accèsàl'informationjuridique numérique;archivageàlongterme.

Résumé: Cetarticleseproposed'examinerlecontenudesdonnées juridiquesetdel'informationsurInternet,spécialementauxEtats - Unis.Ilévalueensuitelaqualitédesdonnées,leurimpactsurla rechercheendroitetl'accèsàl'informationjuridiqueetabordeles questionssoulevéesparlemédiumnumérique,commecelledesa fiabilitéetdel'accèspermanent.

IntheUnitedStat estoday,digitalversionsofcurrentdecisions,bills, statutes,andregulationsissuedbyfederalandstategovernmentsarewidely

availableonpubliclyaccessibleWebsites.Worldwide,official(definedas
"authoritative,"or"theofficial"wordofthe   law)legalinformationissuedby
internationalorganizationsandforeigngovernmentsisalsobecoming
availableontheWeb.However,therearecurrentlynostandardsforthe
productionandauthenticationofdigitaldocuments.Moreover,the
informationiss ometimesavailableonlyforashorttimeandthendisappears
fromthesite.Noguidelinesexisteithertopromoteauniformwaytociteto
digitallegalmaterials.

Thisarticleexaminesthecontentsoflegaldataandinformationonthe
Internet,withas pecialfocusontheUnitedStates.Itthenevaluatesthe
qualityofthedata,itsimpactonlegalresearchandaccesstolegal
information,andaddressessomeissuesraisedbythedigitalmedium,suchas
itsreliabilityandpermanentaccessconcerns.

I.ContentsofLegalDataandInformationontheInternet

MuchlegalinformationiscurrentlyavailableovertheInternet,bothinthe
formofrawdataandediteddata,fromgovernmentalandprivatesources,
nonprofitandcommercial,anddirectedtoward   thepublicandlegal
professionals.IntheUnitedStates,mostgovernmentinformationis
availablefreeofcharge,fromofficialwebsites,aswellasfromanumberof
non-profitorganizationsanduniversities.Sometimes,theinformationis
presentedasra wdata,butoften,itisenhanced,withsearchengines,some
formofindexing,etc.Itisthereforehardtocontrastrawdataandedited
data.Itisstilltrue,nevertheless,thatwhenitreallymatters,legaldata
comingfromcommercialpublishersandacc essibleforafeeareusually
morereliableandfavoredbylegalprofessionals.Mostofthatdigital
informationprovidesonlyarightofaccess,andnoownership,orcontrol
overthedata,unlessitisdownloadedonaserver,orstoredonaCD   -ROM.
Thisi samatterofconcernwithregardtolongtermaccesstodigitallegal
information.

A.LegalDataProviders

1.FederalandStateOfficial/Quasi   -OfficialLegalInformation

a.FederalandStateGovernmentalSites

IntheUnitedStates,becau seoftheAmericanprinciplethatcitizensshould
havefreeaccesstogovernmentinformation,mostfederalandstate
publicationsareinthepublicdomain,withoutbeingsubjecttocopyright,
andmanyofficialtextsanddocumentsarenowavailableontheI   nternet.A
studyoftheavailabilitywasconductedin1996forthefirstADIJ
conference[1].Since1996,thegovernmentsiteshavegreatlyexpanded.

Today, most current U.S. legislative, regulatory, and case law texts are available from federal and state government websites, and steadily expanding.[2] They are free, although some other government information is available only for a fee, e.g., Stat   -USA, which contains statistical information. http://www.stat-usa.gov

b. Universities and Non Profit Organizations

The governmental websites are completed by university (many of the federal court of appeals decisions) and other private or   public non- profit web sites, as well as commercial ones. They are, in general, reliable sites, currently accessible free of charge. Activities from bar associations are growing, both the ABA and state bar association, and some have started including full t exeditions of newsletters and other documents. The trend continues to put law journals and law reviews online. The trade off is to get increased exposure and be read worldwide, at the risk of losing possible royalties. Many law school websites offer the   tables of contents of law review articles, which can then be requested for a fee.   [3]

Universities took the initiative to make federal court decisions available over the Internet several years ago. For a while, federal appe   llate court decisions were only available thanks to university websites. Now, five fed courts of appeals have their own websites, the fifth (took the job over from the Univ. of Texas), Ninth, Tenth, D.C., and Armed Forces circuits. The others are still served by law schools. Today, there are about 35 US district court websites, 30 bankruptcy court sites. Most states today have a website and distribute their bills, statutes, court decisions and regulations over the Internet.

Non profit organizations so   metimes take the official text, and improve upon it by providing a useful search engine, and linking to other sources, e.g., at Cornell, the Legal Information Institute collaborates with the U.S. Supreme Court for the delivery of U.S. Supreme Court decisio   ns, and has improved the indexing and delivery of the official U.S.   Code version provided by the U.S. government .[4]

Information specialists and other legal re   searchers use the Internet more and more to get documents from various organizations, such as the   ABA (American Bar Association) [5] and the   ALI (American Law Institute)   .[6] A few years ago, sites contained mainly addresses and directory type information. Now full text articles and documents are widely available, and much experimenting is being conducted.

The Australian Legal Information Institute presents a model of a non profit organization, created expressly for the purpose of facilitating free access to Australian primary legal materials.   [7] AustLII has been most successful in obtaining free public access to data from government and court sources that

oftenpreviouslycouldnotorwouldnotprovidethedata.

2.CommercialDatabases

TheInternethaslevelledtheplayingfield,buttheinform   ationavailableon
thecommercialdatabasesisstillmoretrustworthy.Manymorecommercial
siteshaveblossomed,withmuchvaluableinformation.Somearefree,and
serveasgatewaysitestoentireareasofthelaw,thoughlinkstoavarietyof
websites(e.g., [HierosGamos](#) ,[8] [Findlaw](#),[9]etc.).Theyrelyonadvertisingto
covertheircosts.Somearefee   -based.

a.LEXISandWESTLAW

LEXISandWESTLAWaregettingstronger,benefittingfromincreased
mergersandconsolidationinthe   [legalpublishingindustry](#) .[10]Theyoffera
greaterdegreeoftrust,andarestillthetoolofchoiceoflegalprofessionals
whocanaffordthehighrates.Theyofferspecialratesforsmallerl   awfirms.
However,legalprofessionalsonlygetarightofaccesstothedata,andno
ownershipofthelegalinformation.U.S.lawschoolsbenefitfromacademic
subscriptions,toencouragethenewgraduatestousetheservicesat
commercialratesupongrad   uation.Someofthematerialsarenotpartofthe
subscription.

b.LoisandVersuslaw

[Lois](#)[11]and [Versuslaw](#)[12]offerlowerpricedalternativestothetwogiants,
LEXISandWESTLAW.Thesetwonewentrantshavecommercializedthe
informationprovidedfreethroughtheInternetandaremakingitinto
attractivepackagesgeare   dtowardlegalprofessionals.Theyarelower   -priced
thanLEXISandWESTLAW,andofferclaimsofgreatreliability,including
ownershipofCD -ROMwiththetextofthedocuments.Theyaresmaller
databases,limitedtoprimarylegalinformation.

B.Eval uationofLegalData

1.QualityofData

a.Internet/Commercial/Print

Whenitreallymatters,thereisstillagreatdegreeofrelianceonthe
"official"wordofthelaw.Seriouspeoplestillgobackto"official"
documents,andprintpublicatio   ns.Student -editedlawreviewsprevalentin
lawschoolsarestillundertheobligationtocitetotheoriginalprintsource
whentheydocitecheckingofsources.Forinstance,theyfinditonlexis,but
havetoverifythesourcebyexaminingtheactualpr   intsource.Courtshave
beenslowertomakethetransitiontorelianceontheelectronictext.For

somepurposes,thelegibilityoftheelectronictextstillleavestobedesired, e.g.,LEXISstillhasfootnotesoflawreviewarticlesinthemiddleofth e text.BecauseofthelackofregulationoftheInternet,manypeopleare experimenting.BecauseoftheinterconnectivityoftheInternet,readerswrite totheWebsitetoexplainifsomethingiswrong.

Thecontentsoflegaldataareimprovedbytheuse ofareader,suchas Adobe,sothattheresultisbetterthantherawtext,becausethedocument looksliketheprintproduct.Thisgivesabetterguaranteeofauthenticity,and isalsoconvenient,andestheticallypleasing.ThePDF(PortableDocument Format)AdobeAcrobatformatisnowthestandardforfederalgovernment publications,eventhoughitiscriticizedbysomebecauseofitsproprietary nature.Itreproducesthephysicalappearanceofapagemuchbetterthan technologiessuchasHTML.

b.Impa ctofLegalInformationontheInternetonLegal Research/AccesstoLegalInformation

Somesolidresearchskillsarelostwiththetransitiontothedigitalformat.In theprintworld,therewasadistinctseriesofpaperpublications,with correctionsi n-between.Intheelectronicworld,casesarenotsystematically updatedorcorrectedaftertheyareputonline.isthecitizenbetterserved? Also,therearesomelimitationstogettingtheplaintextofthelaw.How muchcanoneunderstandthelawbyloo kingatatext?Ifnocontextis provided,itmaybehardertounderstandtheissues,theprocedure,etc., whichareprovidedinacommercialsystemsuchasWest,withheadnotes, annotations,etc.?Thegreatestdangerisfornonprofessionalswhogetthe letterofthelaw,butnotthecontext.

Thedigitalmediumhasopenedupnewfieldsoflegalresearch,e.g., empiricalstudies.Youcantakestatisticaldataandmanipulatethem,tostudy socialindicators,andthelike,e.g.,studiesonjuryverdictscon ductedby ProfessorsTedEisenbergandKevinClermontatCornellLawSchoolon their [federalstatisticalwebsite](#).[13]

b.ImpactonLegal Research

TherelianceonInternetsearchenginesleadstothelossofalotof sophisticatedindexingtools,suchassubjectanddigestkeywordindexing, theelaboratesystemcreatedbyWestsincetheendofthe19thcentury. [14]The Internetmakeslegalinformationmuchmoreaccessibletothepublic.But,it isnotclearthatthegreateraccessibilitymakesthelawmoreunderstandable, becauseitmaylackacontext.Peoplecanmisinterpretthetextofthelaw, unlessthere aredisclaimers.Itmayalsoputagreaterburdenonlegal professiontoexplainthelaw.

2. Access to Legal Information

a. Search Engines

A great deal of progress in finding legal information on the Web comes from the increased sophistication of search engines. Search engines are essentially of two kinds, human-mediated "intellectual" indexes and "robot" or automated indexes. [15] In the intellectual indexes, individual websites are classified by hand according to various classificatory schemes, such as the popular Yahoo!,[16] albeit not law-specific. "Robot" or automated indexes use programs that download every page of the web, so that every word on every page can be indexed by a remotely located search engine, e.g., AltaVista,[17] and LawCrawler.[18]

An April 1998 study by the journal Science concludes that search engines are not thorough in finding relevant documents, because they each only index a fraction of the total documents available on the web. [19] The lesson is not to rely on just one engine. One option is to use a meta index, which combines the results of several search engines, such as MetaCrawler.[20] The slight downside is that the search capabilities are limited.

Other new indexing tools include search engines created on gateway sites, such as GILS Government Information Locator Service,[21] GPO Access, an online search tool that enables the researcher to search through many databases of government documents, and search engines developed to search large topical sites, such as the one of the United Nations.[22]

b. Uniform Citation System

Encouragement of the development of uniform standards for the citation of cases and other legal documents is important in ensuring uniformity. In the United States, the detailed proposal of the American Association of Law Libraries (AALL) for a national standard,[23] was adopted by the American Bar Association Special Committee on Citation Issues (Resolution of August 6, 1996).[24] The Resolution recommends a generic citation format where each decision is given a sequential serial number and internal paragraph numbering assigned by the court. This system is to be equally applicable to printed and electronic case reports, and therefore medium neutral.

Example: Smith v. Jones, 1996 5 Cir 15, par. 18, 22 F.3d 955

1996 is the year of the decision, 5 Cir refers to the United States Court of Appeals for the 5th Circuit; 15 indicates that it is the 15th decision rendered in that year. 18 is the paragraph number in the opinion, and the rest is the parallel cite to the volume and page in the printed case report.

Both the AALL and the American Bar Association have approved the Committee's recommended format, and have urged federal and state courts to adopt the vendor-neutral and medium-neutral citation standards. The Judicial Conference of the United States declined to adopt the ABA's proposal, but that may change in the future.

II. Issues Raised by Digital Medium

A. Authenticity and Reliability

1. Authenticity issue [25]

The authenticity of digital information is an issue, in a network which has been called "the Net of a Million of flies." [26] In the print world, the medium of paper automatically authenticates the content. In the digital world, there is a disintermediation with the medium, and special care needs to be taken in the production of the information. Everyone can be a web author, and create a fake website. The Internet is decentralized and unregulated. Can it become self-regulated? Anybody can be an author. A web whiz can put legal information online, without any need for legal training. On the other hand, authenticity problems are more likely to result from error rather than deliberate attempt to corrupt. It is a question of risk management, and whether the risks vary with the type of record. Some of the ways to provide assurances about authenticity have to do with the reputation of the source, including commercial and government publishers. Some of the technological solutions include the technique of the digital signature which uses public key cryptography to insure the integrity of the record -- that it has not been altered -- and the source of the record and digital watermarking. It is important to develop a partnership with the Information technology industry.

B. Long Term Access to Digital Legal Information

1. Fragility of Digital Medium [27]

Documents are going digital for good reasons, including easy distribution and access over the Internet, as well as hypertext and multimedia capabilities. The process is irreversible politically and economically. However, digital information is characterized by fragility and rapid technological obsolescence. Under good conditions, books printed on acid-free paper, e.g., official state reports and codes, will last for centuries. The lifespan of a CD or disk is estimated at 10 to 30 years, but its lifespan is further limited by the hardware and software needed to read it. This means that digital information may become obsolete within in five years unless it can be refreshed or migrated to a newer technology. Refreshing data (copying it periodically to more stable media) cannot solve the long-term problem. It can save simple ASCII files, but anything more complex may lose

functionalitythat wasbuiltintoit.Migrationmeansmovingfilestoanew system.Ithasrisks,too,suchaslossorchangeofinformationinthe translation.Emulationconsistsofdesigninghardwareandsoftwarethat emulatetheoldsystem.Muchresearchneedstobedone onsolvingthese technologicalissues.

2.ResponsibilitytoArchiveandPreserveforFuture

Beyondthetechnicalproblemsrelatedtothefragilityofthedigitalmedium, thereareanumberoffinancial,legal,andpolicyissuesatstakewithdi gital legalinformation.Whowilldecidewhattopreserveandpayforpreserving digitalinformation?Whoisgoingtoberesponsibleforcontinuedandlong - termaccesstoauthoritativedigitalprimarylegalinformationsources?This isespeciallyimportant inademocracywherefreeaccesstogovernment informationissupposedtobearight.Itisassumedherethatmostprimary legalinformation,atleastintheUS,isinthepublicdomain.However, copyrightmaybeanissueforsomedigitalrecordsintheU Sandformany sourcesabroadbecauseofdifferentgovernmentalpolicies.

Withtheadventofthepaperlessdocuments,thereisanewissueofthe obligationofthegovernmenttomaintainelectronicrecords.Acurrent controversyintheUnitedStatesinvo lvesconcernedcitizensandthe NationalArchives.TheNationalArchivesandRecordsAdministration adviseditsagenciesthattheycoulddeleteanddestroytheire -mailandother electronicrecordsaslongastheyprintedoutcopiesandsavesthepaper copies.[28]Agroupofresearchers,librarians,historiansandjournalistshave suedNARAchargingthatvitaldatacouldbelost,(PublicCitizenv.Carlin, textavailableonPublicCitizenwebsite)andthatelectronicgovernm ent recordsneedtobemadeavailabletoresearchers.Theissueiscurrently underfederallitigation.Afederaldistrictcourtjudgedeclaredthepolicy "nullandvoid."ThejudgmentiscurrentlyappealedbyNARA,arguingthat thegovernmenthasnosystem capableofstoringthevoluminouselectronic outputofabureaucracyintheelectronicage.Bothgroupsareusingtheir respectivewebsitestobuttresstheirrespectivepositions. [29]

Thepreviousexamplerelatestoelectronicmail.Itcanbesafelyassumed thatofficialprimarylegalinformationindigitalformneedstobeaccessible farintothefuture.However,noonehasyettakentheresponsibilityto archivedigitalinformationfo rlong -termpublicaccess.Thereisthereforea riskoflossofinformation.TheU.S.GovernmentPrintingOffice --which hastraditionallypublishedonpaperthehighestfederalcourtdecisionsand federallegislativematerials,suchasU.S.SupremeCourt decisions,U.S. Code,FederalRegister,CodeofFederalRegulations,andmuchelse,and distributedthemtotheelaboratesystemof1400depositorylibraries (includingmostlawschools) --hasmadeacommitmenttodisseminateits publicationsinelectron icform.Butithasnotcommittedtoserveasan

archive,becauseitisnotinitslegislativemandate.Itmayhavethe willingness,butnotthebudgetaryappropriation.

Severalprospectivemodelshaveemergedaspotentialarchivalsitesforlegal information.[30]

1. *IndividualResearchers* .Individualresearchers,universitieswhopublish legalinformation)andissuingagencies(e.g.,legislaturesandcourts) currentlyoftenarchivetheirownmaterials.Thismaycausepro   blemswhen theresearchprojectstops,orthedatabaseexceedstheservercapacityofthe issuingbody.

2. *Federal,State,Local,andForeignGovernments*   .Governmentswillor shouldtakeresponsibilitytopreserveitsowndigitalpublications.Orthey shouldprovidefundingforotherstocarryoutdigitalpreservation.The questionwillbethemoneyavailable.Thegovernmentinvolvementmay dependonwhetherpreservationofdigitalinformationisseenasanational policyissue.

3. *Publishers*.Publisher sarealreadyprovidingarchivesofdigitallegal informationtotheirsubscribers.Willtheybeavailableinperpetuity?What ifthepublishergoesoutofbusinessorthemaintenanceofthearchive becomesunprofitable.Also,shouldcitizensrelyoncomme   rcialentities,or eventhegovernment,tofindtheofficialwordofthelaw,orshouldtherebe areliable,neutralsource,inadditiontoothersavailable,similartothe currentprintofficialstatecourtreports(mediumofprintauthenticates content, notsowithdigitalinformation).

4. *NationalLibraries* .Nationallibrariesmayalsoplaytheroleofarchiving informationthroughlegaldepositprograms.Depositorylegislationfor electronicinformationvarieswidelyamongnationsthathavedepositla   ws. Copyrightmaybeaprobleminsomecountries.Continuousbudget appropriationsmaybeneededtoimplement.

5. *ProfessionalLibraryGroups* .Othergroups,suchascommercialentities (OCLC,RLG,www.rlg.org)arereadytotakeonarole.Shouldthey? Severallibraryorganizationsarealsoinvolvedinthearchivingofdigital information.TheDigitalLibraryFederation(DLF),theCoalitionfor NetworkedInformation(CNI,http://www.cni.org),theAsso ciationof ResearchLibraries(ARL,http://www.arl.org/),theCouncilonLibraryand InformationResources(formerlyCouncilforPreservationandAccess (CLIR,formerlyCPA, http://www.clir.org/),theInter -universityConsortium forPoliticalandSocialResearch(ICPSR),locatedattheUniversityof Michigan,theNationalArchives(NARA)   ,etc.RLGandCLIR(formerly CPA)havemadeaproposaltocertifydigitalpreservationoperationsand createfail -safepreservationandstorage.Thatmaybeworthstudyingasa

possiblemodel.

6. *ConsortiaofLawLibraries* (academic,court,stateandco   unty,etc.).Over
thecenturies,librarieshaveplayedtheroleofpreservingandmaking
informationavailabletopresentandfuturegenerationsofscholars.One
proposaltoconsider,inadditiontootherpreservationmeasurestakenby
courts,legislatures ,andpublishers,wouldbeforlibrariestoformconsortial
agreements.Eachwouldbecomeresponsiblefordigitalpreservationofpart
ofthecorpusofofficialprimarylegalinformation,andrelyonothersfor
otherparts.Theschemewouldextendaccesst   othatinformationfarintothe
future.AALLandtheLawLibraryofCongresscouldplayavitalroleinthis
venture,bycoordinatingeffortswiththemajorstakeholders.

Afewlibrariesaremovinginthatdirectioninotherfields.Onenotable
examplei stheMannlibraryatCornellUniversity,whichhastaken
responsibilityforarchivingresearchpublicationsindigitalforminthefield
ofagriculture,incooperationwiththeNationalLibraryofAgricultureand
landgrantuniversitylibraries.Nomechani   smsexistyetfornationaland
internationalcoordinationinthelegalfield.

TheseimportantissuesarebeingstudiedbothinCanadaandintheU.S.
FollowinginthefootstepsoftheCanadianAssociationofLawLibraries
(CALL),theAmericanAssociation   ofLawLibraries(AALL)andtheLaw
LibraryofCongressarecurrentlystartingaprocessofidentifyingthe
stakeholdersconsideredtobeproducers,keepers,andconsumersofdigital
legalinformation,andorganizingaNationalSummitConference.The
Conferencewillincludejudges,legislators,regulators,membersofthe
practicingbar,academics,librariansandarchivists,courtadministrators,
officialprinters,publicandprivatepublishers,Internetproviders,
webmasters,andcomputerscienceengineers   .JudyMeadows,AALL
President,hasbeentalkingwithvariousgroupstodetermineinterested
partiestoinvolveintheSummitandshehasappointedaTaskForceto
IdentifyStakeholders.TherewasanexploratoryprogramattheAALL
annualmeetinginAnahei   m,California,inJuly1998,followingbya
PlanningMeetingatCornellLawSchool,Ithaca,NewYork,inAugust
1998.TheNationalSummitConferencewillbeheldinWashington,D.C.,in
theSpringof1999.

CONCLUSION

ThecontentsoftheInternetarebe   comingrichereveryday.Oneissueof
particularimportancethathasemergednowistheneedtohaveaccesstothe
permanentdigitalrecordsfarintothefuture.Currenteffortshavethesame
goal,tomakesurethatinapaperlessworldtherewillbeaper   manentrecord
ofthelawinitsmanyforms,andthatthedocumentwillbeauthentic.They
demonstratetheimportancetoworkwithpartnersonjointproblemsolving,

includingthelegalinformationpublishingindustry,theinformation technologyindustry,c omputerscientists,andotherinterestedstakeholders. Whatisatstakeisthetransmissionofofficialdocuments,"thewordofthe law,"tofuturegenerations

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EndNotes

1."Internetjuridique:l'expérienceaméricaine,"Gaz.Pal.Mercredi11,Jeudi 12Septembre29 -34(1996);revisedin"InternetforLegalInformation:The U.S.Experience,"24InternationalJournalofLegalInformation310 -324 (1996)

2.Somegoodcommercialornon -profitgatewaysitestogovernmentalsites include:WashburnLawLi brary (http://lawlib.wuacc.edu/washlaw/reflaw/reflaw.html),CornellLaw Library's *LegalResearchEncyclopedia* ,whichincludesbothfulltext electronicsourcesandrefe rencestoprintsources (http://www.lawschool.cornell.edu/library/encyclopedia/us/),Findlaw (http://www.findlaw.com),NationalCenterf orStateCourts (http://www.ncsc.dni.us),andCornell'sLegalInformationInstituteforlegal ethicsbystate(http://www.law.cornell.edu/ethics).

3.AgoodgatewaysitetolawreviewsistheoneoftheUniversityof SouthernCaliforniaLawSchoolLibrary(http://www.usc.edu/dept/law-lib/frconten.htm).

4. http://www.law.cornell.edu

5. http://www.abanet.org

6. http://www.ali.org

7.Thewayinwhichthishasbeencarriedoutisdiscussedindetailin"The PoliticsofPublicLegalInformation,"at: http://ltc.law.warwick.ac.uk/jilt/LegInfo/97_2gree/paper4.htm

8. http://www.hg.org

9. http://www.findlaw.com

10.Foranup -to-datelistof "whoownswhom,"checkthesiteofthe UniversityofColoradoLawLibrary: http://www.Colorado.EDU/Law/lawlib/ts/legpub.htm

11. Lois: http://www.pita.com/homepage.htm

12. Versuslaw: http://www.versuslaw.com

13. http://teddy.law.cornell.edu:8090/questata.htm

14. For a good history, see Robert Berring, "Legal Research and Legal Concepts: Where Form Molds Substance," 75 California Law Review 5 (1987).

15. The following is adapted from an excellent article by Graham Greenleaf, Professor of Law and Co-Director of AustLII, University of New South Wales, "Moving access to law into the 21st century", http://www2.austlii.edu.au/~graham/AALS/Restatement-A.html

16. http://www.yahoo.com/

17. http://www.altavista.digital.com

18. http://www.lawcrawler.com

19. A synopsis of the article is available at http://www.sciencemag.org. Information about the authors can be found at NEC Research Institute: http://www.neci.nj.nec.com

20. http://www.metacrawler.com

21. http://www.fedworld.gov/gils/index.htm

22. http://www.un.org

23. http://www.aallnet.org/committee/citation

24. See http://www.abanet.org/citation for history, text of resolution, and updates on which courts have adopted it.

25. The section below draws on the papers written for the Canadian Conference, *The Official Version...*, listed in the Bibliography.

26. Phrase used by Verner Vinge in Fire upon the Deep (1992)

27. See excellent paper by Jeff Rothenberg, *Ensuring the Longevity of Digital Information*, listed in the Bibliography.

28. As reported in the New York Times, April 9, 1998, Michael Cooper,

"FederalGovernmentClingstoPaperRecord."
http://www.nytimes.com/library/tech/98/04/circuits/articles/09archives.html

29.PublicCitizen: www.citizen.org/litigation/elecrec.html,andNARA:
www.nara.gov/records/grs20/index.html

30.Muchoftheinformationbelowdrawsonaveryusefulsummary,   *Issues*
andInnovationsinPreservingDigitalInformation,listedinthe
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ResearchLibraries,1998.   http://www.arl.org/transform/pdi/index.html
        Goodsummaryofcurrentissues.Discussessomestrategiesand
        modelscurrentlye xplored,aswellasspecificinitiativesfrom
        librariesandprofessionalassociations.
NationalPreservationProgramforAgriculturalLiterature.   NancyGwinn,
AssistantDirector,CollectionsManagement,SmithsonianInstitution

Libraries.May,16,1993.

TheOfficialVersion:ANationalSummitToSolvetheProblemsof Authenticating,PreservingandCitingLegalInformationinDigitalForm , November20 -22,1997,SheratonHotel,Toronto.

> ProceedingsofCanadasummitondigitallegalinformationissues.A shorterversionoftheprintdocumentisavailableat:
> http://www.callacbd.ca/summit/index.html

PreservingDigitalInformation:ReportoftheTaskForceonArchivingof DigitalIn formation.ResearchLibrariesGroup(RLG),May1996.
http://www.rlg.org/ArchTF/index.html

> Co-sponsoredwiththeCommissiononPreservationandAccess.

EnsuringtheLongevityofDigitalInformation .JeffRothenberg.

> Expandedversionofhisarticle"EnsuringtheLongevityofDigital Documents"thatappearedintheJanuary1995editionof *Scientific American*(Vol.272,Number1,pp.24 -29).

Standardsfor DigitalInformationInterchange.AResourcesPage .
http://ahds.ac.uk/resource/standards.html

DigitalPreservation .http://ahds.ac.uk/resource/preserve.html

> Thesetwopublicationofthe UKArts&HumanitiesDataService (AHDS)provideusefulreferencesandlinkstoorganizationsand digitallibraryinitiativesintheUSandtheUnitedKingdom.

AStrategicPolicyFrameworkforCreatingandPreservingDigital Collections.http://ahds.ac.uk/manage/framework.htm

> Finalreportofastudyundertakenby theAHDSExecutiveonbeh alf oftheDigitalArchivingWorkingPartyoftheUK'sJISC,British Library,andNationalPreservationOffice(July1998).

Organizations

AmericanResearchLibraries(ARL) .http://www.arl.org/

> Comprises121largeNorthAmericanresearchinstitutions,bothin theU.S.andCanada.ARLat:21DupontCircle,Suite800, Washington,DC20036,voice:202 -296-2296.Fax:202 -872-0884; arlhq@arl.org.ExecutiveDirector:DuaneE.Webster

CoalitionforNetwo rkedInformation(CNI) .http://www.cni.org

> CNIisanorganizationtoadvancethetransformativepromiseof networkedinformationtechnologyfortheadvancementofscholarly communicationandtheenri chmentofintellectualproductivity. Foundedin1990bytheAssociationofResearchLibraries,Educom, andCAUSE,CNIissupportedbythemembersofaninstitutional TaskForcerepresentinghighereducation,publishing,networkand telecommunications,info rmationtechnology,andlibrariesand libraryorganizations.

DigitalLibraryFederation(DLF) .

> Foundedin1995toestablishtheconditionsforcreating,maintaining,

expanding,andpreservingadistributedcollectionofdigitalmaterials accessibletosc holars,students,andawiderpublic.TheFederationis aleadershiporganizationoperatingundertheumbrellaoftheCouncil onLibraryandInformationResources.Itiscomposedofparticipants whomanageandoperatedigitallibraries.Aconsortiumoffif teenof theUS'slargestlibrariesandarchivescooperatingtoensureaccessto digitizedmaterials.Thesiteprovideslinkstomemberorganizations witharangeofdigitallibraryaccessandpreservationprojects. Contact:DonaldJ.Waters,Director,Digi talLibraryFederation, CouncilonLibraryandInformationResources,205ChurchStreet, ThirdFloor,NewHaven,CT06510 -1805.Phone:+1 -203-498-6076; Fax:+1 -203-498-6078;Email: dwaters@clir.org

NARANa tionalArchivesandRecordsAdministration .Centerfor
ElectronicRecords. http://www.nara.gov/nara/electronic/

NARAcurrentlydoesnot,ingeneral,postanyelectronicrecordson theInternet.

3. **ResearchLibrariesGroup(RLG)** .www.rlg.org

Contact:RickyErway,MemberServicesOfficer,DigitalInitiatives, RLG,650 -691-2228 bl.rle@rlg.org

U.S.NationalCommissiononLibrariesandInformationScience .
www.nclis.gov

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