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

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ContentsofLegalInformationontheInternet: U.S.Perspectives

- ClaireM.Germain -

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**ClaireM.Germaini stheEdwardCornellLawLibrarianandProfessorof LawatCornellLawSchool,Ithaca,NewYork,U.S.A.SheistheChairof theAmericanAssociationofLawLibraries/LawLibraryofCongressTask ForcetoIdentifyStakeholdersinpreparationfortheU.S.Na tionalSummit Conferenceon"PreservationandAccesstoDigitalLegalInformation,"tobe heldinWashington,D.C.,intheSpringof1999.Shecanbereachedat: cmg13@cornell.edu.

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

Summary: This article examines the contents of legal data and information on the Internet, with a special focus on the United States. It the nevaluates the quality of the data, it simpact on legal research and access to legal information, and addresses some issues raised by the digital medium, such as its reliability and permanent access 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 pecialfocusonthe United States. It the nevaluates the quality of the data, it simpacton legal research and access to legal information, and addresses some issues raised by the digital medium, such as its reliability and permanent access concerns.

I. Contents of Legal Data and Information on the Internet

MuchlegalinformationiscurrentlyavailableovertheInternet,bothinthe formofrawdataandediteddata, from governmental and private sources, nonprofitandcommercial, and directed toward thepublicandlegal professionals.IntheUnitedStates,mostgovernmentinformationis availablefreeofcharge, from official websites, as well as from a number of non-profitorganizations and universities. Sometimes, the information is presentedasra wdata, butoften, it is enhanced, with search engines, some formofindexing,etc. It is therefore hard to contrastraw data and edited data. Itisstilltrue, nevertheless, that when it really matters, legal data comingfromcommercialpublishersandacc essibleforafeeareusually morereliableandfavoredbylegalprofessionals. Mostofthat digital information provides only aright of access, and no ownership, or control 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 conference¹.Since1996,thegovernmentsiteshavegreatlyexpanded.

Today,mostcurrentU.S.legislative,regulatory,andcaselawtextsare availablefromfederalandstategovernmentwebsites,andsteadily expanding. Theyarefree, although someother 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

Thegovernmentalwebsitesarecompletedbyuniversity(manyofthe federalcourtofappealsdecisions) and other privateor public non-profit web sites, as well as commercial ones. They are, in general, reliable sites, currently accessible free of charge. Activities from barassociations are growing, both the ABA and state barassociation, and some have started including full exteditions of new sletters and other documents. The trend continues to put law journals and law reviews on line. The trade of fistoget increased exposure and be read worldwide, at the risk of losing possible royal ties. Many laws chool we be sites of fer the tables of contents of law review articles, which can then be requested for a fee.

Universitiestooktheinitiativetomakefederalcourtdecisionsavailableover theInternetseveralyearsago.Forawhile,federalappe llatecourtdecisions wereonlyavailablethankstouniversitywebsites.Now,fivefedcourtsof appealshavetheirownwebsites,thefifth(tookthejoboverfromtheUniv. ofTexas),Ninth,Tenth,D.C.,andArmedForcescircuits.Theothersarestill servedbylawschools.Today,thereareabout35USdistrictcourtwebsites, 30bankruptcycourtsites.Moststatestodayhaveawebsiteanddistribute theirbills,statutes,courtdecisionsandregulationsovertheInternet.

Nonprofitorganizationsso metimestaketheofficialtext,andimproveupon itbyprovidingausefulsearchengine,andlinkingtoothersources,e.g.,at Cornell,theLegalInformationInstitutecollaborateswiththeU.S.Supreme CourtforthedeliveryofU.S.SupremeCourtdecisio ns,andhasimproved theindexinganddeliveryoftheofficialU.S. Codeversionprovidedbythe U.S.government.⁴

Informationspecialistsandotherlegalre searchersusetheInternetmoreand moretogetdocumentsfromvariousorganizations, suchasthe <u>ABA</u> (<u>AmericanBarAssociation</u>) ⁵ and the <u>ALI(AmericanLawInstitute</u>). ⁶ Afew yearsago, 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 an on profit organization, created expressly for the purpose of facilitating free access to Australian primary legal materials. ⁷Aust LII has been most successful in obtaining free public access to data from government and courts our cest hat

oftenpreviouslycouldnotorwouldnotprovidethedata.

2.CommercialDatabases

TheInternethaslevelledtheplayingfield,buttheinform ationavailableon thecommercialdatabasesisstillmoretrustworthy. Manymorecommercial siteshaveblossomed,withmuchvaluableinformation. Somearefree, and serveasgatewaysitestoentireareasofthelaw,thoughlinkstoavarietyof websites(e.g., <u>HierosGamos</u>, <u>** Findlaw</u>, <u>** Pindlaw</u>, thoughlinkstoavarietyof websites(e.g., <u>HierosGamos</u>, <u>** Findlaw</u>, <u>** Pindlaw</u>, <u>** P</u>

a.LEXISandWESTLAW

LEXISandWESTLAWaregettingstronger, benefitting from increased mergers and consolidation in the <u>legal publishing industry</u>. ¹⁰Theyoffer a greater degree of trust, and are still the tool of choice of legal professionals who can afford the high rates. Theyoffer special rates for smaller aw firms. However, legal professionals only getaright of access to the data, and no ownership of the legal information. U.S. law schools benefit from a cade mic subscriptions, to encourage the new graduates to use the service sat commercial rates upon grad uation. Some of the materials are not part of the subscription.

b.LoisandVersuslaw

Lois ¹¹ and Versuslaw ¹² offerlowerpricedalternativestothetwogiants, LEXISandWESTLAW. Thesetwonewentrantshavecommercialized the information provided free through the Internet and are making it into attractive packages geare dtoward legal professionals. They are lower -priced than LEXIS and WESTLAW, and offer claims of great reliability, including ownership of CD -ROM with the text of the documents. They are smaller databases, limited to primary legal information.

B.Eval uationofLegalData

1.QualityofData

a.Internet/Commercial/Print

Whenitreallymatters, there is still agreat degree of reliance on the "official" word of the law. Serious peoples till goback to "official" documents, and print publications. Student-edited law reviews prevalent in law schools are still under the obligation to cite to the original print source when they docite checking of sources. For instance, they find it on lexis, but have to verify the source by examining the actual print source. Courts have been slower to make the transition to a reliance on the electronic text. For

some purposes, the legibility of the electronic text still leaves to be desired, e.g., LEXIS still has footnotes of law reviewarticles in the middle of the text. Because of the lack of regulation of the Internet, many people are experimenting. Because of the interconnectivity of the Internet, readers write to the Website to explain if something is wrong.

Thecontentsoflegaldataareimprovedbytheuse ofareader, suchas Adobe, so that the result is better than the raw text, because the document looks like the print product. This gives a better guarantee of authenticity, and is also convenient, and esthetically pleasing. The PDF (Portable Document Format) Adobe Acrobat format is now the standard for federal government publications, even though it is criticized by some because of its proprietary nature. It reproduces the physical appearance of a page much better than technologies such as HTML.

b.Impa ctofLegalInformationontheInternetonLegal Research/AccesstoLegalInformation

Somesolidresearchskillsarelostwiththetransitiontothedigitalformat.In theprintworld, therewas a distinct series of paper publications, with corrections in between. In the electronic world, cases are not systematically updated or corrected after they are put on line. is the citizen better served? Also, there are some limitation stogetting the plaintext of the law. How much can one understand the law by loo king at a text? If no context is provided, it may be harder to understand the issues, the procedure, etc., which are provided in a commercial system such as West, with head notes, annotations, etc.? The greatest danger is for non professionals who get the letter of the law, but not the context.

Thedigitalmediumhasopenedupnewfieldsoflegalresearch, e.g., empiricalstudies. Youcantakestatisticaldataandmanipulatethem, tostudy socialindicators, and the like, e.g., studies on jury verdicts conducted by Professors Ted Eisenbergand Kevin Clermontat Cornell Law School on their federal statistical website.

b.ImpactonLegal Research

TherelianceonInternetsearchenginesleadstothelossofalotof sophisticatedindexingtools, such assubject and digest keyword indexing, theelaborate system created by West since the end of the 19th century.

14 The Internet makes legal information much more accessible to the public. But, it is not clear that the greater accessibility makes the law more understandable, because it may lack a context. People can mis interpret the text of the law, unless there are disclaimers. It may also put agreater burden on legal profession to explain the law.

2.AccesstoLegalInformation

a.SearchEngines

AgreatdealofprogressinfindinglegalinformationontheWebcomesfrom theincreasedsophistication 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.,
Alta Vista,
17 and Law Crawler.
18

AnApril1998studybythejournalScienceconcludesthatsearchengines arenotthoroughinfindingrelevantdocuments,becausetheyeachonly indexafractionofthetotaldocumentsavailableontheweb. ¹⁹Thelessonis nottorelyonjustoneengine.Oneoptionistouseametaindex,which combinestheresultsofseveralsearchengines,suchas MetaCrawler. ²⁰The slightdownsideisthatthesearchcapabilitiesarelimited.

Othernewindexingtoo lsincludesearchenginescreatedongatewaysites, suchas <u>GILSGovernmentInformationLocatorService</u>, ²¹GPOAccess,an onlinesearchtoolthat enablestheresearchertosearchthroughmany databasesofgovernmentdocuments,andsearchenginesdevelopedtosearch largetopicalsites,suchastheoneofthe <u>UnitedNations</u>. ²²

b.UniformCitationSystem

Encouragementofthedevelopmentofuniformstandardsforthecitation 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 ageneric citation format where each decision is given a sequential serial number and internal parag raph numbering assigned by the court. This system is to be equally applicable to printed and electronic case reports, and therefore medium neutral.

Example: Smithv. Jones, 19965 Cir 15, par. 18, 22 F. 3 d 9 5 5

1996istheyearofthedecision,5Cirrefe rstotheUnitedStatesCourtof Appealsforthe5thCircuit;15indicatesthatitisthe15thdecisionrendered inthatyear.18istheparagraphnumberintheopinion,andtherestisthe parallelcitetothevolumeandpageintheprintedcasereport.

BoththeAALLandtheAmericanBarAssociationhaveapprovedthe Committee'srecommendedformat,andhaveurgedfederalandstatecourts toadoptthevendor -neutralandmedium -neutralcitationstandards. The JudicialConferenceoftheUnitedStatesdeclin edtoadopttheABA's proposal,butthatmaychangeinthefuture.

II.IssuesRaisedbyDigitalMedium

A.AuthenticityandReliability

1.Authenticityissue ²⁵

Theauthenticityofdigitalinformati onisanissue,inanetworkwhichhas ²⁶Intheprintworld,themediumof beencalled"theNetofaMillionoflies." paperautomaticallyauthenticates the content. In the digital world, there is a disintermediation with the medium, and special careneeds to be taken in the production of the information. Everyone can be a we bauthor, and create a fakewebsite. The Internet is decentralized and unregulated. Can it become self-regulated? Anybody can be an author. A web whiz canputlegal informationonline, without any need for legal training. On the other hand, authenticityproblemsaremorelikelytoresultfromerrorratherthan deliberateattempttocorrupt. It is a question of risk management, and whethertherisksvary withthetypeofrecord. Someofthewaystoprovide assurances about authenticity have to do with the reputation of the source, includingcommercialandgovernmentpublishers. Someofthetechnological solutionsincludethetechniqueofthedigitalsigna turewhichusespublickey cryptographytoinsuretheintegrityoftherecord --thatithasnotbeen altered--andthesourceoftherecordanddigitalwatermarking.Itis importanttodevelopapartnershipwiththeInformationtechnologyindustry.

B.LongTermAccesstoDigitalLegalInformation

1.FragilityofDigitalMedium ²⁷

Documentsaregoingdigitalforgoodreasons,includingeasydistribution andaccessovertheInternet,aswellashypertextand multimedia capabilities. Theprocessisirreversiblepoliticallyandeconomically. However, digitalinformationischaracterized by fragilityandrapid technologicalobsolescence. Undergoodconditions, booksprintedonacid freepaper, e.g., officialstat ereportsandcodes, willlast forcenturies. The lifespanofaCDordiskisestimatedat 10 to 30 years, but its lifespanis further limited by the hardware and softwarene eded to readit. This means that digital information may be come obsolete within in veyear sun less it can be refreshedor migrated to an ewertechnology. Refreshing data (copying it periodically to more stable media) cannot solve the long term problem. It can save simple ASC II files, but anything more complex may lose

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

${\bf 2. Responsibility to Archive and Preserve for Future}$

Beyondthetechnicalproblemsrelatedtothefragilityofthedigitalmedium, thereareanumberoffinancial,legal,andpolicyissuesatstakewithdi gital legalinformation. Whowilldecidewhattopreserveandpayforpreserving digitalinformation? Whoisgoing to be responsible for continued and long termaccess to authoritative digital primary legalinformations ources? This is especially important in a democracy where free access to government information is supposed to be a right. It is assumed here that most primary legalinformation, at least in the US, is in the public domain. However, copyright may be an issue for some digital records in the US and formany sources abroad be cause of different government alpolicies.

Withtheadventofthepaperlessdocuments, there is a new issue of the obligation of the government to maintain electronic records. A current controversyintheUnitedStatesinvo lvesconcernedcitizensandthe National Archives. The National Archives and Records Administration adviseditsagenciesthattheycoulddeleteanddestroytheire -mailandother electronicrecordsaslongastheyprintedoutcopiesandsavesthepaper copies. 28 Agroupofresearchers, librarians, historians and journalists have suedNARAchargingthatvitaldatacouldbelost,(PublicCitizenv.Carlin, textavailableonPublicCitizenwebsite)andthatelectronicgovernm ent recordsneedtobemadeavailabletoresearchers. Theissueiscurrently underfederallitigation. Afederal district court judged eclared the policy "nullandvoid."ThejudgmentiscurrentlyappealedbyNARA, arguing that thegovernmenthasnosystem capableofstoringthevoluminouselectronic outputofabureaucracyintheelectronicage. Bothgroups are using their respectivewebsitestobuttresstheirrespectivepositions.

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, because it is not inits legislative mandate. It may have the willingness, but not the budget ary appropriation.

Several prospective models have emerged as potential archival sites for legal information. $\frac{30}{2}$

- 1. *IndividualResearchers*. Individualresearchers, universities who publish legalinformation) and issuing agencies (e.g., legislatures and courts) currently often archive their own materials. This may cause problems when the research project stops, or the database exceeds the server capacity of the issuing body.
- 2. Federal, State, Local, and Foreign Governments . Governments willor should take responsibility to preserve its own digital publications. Or they should provide funding for other stocarry out digital preservation. The question will be the money available. The government involvement may depend on whether preservation of digital information is seen as an ational policy is sue.
- 3. *Publishers*. Publisher sarealreadyprovidingarchivesofdigitallegal informationtotheirsubscribers. Willtheybeavailableinperpetuity? What ifthepublishergoesoutofbusinessorthemaintenanceofthearchive becomesunprofitable. Also, should citizens relyoncomme rcial entities, or eventhe government, to find the official word of the law, or should there be a reliable, neutral source, in addition to others available, similar to the current print official state court reports (medium of print authenticates content, not so with digital information).
- 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, libraries have played the role of preserving and making information available to present and future generations of scholars. One proposal to consider, in addition to other preservation measures taken by courts, legislatures, and publishers, would be for libraries to form consortial agreements. Each would be comere sponsible for digital preservation of part of the corpusof of ficial primary legal information, and relyon others for other parts. The scheme would extend access to that information far into the future. AALL and the Law Library of Congress could play a vital role in this venture, by coordinating efforts with the major stakeholders.

Afewlibrariesaremovinginthatdirectioninotherfields. One notable example is the Mannlibraryat Cornell University, which has taken responsibility for archiving research publications in digital form in the field of a griculture, in cooperation with the National Library of Agriculture and land grant university libraries. No mechani smsexisty etfornational and international coordination in the legal field.

These important is suesare being studied both in Canada and in the U.S. FollowinginthefootstepsoftheCanadianAssociationofLawLibraries (CALL),theAmericanAssociation ofLawLibraries(AALL)andtheLaw LibraryofCongressarecurrentlystartingaprocessofidentifyingthe stakeholdersconsideredtobeproducers, keepers, and consumers of digital legalinformation,andorganizingaNationalSummitConference.The Conference will include judges, legislators, regulators, members of the practicingbar, academics, librarians and archivists, court administrators, officialprinters, publicand private publishers, Internet providers, webmasters, and computers cience engineers . Judy Meadows, AALL President, has been talking with various groups to determine interested partiestoinvolveintheSummitandshehasappointedaTaskForceto IdentifyStakeholders.TherewasanexploratoryprogramattheAALL annualmeetinginAnahei m, California, inJuly1998, followingbya PlanningMeetingatCornellLawSchool,Ithaca,NewYork,inAugust 1998. The National Summit Conference will be held in Washington, D.C., in theSpringof1999.

CONCLUSION

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

including the legal information publishing industry, the information technology industry, computers cientists, and other interested stakeholders. What is at stake is the transmission of official documents, "the word of the law," to future generations

EndNotes

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- 13. http://teddy.law.cornell.edu:8090/questata.htm
- 14. Foragoodhistory, see Robert Berring, "Legal Research and Legal Concepts: Where Form Molds Substance, "75 California Law Review 5 (1987).
- 15.Thefollowingisadaptedfrom an excellent article by Graham Greenleaf, Professor of Lawand Co Director of Aust LII, University of New South Wales, "Moving access to law into the 21 stcentury", http://www2.austlii.edu.au/~graham/AALS/Restatement-A.html
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- 22. http://www.un.org
- 23. http://www.aallnet.org/committee/citation
- 24.See http://www.abanet.org/citationforhistory,textofresolution,and updatesonwhichcour tshaveadoptedit.
- 25. The section below draws on the papers written for the Canadian Conference, *The Official Version*..., listed in the Bibliography.
- 26.PhraseusedbyVernerVingeinFireupontheDeep(1992)
- 27. See excellent paper by Jeff Rothenberg, *Ensuring the Longevity of Digital Information*, listed in the Bibliography.
- 28. Asreportedinthe New York Times, April 9, 1998, Michael Cooper,

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

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

These two publication of the UKArts & Humanities Data Service (AHDS) provide useful references and links to organizations and digital library initiatives in the US and the United Kingdom.

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

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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/

NAR A currently does not, in general, post any electronic records on the Internet.

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

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

$\label{linear} \textbf{U.S.National Commission on Libraries and Information Science} \\ \underline{\textbf{www.nclis.gov}}$

Independentagencywithintheexecutivebranch, created in 1970, to advise the US president on national polic yissues relating to libraries and informational needs of the country. 1110 Vermont Avenue, N.W. Suite 820, Washington, DC 20005 -3522. Telephone: 202 -606-9200; Fax: 202 -606-9203. Jeanne Hurley Simon, Chairperson; jhsimon@siu.edu. Robert S. Willard, Executive Director; rw_nclis@inet.ed.gov