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New Media Citation Guide

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NEW MEDIA CITATION GUIDE

I. INTRODUCTION

The New Media Citation Guide ("NMCG") endeavors to present a clear and concise method of legal citation for many of the new media sources that have been developed in recent years. As more and more aspects of our commercial and social lives find expression through new media, attorneys will find themselves citing to sources that did not exist a few short years ago. For many of these sources, conventional *Bluebook* rules do not apply, are difficult to adapt, or are simply not addressed. For those situations, the *Loyola of Los Angeles Entertainment Law Journal* offers the NMCG as a supplement. The foundational principle of this guide is simply that a citation should take the reader quickly and precisely to the material cited.

All forms of media, old and new, fall into two broad categories: linear and non-linear. A linear work presents a fixed beginning, middle, and end. In short, everyone who views a linear work will have essentially the same experience, moving in a line from start to finish. Included in this category are text, television, film, radio, music, choreography and conversations. Non-linear media may have a different beginning, middle and end, depending on the choices of the reader, viewer or audience. Two people viewing a non-linear work will likely have different individual experiences. Just as a philosopher observed that you cannot step into the same stream twice, a non-linear work may never allow repetition of the same sequence of events. Non-linear works include interactive multimedia, hypertext, video games, and virtual reality.

Some sources, such as World Wide Web ("WWW" or "Web") documents, may appear to be non-linear; however, this is rarely true of Web sources. When readers "jump" from one linked document to another on the Web, they are moving from one distinct source to another, in the same way that online research services facilitate "jumping" to a statute cited in a law review footnote or in a case. The two Web documents are as conceptually distinct as the statute and the law review or the case.

The NMCG proposes a method of legal citation for nontraditional sources to assist both legal scholars and law journals with the task of maintaining the integrity and consistency of footnotes. The NMCG draws on *Bluebook* principles where applicable, but adds traceability elements peculiar to each new medium so that any particular source can be efficiently retrieved. Part II of the NMCG addresses the special need for new media source archives. Part III suggests citation formats for linear media, and Part IV addresses citation form for non-linear media. For each type of new media source, the NMCG briefly describes the source, explains the citation format, and then presents examples. Tables 1 and 2 offer suggested abbreviations and a list of common new media acronyms for use in law review footnotes.

II. SOURCE COLLECTION AND ARCHIVAL METHODS

A. Dependability

The dependability of each type of new media source must be evaluated in terms of three factors before it is included as support in a law review footnote: (1) accessibility; (2) reliability; and (3) stability. In other words: Can it be found? Can it be trusted? Will it be there when a reader looks for it again? For example, Web sources can be accessed with great precision. But as fungible electronic documents, their reliability is questionable because someone can manipulate the content without notice. Further, the ephemeral nature of the Internet casts doubt on the stability of such sources. They may vanish from the Internet entirely, or they may move to a different location without a forwarding reference. In contrast, CD-ROM documents are as dependable as books. As a read-only medium, no one can manipulate a CD-ROM document and save the altered version in place of the original. Thus, the ability to access, to trust, and to refer readers to new media sources will vary depending upon the nature of the source.

B. Archives

There is a strong preference for obtaining sources from traditional media where available. Traditional media are inherently dependable as are CD-ROMs and other read-only media. When the dependability of a document is a concern, as with online documents, source collection should follow a dual key approach: (1) the author should retain a copy of the material; and (2) the law review should independently locate and physically

obtain the source. The notation "on file with the author and with [law review title]" should be appended to the citation. For example, cite to an interview with Johnnie Cochran published on CNN's Web page as follows:

> *Burden of Proof: Simpson Attorney Johnnie Cochran Talks Exclusively With CNN* (derived from CNN television broadcast, Sept. 30, 1995) http://www-cgi.cnn.com/US/OJ/daily/9-30/index.html (posted Sept. 30, 1995 12:50 PM EDT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

Note how *Bluebook* rule 17.5 (Films and Broadcasts) has been adapted to incorporate new media information. The notation "derived from" indicates that the material has been re-purposed from a different original medium.

Some sources may disappear before the law review obtains them. If the Cochran interview is removed from its Web page by the time the law review seeks to download it, the archive parenthetical should note its unavailability as of the date the law review made its search:

> (on file with the author; unavailable as of Oct. 7, 1995)

Since online documents are susceptible to change or removal, it is necessary for authors and law journals to pinpoint the date and time when the document was either created or transmitted by the author. This will ensure that interested parties will be able to read the same version of the document that the author is citing. When a document date is present, identify the date and time (including time zone, if known) in a parenthetical as follows:

> (created Oct. 7, 1995, 12:01:00 GMT)
>
> (last modified June 17, 1995 19:04:23 PDT)
>
> (transmitted Sept. 26, 1995, 08:10:00 EDT)
>
> (posted July 8, 1992, 16:07:00 CDT)

When the document date is unknown, the author should indicate the collection date and time in a parenthetical as follows:

(collected Oct. 4, 1995, 11:52:00 PDT)

Many law journals will soon establish Web pages. It is recommended that these pages serve as electronic source archives. This archival method would serve two functions: (1) storage for the journal's on-file sources; and (2) making these sources accessible to readers of the journal.

III. LINEAR MEDIA

A. Audio Visual Media

Spot, or pinpoint, citations to media such as film, video and sound recordings should follow the *Bluebook* format, but should also be accompanied by track number (if applicable) and a time reference in hours, minutes and seconds. Time should be calculated from the beginning of the work cited. The time of day is not relevant for citation purposes. For example:

The Wizard of Oz, at t: 01:12:33 (Metro-Goldwyn-Mayer 1939).

Bad Religion, *21st Century (Digital Boy)*, STRANGER THAN FICTION, trk. 15, at t: 00:01:02 (Atlantic Recording Corp. 1994).

The Rush Limbaugh Program, at t: 02:23:45 (Excellence in Broadcasting Network radio broadcast Nov. 8, 1994).

If SMPTE time code is available, use a time code reference. For example:

Field videotape of Prof. Laurie Levenson commenting on People v. Simpson for CBS News, at tc: 03:18:44.28 (Oct. 3, 1995) (on file with author).

B. Electronic Documents

Electronic documents offer unique capabilities for spot, or pinpoint, citations. Whenever it is possible to search within a document, the citation should include a brief search string, or query, that will take the reader

precisely to the material cited, just as one would cite to a specific page within a case. Use the following parenthetical:

(spot: n't comm)

"Spot:" alerts the reader that a search for the letters which follow will take the reader to the exact point in the text. If the author cannot find a brief string which takes the reader directly to the cited information, then the author should indicate the number of search results, or "hits," required before the search will bring the reader to the desired place. In that case, use the following form:

(spot [2d hit]: n't com)

In the Cochran example from Part II, the spot parenthetical would appear after the Uniform Resource Locator ("URL") and before the posting parenthetical:

> *Burden of Proof: Simpson Attorney Johnnie Cochran Talks Exclusively With CNN* (derived from CNN television broadcast, Sept. 30, 1995) http://www-cgi.cnn.com/US/OJ/daily/9-30/index.html (spot: n't comm) (posted Sept. 30, 1995, 12:50 EDT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

Different kinds of electronic documents will have different ways to conduct intra-document searches. For example, within Netscape and Microsoft Word, the command is "Find" under the "Edit" menu. Westlaw, on the other hand, uses "lo"; on Lexis, the command is ".fo". Regardless of the search commands, the author should use the term "spot:" for citation purposes. Whatever the search command may be, the reader will know that the string of letters following "spot:" will retrieve the proper information.

1. Read-Only Media

Read-only media are inherently dependable. Therefore, the source collection and archival conventions proposed in Part II do not apply. Instead, documents stored on CD-ROM or as locked digital files should follow the *Bluebook* rules for the types of documents they purport to be, as well as publisher and platform information. Since many works on CD-ROM abandon traditional indexing and page number conventions, it may

be necessary to use a menu path or an icon sequence to pinpoint the cited information. Use either a directory\filename convention, or the "greater than" key (>) to indicate the sequence of mouse clicks. For example, cite to CD-ROM works as follows:

> B. Adamson, *Tactical Radio Frequency Communication Requirements for Ipng, on* INTERNET INFO (path: INET_0295:\ ADAMSON\IPING_RAD.TXT) (spot: t RFC 1543) (Walnut Creek CDROM, Mac/DOS CD-ROM 1995).

Note that works appear "on" CD-ROM, while they are found "in" books. For example, cite to a menu- or icon-driven reference work as follows:

> CINEMANIA '95 (path: Topics>Movie Studios) (Microsoft, Mac/ Win. CD-ROM 1994).

2. Fungible Media

These are works that may be available online or on disk. Their defining characteristic is that they are not protected from manipulation. However, they are intended to retain their integrity. Unlike read-only documents, such those stored on CD-ROM, fungible works are changeable by anyone who controls the digital file. An electronic novel on disk, for example, may be distributed in such a way that the reader could retrieve the novel in a word processing program, alter the text, and then save the altered file under the name of the original. A second reader could not detect the manipulation. The author, of course, does not intend that the reader manipulate the document; however, unscrupulous readers have the capability to do so. As such, fungible electronic documents are not dependable.

Citations to fungible electronic works should follow *Bluebook* conventions for the kinds of documents they purport to be, but publisher information should also be included. For example, cite to an electronic book as follows:

> HARVEY WHEELER, THE ELECTRONIC UNIVERSITY (spot [5th hit]: semiotic saltation) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*) (ConnectEd E-Prints, DOS Disk 1987).

C. *Online Documents*

1. E-mail

E-mail should be treated as unpublished correspondence in accordance with *Bluebook* rule 17.1.3 (Letters and Manuscripts). The sender's E-mail address should not be included. For example:

> E-mail from William J. Clinton, President of the United States, to Webster Hubbell, Assistant U.S. Attorney (transmitted Dec. 5, 1994, 23:57:06 EST) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

2. World Wide Web Documents

The World Wide Web is a relatively new Internet service. The structure of the Web, as the name suggests, is a nonhierarchical network of individual pages, which may contain text, pictures, sounds, and video clips. Web users can access these pages with a software program called a "browser." Note that the same page may look somewhat different when viewed with different browsers. Every source on the Web may be found with a URL which enables the browser to locate items quickly and precisely.

a. When a Web Source is Also Available in Hard Copy

Some documents on the Web are clearly available in hard copy elsewhere but are more readily accessed through the Web. When this is the case, follow the *Bluebook* citation format for the type of material being cited (for example, *Bluebook* rule 15.1), with a parenthetical listing the URL for the document and the file format specifications, if any:

> INFORMATION INFRASTRUCTURE TASK FORCE, WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE: THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS, 120 (1995) (Adobe Acrobat Reader at http://www.uspto.gov/web/ipnii/ipnii.pdf).

b. When a Web Source is Not Available Elsewhere in Hard Copy

When a Web page is either an original work or does not specify the source of its information, archive it as soon as possible. The citation should include the URL, a spot cite, (if appropriate), the document date, and an archive parenthetical. For example:

> *EFF Sues to Overturn Cryptography Restrictions*, EFFECTOR ONLINE, (Electronic Frontier Foundation, editors@eff.org) Feb. 23, 1995, http://www.eff.org/pub/EFF/Newsletters/EFFector/HTML/effect08.02.html (spot: export-control sc) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

3. Usenet Newsgroups

Usenet is not a formal network. Rather, it is an organized exchange electronic mail via the Internet. Usenet is made up of thousands of discussion groups called "newsgroups," each of which contains electronic mail "articles" posted by individuals. Articles in each newsgroup are organized by "threads," which are subject headings shared by a number of articles. Usenet users can browse through the articles in a newsgroup by selecting a thread and reading the attached messages.

Citations to newsgroup postings should carry the author's name or online name, E-mail address, the thread or subject heading, the Usenet group identifier, the document date, and an archive parenthetical. For example:

> Stephen Boursy (boursy@world.std.com), *Quoting from Newsgroups*, Usenet: alt.news-media (transmitted Sept. 26, 1995, 10:49 GMT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

> daliwzrd1@aol.com, *CNN's Oct. 6, 1995 Crossfire*, Oct. 7, 1995, 11:49, Usenet: alt.politics.media (on file with the author and unavailable as of Oct. 31, 1995).

4. Listserv Mailing Lists

Listserv documents are similar to Usenet material. The user subscribes to a Listserv on a topic of interest. Postings to the Listserv appear in the subscriber's E-mail box. Listservs are more likely to be

"moderated" than Usenet groups; in other words, postings to Listservs are more likely to be screened.

When citing to a Listserv posting, include the author's name, the subject line, a Listserv indicator and the list identifier, the document date, and an archive parenthetical. For example:

> Silas Marner, *Spam and Gate Crashing*, Listserv: cni-copyright@cni.org media (transmitted Oct. 19, 1995, 19:04:25 PDT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

5. Gopher

Internet Gopher is a tool for retrieving text files, images, sounds and other materials that are stored on Gopher server machines located throughout the world. Information in Gopherspace is accessible through browseable menus. However, Gophers menus are organized by geographic location, not by subject. Users who wish to find specific types of data can use a utility, such as "Veronica," to search for keywords in the file or directory titles of various server machines that are connected to Gopherspace. To cite information located on a Gopher server:

> AMERICAN CIVIL LIBERTIES UNION, THE ESTABLISHMENT CLAUSE AND PUBLIC SCHOOLS: A LEGAL FACT SHEET, Gopher://gopher.nyc.pipeline.com:6601/00/publications/reports/establishment_fact (collected Oct. 3, 1995) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

6. File Transfer Protocol ("FTP")

File Transfer Protocol is a method of transferring files from one computer to another. A user may access the Internet's countless FTP servers to retrieve text files, software, images and other resources. Unlike Gopher servers, FTP servers are not organized into menus that can be browsed. When a user does not know the URL of a specific resource, a search service, such as "Archie," can be used to search for key words in the directories of FTP servers. Cite to FTP documents with the author, title, URL, document date and archive parentheticals:

> John December, *Internet Tools*, ftp://ftp.rpi.edu:/pub/communications/internet-tools.txt (collected Oct. 3, 1995) (on file with the

author and with *Loyola of Los Angeles Entertainment Law Journal*).

7. Wide Area Information Service ("WAIS")

WAIS is the product of a collaborative effort to enable Internet users to search for information without a complicated search protocol. Instead, WAIS uses natural language.

To cite to a WAIS search result, include the author, document title or file name, a WAIS indicator, the search string, and the WAIS source. Also include appropriate new media parentheticals. For example:

> noring@net, Re_My Thoughts on Copyright Law, WAIS: business law, eff.talk.src (spot: heavily skewed) (posted Oct. 3, 1995, 00:16:59 GMT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

8. Online Commercial Services

America Online, CompuServe, and Prodigy are examples of online subscription services that provide access to a variety of "forums," including news, sports, E-mail, entertainment, online shopping, health and travel.

Cites to online services should include the author's name, document title, online service indicator, path, document date, and archive parentheticals. For example:

> John Jones, *What's New Today*, AOL: Personal Finance> Financial Forums>Homeowner's Forum>What's New Today (transmitted Sept. 26, 1995, 08:10:00 EDT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

> *Loyola Marymount University - Los Angeles*, AOL: Reference Desk>College Handbook>Search the College Board>Loyola Marymount University (transmitted June 3, 1995, 11:03:27 EDT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

> Joe Smith, *Info Highway Lessons . . .*, CIS: Go Afro>Mes sages>Read>Message>Number> 70967 (transmitted Mar. 24, 1995, 17:22:42) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

9. Bulletin Board Systems ("BBS")

BBSs are online environments which run proprietary interface software, enabling users to join forums or conferences, upload and download files, E-mail other members of the BBS, or join in online conversations known as "chat." Bulletin boards may or may not be connected to the Internet. If not, they are self-contained.

When citing to material from a BBS, include the author's name, the document title or description, BBS name, the access number for the BBS, the command path or directory/filename, the document date, and archive parentheticals.

> John Smith, *Gangs and Pepper Spray*, National Justice Centre BBS, (216) 740-2137, Top>F>GANGWEP.ZIP (collected Oct. 27, 1995, 16:45:33 PDT) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

Again, follow the *Bluebook* rules for the type of document that the source purports to be.

10. Online Chat

"Online Chat" is synchronous keyboard communications between two or more people. The citation form should follow *Bluebook* rule 17.1.4 (Interviews), substituting "Online Chat" for "Interview." If one of the participants has preserved the text of the chat session, then the digital file should be archived. Also indicate which online system or service carried the session. If the conversation occurred over Internet Relay Chat, then "IRC" will suffice. If the session happened on a BBS, then include the BBS name and access number. For example:

> Online chat with Noam Chomsky, Professor of Linguistics, MIT, Aug. 23, 1994, IRC, (collected Aug. 23, 1994, 03:10:22 EDT) (on file with the author; unavailable as of Nov. 8, 1995).

> Online chat with Sheriff Jones, Los Angeles County Sheriff's Department, Apr. 14, 1995, National Justice Centre BBS, (216) 740-2137 (collected Apr. 14, 1995, 18:19:02 PST) (on file with the author; unavailable as of July 10, 1995).

D. Computer Source Code

Computer programmers create computer programs by writing source code. When citing to the source code of a program, include the name of the program, publisher, platform, date or version number, programming language, and line number(s) or subroutine. Surround any actual code with brackets to avoid confusion with punctuation. For example:

> *Pretty Good Privacy* (Philip R. Zimmerman, Win., ver. 2.0) C Source Code: ['system.c'], [vms_GetVal].

> *Accounts Payable* (Proprietary to XYZ, Inc., DOS, July 10, 1987) Cobol Source Code: 002900-004000.

IV. NON-LINEAR MEDIA

Non-linear works are fluid. Different people interacting with the same non-linear work will enjoy different experiences as they follow their individual paths through the piece.

A. Interactive Multimedia

"Interactive multimedia" is a broad category that covers everything from airport information kiosks to digital games. While interactive multimedia can be distributed on everything from floppy disks to Internet, interactive CD-ROM titles are the most popular platform. Citations to multimedia titles should include the title of the work, publisher, platform, year, and the most efficient path to the cited material, following the typeface conventions set forth in *Bluebook* rule 15 (Books, Pamphlets, and Other Nonperiodic Materials). The complexity of the path will vary from product to product. If the source is distributed on a read-only platform, then, as discussed in Part II, no archive parenthetical is required. If the document is fungible, then it should be archived with both the author and the law journal.

For example, a citation to a photograph on a CD-ROM retrospective of an artist:

> DIGITAL WRIGHT MORRIS (S.F. Museum of Modern Art, Mac/Win. CD-ROM 1993) (path: Home>Map> Dean Cole).

Cite to an interactive compilation of science fiction as follows:

> LEONARD NIMOY SCIENCE FICTION, THE GOLD COLLECTION (Interactive Publishing Partners, Mac/Win. CD-ROM 1995) (path: *2d chamber, picture on left*, Amazing Stories).

Cite to a fungible Hypercard stack as follows:

> EXPRESS YOURSELF (American Civil Liberties Union of Northern California, Mac Disk 1992) (path: Main Menu>What's Up>*Musical Note*>Music Labeling) (on file with the author and with *Loyola of Los Angeles Entertainment Law Journal*).

Cite an interactive brochure as follows:

> LITTON SOLID STATE, PEOPLE DELIVERING PERFORMANCE (Mac Disk 1993) (path: Home>A Better Technology>E-Beam Litho graphy>Forward).

If an icon, such as "Musical Note" is a graphic only, with no text label, use a brief description and italicize it to alert the reader that the author is describing in his or her own words. Also note that the platform description "Disk" does not distinguish between floppy disks and hard drives or other storage technology.

Note that either "Home" or "Main Menu" indicates the first screen which presents options to the user.

B. Hypertext

A hypertext document presents the reader with pathway choices throughout the piece. Generally, these choices come in the form of "hot buttons" or "hot words" which appear as highlighted text. When the reader clicks on a "hot word," the program moves to the linked portion of the text. The process is similar to browsing on the World Wide Web. However, unlike Web sources, hypertext documents often do not present the reader with the equivalent of a URL for every choice made. For hypertext

documents, indicate the path convention to bring the reader to the material in as efficient a way as possible. For example:

> BYRON GARBLE, GOULDOGGLE: A HYPERTEXT NOVEL IN FIVE ACTS (Art Throb Media, Inc., Mac Disk, 1986) (path: home> blast>fugue>(spot: nuncle)).

C. Digital Games

Digital games include video and computer games, arcade games, and immersive simulators. Citations to these sources should include the game title, publisher, platform, year, and the most efficient path to the material cited. For example:

> DOOM II (Id Software, Mac/Win. CD-ROM 1994) (path: Level 3>*left>left>straight>right>ammo pack*).

> IRON HELIX (Spectrum HoloByte, Mac CD-ROM 1993) (path: Level 1>FWD>FWD>RT>Open Door>FWD>LFT>LFT>Deck 6>FWD>Open Door>FWD>LFT).

> CHUCK YEAGER'S AIR COMBAT (Electronic Arts, Mac CD-ROM 1993) (path: Fly *F4 v. 3 Mig 21s*>342°*for 40 sec.*>270°*for 10 sec.*).

Information on computer and video game rating systems is available from the Recreational Software Advisory Council, at (617) 864-5612; or the Entertainment Software Rating Board, at (800) 771-3772.

D. Computer Applications

Citations to elements of computer programs should follow non-linear media conventions. For example:

> MICROSOFT WORD 6.0 (Microsoft Corporation, Win. Disk 1994) (path: New>Format>Bullets and Numbering>Multilevel>*fifth option*).

> CLARISIMPACT 1.0 v3 (Claris Corporation, Mac Disk 1994) (path: Presentation>Global>Click for Title).

V. CONCLUSION

Legal journals play a crucial role in the development of the law. It is becoming increasingly more common for works of legal scholarship to include research obtained from new media sources, such as the Internet and the World Wide Web. These sources present some unusual challenges for authors and law journals, such as collecting and citing to nontraditional sources with precision. The New Media Citation Guide serves as a resource for addressing these tasks.

*James Dunn**, *Peter Giamporcaro, Pamela Launder*
Christopher Lui, David Scott, Helen Shimabuku

* This work is dedicated to my mother, Julie Dunn, and to the loving memory of my father, James E. Dunn.

TABLE 1: INTERNET ABBREVIATIONS

advance(d)	adv.	memory	mem.
America	Am.	minimum	min.
application(s)	appl.	national	nat'l
artificial	artif.	network	ntwk/net.
bandwidth	bndwth.	operation(s)	op(s).
board	bd.	operator(ing)	oper.
bulletin	bull.	performance	perf.
business	busi.	processing(or)	proc.
center	ctr.	project	proj.
command	com.	protocol	protcl.
communication	commun.	record	rec.
computer	comp.	request	req.
control	ctrl.	research	rsch.
corporation	corp.	second	sec.
database	d/b	server	srvr.
document	doc.	service(s)	svc.
download	dwnld.	society	soc'y
education	educ.	software	s/w
engineer	eng'r	standard	std.
engineering	eng'g	support	suppt.
exchange	exch.	system	sys.
extension	ext.	technical	tech.
format	fmt.	technology	tech.
gateway	gtway.	time	t:
graphics	grfx.	time code	tc:
hardware	h/w	timeout	t/o
information	info.	track	trk.
integrated	integ.	transfer	xfer.
intelligence	intell.	transmission	transm.
interchange	interchg.	upload	upld.
Internet	I'net	Windows	Win.
language	lang.	world	wld.
management	mgmt.		
manager	mgr.		
manufacture(r)	mfr.		
manufacturing	mfg.		
maximum	max.		

TABLE 2: INTERNET ACRONYMS

AI	artificial intelligence
AOL	America Online
ARA	AppleTalk Remote Access
ARPA	Advanced Research Project Agency
ARPANET	Advanced Research Project Agency Network
ASCII	American Standard Code for Information Interchange
BBS	bulletin board system
BITNET	because it's time network
BIX	byte information interchange
BPS	bits per second
CAD	computer aided design
CAM	computer aided manufacturing
CCL	Connection Control Language
CD-ROM	compact disc read-only memory
CFV	call for votes
CIM	CompuServe Information Manager
CIS	CompuServe Information Service
CMS	conversation monitor system
CNI	Coalition for Networked Information
CNIDR	Clearinghouse for Networked Information Discovery & Retrieval
CPU	central processing unit
CREN	Corporation for Research and Education Network
DEC	Digital Equipment Corporation
DBMS	data base management systems
DDN	Defense Data Network
DIF	data interchange format
DNS	domain name server
DOS	disc operating system
FAQ	frequently asked question
FTP	File Transfer Protocol
GIF	graphics interchange format
HPCC	High Performance Computing and Communication
HTML	Hypertext Markup Language
HTTP	Hypertext Transfer Protocol

HYTELNET	HyperTelnet
IAB	Internet Architecture Board
IETF	Internet Engineering Task Force
I/O	input/output
IP	Internet Protocol
IRC	Internet Relay Chat
ISDN	Integrated Services Digital Network
ISOC	Internet Society
JPEG	Joint Photographic Experts Group
K	kilobyte
LAN	local area network
M	Mega
Mb	Megabyte
MCC	Microelectronics and Computer Technology Corporation
MPEG	Motion Picture Experts Group
MIME	multipurpose Internet mail extension
MIPS	millions of instructions per second
MIS	management information system
MTU	maximum transmission unit
MUD	multi-user dungeon (dimension)
MX Record	mail exchange record
NCSA	National Center for Supercomputing Applications
NFS	network file system
NIC	network information center
NII	national information infrastructure
NNTP	Network News Transport Protocol
NOC	network operations center
NREN	National Research and Education Network
NSF	National Science Foundation
NSFNET	National Science Foundation Network
OCR	optical character recognition
PEP	Packetized Ensemble Protocol
PGP	Pretty Good Privacy
POP	point of presence
PPP	Point-to-Point Protocol
PROM	programmable read-only memory
RAM	random access memory
RFC	request for comments
RFD	request for discussion

ROM	read-only memory
rot13	rotate numeric assignments by 13
SLIP	Serial Line Internet Protocol
SMPTE	Society of Motion Picture and Television Engineers
SMTP	Simple Mail Transfer Protocol
SNMP	Simple Network Management Protocol
SYSOP	system operator
TCP	Transmission Control Protocol
TELNET	teletype network
Unix	multi-user/multitask operating system
UPI	United Press International
URL	Uniform Resource Locator
USENET	User's Network
UUCP	Unix-to-Unix copy
VMS	VAX main operating system (DEC)
WAIS	Wide Area Information Server
WAN	wide area network
WWW	World Wide Web