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**Nguyen et al.**

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(54) **SYSTEM AND METHOD FOR RIGHTS OFFERING AND GRANTING USING SHARED STATE VARIABLES**

(58) **Field of Classification Search** ..... 705/1, 54, 705/57  
See application file for complete search history.

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(56) **References Cited**

U.S. PATENT DOCUMENTS

3,263,158 A 7/1966 Janis  
(Continued)

FOREIGN PATENT DOCUMENTS

BR 9810967 A 10/2001  
(Continued)

OTHER PUBLICATIONS

Delaigle, "Digital Watermarking," Spie Conference in Optical Security and Counterfeit Deterrence Techniques, San Jose, CA (Feb. 1996).

(Continued)

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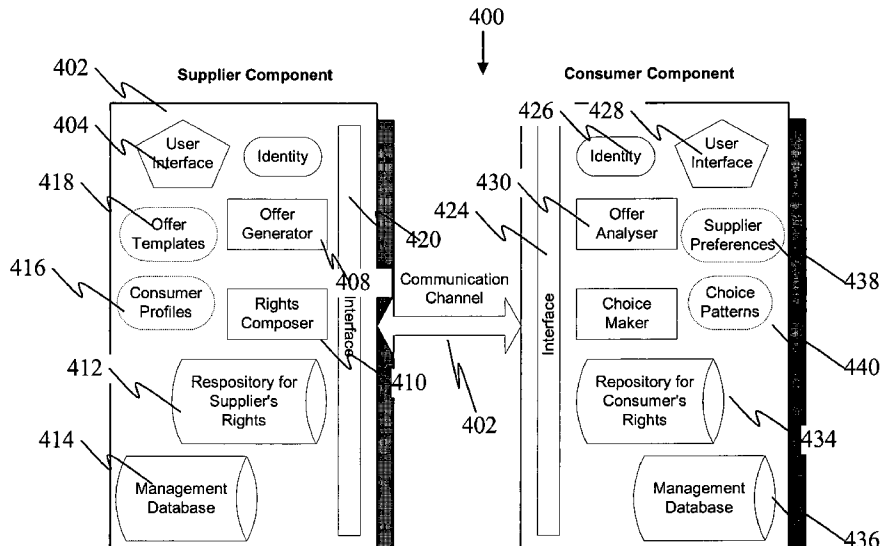
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(57) **ABSTRACT**

A method, system and device for sharing rights adapted to be associated with items, the method and system including generating at least one of usage rights and meta-rights for the items; defining, via the usage rights, a manner of use for the items; and defining, via the meta-rights, a manner of rights transfer for the items. The device including receiving at least one of usage rights and meta-rights for the items; interpreting, via the usage rights, a manner of use for the items; and interpreting, via the meta-rights, a manner of rights transfer for the items. The usage rights or the meta-rights include at least one state variable that is shared by one or more rights.

**35 Claims, 17 Drawing Sheets**



U.S. PATENT DOCUMENTS							
3,609,697	A	9/1971	Blevins et al.	5,386,369	A	1/1995	Christiano
3,790,700	A	2/1974	Callais et al.	5,390,297	A	2/1995	Barber et al.
3,798,605	A	3/1974	Feistel	5,394,469	A	2/1995	Nagel et al.
4,159,468	A	6/1979	Barnes et al.	5,410,598	A	4/1995	Shear
4,200,700	A	4/1980	Mäder	5,412,717	A	5/1995	Fischer
4,220,991	A	9/1980	Hamano et al.	5,414,852	A	5/1995	Kramer et al.
4,278,837	A	7/1981	Best	5,428,606	A	6/1995	Moskowitz
4,323,921	A	4/1982	Guillou	5,432,849	A	7/1995	Johnson et al.
4,361,851	A	11/1982	Asip et al.	5,438,508	A	8/1995	Wyman
4,423,287	A	12/1983	Zeidler	5,444,779	A	8/1995	Daniele
4,429,385	A	1/1984	Cichelli et al.	5,453,601	A	9/1995	Rosen
4,442,486	A	4/1984	Mayer	5,455,953	A	10/1995	Russell
4,529,870	A	7/1985	Chaum	5,457,746	A	10/1995	Dolphin
4,558,176	A	12/1985	Arnold et al.	5,473,687	A	12/1995	Lipscomb et al.
4,593,376	A	6/1986	Volk	5,473,692	A	12/1995	Davis
4,614,861	A	9/1986	Pavlov et al.	5,485,577	A	1/1996	Eyer et al.
4,621,321	A	11/1986	Boebert et al.	5,499,298	A	3/1996	Narasimhalu et al.
4,644,493	A	2/1987	Chandra et al.	5,502,766	A	3/1996	Boebert et al.
4,658,093	A	4/1987	Hellman	5,504,814	A	4/1996	Miyahara
4,713,753	A	12/1987	Boebert et al.	5,504,816	A	4/1996	Hamilton et al.
4,736,422	A	4/1988	Mason	5,504,818	A	4/1996	Okano
4,740,890	A	4/1988	William	5,504,837	A	4/1996	Griffeth et al.
4,796,220	A	1/1989	Wolfe	5,509,070	A	4/1996	Schull
4,816,655	A	3/1989	Musyck et al.	5,530,235	A	6/1996	Stefik et al.
4,817,140	A	3/1989	Chandra et al.	5,532,920	A	7/1996	Hartrick et al.
4,827,508	A	5/1989	Shear	5,534,975	A	7/1996	Stefik et al.
4,868,376	A	9/1989	Lessin et al.	5,535,276	A	7/1996	Ganesan
4,888,638	A	12/1989	Bohn	5,539,735	A	7/1996	Moskowitz
4,891,838	A	1/1990	Faber	5,553,143	A	9/1996	Ross et al.
4,924,378	A	5/1990	Hershey et al.	5,557,678	A	9/1996	Ganesan
4,932,054	A	6/1990	Chou et al.	5,563,946	A	10/1996	Cooper et al.
4,937,863	A	6/1990	Robert et al.	5,564,038	A	10/1996	Grantz et al.
4,949,187	A	8/1990	Cohen	5,568,552	A	10/1996	Davis
4,953,209	A	8/1990	Ryder et al.	5,619,570	A	4/1997	Tsutsui
4,961,142	A	10/1990	Elliott et al.	5,621,797	A	4/1997	Rosen
4,975,647	A	12/1990	Downer et al.	5,625,690	A	4/1997	Michel et al.
4,977,594	A	12/1990	Shear	5,629,980	A	5/1997	Stefik et al. .... 705/54
4,999,806	A	3/1991	Chernow et al.	5,633,932	A	5/1997	Davis et al.
5,010,571	A	4/1991	Katznelson	5,634,012	A	5/1997	Stefik et al.
5,014,234	A	5/1991	Edwards	5,636,346	A	6/1997	Saxe
5,023,907	A	6/1991	Johnson et al.	5,638,443	A	6/1997	Stefik et al.
5,047,928	A	9/1991	Wiedemer	5,638,513	A	6/1997	Ananda
5,050,213	A	9/1991	Shear	5,649,013	A	7/1997	Stuckey et al.
5,052,040	A	9/1991	Preston et al.	5,655,077	A	8/1997	Jones et al.
5,058,164	A	10/1991	Elmer et al.	5,671,412	A	9/1997	Christiano
5,103,476	A	4/1992	Waite et al.	5,708,709	A	1/1998	Rose
5,113,519	A	5/1992	Johnson et al.	5,708,717	A	1/1998	Alasia
5,129,083	A	7/1992	Cutler et al.	5,715,403	A	2/1998	Stefik
5,136,643	A	8/1992	Fischer	5,734,823	A	3/1998	Saigh et al.
5,138,712	A	8/1992	Corbin	5,734,891	A	3/1998	Saigh
5,146,499	A	9/1992	Geffrotin	5,737,413	A	4/1998	Akiyama et al.
5,148,481	A	9/1992	Abraham et al.	5,737,416	A	4/1998	Cooper et al.
5,159,182	A	10/1992	Eisele	5,745,569	A	4/1998	Moskowitz et al.
5,174,641	A	12/1992	Lim	5,745,879	A	4/1998	Wyman
5,183,404	A	2/1993	Aldous et al.	5,748,783	A	5/1998	Rhoads
5,191,193	A	3/1993	Le Roux	5,757,907	A	5/1998	Cooper et al.
5,204,897	A	4/1993	Wyman	5,758,069	A	5/1998	Olsen
5,222,134	A	6/1993	Waite et al.	5,761,686	A	6/1998	Bloomberg
5,235,642	A	8/1993	Wobber et al.	5,764,807	A	6/1998	Pearlman et al.
5,247,575	A	9/1993	Sprague et al.	5,765,152	A	6/1998	Erickson
5,255,106	A	10/1993	Castro	5,768,426	A	6/1998	Rhoads
5,260,999	A	11/1993	Wyman	5,787,172	A	7/1998	Arnold
5,263,157	A	11/1993	Janis	5,790,664	A	8/1998	Coley et al.
5,263,158	A	11/1993	Janis	5,790,677	A	8/1998	Fox et al.
5,276,444	A	1/1994	McNair	5,794,207	A	8/1998	Walker et al.
5,276,735	A	1/1994	Boebert et al.	5,812,664	A	9/1998	Bernobich et al.
5,287,408	A	2/1994	Samson	5,825,876	A	10/1998	Peterson
5,291,596	A	3/1994	Mita	5,825,879	A	10/1998	Davis
5,293,422	A	3/1994	Loiacono	5,825,892	A	10/1998	Braudaway et al.
5,301,231	A	4/1994	Abraham et al.	5,838,792	A	11/1998	Ganesan
5,311,591	A	5/1994	Fischer	5,848,154	A	12/1998	Nishio et al.
5,319,705	A	6/1994	Halter et al.	5,848,378	A	12/1998	Shelton et al.
5,335,275	A	8/1994	Millar et al.	5,850,443	A	12/1998	Van Oorschot et al.
5,337,357	A	8/1994	Chou et al.	5,892,900	A	4/1999	Ginter et al.
5,339,091	A	8/1994	Yamazaki et al.	5,910,987	A	6/1999	Ginter et al.
5,341,429	A	8/1994	Stringer et al.	5,915,019	A	6/1999	Ginter et al.
				5,917,912	A	6/1999	Ginter et al.



JP	06-175794	6/1994	Cox, "Superdistribution" Wired Magazine (Sep. 1994)
JP	06-215010	8/1994	XP002233405 URL: <a href="http://www.wired.com/wired/archive/2.09/superdis_pr.html&amp;gt">http://www.wired.com/wired/archive/2.09/superdis_pr.html&amp;gt</a> .
JP	7-36768	2/1995	Dunlop et al, Telecommunications Engineering, pp. 346-352 (1984).
JP	07-084852	3/1995	Elgamal, "A Public Key Cryptosystem and a Signature Scheme Based on Discrete Logarithms," IEEE Transactions on Information Theory IT-31(4):469-472 (Jul. 1985).
JP	07-200317	8/1995	Gheorghiu et al., "Authorization for Metacomputing Applications" (no date).
JP	07-244639	9/1995	Iannella, ed., Open Digital Rights Language (ODRL), pp. 1-31 (Nov. 21, 2000).
JP	0 715 241	6/1996	Kahle, wais.concepts.txt, Wide Area Information Server Concepts, Thinking Machines Version 4, Draft, pp. 1-18 (Nov. 3, 1989).
JP	11031130 A2	2/1999	Kahn, "Deposit, Registration and Recordation in an Electronic Copyright Management System," Technical Report, Corporation for National Research Initiatives, Reston, Virginia (Aug. 1992) URL: <a href="http://www.cni.org/docs/ima.ip-workshop/kahn.html">http://www.cni.org/docs/ima.ip-workshop/kahn.html</a> .
JP	11032037 A2	2/1999	Kahn et al, "The Digital Library Project, vol. 1: The World of Knowbots (DRAFT), An Open Architecture for a Digital Library System and a Plan for its Development," Corporation for National Research Initiatives, pp. 1-48 (Mar. 1988).
JP	11205306 A2	7/1999	Kohl et al, Network Working Group Request for Comments: 1510, pp. 1-112 (Sep. 1993).
JP	11215121 A2	8/1999	Lee et al, CDMA Systems Engineering Handbook (1998) [excerpts but not all pages numbered].
JP	2000215165 A2	8/2000	Mambo et al, "Protection of Data and Delegated Keys in Digital Distribution," Information Security and Privacy. Second Australian Conference, ACISP '97 Proceedings, pp. 271-282 (Sydney, NSW, Australia, Jul. 7-9, 1997, 1997 Berlin, Germany, Springer-Verlag, Germany), XP008016393 ISBN: 3-540-63232-8.
JP	2005218143 A2	8/2005	Mambo et al, "Proxy Cryptosystems: Delegation of the Power to Decrypt Ciphertexts," IEICE Trans. Fundamentals vol. E80-A, No. 1:54-63 (Jan. 1997) XP00742245 ISSN: 0916-8508.
JP	2005253109 A2	9/2005	Microsoft Word, Users Guide, Version 6.0, pp. 487-489, 549-555, 560-564, 572-575, 599-613, 616-631 (1993).
JP	2006180562 A2	7/2006	Ojanperä and Prasad, eds., Wideband CDMA for Third Generation Mobile Communications (1998) [excerpts but not all pages numbered].
WO	WO 83/04461 A1	12/1983	Perritt, "Knowbots, Permissions Headers and Contract Law," Paper for the Conference on Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment, pp. 1-22 (Apr. 2-3, 1993 with revisions of Apr. 30, 1993).
WO	WO 92/20022	11/1992	Raggett, (Hewlett Packard), "HTML+(Hypertext markup language)," pp. 1-31 (Jul. 12, 1993) URL: <a href="http://citeseer.ist.psu.edu/cor-rect/340709">http://citeseer.ist.psu.edu/cor-rect/340709</a> .
WO	WO 92/20022 A1	11/1992	Samuelson et al, "Intellectual Property Rights for Digital Library and Hypertext Publishing Systems: An Analysis of Xanadu," Hypertext '91 Proceedings, pp. 39-50 (Dec. 1991).
WO	WO 93/01550	1/1993	No Author, "Softlock Services Introduces . . . Softlock Services" Press Release (Jan. 28, 1994).
WO	WO 93/01550 A1	1/1993	No Author, "Appendix III—Compatibility with HTML," No Title, pp. 30-31 (no date).
WO	WO 93/11480 A1	6/1993	No Editor, No Title, Dictionary pages, pp. 469-472, 593-594 (no date).
WO	WO 94/01821	1/1994	Benoit, Digital Television MPEG-1, MPEG-2 and Principles of the DVB System, pp. 75-80, 116-121 (no date).
WO	WO 94/03003 A1	2/1994	Benoit, Digital Television MPEG-1, MPEG-2 and Principles of the DVB System, 2 <sup>nd</sup> edition, pp. 74-80 (no date).
WO	WO 96/13814 A1	5/1996	AH Digital Audio and Video Series, "DTV Receivers and Measurements," Understanding Digital Terrestrial Broadcasting, pp. 159-164 (no date).
WO	WO 96/24092	8/1996	O'Driscoll, The Essential Guide to Digital Set—Top Boxes and Interactive TV, pp. 6-24 (no date).
WO	WO 96/24092 A2	8/1996	Ius Mentis, "The ElGamal Public Key System," pp. 1-2 (Oct. 1, 2005) online at <a href="http://www.iusmentis.com/technology/encryption/elgamal/">http://www.iusmentis.com/technology/encryption/elgamal/</a> .
WO	WO 96/27155 A2	9/1996	Schneider, "Crypto Bibliography," Index of Crypto Papers Available Online, pp. 1-2 (online) (no date).
WO	WO 97/25800 A1	7/1997	No Author, No Title, pp. 344-355 (no date).
WO	WO 97/37492 A1	10/1997	No Author, "Part Four Networks," No Title, pp. 639-714 (no date).
WO	WO 97/41661 A2	11/1997	
WO	WO 97/43761 A2	11/1997	
WO	WO 97/48203	12/1997	
WO	WO 98/09209 A1	3/1998	
WO	WO 98/10561 A1	3/1998	
WO	WO 98/11690	3/1998	
WO	WO 98/11690 A1	3/1998	
WO	WO 98/19431 A1	5/1998	
WO	WO 98/42098	9/1998	
WO	WO 98/43426 A1	10/1998	
WO	WO 98/45768 A1	10/1998	
WO	WO 99/24928 A2	5/1999	
WO	WO 99/34553 A1	7/1999	
WO	WO 99/35782 A1	7/1999	
WO	WO 99/48296 A1	9/1999	
WO	WO 99/49615	9/1999	
WO	WO 99/60461 A1	11/1999	
WO	WO 99/60750 A2	11/1999	
WO	WO 00/04727 A2	1/2000	
WO	WO 00/05898 A2	2/2000	
WO	WO 00/08909 A	2/2000	
WO	WO 00/46994 A1	8/2000	
WO	WO 00/59152	10/2000	
WO	WO 00/59152 A2	10/2000	
WO	WO 00/62260 A1	10/2000	
WO	WO 00/72118 A1	11/2000	
WO	WO 00/73922 A2	12/2000	
WO	WO 01/03044 A1	1/2001	
WO	WO 01 13198 A	1/2001	
WO	WO 01/24530 A2	4/2001	
WO	WO 01/37209 A1	5/2001	
WO	WO 01/63528	8/2001	
WO	WO 2004/034223 A2	4/2004	
WO	WO 2004/103843	12/2004	

## OTHER PUBLICATIONS

Perritt, "Technologies Strategies for Protecting Intellectual Property in the Networked Multimedia Environment," Knowbots, Permissions Headers and Contract Law (Apr. 2-3, 1993).

Blaze et al, "Divertible Protocols and Atomic Proxy Cryptography" 1998 Advances in Cryptography—Euro Crypt International Conference on the Theory and Application of Crypto Techniques, Springer Verlag, DE.

Blaze et al, "Atomic Proxy Cryptography" DRAFT (Online) (Nov. 2, 1997) XP002239619 Retrieved from the Internet.

- No Author, "What is the ElGarnal Cryptosystem," p. 1 (Nov. 27, 2006) online at <http://www.x5.net/faqs/crypto/q29.html>.
- Johnson et al., "A Secure Distributed Capability Based System," ACM, pp. 392-402 (1985).
- Wikipedia, "El Gamal Encryption," pp. 1-3 (last modified Nov. 2, 2006) online at [http://en.wikipedia.org/wiki/ElGamal\\_encryption](http://en.wikipedia.org/wiki/ElGamal_encryption).
- Blaze, "Atomic Proxy Cryptography," p. 1 Abstract (Oct. 20, 1998).
- Blaze, "Matt Blaze's Technical Papers," pp. 1-6 (last updated Aug. 6, 2006)].
- Online Search Results for "inverted file", "inverted index" from [www.techweb.com](http://www.techweb.com), [www.cryer.co.uk](http://www.cryer.co.uk), [computing-dictionary.thefreedictionary.com](http://computing-dictionary.thefreedictionary.com), [www.nist.gov](http://www.nist.gov), [en.wikipedia.org](http://en.wikipedia.org), [www.cni.org](http://www.cni.org), [www.tiscali.co.uk](http://www.tiscali.co.uk) (Jul. 15-16, 2006).
- Corporation for National Research Initiatives, "Digital Object Architecture Project", <http://www.nnri.reston.va.us/dao.html> (updated Nov. 28, 2006).
- Stefik, Summary and Analysis of A13 (Kahn, Robert E and Vinton G Cerf, "The Digital Library Project, vol. 1: The World of Knowbots (DRAFT), An Open Architecture for a Digital Library System and a Plan for its Development," Corporation for National Research Initiatives (Mar. 1988)), pp. 1-25 (May 30, 2007).
- Johnson et al., "A Secure Distributed Capability Based System," Proceedings of the 1985 ACM Annual Conference on the Range of Computing: MID-80's Perspective: MID-80's Perspective *Association for Computing Machinery* pp. 392-402 (1985).
- "National Semiconductor and EPR Partner for Information Metering/Data Security Cards" Mar. 4, 1994, Press Release from Electronic Publishing Resources, Inc.
- Weber, R., "Digital Rights Management Technology" Oct. 1995.
- Flasche, U. et al., "Decentralized Processing of Documents", pp. 119-131, 1986, *Comput. & Graphics*, vol. 10, No. 2.
- Mori, R. et al., "Superdistribution: The Concept and the Architecture", pp. 1133-1146, 1990. *The Transactions of the IEICE*, Vol. E 73, No. 7, Tokyo, JP.
- Weber, R., "Metering Technologies for Digital Intellectual Property", pp. 1-29, Oct. 1994, A Report to the International Federation of Reproduction Rights Organizations.
- Clark, P.C. et al., "Bits: A Smartcard protected Operating System", pp. 66-70 and 94, Nov. 1994, *Communications of the ACM*, vol. 37, No. 11.
- Ross, P.E., "Data Guard", pp. 101, Jun. 6, 1994, *Forbes*.
- Saigh, W.K., "Knowledge is Sacred", 1992, Video Pocket/Page Reader Systems, Ltd.
- Kahn, R.E., "Deposit, Registration and Recordation in an Electronic Copyright Management System", pp. 1-19, Aug. 1992, Corporation for National Research Initiatives, Virginia.
- Hilts, P. et al., "Books While U Wait", pp. 48-50, Jan. 3, 1994, *Publishers Weekly*.
- Strattner, A., "Cash Register on a Chip may Revolutionize Software Pricing and Distribution; Wave Systems Corp.", pp. 1-3, Apr. 1994, *Computer Shopper*, vol. 14, No. 4, ISSN 0886-0556.
- O'Conner, M., "New Distribution Option for Electronic Publishers; iOpener Data Encryption and Metering System for CD-ROM use; Column", pp. 1-6, Mar. 1994, *CD-ROM Professional*, vol. 7, No. 2, ISSN: 1409-0833.
- Willett, S., "Metered PCs: Is Your System Watching You? Wave System beta tests new technology", pp. 84, May 2, 1994, *InfoWorld*.
- Linn, R., "Copyright and Information Services in the Context of the National Research and Education Network", pp. 9-20, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Perritt, Jr., H., "Permission Headers and Contract Law", pp. 27-48, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Upthegrove, L., "Intellectual Property Header Descriptors: A Dynamic Approach", pp. 63-66, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Sirbu, M., "Internet Billing Service Design and prototype Implementation", pp. 67-80, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Simmell, S. et al., "Metering and Licensing of Resources: Kala's General Purpose Approach", pp. 81-110, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Kahn, R., "Deposit, Registration and Recordation in an Electronic Copyright Management System", pp. 111-120, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Tygar, J. et al., "Dyad: A System for Using Physically Secure Coprocessors", pp. 121-152, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Griswold, G., "A Method for Protecting Copyright on Networks", pp. 169-178, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Nelson, T., "A Publishing and Royalty Model for Networked Documents", pp. 257-259, Jan. 1994, *IMA Intellectual Property Project Proceedings*, vol. 1, Issue 1.
- Robinson, E., "Redefining Mobile Computing", pp. 238-240, 247-248 and 252, Jul. 1993, *PC Computing*.
- Abadi, M. et al., "Authentication and Delegation with Smart-cards", pp. 1-24, 1990, Research Report DEC Systems Research Center.
- Mark Stefik, "Letting Loose the Light: Igniting Commerce in Electronic Publication", pp. 219-253, 1996, *Internet Dreams: Archetypes, Myths, and Metaphors*, IDSN 0-262-19373-6.
- Mark Stefik, "Letting Loose the Light: Igniting Commerce in Electronic Publication", pp. 2-35, Feb. 8, 1995, *Internet Dreams: Archetypes, Myths and Metaphors*.
- Henry H. Perritt, Jr., "Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment", Apr. 2-3, 1993, *Knowbots, Permissions Headers & Contract Law*.
- Perritt, "Technologies Strategies for Protecting IP in the Networked Multimedia Environment", Apr. 2-3, 1993, *Knowbot Permissions*.
- Delaigle, "Digital Watermarking", Spie Conference in Optical Security and Counterfeit Deterrence Techniques, San Jose, CA Feb. 1996, vol. 2659 pp. 99-110.
- "The C++ Programming Language—Second Edition", Bjarne Stroustrup, Addison-Wesley, ISBN 0-201-53992-6, 1991.

\* cited by examiner

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## E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.