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**IN THE THIRD JUDICIAL DISTRICT COURT IN AND FOR  
SALT LAKE COUNTY, STATE OF UTAH**

WHENU.COM, INC., a Delaware  
corporation,

Plaintiff,

vs.

THE STATE OF UTAH, a body politic,  
OLENE S. WALKER, in her official  
capacity as Governor of Utah, and  
MARK SHURTLEFF in his official  
capacity as Utah Attorney General,

Defendants.

**AFFIDAVIT OF ARNOLD G.  
REINHOLD**

Case No. \_\_\_\_\_

Honorable \_\_\_\_\_

STATE OF MASSACHUSETTS )

COUNTY OF MIDDLESEX )

ss:

ARNOLD G. REINHOLD, having been first duly sworn upon oath, deposes and says:

1. I have been engaged to serve as an expert on behalf of the plaintiff WhenU.com, Inc. ("WhenU") and submit this affidavit in support of WhenU's application for a temporary restraining order and preliminary injunction enjoining the operation and effect of the Spyware Control Act, Utah Code § 13-39-101 *et seq.* (the "Act").

2. For the reasons set forth below, it is my opinion that, if the Act were to go into effect, it would impose substantial burdens on Internet commerce throughout the United States and the world, and would slow the growth of Internet commerce and the software industry.

#### **Personal Background**

3. I am a co-author of The Internet for Dummies Quick Reference, 2nd, 3rd, 4th, 5th, 6th and 8th editions, and E-Mail for Dummies, 1st and 2nd editions. I have contributed chapters to many other books, including The Internet for Dummies for Windows 98, The Internet for Dummies for Windows ME, More Internet for Dummies, The Internet for Dummies All in One Desk Reference, Internet Secrets, and Mastering COBOL. The U.S. English edition of The Internet for Dummies Quick Reference alone has over 750,000 copies in print.

4. I received a Bachelor of Science Degree in Mathematics from the City College of New York in 1965. I was nominated to Phi Beta Kappa and received a Woodrow Wilson Fellowship and a National Science Foundation Fellowship for graduate study.

5. I was a candidate for the Ph.D in Mathematics at the Massachusetts Institute of Technology from 1966 to 1969.
6. I received a Masters degree in Business Administration with Distinction from the Harvard Business School in 1977.
7. I first learned computer programming in 1959 while a student at the Bronx High School of Science in New York City. I have been involved with computers ever since. During the summers of 1966 and 1967 I was employed as an intern by the National Aeronautics and Space Administration (NASA), at the Manned Spacecraft Center in Houston, Texas. During that time I developed a computer simulation which investigated potential risks to astronauts taking off from the moon.
8. In 1969, I was employed as a computer programmer by the Arcon Corporation in Wakefield, Massachusetts (currently located in Waltham, MA). I worked on a number of computer related projects, including ionospheric propagation, air traffic control and ballistic missile early warning satellites.
9. In 1970, I transferred to a subsidiary of Arcon, called Marcon, that was developing a computer graphics pattern manipulation system for the apparel industry.
10. In 1975, I joined Computervision Corporation of Bedford, Massachusetts. Computervision was a pioneer in the field of computer-aided design and made extensive use of computer graphics technology. I initially worked as a programmer and developed new methods for speeding up the display of drawings. Subsequently, I held several management positions, including Product Line Manager and Director of Advanced Applications.
11. In 1980, I helped found Automatix Inc., an industrial robot company, serving as Product Line Manager for machine vision applications and later as Manager of

R&D. Automatrix was an early user of personal computers in office automation and one of the first companies in the world to connect to the Internet. We connected to the Internet in March 1983 as vaxine.uucp.

12. In 1991, I joined Segue Inc., where we developed a graphical user interface for the Lotus 1-2-3 spreadsheet running on Unix work stations.

13. Since 1992, I have been working as a software developer, independent consultant and author.

14. I also maintain several Internet websites including [www.hayom.com](http://www.hayom.com), where I sell a software application I developed called HaYom and [www.mathinmovies.com](http://www.mathinmovies.com), which provides short reviews of films containing scenes involving mathematics.

15. I have published a number of articles and reports on computer graphics, machine vision, and other technology topics, and have been interviewed on radio and television. A list of my publications is attached hereto as Exhibit A.

16. I was previously engaged as an expert witness by Fish & Neave in connection with *Symbol v. Lemelson*, 301 F.Supp.2d 1147 (D.Nev. 2004), and by Kronish, Lieb, Weiner & Hellman, LLP in connection with *Wells Fargo & Co., et al v. WhenU.com, Inc.*, a lawsuit pending in the United States District Court for the Eastern District of Michigan. On September 16-17, 2003 I testified in a preliminary injunction hearing in that case as an expert and the court later cited my testimony in denying the plaintiffs' motion for a preliminary injunction in that case. *See Wells Fargo & Co. v. WhenU.com, Inc.*, 293 F. Supp. 2d 734 (E.D. Mich. 2003).

## How the Internet Works

17. The Internet is a global network that allows computers all over the world to communicate with each other and share data. The “World Wide Web,” or simply the “web,” which dates from 1991, is a system that uses the Internet to link to vast quantities of information.

18. There are three basic components to the web:

(a) A universal way to find information on the Internet (the Universal Resource Locator or URL, which is essentially an address on the web);

(b) A universal document format (Hyper-Text Markup Language or HTML); and

(c) A protocol for obtaining information from other computers (HTTP).

19. Two software application programs are required to make the World Wide Web functional on the Internet: the “web server” and the “web browser.”

20. The web server program resides on a “server,” which is a computer that provides services for other computers, and receives messages over the Internet requesting some information. The web server then sends that information back to the requesting program as a series of packets. A web browser program resides on users’ computers and lets them request and then display information from web servers.

21. Information on the World Wide Web is contained in “web pages” which are simply documents written in HTML. A collection of web pages pertaining to a particular topic or organization is referred to as a “website.” Each website is typically identified by a “domain name”, which is incorporated into its URL address. For example, “mathinthemovies.com” is a domain name; “http://www.mathinthemovies.com” is a URL.

22. Individual web pages are displayed in “windows” on a user’s computer screen. A window is a graphical box on the computer screen in which an individual application displays information. Windows may, and typically do, overlap other windows, some containing other web pages, some containing entirely different content.

23. When a computer user visits a website, the website often sends instructions to the user’s browser to download a program onto the user’s computer. These programs which are downloaded onto a user’s computer by websites are generally referred to as “scripting programs.” “Java Script” is a common form of scripting program. The user’s Internet browser executes the scripting program. This downloading process occurs automatically. Scripting programs give web pages greater functionality and interactivity. They are commonly used by website owners to transact business over the Internet.

24. Users may also choose to download additional software from a website onto their computer. In this case, the user may either download the application directly onto his computer or alternatively, download an installation file, which when executed, will retrieve the application from the host website.

### **Interstate Commerce and Advertising**

25. Commerce on the Internet has grown rapidly since the National Science Foundation turned the Internet backbone over to private firms for commercial use in the early 1990s. The growth of Internet commerce is due in significant part to the fact that the Internet does not have borders. It allows merchants to transact business with buyers throughout the country, indeed, throughout the world.

26. The Internet’s broad reach and the relatively low cost of establishing a website have created low barriers to entry for new ideas and business models. Thanks to

the Internet, new goods and services have thrived in niches that would have never reached viable size in the "bricks and mortar" markets. As a result, the Internet has become a marketplace that fosters innovation and vigorous competition.

27. An example is the success of the Internet auction business in the United States. A multi-billion dollar industry has grown up around eBay and its ilk and markets have been created that in the past were too small or too dispersed to be serviced efficiently. This has affected me personally. I now have a significant new competitor: used copies of my own books. Several sites specialize in used books and they are actively sold on eBay as well. On the other hand, this same phenomenon has allowed many small used book shops to pool their inventory and form seller cooperatives like TomFolio.com. Out of print or unusual books that a decade ago would have required months of searching are now a few clicks away.

28. A consequence of the Internet's development of new markets is that some businesses are hurt, including mine. Needless to say, I get no royalties on used book sales. However, this is part of a free market, and although the development of the Internet causes change and dislocation, it also creates new economic opportunities, which help consumers.

29. The Internet depends heavily on advertising support. Advertising is also a way for independent providers of software applications to survive. Because many people expect things for free on the Internet, Internet-based independent software developers have had increasing difficulty getting people to pay for their products. Advertising has enabled software developers to distribute their products without charge, yet still be paid for their labors. This obviously benefits consumers, who obtain software for free. For example, I use a free virus resistant email program called Eudora, which displays ads in a

separate window in the lower left hand corner of my screen. Another company, Juno.com, offers ten hours of free Internet access per month in exchange for the user employing a special browser that displays banner ads. Other programs, like the free version of the Netscape browser, regularly display pop-up ads.

30. Contextual advertising is an advance in Internet advertising that provides a greater return to websites and software developers because ads are delivered on the basis of users' online activity. Contextual advertising is used by many different kinds of players on the Internet. For example, Google has developed a contextual advertising program called "AdSense" that is ideal for owners of small websites. I use AdSense to support my website [www.mathinthemovies.com](http://www.mathinthemovies.com), and it generates more than \$100 per month in advertising revenue, enough to pay for the server which hosts my website and to compensate me for some of the time I spend maintaining the site. (I developed this site in 1996 for the fun of it and as an exercise to learn HTML programming. My website proved to be quite popular; in 2003, it received over 81,000 visitors. This is not impressive by the standards of large commercial websites, but it is respectable audience compared to, say, a new novel.) I had found no effective way to defray the costs associated with maintaining the site until late last year when I added AdSense to it.

### **State Regulation of Internet Commerce**

31. Software distributors cannot reliably determine in which of the 50 states users who download their software reside. Nor can they prevent users from acquiring their software in one state and installing the software or running it in a different state. Indeed, given the popularity of smaller laptop computers, it is common for people to take their computers with them when they travel. Moreover, even if it were possible for distributors to control the state in which their software were downloaded, installed, or



run, they could not control which third parties it affected, such as the website owners and advertisers specified in Section 301(1)(b) of the Act. Because software distributors cannot control who downloads, installs, and runs their software, nor whom it affects, any one state's regulation of software necessarily has a national effect.

32. State regulation of Internet commerce would have several harmful effects.

For example:

- a. The need to identify and comply with several states' regulations creates significant new costs for getting started and operating on the Internet. These costs, in turn, create barriers to entry thus hurting consumers by decreasing competition and discouraging innovation. This would be particularly harmful for software developers. The net result would be to undermine one of the keys to the Internet's growth.
- b. If several states were to regulate a particular aspect of Internet commerce, it could produce absurd, counter-productive results. For example, if several states sought to regulate the content of license agreements as Utah has, then software developers would need to develop lengthy, detailed and perhaps redundant license agreements to simultaneously satisfy each state's requirements. Worse, the various state regulations could be inconsistent with each other.
- c. One state's regulation of Internet commerce could favor or disfavor a particular technology or program design, thus stifling the development of competing ideas. For example, Section 102(5)(b) of the Act appears to create an exemption for software written in two particular types of scripting languages, HTML code and Java Script. Today, many websites use scripting languages other than HTML and Java Script, such as Java Applets, Coldfusion, Flash, and XML. To the extent that the Utah legislature intended this provision to carve out an exception for these two

scripting languages, the Act freezes one type of technology at the expense of newer technologies.

### The Act's Spyware Prohibition

33. The Act's "Spyware Prohibition" is so broadly written that it regulates a substantial number of Internet commerce applications. In fact, a group of the world's leading Internet companies, including AOL, AT&T, Google, MCI, Microsoft, Verizon Communications, and Yahoo! wrote the sponsors of the Act on March 1, 2004 to point out, among other problems, that the legislation's definition of spyware "is extremely broad and would cover a host of important and beneficial Internet communication software . . ." and that this software was "essential to provide basic functions on the Internet." A copy of this letter is attached hereto as Exhibit B.

34. As I read it, the definition of "spyware" in Section 102(4) is very inclusive and covers many activities. To be classified as "spyware," software must meet the criteria of Sections 102(4)(a) and (b) and not pass muster under (c). Section 102(4)(a) covers all software that "monitors the computer's usage." "Usage" is defined in Section 102(6) as collecting any information about websites accessed by the user or any personal information about the user, with a long, but not exhaustive, list of specific items mentioned.

35. Section 102(4)(b) covers all software that either (i) sends information about the computer's usage to remote computer or server or (ii) displays certain advertising in response to the computer's usage. Putting aside the advertising criteria of Section 102(4)(b)(ii), Sections 102(4)(a) and 102(4)(b)(i) combined appear to subject any software that collects personal information and sends it to a remote computer to the requirements of Section 102(4)(c), lest it be proscribed as "spyware."

36. This (a) + (b)(i) construction potentially covers a vast amount of Internet commerce applications. For example, this provision seems to cover online stock trading platforms, tax preparation software, applications that consumers use to manage their digital photography, Lexis and Westlaw, and online music stores.

37. A specific case is Apple's iTunes software, which is downloaded from Apple's website on the Internet, [www.apple.com/itunes](http://www.apple.com/itunes), and allows consumers to purchase music online. However, to purchase the music consumers are required to provide personal information, such as their name and credit card information, which is transmitted to Apple's server. Therefore, iTunes would seem to be subject to the requirements of Section 102(4)(c).

38. Parental monitoring software is another example of the Act's broad reach. The Spyware Prohibition covers programs like "IamBigBrother.com," which enable parents who are concerned about what their children are doing on the Internet to monitor their children's Internet activity. IamBigBrother.com promotes itself as enabling parents to "[s]ee everything your family is doing online" including "email recording," "web sites viewed," and "keystroke recordings." To allow parents to review their children's online activity, IamBigBrother sends the data it collects to a central server. There are people who consider this type of monitoring software essential for protecting children who use the Internet.

39. Although the Act's consent and removal requirements do not define most of their terms, they appear to impose a substantial burden on Internet commerce. At a minimum, developers of these applications would need to evaluate whether they are in compliance with the Act and many would probably need to make changes to their software to ensure that they were in compliance with the Act's idiosyncratic provisions.

In some cases, complying with these provisions would require changing the software's design in a way that departs from industry standards. The Act's requirements could also inhibit software manufacturers from making improvements to their software because those changes might require obtaining their users' consent (even if the changes were relatively unimportant from the point of view of the user). Some examples of these effects are as follows:

a. Section 102(4)(c)(i)(A) of the Act requires the software's license agreement to be "presented in full." However, the most common form for presenting license agreements on the Internet is a scrollable text window inside a dialog box. If this provision is read to require Internet commerce applications to display the entire agreement in one screen or to obtain separate consent to each screen, it would create a burden on Internet commerce.

b. Section 102(4)(c)(i)(B) of the Act requires the license agreement to provide a "notice of the collection of each specific type of information to be transmitted as a result of the software installation." If this provision is read to require applications to provide notice about a lot of technical information which is unimportant to the user – such as the fact that it transmits the current version of the user's Internet browser or operating system – many applications would have to rewrite their license agreements as a result. In addition, this provision could eliminate software's ability to change the information it collects unless it could devise a way to ensure that the user agreed to the license a second time.

c. Section 102(4)(c)(i)(A) of the Act requires the license agreement to be "written in plain language." However, the Act also requires that the license agreement "provide notice of each specific type of information to be transmitted as a result of the software's installation," some of which

may be technical. As a result of the Act, software developers will be required to balance these two potentially inconsistent requirements.

d. Section 102(4)(c)(i)(C) requires the license agreement to provide “a clear and representative full-size example of each type of advertising that may be delivered.” Setting aside the fact that this provision seems incompatible with the requirement that the license agreement be presented in full – particularly for an advertisement which is the size of a full screen – this provision also limits the flexibility of software applications to change the size and format of their advertising. Online advertisers need flexibility to introduce new methods and to respond to changes in the rapidly-evolving Internet marketplace. New advertising formats may do a better job in communicating to consumers and at the same time be less annoying. Moreover, as discussed above, many license agreements are now presented in scrollable text windows within a dialog box. This technology is not suited to accommodate the display of advertisements. Therefore, the Act would require many Internet commerce applications that employ advertising to redesign their software.

e. Section 102(4)(c)(i)(C) requires notice of a “truthful statement of the frequency with which each type of advertisement may be delivered.” In addition to requiring many applications to change their license agreements, this provision would limit their flexibility to change the overall frequency with which they deliver advertising as well as the frequency with which they deliver specific types of advertising. Even if the software developer wanted to *reduce* their advertising because of customer complaints, this provision might prevent that with respect to existing customers.

f. Section 102(4)(c)(ii)(B) requires that removal will have no “other effects on the non-affiliated parts of the user’s computer.” But de-installation *always* has effects. Memory and processing are freed up – benign effects to be sure, but they are effects. Less benign, but also

unavoidable, is the fact that removing a program will often cause a small amount of what is known as disk fragmentation. This happens in most operating systems whenever files are deleted. It's normal; it is minor for any one program; and it can be cured by the user periodically running a disk de-fragmentation utility. But it is an unavoidable effect. A more serious effect can occur if the computer's file system becomes damaged. This sometimes happens when the computer is shut down in the middle of normal operation, either inadvertently because the user pressed the on/off button before the "[i]t is now safe to shut down your computer" message appeared, or as a result of a power failure. When files are deleted from a damaged file system it can sometimes cause a crash. Again this risk is not peculiar to advertising-supported software or program removal in general but applies to any file being deleted. There is no way for a software developer to defend against this risk but they must be concerned that their product might be in violation of Section 102(4)(c)(ii)(B) if such a crash occurred. The world's leading Internet companies, in their March 1, 2004 letter, explained, "[h]onest companies would be unable to get frivolous lawsuits dismissed because of subjective standards in the bill, such as whether a company has provided a 'method by which a user may quickly and easily disable and remove' software from a user's computer in a way that does not impact the 'non-affiliated' parts of user's computer." See Exhibit B.

40. In addition to the burdens that the Act's notice and removal requirements place on Internet commerce applications, they also threaten to subject them to a patchwork of state regulations. For example, a bill before the California Senate, SB 1436, as introduced on February 19, 2004, would require an executable computer program that gathers and transmits personal or computer usage information to disclose "(1) [t]hat the software contains spyware" and (2) "[w]hat the spyware does." A copy of the California bill is attached hereto as Exhibit C. Under the Utah Act, software that has

these characteristics is not classified as spyware if it meets the requirements of Section 102(4)(c). The Utah Act further requires that the disclosure be “presented in full,” but the California bill requires that the disclosures be in at least 18-point type which severely reduces the amount of information that can appear on the computer screen. It is easy to envision other states adding differing and conflicting requirements.

#### **Websites Also Collect Usage Information Without Consent**

41. At the present time there are two dominant ways to deliver software functionality to computer end users. The first is to sell, license or give the user a computer program that he installs on his computer. The second way is for the user to visit a website and for the functionality to be downloaded onto the user’s computer in the form of a temporary software program which can remain active on the user’s computer as long as the browser window is open.

42. These temporary software programs are referred to as scripting programs. Typically, users are unaware that these programs have been downloaded on their computer. On the assumption that the Act excludes these widely used scripting programs, it is important to note that they can be, and are sometimes used, to collect information from users without their consent, including information which is then stored on the user’s computer in “cookies.”

## Conclusion

43. Ultimately, the Act's restrictions on legitimate adware may create a far worse "spyware" problem. Because the business model of contextual advertising is economically powerful, the Act may have the effect of encouraging contextual marketing companies to form in nations beyond the reach of American laws and sanctions. In my opinion, it is better to have an ethical adware industry on the Internet that is subject to the rule of law than to drive it out of business only to be replaced by a seamier offshore adware industry.<sup>1</sup> An ethical adware industry can make a positive contribution to the computer industry, the Internet, and the United States economy.

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<sup>1</sup>The market has begun to develop products intended to protect consumers from genuine "spyware" and unwanted advertising, such as Internet security programs and ad blocking programs. Microsoft is expected in the next few months to release an upgrade to its Windows operating system called Service Pack 2 and to expend considerable resources to encourage users to install this upgrade because of its many security enhancements, some of which address the same concerns that apparently prompted the Utah legislature to pass the Act.



Dated this 11<sup>th</sup> day of April, 2004

Arnold G Reinhold

Arnold G. Reinhold

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, SS.

APRIL 11, 2004

Then appeared before me the above-named ARNOLD REINHOLD who acknowledged the above to be his free act and deed and signed under the pains and penalties of perjury, before me,

Nancy Weissman

Nancy Weissman  
Notary Public

My Commission  
Expires 8/9/07



**Arnold G. Reinhold  
Publications**

"AirTrains Need Directions, Some Help," Destination Freedom, Vol. 5, No. 8, Feb. 23, 2004, <http://www.nationalcorridors.org/>

with John R. Levine and Margaret Young Levine, "The Internet for Dummies Quick Reference," John Wiley & Sons, Inc., New York.

2<sup>nd</sup> Edition 1995, ISBN 1-56884-977-X,

3<sup>rd</sup> Edition, 1996, ISBN 0-7645-0110-0,

4<sup>th</sup> Edition, 1998, ISBN 0-7645-0355-3,

5<sup>th</sup> Edition, 1999, ISBN 0-7645-0508-4

6<sup>th</sup> Edition, 2000, ISBN 0-7645-0675-7

8<sup>th</sup> Edition, 2002, ISBN 0-7645-1645-0

Translations: Russian, 1996, 966-506-015-5, Spanish (from 3<sup>rd</sup>) ISBN 958-04-3519-7,

Spanish (from 4<sup>th</sup>) ISBN 958-04-4548-6, Taiwan Chinese (from 4<sup>th</sup>) ISBN 957-8468-71-7

"Strong Cryptography, The Global Tide of Change," Cato Institute Briefing Paper No. 51, September 17, 1999

with others, "Understanding and Solving The Year 2000 Problem," "Converting Programs to Use the EURO," and "COBOL and Other Languages," in "Mastering Cobol," Carol Baroudi ed., Sybex Inc., Alameda, CA, 1999, ISBN 078212321X

with John R. Levine, Carol Baroudi Margaret Young Levine and Jordan Young, "Internet for Windows 98 for Dummies" IDG Books, Foster City, Ca., 1998, ISBN 0-7645-0350-2

"Acute-Care and Code," Morsels Newsletter, Fall/Winter 1997-98, reprinted in Modern Morse Code Applications in Rehabilitation and Education, by Thomas W. King, Allyn & Bacon, 1999

with John R. Levine, Carol Baroudi and Margaret Young Levine, "Internet E-Mail for Dummies" IDG Books, Foster City, Ca., 1996, ISBN 1-56884-235-X, 2<sup>nd</sup> Edition "E-Mail for Dummies," 1997, ISBN 0-7645-0131-3

Translations: Dutch 90-6789-767-1, Italian 85-7251-442-2, Japanese 4-7973-0144-9, Dutch (2<sup>nd</sup>) ISBN 90-6789-904-6

"Common Sense and Cryptography," in Internet Secrets , IDG Books, Foster City, Ca., 1995, ISBN 1-56884-452-2 Also French and Russian translations. 2<sup>nd</sup> Edition 2000, ISBN: 0-7645-3239-1

"Math in the Movies," in Math Horizons, April 1997

with Edward Falk, "Privacy on the Net," in Internet Secrets , IDG Books, Foster City, Ca., 1995, ISBN 1-56884-452-2 Also French and Russian translations.

Keeping and Seeking Customers with a Field Guide to Marketing, Voyager Edition, Harvard Business School Press, (1993) An electronic version of existing three-volume set of marketing texts for use on laptop computers.

with Théodore L. Warren and Kenneth L. Whelan, "Vision System," United States Patent Number 4,577,344, March 1986.

"Advanced Software Architecture for Artificial Vision," Institute for Graphic Communication and Society of Photographic Scientists and Engineers Electronic Imaging 85, October 1985.

Member of Editorial Board of the Journal of Robotics Systems, since its inception in 1984.

"Robotic Arc Welding and Component Assembly Systems," Institute for Graphic Communication and Society of Photographic Scientists and Engineers Electronic Imaging 84, September 1984.

with Theodore L. Warren, "Advanced Architectures for Factory Vision," Society of Photo-Optical Instrumentation Engineers Proceedings of Third International Conference on Robot Vision and Sensory Controls, November 1983.

"Automatic Vision Inspection of Sheet Metal Parts," Society of Photo-Optical Instrumentation Engineers, Volume 336 Robot Vision, May 1982

with Peter Schmidt, "Application of a Vision System to Inspecting Sheet Metal Stampings," Society of Manufacturing Engineers Technical Paper MS82-134, presented at Robot VI Conference, March 1982.

"Computer Vision: Unblinking Eyes for Quality Control," interview in Manufacturing Engineering, May 1981.

with Gordon Vanderbrug, "Robot Vision for Industry," Robotics Age, Fall 1980.

"Turnkey Computer-Aided Design Systems for Architecture," presented at Ohio State University Symposium Computers in Architectural Design: Demise or Deliverance, February 1979.

"Computer-Aided Design Systems Applied to Ship Piping Design," Proceedings of the REAPS Technical Symposium, June 1978, IIT Research Institute B0870-001.

"Computer-Aided Design Supports Automatic Test Systems," IEEE Electro '78 Conference paper 9/2, 1978.

with Manfred Friedman and David C. Miller, "Mathematical and Statistical Analysis for the Reduction of Ionospheric Data," Arcon Corp. Scientific Report No. 1, prepared for Air Force Cambridge Research Labs, January 1972.

with Robert W. Sittler, "A Study of Computer Requirements for A Boost Phase Tracking System and a Midcourse Surveillance System (U)," USAF MSF Study Group ESL-SF Report F19628-70-C-0306, 1970.

with Paul I. Richards, "Pattern Manipulating System--Final Report," Arcon Corporation C-101, April 1970.

with Jerrrold H. Suddath and Robert H. Kidd III, "A Linearized Error Analysis of Onboard Primary Navigation Systems for the Apollo Lunar Module," NASA Report TN-D-4027, 1967. Manned Spacecraft Center, Houston, TX

"Sun Interference with Lunar Surface IMU Alinement," NASA-MSF Project Apollo IN66-EG-44, 1966, Manned Spacecraft Center, Houston, TX

with David Sanders, "On Shortest Hamiltonian Circuits," City College of New York Research Report, 1966

"Some Results on Minimal Covertex Polygons," City College of New York Research Report, 1965.



March 1, 2004

Senator John Valentine  
Majority Leader, Utah State Senate  
Utah State Capitol Building  
Salt Lake City, UT 84144

Representative Steve Urquhart  
Utah State House of Representatives  
Utah State Capitol Building  
Salt Lake City, UT 84144

Re:    **Opposition to H.B. 323**

Dear Senator Valentine and Representative Urquhart:

We write to express our strong opposition to H.B. 323, the Spyware Control Act. We want to emphasize that we do not oppose the bill's intent to address the very serious concerns about "spyware." In fact, the signatories to this letter, who represent some of the world's leading Internet and technology companies, are themselves troubled by spyware and have already developed or are working on developing solutions to address this important issue.

Many of us have been working with the U.S. Federal Trade Commission and members of Congress to explore possible technological and legal solutions to the problem of spyware. While we believe that public policy solutions may play an important role in conjunction with technology to address this problem, we have found that creating a targeted legislative solution to be challenging.

Unfortunately, H.B. 323, while very well intentioned, would have serious unintended consequences on everyday, legitimate activities on the Internet. Because it has moved through the legislative process so quickly, we are just beginning to identify the enormous number of potential problems that this bill would pose. Some of the problems we have identified so far include:

- **Erecting Obstacles to Routine, Benign Internet Software:** H.B. 323 is structurally flawed and cannot be fixed through exceptions because its definition of spyware is extremely broad and would cover a host of important and beneficial Internet communication software, and even the communication of routine network information. These communications are essential to provide basic functions on the Internet. They may include information necessary to provide upgrade computer security to protect against hacker attacks, to provide interactivity on web sites, to provide software patches, to improve Internet browser performance, or enhance search capabilities. Consequently, the ability to communicate routine information may be severely impaired by the bill.
- **Interfering with Computer Security:** The bill also would create serious barriers to collection of data that Internet companies and security companies use to analyze and prevent hacker

attacks on the Internet. This security problem is exacerbated by the fact that computer hackers, and other criminals could refuse to consent to use the software that law enforcement officials need to be able to conduct investigations.

- **Slowing the Use of the Internet and Burdening Users with Notices:** It is hard to quantify the enormous number of notices that the bill would require. This kind of traffic would seriously interfere with the user experience on the Web. Some consumers would ignore all the disclosures, thereby missing a notice concerning software they wouldn't want installed on their computers. Other consumers will be so confused by the volume of notices that they will not permit the installation of software that they need.
- **Disadvantaging Local Businesses:** The bill would impair the ability of consumers to receive targeted advertisements based on, for example, the location of the user. These kinds of advertisements are extremely beneficial to small or regional companies that cannot afford to purchase advertisements that are broadcast nationwide over the Internet. Many of the companies that purchase these kinds of regional ads are located in states such as Utah.
- **Obstacle to Routine Uses of Internet Software :** The bill would make unlawful routine Web-based functions that consumers are increasingly relying on to improve their productivity and use of the Internet. The bill prevents the delivery of information that "partially or wholly covers" an advertisement or other content of an Internet web site. This provision would prohibit the delivery of a notice that a user has received a mail message or a reminder of an upcoming appointment.
- **Wasteful Litigation:** H.B. 323 risks creating many of the litigation problems caused by Utah's spam law. It contains strict liability and very large statutory damage bounties (\$10,000 per incident of collection of even anonymous information, or per advertisement) with treble damages for "knowing" violations without any cap on awards. This would give plaintiffs' lawyers incentives to file lawsuits against innocent companies on behalf of websites or trademark owners. Honest companies would be unable to get frivolous lawsuits dismissed because of subjective standards in the bill, such as whether a company has provided a "method by which a user may quickly and easily disable and remove" software from a user's computer in a way that does not impact the "non-affiliated" parts of a user's computer. These terms have no standard definition in the industry. The section includes a provision for treble damages without any cap on awards. The result would be a litigation bonanza.
- **Stifling Innovation:** The bill is so broad that it would severely impair the ability of our companies to develop innovative and consumer-friendly technologies that have been at the core of what has made the Internet such a dynamic medium.

Our coalition is ready and willing to work with you and others to explore targeted and effective legislative solutions to combat spyware. We cannot support, however, the overly broad and heavy-



handed approach of H.B. 323, which will create even more security and privacy problems for the consumers and companies that the bill is intended to help.

Thank you for considering our views.

AOL  
Amazon.com  
Association for Competitive Technology  
AT&T  
AeA (American Electronics Association)  
Business Software Alliance  
CNET Networks  
Computer & Communication Industry Association  
eBay  
Google  
Information Technology Association of America  
Internet Commerce Coalition  
Intraware  
MCI  
Microsoft  
NetCoalition  
Novell  
Orbitz  
Software & Information Industry Association (SIIA)  
Verizon Communications  
Yahoo!



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Introduced by Senator Murray

February 19, 2004

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An act to add Chapter 32 (commencing with Section 22947) to Division 8 of the Business and Professions Code, relating to business.

LEGISLATIVE COUNSEL'S DIGEST

SB 1436, as introduced, Murray. Computer spyware.

Existing law provides for the regulation of various businesses by the Department of Consumer Affairs. No provision of existing law provides for the regulation of computer spyware.

This bill would require a person or entity providing computer software containing spyware, as defined, to a computer in California to disclose to the recipient that the software contains spyware and what the spyware does. The bill would authorize the recipient of computer spyware transmitted in violation of the prohibitions, the Internet service provider, or the Attorney General to bring an action to recover actual damages. The bill would authorize these parties to recover liquidated damages of \$1,000 per transmission, subject to reduction by a court for specified reasons. The bill would provide for an award of reasonable attorney's fees and costs to a prevailing plaintiff.

This bill would prohibit the transmission to a computer in California of software containing spyware in violation of the policy of the recipient's Internet service provider. The bill would authorize a provider whose policy is violated to bring a civil action to recover specified damages. The bill would prohibit a provider from bringing an action under both this provision and other provisions being added by the bill for the same transmission of software containing spyware.

This bill would provide that if any part of these provisions or their applications are held invalid, the invalidity would not affect other provisions.

Vote: majority. Appropriation: no. Fiscal committee: yes.  
State-mandated local program: no.

*The people of the State of California do enact as follows:*

1 SECTION 1. Chapter 32 (commencing with Section 22947)  
2 is added to Division 8 of the Business and Professions Code, to  
3 read:

4

5 CHAPTER 32. CONSUMER PROTECTION AGAINST COMPUTER  
6 SPYWARE ACT  
7

8 22947. This chapter shall be known as and may be cited as the  
9 Consumer Protection Against Computer Spyware Act.

10 22947.1. For purposes of this chapter, "spyware" means an  
11 executable program that automatically and without the control of  
12 a computer user gathers and transmits to the provider of the  
13 program or to a third party either of the following types of  
14 information:

15 (a) Personal information or data of a user.

16 (b) Data regarding computer usage, including, but not limited  
17 to, which Internet sites are or have been visited by a user.

18 22947.2. (a) A person or entity that provides computer  
19 software containing spyware to a computer in California shall  
20 disclose the following information to the recipient of the software:

21 (1) That the software contains spyware.

22 (2) What the spyware does.

23 (b) The statement required by subdivision (a) shall be in at least  
24 18-point type and shall be included in the first appearing of the  
25 following:

26 (1) The software's opening download.

27 (2) The Web site of the provider or of the software.

28 (3) The initial installation screen for the software.

29 22947.3. (a) (1) In addition to any other remedies provided  
30 by this chapter or by any other provision of law, a person who  
31 receives computer software containing spyware in violation of  
32 Section 22947.2, an Internet service provider, or the Attorney

1 General may bring an action against the violator to recover either  
2 or both of the following:

3 (A) Actual damages.

4 (B) Liquidated damages of one thousand dollars (\$1,000) for  
5 each instance of software containing spyware provided in  
6 violation of Section 22947.2.

7 (2) The recipient, an Internet service provider, or the Attorney  
8 General, if the prevailing plaintiff, may also recover reasonable  
9 attorney's fees and costs.

10 (3) There shall not be a cause of action against an Internet  
11 service provider that is only involved in the routine transmission  
12 of the software containing spyware over its computer network.

13 (b) If the court finds that the defendant established and  
14 implemented, with due care, practices and procedures reasonably  
15 designed to effectively distribute the statement required by  
16 Section 22947.2, the court shall reduce the liquidated damages  
17 recoverable under subdivision (a) to a maximum of one hundred  
18 dollars (\$100) for each provision of software containing spyware.

19 22947.4. (a) A person or entity may not transmit computer  
20 software containing spyware to a computer in California in  
21 violation of the policy of the recipient's Internet service provider.

22 (b) (1) In addition to any other action available under law, an  
23 Internet service provider whose policy on computer spyware  
24 transmission is violated may bring a civil action to recover the  
25 actual monetary loss suffered by that provider by reason of that  
26 violation, or liquidated damages of fifty dollars (\$50) for each  
27 transmission of software containing spyware in violation of this  
28 section, up to a maximum of twenty-five thousand dollars  
29 (\$25,000) per day, whichever amount is greater.

30 (2) In any action brought pursuant to paragraph (1), the court  
31 may award reasonable attorney's fees to a prevailing party.

32 (3) In any action brought pursuant to paragraph (1), the Internet  
33 service provider shall be required to establish as an element of its  
34 cause of action that, prior to the alleged violation, the defendant  
35 had actual notice of both of the following:

36 (A) The Internet service provider's policy on the transmission  
37 of software containing spyware.

38 (B) The fact that the defendant's transmission of software  
39 containing spyware would use or cause to be used the Internet  
40 service provider's equipment.

1 (4) (A) An Internet service provider who has brought an action  
2 against a party under Section 22947.3 may not bring an action  
3 against that party under this section for the same transmission of  
4 software containing spyware.

5 (B) An Internet service provider who has brought an action  
6 against a party for a violation of this section may not bring an  
7 action against that party under Section 22947.3 for the same  
8 transmission of software containing spyware.

9 22947.9. The provisions of this chapter are severable. If any  
10 provision of this chapter or its application is held invalid, that  
11 invalidity shall not affect any other provision or application that  
12 can be given effect without the invalid provision or application.