University of Richmond Law Review

Volume 33 | Issue 3 Article 13

1999

Annual Survey of Virginia Law: 1999 Technology Legislation in Virginia

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Recommended Citation

Diane E. Horvath & John S. Jung, Annual Survey of Virginia Law: 1999 Technology Legislation in Virginia, 33 U. Rich. L. Rev. 1037

Available at: http://scholarship.richmond.edu/lawreview/vol33/iss3/13

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1999 TECHNOLOGY LEGISLATION IN VIRGINIA

Diane E. Horvath *
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I. INTRODUCTION

During its 1999 Session, the Virginia General Assembly passed sixty-four pieces of legislation related to technology that were signed into law. Of these, eighteen bills and resolutions¹ were proposed by the Joint Commission on Technology and Science ("JCOTS").²

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The authors extend their gratitude to E. Brooke Brinkerhoff, Research Assistant, Joint Commission on Technology and Science, University of Richmond School of Law, Class of 2001, for her valuable contributions to this article.

- See H.B. 1662, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 17, 1999. ch. 178, 1999 Va. Acts 206); H.B. 1663, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Feb. 27, 1999, ch. 17, 1999 Va. Acts 25); H.B. 1667, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 26, 1999, ch. 450, 1999 Va. Acts 622); H.B. 1668, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 904, 1999 Va. Acts 1742); H.B. 1669, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Apr. 7, 1999, ch. 978, 1999 Va. Acts 2586); H.B. 1670, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 10, 1999, ch. 70, 1999 Va. Acts 72); H.B. 1671, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 859, 1999 Va. Acts 1600); H.B. 1672, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 26, 1999, ch. 451, 1999 Va. Acts 623); H.B. 2153, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 17, 1999, ch. 206, 1999 Va. Acts 231); H.B. 2343, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 24, 1999, ch. 384, 1999 Va. Acts 444); S.B. 806, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 28, 1999, ch. 696, 1999 Va. Acts 1136); S.B. 819, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 17, 1999, ch. 145, 1999 Va. Acts 179); S.B. 1026, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 28, 1999, ch. 704, 1999 Va. Acts 1180); S.B. 1095, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 892, 1999 Va. Acts 1714); H.J. Res. 505, Va. Gen. Assembly (Reg. Sess. 1999); H.J. Res. 595, Va. Gen. Assembly (Reg. Sess. 1999); H.J. Res. 741, Va. Gen. Assembly (Reg. Sess. 1999); S.J. Res. 361, Va. Gen. Assembly (Reg. Sess. 1999).
- 2. The 1997 Virginia General Assembly created JCOTS "as a permanent legislative agency of the Commonwealth" to "generally study all aspects of technology and science and endeavor to stimulate, encourage, promote, and assist in the development of technology and science in the Commonwealth and sound public policies related thereto." VA. CODE ANN. § 30-85 (Repl. Vol. 1997). JCOTS consists of nine appointed legislators—five delegates and four senators—from the Virginia General Assembly. For more information, see *id.* §§ 30-85 to -88

This article summarizes several enacted bills and provides reference numbers for each bill discussed in the 1999 Acts of Assembly ("1999 Acts"). Given the breadth, depth, and speed of the technological revolution, the purpose of this article is to discuss succinctly the most significant 1999 legislative actions related to technology in areas of substantive law, practice, and procedure.

II. ELECTRONIC FILING AND ELECTRONIC COMMUNICATION

A. Definition of "Written" and "Writing"

The first part of Senate Bill 819 deals with the ambiguity of words such as "written" and "writing" in the Virginia Code.³ Prior to July 1, 1999, the Virginia Code defined "written" and "in writing" as "any representation of words, letters, or figures, whether by printing or otherwise."⁴ Ambiguity arises when determining whether electronic documents are included in this definition. As part of its 1999 legislative package, JCOTS recommended Senate Bill 819 to explicitly include electronic documents in the definition of "written" and "in writing" with a goal towards facilitating electronic commerce in the Commonwealth. Under the bill, written documents include "(i) printed or inscribed on a tangible medium or (ii) stored in an electronic or other medium and retrievable in a perceivable form."⁵

Because the words "written," "writing," "writings," and "in writing" appear over 6,000 times in the Virginia Code, it would have been impracticable and inappropriate to amend each code section that contains these words. By amending the general definition in title 1, Senate Bill 819 affects all uses of these words throughout the code.

B. Electronic Filing

1. With the Commonwealth Generally

In addition to redefining the words "written" and "writing," Senate Bill 819 permits all public bodies of the Commonwealth to

⁽Repl. Vol. 1997), or visit the official JCOTS Web site, *Joint Commission on Technology and Science* (last modified Aug. 13, 1999) http://legis.state.va.us/jcots/jcots.htm>.

^{3.} See S.B. 819, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 17, 1999, ch. 145, 1999 Va. Acts 179) (codified as amended at Va. CODE ANN. §§ 1-13.32, 2.1-7.4. (Cum. Supp. 1999)).

^{4.} VA. CODE ANN. § 1-13.32 (Repl. Vol. 1995).

^{5.} Va. S.B. 819, cl. 1.

accept electronic filing of information. During the 1998 Session, the General Assembly enacted an electronic filing provision that allowed certain state agencies to accept electronic filings. The legislation expressly prohibited any information related to procurement from being filed electronically. To provide better, faster, and cheaper services to citizens, JCOTS proposed an expansion of the 1998 statute in Senate Bill 819. The expansion allowed all public bodies of the Commonwealth to accept electronic filings and removed the prohibition on electronic filing of procurement information. To maintain the autonomy and integrity of the courts, Senate Bill 819 provides that electronic filing of court documents remains subject to the Rules adopted by the Supreme Court of Virginia.

2. With the State Corporation Commission

Whereas Senate Bill 819 generally allows the Commonwealth's public bodies to accept electronic filings, ¹¹ House Bill 2104 deals specifically with the State Corporation Commission ("SCC"). ¹² House Bill 2104 provides that Uniform Commercial Code ("UCC") financing statements and related documents such as amendments, continuation statements, termination statements, assignments, and statements of release may be filed electronically with the SCC. ¹³ In House Bill 2104, the General Assembly declared that existing law did not limit UCC filings to those on paper. ¹⁴

^{6.} See id., cl. 2.

^{7.} See Act of Apr. 16, 1998, ch. 636, 1998 Va. Acts 1485 (codified as amended at VA. CODE. ANN. § 2.1-7.4 (Cum. Supp. 1998)).

^{8.} See id.

^{9.} See Va. S.B. 819, cl. 2. The Council on Information Management recommended removing the prohibition on electronic filing of procurement information. See REPORT OF THE COUNCIL ON INFORMATION MANAGEMENT: A JOINT STUDY OF METHODS OF ELECTRONIC CONTRACTING AND PROCUREMENT UNDER THE VIRGINIA PUBLIC PROCUREMENT ACT, S. Doc. No. 13, at 28 (1999).

^{10.} See Va. S.B. 819, cl. 2.

^{11.} See id.

^{12.} See H.B. 2104, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 15, 1999, ch. 96, 1999 Va. Acts 120) (codified as amended at VA. CODE ANN. § 8.9-402 (Cum. Supp. 1999)).

^{13.} See id. The UCC filing provisions are found in title 8.9, part 4 of the Virginia Code. See VA. CODE. ANN. §§ 8.9-401 to -408 (Repl. Vol. 1991 & Cum. Supp. 1999).

^{14.} See Va. H.B. 2104, cls. 2, 3.

C. Electronic Communication

1. Virginia Freedom of Information Act: Responses to Requests

With House Bill 2638, the 1999 General Assembly permitted public bodies to respond electronically to document requests made under the Virginia Freedom of Information Act ("FOIA"). House Bill 2638 allows public bodies to deliver the requested records by posting them on a Web site or sending them to the e-mail address provided by the requester. 16

2. Virginia Freedom of Information Act: Meeting Notices

Prior to July 1, 1999, the Virginia FOIA required that notices of meetings of public bodies, except where otherwise provided, "shall be furnished to any citizen of the Commonwealth who requests such information." Moreover, the code implied that such meeting notices must be provided by U.S. mail. Senate Bill 806 addresses this "paper bias" by allowing public bodies to deliver meeting notices by electronic means in lieu of, or in addition to, U.S. mail. Unless the requester objects to electronic notification, a public body may notify the requester by posting the notice on its Web site, sending e-mail, or utilizing list service. Senate Point Provided Prov

The electronic meeting notice provisions of Senate Bill 806 had their genesis in JCOTS's use of electronic meeting notification. In September 1998, JCOTS started posting meeting information on its Web site and sending meeting notices by electronic mail to those requesters with e-mail addresses. Because only a fraction of meeting notices were sent through U.S. mail, JCOTS experienced a dramatic reduction in postage and copying costs and a more timely delivery of its meeting notices. Through its use of e-mail, JCOTS was also able to transmit additional information, not necessarily

^{15.} VA. CODE ANN. §§ 2.1-340 to -346.1 (Repl. Vol. 1995 & Cum. Supp. 1999); see H.B. 2638, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 25, 1999, ch. 438, 1999 Va. Acts 588) (codified as amended at VA. CODE ANN. § 2.1-342 (Cum. Supp. 1999)).

^{16.} See Va. H. B. 2638.

^{17.} VA. CODE ANN. § 2.1-343 (Repl. Vol. 1995).

^{18.} See id. (requiring the requester to provide name, address, zip code, and organizational affiliation, but not electronic communication information).

See S.B. 806, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 28, 1999,
 ch. 696, 1999 Va. Acts 1136) (codified as amended at Va. Code Ann. § 2.1-343 (Cum. Supp. 1999)).

^{20.} See id.

required to be delivered by the Virginia FOIA, resulting in positive responses from interested persons. JCOTS recommended Senate Bill 806 to afford all of the Commonwealth's public bodies the opportunity to enjoy those benefits.

3. Virginia Freedom of Information Act: Electronic Communication Meetings

Senate Bill 1026 exempts "(i) any public body . . . (a) in the legislative branch of state government or (b) responsible to or, under the suspension, direction, or control of the Secretary of Commerce and Trade or the Secretary of Technology, 21 . . . or the State Board for Community Colleges" from the strict restrictions on electronic communication meetings set out in the Virginia FOIA. 22 Instead, these public bodies can conduct electronic communication meetings pursuant to the guidelines enumerated in Senate Bill 1026. Because it contained an emergency clause, Senate Bill 1026 became effective upon passage and expires on July 1, 2000. 23

Among other things, Senate Bill 1026 makes two significant changes from the Virginia FOIA's provisions on electronic communication meetings. First, the Virginia FOIA requires that a quorum of a public body of the Commonwealth...[be] physically assembled at one location. In contrast, Senate Bill 1026 provides that a quorum of members be physically located in Virginia at sites that are open and accessible to the public, but not necessarily in one location. Second, in contrast to the Virginia FOIA's thirty-day notice requirement, Senate Bill 1026 requires only a seven-day notice of a public meeting.

^{21.} The Office of the Secretary of Technology was created by Executive Order No. 9, issued May 21, 1998, amended by Executive Order No. 33 also issued in 1998, and codified during the 1999 Session. See discussion infra Part IV. B. For more information on this office, see Office of the Secretary of Technology (visited July 14, 1999) http://www.sotech.state.va.us.

S.B. 1026, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 28, 1999, ch. 704, 1999 Va. Acts 1180) (codified as amended at VA. CODE ANN. § 2.1-343.1 (Cum. Supp. 1999)).

^{23.} See Va. S.B. 1026, cls. 2, 3.

^{24.} See generally VA. CODE ANN. § 2.1-343.1 (Cum. Supp. 1999).

^{25.} Id. § 2.1-343.1(B) (Cum. Supp. 1999).

^{26.} See Va. S.B. 1026, cl. 1, § 5.

^{27.} See VA. CODE ANN. § 2.1-343.1(C) (Cum. Supp. 1999).

^{28.} See Va. S.B. 1026, cl. 1, §§ 6, 8.

Senate Bill 1026 is virtually identical to the final form of the 1998 Session's Senate Bill 156.²⁹ Before the 1998 General Assembly passed it,³⁰ Senate Bill 156 was amended several times,³¹ only to be vetoed by the Governor.³² JCOTS recommended that Senate Bill 156 be reintroduced during the 1999 Session as Senate Bill 1026 with only one substantive change—the inclusion of public bodies under the Secretary of Technology.³³

4. Net.Work.Virginia

House Joint Resolution 595 and Senate Joint Resolution 361 direct the Clerk of the House of Delegates and the Clerk of the Senate to "explore the feasibility of connecting the General Assembly Building and the Capitol Building to Net.Work.Virginia communication network."34 Net. Work. Virginia, created by "Virginia Polytechnic Institute and State University, Bell Atlantic, Sprint, Old Dominion University, and the Virginia Community College System . . . is a high-speed, broadband communications network" connecting Virginia schools, libraries, state agencies, and local governments.35 JCOTS recommended connecting the General Assembly Building and the Capitol Building to Net.Work.Virginia to "permit legislators to participate in videoconferenced public meetings and hearings from within or near their home districts."36 It is hoped that such videoconferencing will save not only "legislators' time and taxpayers' money; . . . [but also will] increase public awareness of and participation in the work of Virginia's legislature."37

^{29.} See S.B. 156, Va. Gen. Assembly (Reg. Sess. 1998). Senate Bill 156 was a JCOTS recommendation. See REPORT OF THE JOINT COMMITTEE ON TECHNOLOGY AND SCIENCE, H. Doc. No. 89, at 30-31, 38 (1998).

^{30.} See H.J. 2334, at 2338 (1998); S.J. 2205, at 2220 (1998).

^{31.} See, e.g., S.J. 467 (1998) (Senate agreeing to the substitution by the Senate Committee on General Laws); H.J. 1329-30 (1998) (House agreeing to the amendments by the House Committee on General Laws); H.J. 1386-87 (1998) (House agreeing to the amendments proposed by Delegate Plum); S.J. 1460-62 (1998) (Senate concurring with the House amendments).

^{32.} See S.J. 2406 (1998).

^{33.} See Va. S.B. 1026, cl. 1, § 1.

^{34.} H.J. Res. 595, Va. Gen. Assembly (Reg. Sess. 1999); S.J. Res. 361, Va. Gen. Assembly (Reg. Sess. 1999).

^{35.} Id.

^{36.} Id.

^{37.} Id.

5. Corporations: Meeting Notices

In addition to provisions for public bodies to deliver meeting notices electronically,³⁸ the 1999 General Assembly extended the convenience to stock corporations.³⁹ House Bill 2721 amends the Virginia Code's meeting notice provisions for corporations to allow "[a] corporation having 300 or more record shareholders" to notify its shareholders of annual and special shareholders' meetings by electronic means.⁴⁰

6. Corporations: Voting by Proxy

For nonstock corporations, the 1999 General Assembly provided that a member entitled to vote can appoint a proxy by "telegram, cablegram or other means of electronic transmission." Prior to July 1, 1999, a member could make a proxy appointment only by signing the appointment form personally or through his attorney in fact. House Bill 2719 also provides that "[a]ny fiduciary who is entitled to vote any shares may vote such shares by proxy."

7. Elections: Transmission of Voter Information

House Bill 1853 allows the State Registrar of Vital Records and the Division of Central Criminal Records Exchange to electronically submit their monthly reports to the State Board of Elections. 44 Currently, the State Registrar of Vital Records is required to submit "a monthly report of all persons of the age of seventeen years or more who shall have died in the Commonwealth subsequent to its previous monthly report," and the Division of Central Criminal Records Exchange is required to submit a monthly "list of all persons convicted of a felony during the preceding month."

^{38.} See discussion supra Part II.C.2.

^{39.} See H.B. 2721, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 15, 1999, ch. 102, 1999 Va. Acts 129) (codified as amended at VA. CODE ANN. § 13.1-658 (Cum. Supp. 1999)).

^{40.} *Id*.

^{41.} H.B. 2719, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 15, 1999, ch. 101, 1999 Va. Acts 128) (codified as amended at VA. CODE ANN. § 13.1-847 (Repl. Vol. 1999)).

^{42.} See Va. Code Ann. § 13.1-847(B) (Repl. Vol. 1993).

^{43.} Va. H.B. 2719; see VA. CODE ANN. § 13.1-847(H) (Repl. Vol. 1999).

^{44.} See H.B. 1853, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 16, 1999, ch. 117, 1999 Va. Acts 151) (codified as amended at VA. CODE ANN. §§ 24.2-408 to -409 (Cum. Supp. 1999)).

^{45.} VA. CODE ANN. § 24.2-408 (Repl. Vol. 1997).

^{46.} Id. § 24.2-409 (Repl. Vol. 1997).

Effective April 1, 2000, House Bill 1853 explicitly permits electronic transmission of these lists.⁴⁷

Upon receipt of the lists, the State Board of Elections is currently required to transmit the lists to the general registrar of the appropriate county or city. Also effective April 1, 2000, House Bill 1853 will require the State Board of Elections to maintain a cumulative permanent record of decedents and felons so that the general registrars will have access to the records.

8. Elections: National Voter Registration Act Coordinating Committee

Six years ago, Congress enacted the National Voter Registration Act of 1993,⁵⁰ which required states to establish procedures to register to vote "by application made simultaneously with an application for a motor vehicle driver's license."⁵¹ House Bill 1854 creates a committee to "coordinate implementation of the National Voter Registration Act and make recommendations to the Secretary of the State Board of Elections."⁵² The National Voter Registration Act Coordinating Committee consists of representatives of the State Board of Elections, the Department of Motor Vehicles ("DMV"), three other agencies providing voter registration opportunities, and five general registrars.⁵³ In addition, House Bill 1854 requires the Commissioner of the DMV to provide for "the electronic transfer of information" from the DMV to the State Board of Elections and general registrars for voter registration purposes.⁵⁴

9. Elections: Electronic Filing of Campaign Finance Disclosure Reports

The 1998 General Assembly amended the Virginia Code to provide that "candidates for the General Assembly may file by computer or electronic means." House Bill 2010 clarifies this

^{47.} See Va. H.B. 1853.

^{48.} See VA. CODE ANN. §§ 24.2-408 to -409 (Repl. Vol. 1997).

^{49.} See Va. H.B. 1853.

^{50. 42} U.S.C. §§ 1973gg to 1973gg-10 (1994).

^{51.} Id. § 1973gg-2; see also id. § 1973gg-3.

^{52.} H.B. 1854, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 16, 1999, ch. 117, 1999 Va. Acts 151) (codified as amended at VA. CODE ANN. §§ 24.2-404.2, 46.2-208.1 (Cum. Supp. 1999)).

^{53.} See id.

^{54.} *Id*

^{55.} VA. CODE ANN. § 24.2-914.1(D) (Cum. Supp. 1998).

provision by explicitly providing that "[c]andidates for the General Assembly may file the reports required by this article⁵⁶... by computer or electronic means." House Bill 2010 also allows a candidate to file the campaign finance disclosure report with the local electoral board, as well as the State Board of Elections, provided the local electoral board is capable of receiving such computer or electronic filing.⁵⁸

III. TELECOMMUNICATIONS

A. Advanced Telecommunications Services in Rural Areas

In many urban and suburban areas, consumers can choose to access the Internet from among several Internet Service Providers ("ISP"). In some rural areas, however, the choice of ISPs is limited or nonexistent. Often, the sole telecommunications infrastructure in these rural areas is the infrastructure used by local governments, which are prohibited from offering advanced telecommunications services to private persons.⁵⁹ To help remedy the disparity between urban or suburban Internet access and that which is typically available in rural areas, the General Assembly enacted House Bill 2277.⁶⁰

House Bill 2277 creates an exception to the Virginia Code's prohibition on local governments providing advanced telecommunications services to private persons. The Virginia Code now provides that "a locality, electric commission or board, industrial development authority, or economic development authority, may lease dark fiber pursuant to § 56-484.12."

^{56.} The phrase "this article" refers to article 4 of chapter 9 of title 24.2 of the Virginia Code, which covers disclosure of financial contributions and expenditures. See VA. CODEANN. §§ 24.2-914 to -928 (Repl. Vol. 1997 & Cum. Supp. 1999).

^{57.} H.B. 2010, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 864, 1999 Va. Acts 1610) (codified as amended at VA. CODE ANN. \S 24.2-914 to -914.1 (Cum. Supp. 1999)).

^{58.} See id. House Bill 2010 also specifies that the address for a contributing corporation or other entity need be listed only once on the report. See id.

^{59.} See Act of May 22, 1998, ch. 906, 1998 Va. Acts 2540.

^{60.} See H.B. 2277, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 916, 1999 Va. Acts 1771) (codified as amended at VA. CODE ANN. §§ 15.2-1500, 56-484.12 to -484.14 ((Cum. Supp. 1999)).

^{61.} See VA. CODE ANN. § 15.2-1500 (Cum. Supp. 1999); Va. H.B. 2277, cl. 1 (codified as amended at VA. CODE ANN. § 15.2-1500(C) (Cum. Supp. 1999)).

^{62.} VA. CODE ANN. § 15.2-1500(C) (Cum. Supp. 1999). "[D]ark fiber' means fiber optic cable which is not lighted by laser or other electronic equipment." Id.

The new Virginia Code section 56-484.12 provides that a locality may lease its dark fiber to "certificated local exchange telephone companies and to not-for-profit educational schools and institutions, hospitals, health clinics and medical facilities." As a result, private citizens may be able to obtain Internet services from their local exchange telephone company, and the specified not-for-profit entities may be able to access the Internet by directly leasing the local government's fiber optic cables.

Leases, effective for ten years, must be approved by the SCC.⁶⁴ In making its determination, the SCC must consider whether: (i) the lease promotes competitive communication services within the area; (ii) the lease enhances economic development; (iii) the service is readily and generally available from three or more companies; (iv) the lease complies with section 56-484.12; and (v) the lease benefits consumers.⁶⁵

As the lessor, the local government is not permitted to profit from such leases but may recover "the cost of the network and installation of additional fiber and related facilities to complete the lessor's network." Local governments may also use the Advanced Communications Assistance Fund ("Fund") to help develop their networks. The Fund was created by House Bill 2436 as a permanent fund consisting of any money "appropriated by the General Assembly and any gifts, grants, or donations." The Fund is to be used in rural areas for "(i) the internal communication needs of such localities, which may include but are not limited to fiber-optic, satellite, and wireless communications networks, or (ii) help in financing the costs of planning, designing, purchasing, leasing, installing, or maintaining dark fiber to the extent permitted in § 15.2-1500." ⁶⁸

B. Preemption of Local Zoning Regulations Regarding Digital Television Towers

In 1996, Congress authorized the Federal Communications Commission ("FCC") to prescribe regulations for advanced television

^{63.} Id. § 56-484.12 (Cum. Supp. 1999).

^{64.} See id.

^{65.} See id. § 56-484.13 (Cum. Supp. 1999).

^{66.} VA. CODE ANN. § 15.2-1500(C) (Cum. Supp. 1999).

^{67.} H.B. 2436, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 924, 1999 Va. Acts 1787) (codified as amended at VA. CODE ANN. § 9-265.1 (Cum. Supp. 1999)).

^{68.} VA. CODE ANN. § 9-265.1(B) (Cum. Supp. 1999).

services or digital television ("DTV").69 The FCC set a transition schedule requiring television ("TV") stations to switch from current analog transmission to digital transmission starting on May 1, 1999, and ending by the year 2006.⁷⁰ To follow this transition schedule, TV broadcasters must modify existing broadcast towers or construct new ones. 71 Claiming that local regulations regarding construction of broadcast towers hinder the transition schedule, the National Association of Broadcasters and the Association for Maximum Service Television petitioned the FCC to adopt a new rule preempting "state and local zoning and other land use regulations to the extent they unreasonably delay the DTV roll-out and other ongoing broadcast transmission facilities construction."72 The FCC responded that it has authority to preempt such state and local laws and requested public comments on whether the FCC should adopt such preemption rules. 73 Through House Joint Resolution 258, the General Assembly expressed its opposition to the FCC's adoption of rules that would preempt local zoning decisions regarding construction of broadcast towers, and encouraged Congress to oppose the FCC's preemption of local zoning regulations.74

IV. ELECTRONIC GOVERNMENT

A. Senate Committee on General Laws

In 1998, the Virginia House of Delegates created a standing committee on science and technology⁷⁵ that has jurisdiction over bills related to such issues; however, the Senate of Virginia has not followed suit. Through Senate Resolution 44, introduced in the 1999 Session, the Senate amended the jurisdiction of the Committee on General Laws⁷⁶ to include "inter- or intra-government information technology applications and uses" and "matters relating to technology, engineering, or electronic research, development, policy,

^{69.} See 47 U.S.C. § 336 (Supp. III 1997).

^{70.} See Preemption of State and Local Zoning and Land Use Restrictions on the Siting, Placement and Construction of Broadcast Transmission Facilities, 62 Fed. Reg. 46,241 (1997) (to be codified at 47 C.F.R. pt. 1).

^{71.} See id. Construction of television broadcast towers also involves relocation of frequency modulation (FM) radio "antennas now collated on television towers." Id. at 46,242.

^{72.} Id. at 46,241.

^{73.} See id. at 46,242.

^{74.} See H.J. Res. 258, Va. Gen. Assembly (Reg. Sess. 1999).

^{75.} See Rules of the House of Delegates 16 (1998).

^{76.} For a full description of the jurisdiction of the Committee on General Laws, see Rules of the Senate 18(f) (1999).

standards, measurements, or definitions, or the scientific, technical, or technological requirements."⁷⁷

B. Office of the Secretary of Technology

In May 1998, the Governor created the Office of the Secretary of Technology "to ensure the coordinated planning and effective development of information technology resources in the Commonwealth." The Secretary was given responsibility "to coordinate the activities of the Center for Innovative Technology ("CIT") and the Century Date Change Initiative Project." House Bill 1727, House Bill 2188, and Senate Bill 808 codified the Governor's Executive Orders, expanded the duties of the Secretary, and created new technology-related state agencies. 80

The Secretary, appointed by the Governor and subject to confirmation by the General Assembly, ⁸¹ has responsibility for the Department of Information Technology, ⁸² the Department of Technology Planning, the Innovative Technology Authority, ⁸³ the Virginia Geographic Information Network Advisory Board, and the Virginia Information Providers Network Authority. ⁸⁴ The Department of Technology Planning is a new state agency that replaces the abolished Council on Information Management. ⁸⁵ Furthermore, although not exactly a replacement, the General Assembly abolished the Virginia Technology Council ⁸⁶ and created the Council on

^{77.} S. Res. 44, Va. Gen. Assembly (Reg. Sess. 1999).

^{78.} Exec. Order No. 9 (98) (May $2\overline{1}$, 1998); see also VA. CODE ANN. § 2.1-51.44 (Cum. Supp. 1999).

^{79.} Exec. Order No. 33 (98) (Sept. 28, 1998).

^{80.} See H.B. 1727, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 25, 1999, ch. 412, 1999 Va. Acts 491) (codified as amended in scattered sections of titles 2.1, 9, and 42 of the Virginia Code); H.B. 2188, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 25, 1999, ch. 433, 1999 Va. Acts 558) (codified as amended in scattered sections of titles 2.1, 9, and 42 of the Virginia Code); S.B. 808, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 25, 1999, ch. 421, 1999 Va. Acts 521) (codified as amended in scattered sections of titles 2.1, 9, and 42 of the Virginia Code).

^{81.} See Va. CODE ANN. § 2.1-51.44 (Cum. Supp. 1999).

^{82.} The Department of Information Technology was previously under the responsibility of the Secretary of Administration. See id. § 2.1-51.27 (Repl. Vol. 1995).

^{83.} The Innovative Technology Authority was previously under the responsibility of the Secretary of Commerce and Trade. See id. § 2.1-51.40 (Repl. Vol. 1995).

^{84.} See id. § 2.1-51.46 (Cum. Supp. 1999).

^{85.} See Va. H.B. 1727 (codified at VA. CODE ANN. §§ 2.1-563.28:1 to .28:3, .36 to .41 (Cum. Supp. 1999)). The employees of the Council on Information Management were transferred to the Department of Technology Planning. See id., cl. 2.

^{86.} See id., cl. 5 (repealing sections 9-145.50 and -145.51 which created the Virginia Technology Council). Upon abolishing the Virginia Technology Council, the General Assembly commended the Council for its work. See S.J. Res. 376, Va. Gen. Assembly (Reg. Sess. 1999).

Technology Services "to advise and assist the Secretary of Technology in exercising the powers and performing the duties conferred" by the Virginia Code.⁸⁷

The Secretary is designated the "Chief Information Officer ("CIO") of the Commonwealth." The General Assembly also created the Chief Information Officer Advisory Board "to advise the CIO on the proper planning, practical acquisition, effective development, and efficient use of information technology."

C. Agency Information Officers

The General Assembly required each agency of the Commonwealth to appoint an agency information officer. The need for agency information officers became apparent when the former Council on Information Management began to work on the Y2K problem. The Council spent tremendous time and effort trying to identify a single point of contact in each state agency. In the course of the Y2K effort, agency information officers were informally appointed.

JCOTS recommended House Bill 1670 and Senate Bill 1095 to formally create agency information officers and specify their duties through a statute. An agency information officer (i) ensure[s] the coordinated planning, practical acquisition, effective development, and efficient use of information technology resources and communications services to meet the department's needs and (ii) serve[s] as the department's liaison to the Office of the Secretary of Technology."92

In the future, having a single person responsible for information technology in each state agency will be particularly important in developing a strong relationship between state agencies and the Secretary of Technology.

^{87.} VA. CODE ANN. § 2.1-51.48 (Cum. Supp. 1999).

^{88.} Id. § 2.1-51.47 (Cum. Supp. 1999).

^{89.} Id. § 2.1-51.49 (Cum. Supp. 1999).

^{90.} See H.B. 1670, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 10, 1999, ch. 70, 1999 Va. Acts 72) (codified as amended at Va. CODE ANN. § 2.1-20.01:1 (Cum. Supp. 1999)); S.B. 1095, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 892, 1999 Va. Acts 1714) (codified as amended at Va. CODE ANN. § 2.1-20.01:1 (Cum. Supp. 1999)).

^{91.} See Va. H.B. 1670; Va. S.B. 1095.

^{92.} VA. CODE ANN. § 2.1-20.01:1(F) (Cum. Supp. 1999).

D. Privacy Protection

House Bill 2152 amended the definition of "information system" as used within the Privacy Protection Act of 1976⁹³ to include "information collected or managed by means of computer networks and the global information system known as the Internet." As a result, House Bill 2152 extends the protections of the Privacy Protection Act to personal information collected or managed by state agencies through the use of the Internet.⁹⁵

E. Photo-Red Enforcement of Traffic Light Signals

The Virginia Code authorizes the use of photo-monitoring systems or photo-red enforcement of traffic light signals. Photo-monitoring systems capture traffic light violations on photographs or video tapes, and the images from these photographs or video tapes are used as prima facie evidence of a violation against the registered owner of the vehicle. Panate Bill 775 expands the scope of photo-red enforcement by providing that images of traffic light violations are prima facie evidence against not only the registered owner, but also the lessee or renter of a vehicle.

F. Commissioners of the Revenue

The Virginia Code requires each commissioner of the revenue to "deliver one certified copy of the personal property book to the treasurer of his county or city and . . . to the Department of Taxation." House Bill 1944 authorizes the commissioners to produce the personal property books by electronic means in addition to the methods already authorized. 100

^{93.} Id. §§ 2.1-377 to -386 (Repl. Vol 1995 & Cum. Supp. 1999).

^{94.} H.B. 2152, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 4, 1999, ch. 41, 1999 Va. Acts 42) (codified as amended at VA. CODE ANN. § 2.1-379(1) (Cum. Supp. 1999)).

^{95.} See generally VA. CODE ANN. § 2.1-380 (Repl. Vol. 1995) (requiring any agency maintaining an information system that includes personal information to keep that information private).

^{96.} See id. § 46.2-833.01 (Repl. Vol. 1998).

^{97.} See id.

^{98.} See S.B. 775, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 884, 1999 Va. Acts 1690) (codified as amended at VA. CODE ANN. § 46.2-833.01 (Cum. Supp. 1999)).

^{99.} VA. CODE ANN. § 58.1-3118 (Repl. Vol 1997).

^{100.} H.B. 1944, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 5, 1999, ch. 52, 1999 Va. Acts 50) (codified as amended at VA. CODE ANN. § 58.1-3118 (Cum. Supp. 1999)).

G. Cover Sheets on Deeds and Other Instruments

Through an uncodified act, the 1998 General Assembly authorized the circuit court clerks of Wise County and the City of Norton to request that a cover sheet be filed with all real estate documents. ¹⁰¹ The cover sheet was to provide pertinent information to the clerk for indexing purposes. ¹⁰² House Bill 1452 codifies the 1998 Act and extends the authority to request that a cover sheet be filed in the circuit court clerk's office to Richmond County, Franklin County, and Greene County. ¹⁰³

H. Blanket Purchase Arrangements for Computers and Related Peripheral Equipment

Prior to July 1, 1999, if a state agency wanted to purchase computers or related peripheral equipment through a blanket purchase arrangement, the agency was required to establish "performance-based specifications for the selection of equipment." Any equipment that met those specifications was required to be added to the solicitation for the blanket purchase arrangement at the request of any potential bidder. ¹⁰⁵ In practice, if a specific model of computer equipment manufactured by a specific manufacturer met the agency's specifications, the agency soliciting bids for computer procurement contracts could list the specific model of that specific brand on the solicitation.

House Bill 2564 changed this policy, 106 and the Virginia Code now emphasizes "performance criteria including price, quality, and delivery without regard to brand name." 107 As a result, "[a]ll vendors meeting the Commonwealth's performance requirements [will] be afforded the opportunity to compete for such contracts." 108

^{101.} See Act of Apr. 11, 1998, ch. 651, 1998 Va. Acts 514.

^{102.} See id.

^{103.} See H.B. 1452, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 24, 1999, ch. 363, 1999 Va. Acts 411) (codified as amended at Va. CODE ANN. § 17.1-227.1 (Repl. Vol. 1999)).

^{104.} VA. CODE ANN. § 2.1-440.1 (Cum. Supp. 1998).

^{105.} See id.

^{106.} See H.B. 2564, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 25, 1999, ch. 436, 1999 Va. Acts 582) (codified as amended at VA. CODE ANN. § 2.1-440.1 (Cum. Supp. 1999)).

^{107.} VA. CODE ANN. § 2.1-440.1 (Cum. Supp. 1999).

^{108.} Id.

I. Information Technology Access Act

The Information Technology Access Act ("ITAA"), which deals with access to information technology by persons who are blind or visually impaired, was originally introduced through identical bills during the 1998 Session. The bills would have required procurement of nonvisual information technology equipment such as "synthesized speech, Braille, and other output methods not requiring sight."

Both bills were carried over to the 1999 Session, the Senate version by the Senate Committee on General Laws¹¹¹ and the House version by the House Committee on Science and Technology.¹¹² The House Committee on Science and Technology requested JCOTS to study House Bill 1115 during the 1998 interim. After concluding its study, JCOTS recommended several amendments to the bill.¹¹³ The 1999 versions of House Bill 1115 and Senate Bill 1327, which incorporated the recommendations made by JCOTS, created the ITAA.¹¹⁴

The 1998 bill defined "covered entity" as "the Commonwealth or any state-assisted organization," and required both state and non-state agencies to follow the procurement provisions of the bill. 115 The 1999 version of the bill, as codified, defines "covered entity" to include only "state agencies, public colleges and universities, and political subdivisions of the Commonwealth" within the ITAA's coverage. 116

The 1998 bill required that all technology purchased "shall be accessible to and usable by individuals who are blind or visually

^{109.} See H.B. 1115, Va. Gen. Assembly (Reg. Sess. 1998); S.B. 580, Va. Gen. Assembly (Reg. Sess. 1998).

^{110.} VA. CODE ANN. § 2.1-808 (Cum. Supp. 1999) (definition of "nonvisual"); see also Va. H.B. 1115 (1998); Va. S.B. 580 (1998).

^{111.} See S.J. 2190-91 (1998).

^{112.} See H.J. 2316 (1998).

^{113.} See REPORT OF THE JOINT COMMISSION ON TECHNOLOGY AND SCIENCE, H. Doc. No. 63, at 6-9 (1999). Most of the amendments to House Bill 1115 were recommended to JCOTS by the Nonvisual Access Technology Study Work Group, headed by Joseph A. Bowman, Deputy Commissioner, Services Delivery, Virginia Department for the Visually Handicapped. See id.

^{114.} See H.B. 1115, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 28, 1999, ch. 773, 1999 Va. Acts 1372) (codified at Va. Code Ann. §§ 2.1-807 to -811 (Cum. Supp. 1999)); S.B. 1327, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 28, 1999, ch. 769, 1999 Va. Acts 1353) (codified at Va. Code Ann. §§ 2.1-807 to -811 (Cum. Supp. 1999)).

^{115.} Va. H.B. 1115 (1998).

^{116.} VA. CODE ANN. § 2.1-808 (Cum. Supp. 1999).

impaired."117 By one estimate, full implementation of this requirement could have cost in excess of \$15,000,000. The 1999 version of the bill, as codified, lessens this requirement by providing that the technology purchased need only be "adaptable for access by individuals who are blind or visually impaired. For example, under the 1998 version of House Bill 1115, the ITAA would have required a covered entity, when purchasing a new computer, to purchase a computer equipped with software that translates written text into spoken speech. Under the 1999 version of the bill, the ITAA requires the covered entity to purchase a computer that can accommodate synthesized text software. If such software requires "a Windows 95 operating system and Pentium processing," then the covered entity must purchase a computer that meets those requirements. 120 When the need subsequently arises to install synthesized text software on a blind employee's computer, the computer will already be technologically capable of handling such software. The implementation of nonvisual access technology, such as synthesized text software, will "be determined on a case-by-case basis as the need arises." 121 Because the ITAA "addresses procurement specifications and does not require specific purchases or retrofitting, its estimated fiscal impact" is minimal. 122

J. Census Data on Students with Disabilities

One of the difficulties JCOTS encountered during its study of House Bill 1115 was "a lack of data indicating how many students with visual impairments are enrolled in Virginia's colleges, universities, and community colleges and what kind of adaptive technologies they may need." JCOTS recommended House Bill 1672, which requires the State Council of Higher Education for Virginia to collect census information on "self-identified students with documented disabilities." ¹²⁴

^{117.} Va. H.B. 1115 (1998).

^{118.} See DEP'TOF PLANNING AND BUDGET, 1998 VIRGINIA LEGISLATIVE IMPACT STATEMENTS (1999); Va. H.B. 1115 (1998).

^{119.} VA. CODE ANN. § 2.1-807(B) (Cum. Supp. 1999).

^{120.} REPORT OF THE JOINT COMMISSION ON TECHNOLOGY AND SCIENCE, H. Doc. No. 63, at 6-9 (1999).

^{121.} VA. CODE ANN. § 2.1-807(B) (Cum. Supp. 1999).

^{122.} H. Doc. No. 63, at 7; see also DEPT OF PLANNING AND BUDGET, 1999 VIRGINIA LEGISLATIVE IMPACT STATEMENTS (1999); Va. H.B. 1115 (1999).

^{123.} H. Doc. No. 63, at 8.

^{124.} H.B. 1672, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 26, 1999, ch. 451, 1999 Va. Acts 623) (codified at VA. CODE ANN. § 23-9.6:1(8) (Cum. Supp. 1999)).

The main purpose for collecting such census information is to forecast more accurately the costs of providing accommodations to students with disabilities, as required by law, especially for assistive technology devices. An assistive technology device is a "device that enables an individual with a disability to improve his or her independence and quality of life," including "wheelchairs . . . telephone communication devices for the deaf . . . voice-synthesized computer modules, optical scanners, talking software, [and] Braille printers." 127

V. DEVELOPMENT OF INFORMATION TECHNOLOGY

A. Teacher Licensure

House Bill 2263 makes technological proficiency a greater factor for teacher licensing. Currently, proficiency in educational technology is not a requirement for teacher licensing; however, standard 5 of the "Standards of Quality" requires local school boards to provide "a program of professional development in educational technology for all instructional personnel." Beginning July 1, 2003, the Board of Education must require the applicant to "demonstrate proficiency in the use of education technology" as part of granting initial licensure or license renewal. ¹³¹

B. Family Involvement in Technology Program

House Bill 2321 creates the Family Involvement in Technology ("FIT") Program to "increase access to educational technology, particularly in schools with large populations of disadvantaged children." Through the FIT Program, grants are provided to each

^{125.} The Virginians with Disabilities Act requires educational institutions to provide "full and equal access to and enjoyment of any of its educational or extracurricular programs." VA. CODE ANN. § 51.5-42 (Repl. Vol. 1998).

^{126.} Id. § 51.5-53 (Repl. Vol. 1998).

^{127.} Id. § 59.1-470 (Repl. Vol. 1998).

^{128.} See H.B. 2263, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of May 7, 1999, ch. 1035, 1999 Va. Acts 2738) (codified as amended at VA. CODE ANN § 22.1-298 (Cum. Supp. 1999)).

^{129.} The Virginia Constitution requires the General Assembly and the Board of Education to set standards of quality for the school divisions. See VA. CONST. art. VIII, § 2.

^{130.} VA. CODE ANN. § 22.1-253.13:5(F)(ii) (Cum. Supp. 1999).

^{131.} Id. § 22.1-298(B)(7) (Cum. Supp. 1999).

^{132.} H.B. 2321, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 26, 1999, ch. 456, 1999 Va. Acts 640) (codified as amended at Va. CODE ANN § 22.1-199.1, -212.2:2 to :3 (Cum. Supp. 1999)).

of the eight public school superintendents' districts to purchase 100 computers per district. In determining how the computers are to be distributed, each district must focus "on increasing educational technology in schools having at least a 75 percent population of disadvantaged children" and meet the guidelines specified in House Bill 2321. Within one year of its implementation, the Board of Education is required to recommend to the Governor and the General Assembly whether the FIT Program should be continued, modified, phased out, or terminated. The FIT Program is modeled after Indiana's Buddy System Project. 137

C. Accelerated Degree Programs in Information Systems

House Joint Resolution 651 expresses the sense of the General Assembly regarding higher education and information technology. ¹³⁸ "Whereas, there are many successful accelerated degree programs in information systems offered through private distance learning programs nationally," Virginia's public institutions offer only a limited number of such programs for nontraditional students. ¹³⁹ House Joint Resolution 651 encourages Virginia's public institutions of higher education to offer accelerated degree programs in the information system field to prepare nontraditional students for employment in the information technology industry. ¹⁴⁰

D. Information Technology Employment Performance Grant

Senate Bill 1188 creates the Information Technology Employment Performance Grant, which is available to any electronic equipment or computer and data processing services firm that creates at least fifty permanent, full-time positions. 141 The positions must be created

^{133.} See id.

^{134.} VA. CODE ANN. § 22.1-212.2:3(B) (Cum. Supp. 1999). Schools having at least a 75% population of disadvantaged children refer to those schools qualifying for funds under title 1 of the Improving America's School Act of 1994, 20 U.S.C. § 6313 (1994). See VA. CODE ANN. § 22.1-212.2:3(D) (Cum. Supp. 1999).

^{135.} See id. § 22.1-212.2:3(B) (Cum. Supp. 1999).

^{136.} See id. § 22.1-212.2:3(C) (Cum. Supp. 1999).

^{137.} See IND. CODE § 20-10.1-25.1-4 to -7(1994). For more information on Indiana's Buddy System Project, see Buddy Project (last modified July 22, 1999) http://www.buddyproject.org.

^{138.} See H.J. Res. 651, Va. Gen. Assembly (Reg. Sess. 1999).

^{139.} *Id.* "Nontraditional students" refers to students who "have been engaged in full-time employment or other pursuits prior to entering college." *Id.*

^{140.} See id.

^{141.} See S.B. 1188, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 26, 1999, ch. 441, 1999 Va. Acts 601) (codified at VA. CODE ANN. §§ 59.1-284.16 to -284.19 (Cum. Supp.

in the planning district having the highest unemployment rate or in an adjacent planning district.¹⁴² Employment must commence on or after July 1, 1999, and last for thirty-six consecutive months.¹⁴³ If these requirements are met, the eligible firms are entitled to a \$1,000 grant per employee, not to exceed \$150,000.¹⁴⁴

E. Information Technology in Southwest Virginia

Senate Joint Resolution 414 expresses the sense of the General Assembly regarding information technology in Southwest Virginia. ¹⁴⁵ The resolution encourages the growth of information technology in Southwest Virginia and requests that the Secretary of Technology and the Chancellor of the Virginia Community College System be apprised of the sense of the General Assembly on this issue. ¹⁴⁶

F. Research and Development Policy

Senate Joint Resolution 502 requests the Secretary of Technology to conduct a "study and develop a coordinated research and development (R&D) policy for the Commonwealth." The "study shall include a review of the intellectual property policies and procedures of the institutions of higher education and federal laboratories . . . and best practices by which intellectual resources can be linked to commercialization to benefit the economy of Virginia." In conducting the study, the Senate Committee on Finance requested the Secretary of Technology to consult institutions of higher education, federal laboratories, and the private sector. The Center for Innovative Technology will provide assistance.

G. Opposing Encryption Export Regulations

House Joint Resolution 649 expresses the General Assembly's opposition to federal regulations restricting exportation of encryp-

^{1999)).}

^{142.} See VA. CODE ANN. § 59.1-284.16 (Cum. Supp. 1999); see also id. § 15.2-4203 (Cum. Supp. 1999) (establishing planning districts).

^{143.} See id. § 59.1-284.16 (Cum. Supp. 1999).

^{144.} See id. § 59.1-284.17(B) (Cum. Supp. 1999).

^{145.} See S.J. Res. 414, Va. Gen. Assembly (Reg. Sess. 1999).

^{146.} See id.

^{147.} S.J. Res. 502, Va. Gen. Assembly (Reg. Sess. 1999).

^{148.} Id.

^{149.} See id.

^{150.} See id.

tion technology 151 and support of the federal Security and Freedom through Encryption ("SAFE") Act. 152

"Encryption basically involves running a readable message known as 'plaintext' through a computer program that translates the message according to an equation or algorithm into unreadable 'ciphertext." The encrypted message can be decrypted or translated back to plaintext if the recipient of the encrypted message has a compatible key. Because "[e]ncryption items can be used to maintain the secrecy of information, and thereby may be used by persons abroad to harm national security, foreign policy and law enforcement interests," export of encryption software is regulated separately from other software. The federal SAFE Act proposes to loosen the restrictions on both domestic and foreign commerce. Recently, the United States Court of Appeals for the Ninth Circuit ruled that the federal regulations on encryption software violate the First Amendment. The second s

VI. CRIMINAL LAW

A. Encryption Used in Criminal Activity

House Bill 2236 creates a separate Class 1 misdemeanor for using "encryption to further any criminal activity." Encryption includes both encrypting, "the enciphering of intelligible data into unintelligible form," and decrypting, "the deciphering of unintelligible data into intelligible form." ¹⁵⁹

B. Unsolicited Bulk Electronic Mail ("Spam")

Following the 1999 Session, Virginia became the fourth state to pass anti-spam legislation, i.e., laws designed to punish the sending of unsolicited bulk e-mail to unsuspecting persons. ¹⁶⁰ Currently, the

^{151.} See Export Administration Regulations, 15 C.F.R. § 740.17 (1999).

^{152.} H.R. 850, 106th Cong. (1999); see H.J. Res. 649, Va. Gen. Assembly (Reg. Sess. 1999).

^{153.} Bernstein v. United States Dep't of State, 974 F. Supp. 1288, 1292 (N.D. Cal. 1997) aff'd sub nom. Bernstein v. United States Dep't of Justice, 176 F.3d 1132 (9th Cir. 1999).

^{154.} See id.

^{155. 15} C.F.R. § 742.15 (1999).

^{156.} See H.R. 850, 106th Cong. (1999); H.R. Rep. No. 106-117, pt. 1, at 2 (1999) (to accompany H.R. 850).

^{157.} See Bernstein, 176 F.3d at 1143-45.

^{158.} H.B. 2236, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 26, 1999, ch. 455, 1999 Va. Acts 639) (codified at VA. CODE ANN § 18.2-152.15 (Cum. Supp. 1999)).

^{160.} See, e.g., H.B. 1668, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29,

three other states with anti-spam legislation are California, ¹⁶¹ Nevada, ¹⁶² and Washington. ¹⁶³ Nevada and Washington provide civil relief for damages caused by spam; ¹⁶⁴ legislation in Virginia and California create both criminal and civil liabilities. ¹⁶⁵

Enactment of anti-spam legislation seems to have followed numerous court decisions on the issue. 166 One of the most recent spam cases was decided in the United States District Court for the Eastern District of Virginia in 1998. 167 The heart of the spam controversy arises from the problems it causes to e-mail service providers ("ESP") and their customers. For example, "the volume of messages generated by such mass mailing places a significant burden on [an ESP's] equipment which has finite processing and storage capacity." A massive volume of spam can overload a system, requiring ESPs to invest in extra equipment and personnel to handle spam. 169 Additionally, because "[m]any computer users find the receipt of bulk e-mail annoying and intrusive," 170 spam recipients (customers of the ESPs) often complain to the ESPs. Between December 1997 and April 1998, "unsolicited bulk e-mails

1999, ch. 904, 1999 Va. Acts 1742) (codified as amended at Va. Code Ann. §§ 8.01-328.1, 18.2-152.2, -152.4, -152.12 (Cum. Supp. 1999)); H.B. 1714, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 905, 1999 Va. Acts. 1745) (codified as amended at Va. Code Ann. §§ 8.01-328.1, 18.2-152.2, -152.4, -152.12 (Cum. Supp. 1999)); S.B. 881, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 886, 1999 Va. Acts 1693) (codified as amended at Va. Code Ann. §§ 8.01-328.1, 18.2-152.2, -152.4, -152.12 (Cum. Supp. 1999)).

- 161. See CAL. BUS. & PROF. CODE §§ 17538.4, .45 (West Supp. 1999); CAL. PENAL CODE § 502 (West 1999).
- 162. See NEV. REV. STAT. ANN. §§ 41.705 to .735 (Michie Cum. Supp. 1999).
- 163. See Wash. Rev. Code Ann. §§ 19.190.005 to .050 (West 1999).
- 164. See NEV. REV. STAT. ANN. § 41.730 (Michie Cum. Supp. 1999); WASH. REV. CODE. ANN. § 19.190.090 (West 1999).
- 165. See Cal. Bus. & Prof. Code § 17538.4 (West Supp. 1999); Cal. Penal Code § 502 (West 1999); Va. S.B. 881; Va. H.B. 1714.
- 166. See, e.g., America Online, Inc. v. LCGM, Inc., 46 F. Supp. 2d 444 (E.D. Va. 1998); Seidl v. Greentree Mortgage Co., 30 F. Supp. 2d 1292 (D. Colo. 1998); Cyber Promotions, Inc. v. Apex Global Info. Servs., Inc., No. Civ.A. 97-5931, 1997 WL 634384, at *1 (E.D. Pa. Sept. 30, 1997) (unreported decision); Expert Pages & Advice & Counsel Corp. v. Buckalew, No. C-97-2109-VRW, 1997 WL 488011, at *1 (N.D. Cal. Aug. 6, 1997) (unreported decision)); CompuServe Inc. v. Cyber Promotions, Inc., 962 F. Supp. 1015 (S.D. Ohio 1997); Cyber Promotions, Inc. v. America Online, Inc., 948 F. Supp. 436 (E.D. Pa. 1996); New York v. Lipsitz, 663 N.Y.S.2d 468 (Sup. Ct. 1997); Web Systems Corp. v. Cyber Promotions, Inc., 97-30156 (Tex. Harris County Dist. Ct. 1997).
 - 167. See America Online, 46 F. Supp. 2d at 444.
 - 168. CompuServe, Inc., 962 F. Supp. at 1019.
- 169. See Daniel P. Dern, Postage Due on Junk E-Mail Spam Costs Internet Millions Every Month, INTERNET WEEK (May 4, 1998) http://www.techweb.com/se/directlink.cgi?INW19980504S0003.
 - 170. Cyber Promotions, 1997 WL 634384, at *3.

generated more than 450,000 complaints by AOL [America Online] members." In fact, "[m]any subscribers have terminated their accounts specifically because of the unwanted receipt of bulk e-mail messages." 172

The principal method by which spammers send spam is through a practice known as "spoofing." Spoofing involves the configuration of an e-mail message's transmission information so that the real e-mail address is hidden and a false e-mail address is displayed as the return (or sender's) address. Between June 1997 and January 1998, LCGM, Inc., sent more than 92 million unsolicited e-mail messages advertising pornographic Web sites to America Online ("AOL") members. ¹⁷³ LCGM configured the transmission information on these messages to appear as if they originated from AOL. ¹⁷⁴ In a lawsuit filed against LCGM, AOL argued that "many AOL members expressed confusion about whether AOL endorsed defendant's pornographic Web sites or their bulk e-mailing practices." The United States District Court for the Eastern District of Virginia held that AOL's trademark was diluted by AOL's association with the spam sent by LCGM. ¹⁷⁶ As of July 1, 1999, spoofing is prohibited under Virginia's anti-spam legislation. ¹⁷⁷

During the 1999 Session, three anti-spam bills were introduced.¹⁷⁸ The original version of House Bill 1668, recommended by JCOTS, did not criminalize spam, but created civil causes of action "for persons who receive false or misleading commercial electronic mail and for persons who receive unsolicited commercial electronic mail." The original versions of House Bill 1714 and Senate Bill 881, recommended by the Governor's Commission on Information

^{171.} America Online, 46 F. Supp. 2d at 449.

^{172.} CompuServe, Inc., 962 F. Supp. at 1023.

^{173.} See America Online, 46 F. Supp. 2d at 448.

^{174.} See id.

^{175.} Id.

^{176.} See id. at 451.

^{177.} See VA. CODE ANN. § 18.2-152.4 (Cum. Supp. 1999).

^{178.} See H.B. 1668, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 904, 1999 Va. Acts 1742) (codified as amended at Va. Code Ann. §§ 8.01-328.1, 18.2-152.2, -152.4, -152.12 (Cum. Supp. 1999)); H.B. 1714, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 905, 1999 Va. Acts 1745) (codified as amended at Va. Code Ann. §§ 8.01-328.1, 18.2-152.2, -152.4, -152.12 (Cum. Supp. 1999)); S.B. 881, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 886, 1999 Va. Acts 1693) (codified as amended at Va. Code Ann. §§ 8.01-328.1, 18.2-152.2, -152.4, -152.12 (Cum. Supp. 1999)).

^{179.} Delegate Kenneth R. Plum, Address at the National Conference of State Legislatures Assembly on State Issues Spring Meeting (Apr. 10, 1999). The Honorable Kenneth R. Plum is the Chairman of Joint Commission on Technology and Science.

Technology, represented "the Administration's view that spam should be criminalized." Ultimately, "none of these three bills as passed by the General Assembly looks very much like it did in its introduced version. House Bill 1668, House Bill 1714, and Senate Bill 881 are now identical to each other."

Virginia's anti-spam legislation accomplishes three main purposes. First, it establishes personal jurisdiction over spammers. Second, it criminalizes spoofing. Finally, it provides civil causes of action. 184

The legislation establishes personal jurisdiction by amending Virginia's long-arm statute to provide that use of a "computer or computer network located in the Commonwealth shall constitute an act in the Commonwealth." Through this amendment, Virginia courts may obtain and exercise personal jurisdiction over persons who reside outside of Virginia and cause tortious injury by using a computer or computer network located in the Commonwealth. This includes companies such as AOL and UUNET that provide Internet services internationally.

To criminalize spoofing, Virginia's anti-spam law amends the Virginia Computer Crimes Act's¹⁸⁷ definition of "without authority" to include transmitting "unsolicited bulk electronic mail in contravention of the authority granted by or in violation of the policies set by the electronic mail service provider." The crime of computer trespass was amended to include "falsify[ing] or forg[ing] electronic mail transmission information... in connection with the transmission of unsolicited bulk electronic mail" without authority. Distributing software that "facilitate[s] or enable[s] the falsification of electronic mail transmission information" is also criminalized.

^{180.} Id. For more information about the Governor's Commission on Information Technology, see Commonwealth of Virginia Office of the Secretary of Technology (visited July 15, 1999) http://www.sotech.state.va.us.

^{181.} Plum, supra note 179.

^{182.} See VA. CODE ANN. § 8.01-328.1(B) (Cum. Supp. 1999).

^{183.} See id. § 18.2-152.4 (Cum. Supp. 1999).

^{184.} See id. § 18.2-152.12 (Cum. Supp. 1999).

^{185.} Id. § 8.01-328.1(B) (Cum. Supp. 1999).

^{186.} See id. § 8.01-328.1(A) (Cum. Supp. 1999).

^{187.} Id. §§ 18.2-152.1 to -152.15 (Repl. Vol. 1996 & Cum. Supp. 1999).

^{188.} Id. § 18.2-152.2 (Cum. Supp. 1999). For an example of an ESP's policy on spam, see AOL's Unsolicited Bulk E-mail Policy (visited Sept. 27, 1999) http://www.aol.com/info/bulk-email.html.

^{189.} VA. CODE. ANN. § 18.2-152.4(A)(7) (Cum. Supp. 1999).

^{190.} Id. § 18.2-152.4(B) (Cum. Supp. 1999).

Finally, the anti-spam law creates a civil cause of action and specifies damages¹⁹¹ for injured ESPs and persons upon whom computer trespass is committed via spoofing, i.e., "the transmission of unsolicited bulk electronic mail" in violation of the Virginia Computer Crimes Act.¹⁹² Additionally, the anti-spam law "shall not be construed to limit any person's right to pursue any additional civil remedy otherwise allowed by law."¹⁹³ Thus, an injured ESP or person may sue under other causes of action, such as the common law tort of trespass to chattel, the Lanham Act, ¹⁹⁴ and the federal Computer Fraud and Abuse Act. ¹⁹⁵

C. Unlawful Electronic Files or Messages

Prior to July 1, 1999, the Virginia Code prohibited knowingly "sell[ing], rent[ing] or loan[ing] to juveniles or . . . knowingly display[ing] for commercial purpose in a manner whereby juveniles may examine and peruse" certain materials that depict "sexually explicit nudity, sexual conduct or sadomasochistic abuse and which is harmful to juveniles." Effective July 1, 1999, House Bill 748 expanded this prohibition to include electronic files or messages containing an image in the enumerated materials that a person may not provide to a juvenile. 197

On October 6, 1999, "[c]ivil rights advocates and 15 Internet businesses filed a federal lawsuit... challenging the constitutionality" of House Bill 748. The plaintiffs filed the lawsuit of the Alexandria Division of the United States District Court for the Eastern District of Virginia and claimed that House Bill 748

^{191.} See id. § 18.2-152.12 (Cum. Supp. 1999). For an injured ESP, damages are set at costs and either actual damages or the greater of \$10 for each violating electronic mail message or \$25,000 per day. See id. § 18.2-152.12(C) (Cum. Supp. 1999). An injured individual may collect costs and either actual damages or the lesser of \$10 for each violating electronic mail message or \$25,000 per day. See id. § 18.2-152.12(B) (Cum. Supp. 1999).

^{192.} Id. § 18.2-152.4(A)(7) (Cum. Supp. 1999); see also id. § 18.2-152.12 (Cum. Supp. 1999).

^{193.} Id. § 18.2-152.12(E) (Cum. Supp. 1999).

^{194. 15} U.S.C. § 1125 (1994).

^{195. 18} U.S.C. § 1030 (1994).

^{196.} VA. CODE ANN. § 18.2-391 (Repl. Vol. 1996).

^{197.} See H.B. 748, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Apr. 7, 1999, ch. 936, 1999 Va. Acts 2428); (codified as amended at Va. CODE ANN. § 18.2-391 (Cum. Supp. 1999)).

^{198.} Leef Smith, Virginia's Internet Law Challenged: Ban to Protect Children Called Unconstitutional, WASH. POST, Oct. 7, 1999, at B1.

"violates the First Amendment and the Commerce Clause of the U.S. Constitution." 199

D. Protection of Children from Sexual Crimes

House Bill 1760 deals with child pornography and other sexual crimes against children. The bill increases the penalty for possession of child pornography from a Class 3 misdemeanor to a Class 1 misdemeanor. The bill also creates a new Class 5 felony for using a communication system, including "computers or computer networks or bulletin boards, or any other electronic means, for the purpose of soliciting" a minor in order to commit a sexual offense involving a minor. Finally, the bill expands the crimes that require registration as a sex offender to include making or distributing child pornography and repeatedly possessing child pornography. The sex offender registry is available for public inspection at the Virginia State Police's Web site.

VII. ACCEPTABLE INTERNET USE POLICIES

A. Background

The 1999 General Assembly enacted two bills that require application of acceptable Internet use policies ("AIUP"). House Bill 2343 requires that state agencies adopt and enforce AIUPs for all state employees. House Bill 1043 requires the use of AIUPs in Vir-

^{199.} Wiley, Rein & Fielding, E-Business, Others Sue to Overturn Internet Censorship Law (visited Oct. 12, 1999) http://www.wrf.com/publications/cyberspace/juveniles.html>.

^{200.} See H.B. 1760, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 28, 1999, ch. 659, 1999 Va. Acts 1051) (codified as amended at VA. CODE ANN. §§ 18.2-374:1 to -374:3, 19.2-298.1 (Cum. Supp. 1999)).

^{201.} See id.

^{202.} Id.; see also VA. CODE ANN. § 18.2-374.3 (Cum. Supp. 1999).

^{203.} See VA. CODE ANN. § 18.2-374.1 (Repl. Vol. 1996). In a related measure, the General Assembly commended the Sheriff of Bedford County for the success of Operation Blue Ridge Thunder, a program to combat Internet crimes against children, especially child pornography. S.J. Res. 359, Va. Gen. Assembly (Reg. Sess. 1999). For more information, see Operation Blue Ridge Thunder (last modified Sept. 17, 1999) http://www.blueridgethunder.com>. See VA. CODE ANN. § 18.2-374.1:1(D) (Cum. Supp. 1999).

^{204.} See Virginia State Police (visited on Sept. 27, 1999) http://www.vsp.state.va.us. 205. H.B. 2343, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 24, 1999, ch. 384, 1999 Va. Acts 444) (codified as amended at VA. CODE ANN. §§ 2.1-114.5, -804 (Cum. Supp. 1999)).

ginia's public schools and libraries. 206 Both bills began from JCOTS's study of access to the Internet. 207

JCOTS examined two federal court cases heard in Virginia. *Mainstream Loudoun v. Board of Trustees*²⁰⁸ involved a public library's policy to filter all access to the Internet by using filtering software. ²⁰⁹ *Urofsky v. Allen*²¹⁰ involved a state statute that prohibited state employees from using state computers to access or download sexually explicit materials, unless they had prior permission. ²¹¹ In addition to these cases, JCOTS examined three bills carried over from the 1998 Session that sought to limit juveniles' access to the Internet in public schools and libraries: ²¹² House Bill 348, ²¹³ House Bill 1043, ²¹⁴ and House Bill 1317. ²¹⁵

During the course of the study, issues arose concerning the constitutionality of installing filtering software on public computers, implementing AIUPs in lieu of filtering software, and the fiscal impact of filtering software. ²¹⁶ Ultimately, JCOTS recommended, inter alia, that:

(1) The Commonwealth should not mandate the use of filtering software that blocks access to certain sites on the Internet in its public schools and libraries. (2) Decisions about when, where, how, and whether to filter are best made at the local level by local school and library boards. (3) The Commonwealth should require public schools and libraries to adopt acceptable use policies or guidelines for Internet use.²¹⁷

^{206.} H.B. 1043, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 9, 1999, ch. 64, 1999 Va. Acts 64) (codified as amended at VA. CODE ANN. §§ 22.1-70.2 (Cum. Supp. 1999), 42.1-36.1 (Repl. Vol. 1999)).

^{207.} See generally Report of the Joint Commission on Technology and Science, H. Doc. No. 63, at 2-6 (1999).

^{208. 2} F. Supp. 2d 783 (E.D. Va. 1998).

^{209.} Filtering software blocks access to Internet sites that contain "inappropriate material." The software usually performs this task by blocking access to (i) sites that contain inappropriate words or phrases, (ii) predetermined inappropriate sites, (iii) sites that are rated inappropriate for the user's level, such as age or grade, or (iv) a combination of the above methods. See H. Doc. No. 63, at 43-47. For more information on filtering software, how it functions, and its potential legal implications, see id. at 42-59.

^{210. 995} F. Supp. 634 (E.D. Va. 1998), rev'd sub nom. Urofsky v. Gilmore, 167 F.3d 191 (4th Cir. 1999).

^{211.} See id. at 635; see also VA. CODE ANN. §§ 2.1-804 to -806 (Cum. Supp. 1999). The amendments to these sections made by Va. H.B. 2343 are discussed infra Part VII.C..

^{212.} See H. Doc. No. 63, at 2-6.

^{213.} H.B. 348, Va. Gen. Assembly (Reg. Sess. 1998).

^{214.} H.B. 1043, Va. Gen. Assembly (Reg. Sess. 1998).

^{215.} H.B. 1317, Va. Gen. Assembly (Reg. Sess. 1998).

^{216.} See H. Doc. No. 63, at 2-6.

^{217.} Id. at 5.

B. AIUPs in Public Schools and Libraries

To implement JCOTS's recommendations, Delegate Thomas M. Jackson, Jr., patron of House Bill 1043, presented a new version of his bill in the 1999 Session.²¹⁸ As passed, House Bill 1043 requires every public school division superintendent in Virginia's elementary and secondary schools and all of Virginia's public library boards (or their equivalents) to establish an AIUP. 219 At a minimum, the AIUP must (i) prohibit access to illegal materials by school employees and students and library employees and patrons; (ii) seek to prevent access to material that is harmful to juveniles by students and library patrons under the age of eighteen; and (iii) establish disciplinary measures for persons who violate the policy.²²⁰ The bill allows each division superintendent and library board to determine whether to use filtering software to block access to (i) illegal materials by school employees and students and library employees and patrons; (ii) material that is harmful to juveniles by students and library patrons under the age of eighteen; or (iii) both. 221

C. AIUPs for State Employees

JCOTS recommended House Bill 2343 in an attempt to harmonize Internet access issues in public schools and libraries with those of state employees, and to unify Virginia's policy on the use of the Internet by all the Commonwealth's agencies. ²²² As introduced, House Bill 2343 would have required the use of an AIUP in state agencies and would have required the Department of Personnel and Training to establish an AIUP that (i) prohibits access to illegal materials by state employees and (ii) establishes disciplinary measures for employees who violate the AIUP. ²²³

As introduced, House Bill 2343 would have also repealed the 1996 Act entitled "Restrictions on State Employee Access to Information

^{218.} See H.B. 1043, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 9, 1999, ch. 64, 1999 Va. Acts 64) (codified as amended at Va. Code Ann. §§ 22.1-70.2 (Cum. Supp. 1999), 42.1-36.1 (Repl. Vol. 1999)); cf. H.B. 1043, Va. Gen. Assembly (Reg. Sess. 1998).

^{219.} See VA. CODE ANN. § 22.1-70.2 (Cum. Supp. 1999).

^{220.} See id. §§ 22.1-70.2(A) (Cum. Supp. 1999), 42.1-36.1(A) (Repl. Vol. 1999).

^{221.} See id. §§ 22.1-70.2(B) (Cum. Supp. 1999), 42.1-36.1(B) (Repl. Vol. 1999).

^{222.} See H.B. 2343, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 24, 1999, ch. 384, 1999 Va. Acts 444) (codified as amended at VA. CODE ANN. §§ 2.1-114.5, -804 (Cum. Supp. 1999)).

^{223.} See id.; VA. CODE ANN. § 2.1-114.5(13) (Cum. Supp. 1999).

Infrastructure."²²⁴ The constitutionality of the 1996 Act, which prohibits state employees from accessing sexually explicit materials through state-owned or state-leased computers, is the subject of *Urofsky v. Allen*.²²⁵ JCOTS's purpose in introducing House Bill 2343 was

to promote the public policy of endorsing and enforcing responsible Internet usage without imposing unconstitutional restrictions on free speech. By requiring an AIUP in every state agency, state employees will be on notice as to what constitutes appropriate use of state computers and what the consequences are for inappropriate use. Use of state computers, like use of state cars, state telephones, and state time, is a management issue best handled in the employee-employer relationship through Virginia's state personnel rules. House Bill 2343 will permit the use of the Internet by state employees to be handled in that manner.²²⁶

Replacing the 1996 Act with the requirement of an AIUP for state employees was an attempt "to move the discussion away from the constitutionality of the 1996 statute [and] towards setting a clear standard of conduct for state employees' use of the Internet in the workaday world."²²⁷ As introduced, House Bill 2343 would not have prohibited sexually explicit materials as the 1996 Act did,²²⁸ but would have prohibited access to "illegal materials" such as obscenity,²²⁹ child pornography,²³⁰ and those materials that would constitute a crime under the Virginia Computer Crimes Act.²³¹

Instead of repealing it, the General Assembly amended the 1996 Act, via House Bill 2343, at the request of the Virginia Attorney General, to address constitutional objections raised in *Urofsky*. The *Urofsky* court had held that prohibiting access to sexually explicit materials was unconstitutionally overinclusive in that sexually explicit materials can be work-related by virtue of being academic, artistic, historic, philosophical, or medical in nature. ²³² As amended, House Bill 2343 narrows the definition of "sexually explicit content"

^{224.} VA. CODE ANN. §§ 2.1-804 to -806 (Cum. Supp. 1999).

^{225.} See Urofsky v. Allen, 995 F. Supp. 634 (E.D. Va. 1998), rev'd sub nom. Urofsky v. Gilmore, 167 F.3d 191 (4th Cir. 1999).

^{226.} REPORT OF THE JOINT COMMISSION ON TECHNOLOGY AND SCIENCE, H. Doc. No. 63, at 35 (1999).

^{227.} Id.

^{228.} See VA. CODE ANN. § 2.1-804 to -806 (Cum. Supp. 1998).

^{229.} See id. § 18.2-372 (Repl. Vol. 1996).

^{230.} See id. §§ 18.2-374.1 (Repl. Vol. 1996), -374.1:1 to -374.3 (Cum. Supp. 1999).

^{231.} Id. §§ 18.2-152.1 to -152.15 (Repl. Vol. 1996 & Cum. Supp. 1999).

^{232.} See Urofsky v. Allen, 995 F. Supp. 634, 640 (E.D. Va. 1998), rev'd sub nom. Urofsky v. Gilmore, 167 F.3d 191 (4th Cir. 1999).

in the 1996 Act by adding the words "content having as a dominant theme" and "lascivious." Effective July 1, 1999, the 1996 Act prohibits state employees from accessing materials that contain "content having as a dominant theme (i) any lascivious description of or (ii) any lascivious . . . visual representation depicting sexual bestiality, a lewd exhibition of nudity . . . sexual excitement, sexual conduct or sadomasochistic abuse . . . coprophilia, urophilia or fetishism."

In addition to amending the 1996 Act, the General Assembly passed the provisions of House Bill 2343 requiring the use of AIUPs.²³⁵ The AIUP requirement, intended by JCOTS to replace the 1996 Act, now coexists with it in the Code. Neither provision necessarily supplants the other because the AIUP requirement will not become effective until December 1, 1999;²³⁶ the 1996 Act is currently enforceable in that the United States Court of Appeals for the Fourth Circuit recently reversed the district court and upheld the Act's constitutionality.²³⁷

The provisions are not necessarily in conflict with each other. The AIUP requirement compels the Department of Personnel and Training to establish a statewide AIUP that sets minimum requirements to generally prohibit state employees from accessing illegal materials while at their workplaces. If ultimately held to be constitutional, the 1996 Act may be read to supplement the AIUP by specifically enumerating the inappropriate materials that state employees may not access while using state-owned or -leased computers. 239

VIII. TELEMEDICINE

House Joint Resolution 683 defines telemedicine "as the use of telecommunications technology to deliver health care services and health professions education to sites that are distant from the host site or educator." The Federal Joint Working Group on Tele-

^{233.} H.B. 2343, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 24, 1999, ch. 384, 1999 Va. Acts 444) (codified as amended at VA. CODE ANN. §§ 2.1-114.5, -804 (Cum. Supp. 1999)).

^{234.} VA. CODE ANN. § 2.1-804 (Cum. Supp. 1999).

^{235.} See Va. H.B. 2343.

^{236.} See VA. CODE ANN. § 2.1-114.5(13) (Cum. Supp. 1999).

^{237.} See Urofsky, 167 F.3d 191 (4th Cir. 1999).

^{238.} See VA. CODE ANN. § 2.1-114.5(13) (Cum. Supp. 1999).

^{239.} See id. §§ 2.1-804 to -806 (Cum. Supp. 1998).

^{240.} H.J. Res. 683, Va. Gen. Assembly (Reg. Sess. 1999).

medicine²⁴¹ defines telemedicine as "the use of modern telecommunications and information technologies for the provision of clinical care to individuals at a distance and the transition of information to provide that care." Generally, telemedicine is the application of information technology to medicine.

During the 1999 Session, the General Assembly assigned studies to executive branch agencies on Internet prescription sales and state telemedicine equipment compatibility, and passed legislation requiring an annual report on telemedicine initiatives.²⁴³

A. Drug Sales over the Internet

House Joint Resolution 759 directs the Board of Medicine, in consultation with the Board of Pharmacy, to study the sale of prescription drugs in the Commonwealth over the Internet.²⁴⁴ Of particular concern is the purchase of drugs not yet approved for use in the United States and drugs prescribed on-line by physicians who are not licensed to practice in the state where the patients reside. Another concern for on-line prescription drug sales is the physician signature requirement on a prescription. For example, a Wisconsin state court recently considered this issue and found that a company's new computer system for electronic transmission of prescriptions did not violate the Wisconsin law requiring a physician signature.²⁴⁵

^{241.} The Federal Joint Working Group on Telemedicine is a collaboration of federal agencies that engage in medicine activities, such as Department of Defense, Department of Agriculture, Appalachian Regional Commission, Department of Commerce, National Telecommunications and Information Administration, Department of Health and Human Services, Department of Justice, National Aeronautics and Space Administration ("NASA"), Office of Management and Budget, and Department of Veterans Affairs.

^{242.} The Federal Telemedicine Gateway (last modified May 20, 1999) http://www.tmgateway.org.

^{243.} See Act of May 7, 1999, ch. 1031, 1999 Va. Acts 2736 (codified as amended at VA. CODE ANN. § 32.1-19.1 (Cum. Supp. 1999)); see also H.J. Res. 683, Va. Gen. Assembly (Reg. Sess. 1999) (assigning study on telemedicine equipment compatibility); H.J. Res. 759, Va. Gen. Assembly (Reg. Sess. 1999) (assigning study on Internet prescription sales).

^{244.} See H.J. Res. 759, Va. Gen. Assembly (Reg. Sess. 1999).

^{245.} See Walgreen Co. v. Wisconsin Pharmacy Examining Bd., 217 Wis. 2d 290, 577 N.W.2d 387 (Ct. App. 1998) (unpublished table decision) (full text available in Westlaw, No. 97-1513, 1998 WL 65551, at *4 (Wis. Ct. App. Feb. 19, 1998)) (holding that electronic transmission of a prescription is more analogous to oral transmission and no physician signature required).

B. Telemedicine Equipment Guidelines

House Joint Resolution 683 directs the Secretary of Technology, in cooperation with the Secretary of Health and Human Services, "to develop guidelines to ensure compatibility, to the extent feasible, among the telemedicine equipment purchased by state agencies and entities involved in telemedicine." Because "a number of state agencies and teaching hospitals are now involved in telemedicine initiatives" standards for compatibility among state-owned telemedicine equipment prepares for the advances in telemedicine and delivers better service to patients.²⁴⁷

In its white paper,²⁴⁸ the United States Food and Drug Administration's ("FDA") Center for Devices and Radiological Health ("CDRH") declared that telemedicine equipment can be regulated by CDRH's authority under the definition of "device" in the Federal Food, Drug, and Cosmetic Act ("FDCA").²⁴⁹ Such equipment is subject to the FDA's Good Manufacturing Practices ("GMP") requirements, registration, and listing, and the manufacturer or distributor must submit to the FDA a premarket notification (known as a "510(k)") or a more complex premarket approval application ("PMA").²⁵⁰

C. Status of Telemedicine Initiatives

The Commissioner of Health is directed by Senate Bill 1214 to report the status of Telemedicine Initiatives to the Governor and General Assembly by October 1 of each year.²⁵¹ The report must include a summary of telemedicine initiatives by agencies in the Commonwealth,²⁵² an analysis of their cost-effectiveness and medical

^{246.} H.J. Res. 683, Va. Gen. Assembly (Reg. Sess. 1999).

^{247.} Id. Technical standards usually relate to the properties of equipment, hardware, software, or data transmission required for a service, assessment, or test. See generally Peter S. Reichertz & Naomi Joy Levan Halpern, Arent Fox: FDA Regulation of Telemedicine Devices (visited Sept. 27, 1999) http://www.arentfox.com/telemed/articles/fda_reg_telemed_dev.html>.

^{248.} Center for Devices and Radiological Health, Food and Drug Admin., *Telemedicine Related Activities* (July 11, 1996) http://www.fda.gov/cdrh/telemed.html>.

^{249. 21} U.S.C. § 321(h) (1994); see Center for Devices and Radiologic Health, supra note 248.

^{250.} See Reichertz & Halpern, supra note 247.

^{251.} See S.B. 1214, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of May 7, 1999, ch. 1031, 1999 Va. Acts 2736) (codified at Va. CODE ANN. § 32.1-19.1 (Cum. Supp. 1999)).

^{252.} Three examples of Virginia's telemedicine initiatives are: APPAL-LINK Cumberland Mountain Community Services, offering nine sites that provide services through telecommunications technology for psychiatric evaluation and medications review, prescreening, forensic evaluations, predischarge planning to facilitate community placement, and discharge

efficiency, recommendations for improvements in current telemedicine initiatives, and identification of additional opportunities to "improve access to quality health care and to health professions education for citizens of the Commonwealth."

IX. TAX

A. Internet Service Providers' Sales and Use Tax Exemption for Equipment

House Bill 1713 exempts computer hardware and software, hosting and distributing equipment, and other equipment needed to provide Internet access service to consumers, from the sales and use tax.²⁵⁴ By including these Internet-access related definitions²⁵⁵ in section 58.1-602, the equipment becomes exempt from the sales and use tax under section 58.1-609.6(2).²⁵⁶

B. Technology and Biotechnology Investment Incentives

As introduced, House Bill 1667 created a research and development tax credit and allowed qualified Virginia technology and biotechnology companies to sell unused tax credits to other corporations.²⁵⁷ As passed, qualifying companies will receive a tax credit

follow-up; Southside Virginia Community College, hosting a two-way interactive video system that connects 10 rural sites providing professional development opportunities for health care providers at four regional hospitals; and the University of Virginia, in partnership with the Southwest Virginia Alliance for Telemedicine, using teleconferencing, store-and-forward technologies, and Internet access to reach four rural communities in Lee, Buchanan, Russell, and Wise Counties. The project uses personal computer-based clinical workshops as part of a high-speed network with videoconferencing capabilities that include voice, video, data, high-resolution still imagery, and electronic medical transportability. See The APPAL-LINK Network of Virginia (visited Oct. 18, 1999) http://www.cmcsb.com/appal.htm; Southside Virginia Community College (visited Oct. 18, 1999) http://www.sv.cc.va.us/index.htm; Win-Win for Doctor and Patient: Telemedicine Enables Noble Encounters (visited Oct. 18, 1999) http://www.med.virginia.edu/hs-library/newsletter/1990/may/telemed.html.

^{253.} Va. S.B. 1214.

^{254.} See H.B. 1713, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Apr. 7, 1999, ch. 981, 1999 Va. Acts 2591) (codified as amended at VA. CODE ANN. § 58.1-602 (Cum. Supp. 1999)).

^{255.} Included are definitions for "amplification, transmission and distribution equipment," the "Internet," "Internet service," "Open video system," "Video programmer," and "Video programming." See VA. CODE ANN. § 58.1-602 (Cum. Supp. 1999).

^{256.} See id. § 58.1-609.6(2) (Cum. Supp. 1999).

^{257.} See H.B. 1667, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 26, 1999, ch. 450, 1999 Va. Acts 622) (to be codified at Va. Code Ann. § 58.1-439.11). The original bill, recommended by JCOTS, was modeled after New Jersey and Ohio programs that allow start-up biotechnology companies to transfer their research and development tax credits for cash. See N.J. Stat. Ann. § 34:18-7.42a (West 1999); Ohio Rev. Code Ann. § 122.151 (West 1999);

"equal to fifteen percent of the amount spent by a taxpayer on an eligible research and development activity during the taxable year." Any unused credits may be carried over for up to ten years. At the present time, House Bill 1667 has not taken effect. Because the bill contains a reenactment clause, its substantive provisions will not become effective unless reenacted by the 2000 Session of the General Assembly. However, the bill also directed the Secretaries of Technology and Commerce and Trade to conduct a study of tax incentives to support research and development and to report their findings and recommendations to the Governor and the General Assembly by September 1, 1999.

C. Study Commission for State and Local Tax Structure in the Twenty-First Century

A commission to study Virginia's state and local tax structure for the twenty-first century was established by House Joint Resolution 578²⁶¹ and Senate Joint Resolution 401.²⁶² The commission²⁶³ is charged to study "the proper division of revenues and responsibilities for services between the state and local governments and how the state and local tax structure should be changed to adapt to the tremendous economic, social, demographic and technological trends which are overwhelming the current taxation structure."²⁶⁴ Expressing concern for Virginia's "fiscally stressed localities,"²⁶⁵ the fact that Virginia's tax structure has changed little from its inception during the period of agrarian economy, ²⁶⁶ and society's trend towards purchasing goods over the Internet that are not subject to

see also David Shook, Peddling Priceless Items: Tax Credits, The Record Online (Jan. 11, 1999) http://www.bergen.com/news/tax10199901113.htm.

^{258.} Va. H.B. 1667. No more than \$100,000 worth of tax credits may be claimed each year and no more than \$5,000,000 in credits may be allowed for any taxable year. See id.

^{259.} See id.

^{260.} See id., cl. 2.

^{261.} H.J. Res. 578, Va. Gen. Assembly (Reg. Sess. 1999).

^{262.} S.J. Res. 401, Va. Gen. Assembly (Reg. Sess. 1999).

^{263.} The Commission consists of 13 voting members with expertise in state and local taxation appointed by an ad hoc committee of the General Assembly. See id.

^{264.} *Id*

^{265.} *Id.* The localities' main source of revenue, the personal property tax, generates 61% of total local revenue giving little flexibility to collect other tax revenue as needed for services. *See id.*

^{266.} In 1971, the General Assembly passed the Tax Conformity Act, VA. CODE ANN. § 58.1-301 (Cum. Supp. 1999), to conform its income tax structure to the federal structure. In 1966, the sales and use tax was enacted and since then there has been a one-half cent increase. See id.

sales \tan^{267} the Commission is directed to focus on the state and local tax structure "to ensure its viability, fairness, and appropriateness for the 21st century."

X. Y2K

A. Y2K Readiness

House Joint Resolution 505 expresses the sense of the General Assembly that communities across the Commonwealth be supported in their efforts to become Y2K compliant and be encouraged, as part of their contingency planning for the century date change, to prepare to provide emergency and public safety services in the time before, during, and after January 1, 2000.²⁶⁹

House Joint Resolution 741 expresses the sense of the General Assembly that state agencies avoid certain dates for implementation of new programs or procedures as they prepare for the Y2K.²⁷⁰ Dates that may be affected by "the millenium bug" include April 1, 1999; April 9, 1999; July 1, 1999; September 9, 1999; October 1, 1999; December 31, 1999; January 1, 2000; February 29, 2000; March 1, 2000; December 31, 2000; and January 1, 2001.²⁷¹

House Bill 2153 provides that state offices will be closed on Monday, January 3, 2000, to commemorate Virginia's legal holiday of New Year's Day.²⁷² When a legal holiday falls on a Saturday, as January 1, 2000 does, the Code provides that state offices close on the preceding Friday.²⁷³ By moving the legal holiday to Monday, January 3, 2000, the bill provides a three-day weekend almost completely within the year 2000 to permit state agencies to address

^{267.} In 1998, Congress passed the Internet Tax Freedom Act, Pub. L. No. 105-277, 112 Stat. 2681, which established a three-year moratorium on taxation of purchases over the Internet. The Act also created the Advisory Commission on Electronic Commerce to "conduct a thorough study of Federal, State and local, and international taxation and tariff treatment of transactions using the Internet and Internet access and other comparable intrastate, interstate or international sales activities." Internet Tax Freedom Act of 1998, Pub. L. No. 105-277, 112 Stat. 2681-719. Virginia's Governor was appointed to the Commission and subsequently elected its chairman. See Advisory Commission on Electronic Commerce (last modified Aug. 9, 1999) http://cox.house.gov/nettax/commission/main.htm.

^{268.} S.J. Res. 401, Va. Gen. Assembly (Reg. Sess. 1999).

^{269.} See H.J. Res. 505, Va. Gen. Assembly (Reg. Sess. 1999); see also Report of the Joint Commission on Technology and Science, H. Doc. No. 63, at 39 (1999).

^{270.} See H.J. Res. 741, Va. Gen. Assembly (Reg. Sess. 1999).

^{271.} See id.; see also H. Doc. No. 63, at 39-40.

^{272.} See H.B. 2153, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 17, 1999, ch. 206, 1999 Va. Acts 231).

^{273.} See VA. CODE ANN. § 2.1-21 (Repl. Vol. 1995 & Cum. Supp. 1999).

any computer glitches that may arise as a result of the century date change, without disrupting services to the public.²⁷⁴

House Bill 1662 provides that during the time from March 17, 1999 (the bill's effective date) and January 1, 2001, the procurement of goods and services by Virginia's public bodies to remediate computers, software programs, databases, networks, information systems, firmware, or any other devices that are not compliant with the Y2K date change shall be deemed "emergency procurements." The purpose of the bill is to assist the efforts of state agencies and localities to find and retain vendors to fix their Y2K problems forthwith. 276

B. Y2K Immunity

House Bill 1663 provides that Y2K "assessments" and "documents," as those terms are defined in the bill, shall not be discoverable or admissible in evidence unless ordered by the court for good cause shown.²⁷⁷ The purpose of the bill is to encourage people and businesses to conduct assessments of their Y2K readiness and take timely and adequate measures to solve Y2K problems without fear that such documents will create opportunities for litigation.²⁷⁸

House Bill 1671 provides immunity from liability for damages to any person for injury resulting from disclosing information, in good faith, about "the Y2K problem," or "a Y2K failure," as those terms are defined in the bill, affecting computer systems and programs.²⁷⁹ The bill does not limit liability for those persons who disclose Y2K information for profit or information that is material and false, inaccurate, or misleading; nor does it affect any other remedy available.²⁸⁰

^{274.} See H. Doc. No. 63, at 39.

^{275.} See H.B. 1662, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 17, 1999, ch. 178, 1999 Va. Acts 206) (codified as amended at Va. CODE ANN. § 11.41 (Repl. Vol. 1999)); see also Va. CODE ANN. § 11-41(E) (Repl. Vol. 1999) (specifying procedures by which public bodies may procure goods or services on an emergency basis).

^{276.} See H. Doc. No. 63, at 37.

^{277.} See H.B. 1663, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Feb. 27, 1999, ch. 17, 1999 Va. Acts 25) (codified at VA. CODE ANN. § 8.01-418.3 (Cum. Supp. 1999)).

^{278.} See H. Doc. No. 63, at 37-38.

^{279.} See H.B. 1671, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Mar. 29, 1999, ch. 859, 1999 Va. Acts 1600).

^{280.} See id.; see also H. Doc. No. 63, at 38. Congress enacted legislation on this issue in the Year 2000 Information and Readiness Disclosure Act, Pub. L. No. 105-271, 112 Stat. 2386 (1999)).

House Bill 1669 provides that tort actions may not be brought against the Commonwealth's counties, cities, towns or entities established by one or more local governments to provide public transportation services, or other political subdivisions, or employees or officers thereof, based upon the failure of a computer, software program, database, network, information system, firmware, or other device to interpret, produce, calculate, generate, or account for a date that is compatible with the Y2K date change. Acts or omissions constituting gross negligence or willful misconduct are excluded from the bill's coverage.

House Bill 2158 provides that civil actions may not be brought against any officers or employees of the Commonwealth or its political subdivisions, constitutional officers, finance directors, or jail superintendents based upon the failure of a computer, software program, database, network, or information system operated by or on their behalf to interpret, produce, calculate, generate or account for a date that is compatible with the Y2K date change.²⁸³

Senate Bill 983 limits Y2K liability and damages for economic loss in connection with the Y2K date change by stipulating liability and damage rules in civil actions.²⁸⁴ The rules are:

- (1) No person shall be liable to any person who (i) is not in privity of contract with [him], (ii) [has not been extended an express warranty by him], or (iii) in the case of a trust, [is] not the beneficiary of a trust administered by [him].
- (2) No person shall be liable for damages caused by a delay or interruption in performance, or in the delivery of goods or services, resulting from or in connection with a (i) Year 2000 problem to the extent such . . . problem was caused by a third party or (ii) a third party's Year 2000 problem.
- (3) No employee, officer, or director shall be liable in his capacity as such to any person.
- (4) No person shall be liable for consequential or punitive damages.

^{281.} See H.B. 1669, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Apr. 7, 1999, ch. 978, 1999 Va. Acts 2586) (codified at Va. Code Ann. § 15.2-108 (Cum. Supp. 1999)). 282. See id.; see also H. Doc. No. 63, at 38.

^{283.} See H.B. 2158, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Apr. 7, 1999, ch. 1002, 1999 Va. Acts 2653) (codified at Va. CODE ANN. § 8.01-226.5 (Cum. Supp. 1999)). 284. See S.B. 983, Va. Gen. Assembly (Reg. Sess. 1999) (enacted as Act of Apr. 7, 1999, ch. 954, 1999 Va. Acts 2491) (codified at VA. CODE ANN. §§ 8.01-227.1 to .3 (Cum. Supp. 1999)).

(5) Total damages shall not exceed actual direct damages [in any Year 2000 liability case]. 285

Senate Bill 983 does not affect the right of recovery for damages in connection with wrongful death or injuries to persons or property.²⁸⁶

XI. CONCLUSION

Legislation proposing to revise existing law to keep pace with current and changing technology raises varied and complex issues. Nonetheless, the Virginia General Assembly can reasonably be expected to consider an increasing number of bills related to technology in future legislative sessions. If the 1999 Session is any indication, the General Assembly will give significant attention to public policy and public input before passing such legislation, regardless of who studies an issue or proposes a bill. The legislature's goal for basic law dealing with issues such as technology, computer crimes, electronic transactions, commercial relationships, record creation, and public access is to better serve the people of the Commonwealth of Virginia through the next century.

^{285.} VA. CODE ANN. § 8.01-227.3 (Cum. Supp. 1999).

^{286.} See Va. S.B. 983. On this issue, see the Year 2000 Readiness and Responsibility Act, recently passed by Congress, which "establish[es] certain procedures for civil actions brought for damages relating to the failure of any device or system to process or otherwise deal with the transition from the year 1999 to the year 2000, and for other purposes." H.R. 775, 106th Cong. (1999). The bill establishes an affirmative defense, "Year 2000 Upset," that may be exercised by defendants if they have made a good faith effort to remediate Y2K problems and complied with other conditions. See id. Punitive damages are limited to the lesser of three times compensatory damages or \$250,000, if the defendant's net worth is less than \$500,000 or the defendant is an unincorporated business, a partnership, corporation, association, or organization with fewer than 50 full-time employees. See id. The legislation is inapplicable to personal injury or wrongful death actions. See id. §§ 4, 5. President Clinton signed the "Y2K Act" into law on July 20, 1999. See Clinton Signs Bill Limiting Y2K Suits, L.A. TIMES, July 21, 1999, at A10.