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The Digital Revolution: Opportunities to Lead in Virginia

By

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Foreword

Information technology is changing our business and personal lives in ways that we could hardly imagine a few short years ago. The computer has become a key to our everyday work and relaxation.

This “Digital Revolution” is making our lives better and our governments more efficient. The challenge is to better mold today’s way of doing things with the capabilities available through the continued expansion and modernization of the technology industry.

Although most businesses and households have computers or access to them, there is a great need for our leaders to thoroughly understand the issues surrounding this emerging industry and to make sure that government does not do harm to this tremendous asset and the huge potential that awaits all of us thanks to the “digital revolution.”

Virginia is a leader in the technology industry. With more technology employees in Northern Virginia than in Silicon Valley, it is clear that our state has a great deal to be proud of. But it will take continued leadership from the our elected leaders and our business leaders to make sure that Virginia continues to improve its position within the technology industry. And, of course, as Information Technology and the “Digital Revolution” continue to expand all businesses will be able to take advantage of the efficiencies provided and new opportunities that emerge.

This issue paper offers a clear overview of some of the topics facing our state as well as some concrete suggestions to make sure that Virginia remains in the vanguard of the “Digital Revolution.”

This issue paper is published by the Thomas Jefferson Institute for Public Policy. It is part of its *Campaign 2001 Briefing Series* of papers sent to all candidates running for elective office this year in Virginia and to hundreds of business and political leaders around our state and to the media. The ideas presented in this issue paper, and the papers in this series, will give our leaders some good ideas to discuss in the campaigns and to use in crafting legislation in the years ahead. Nothing in this paper should be construed as official policy of the Thomas Jefferson Institute or its Board of Directors, nor is it meant to influence specific legislation.

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September 2001

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By Kent Lassman

Introduction

The dawn of the 21st century broke on the Commonwealth of Virginia with a hum and a glow. From the Internet root server in Fairfax, to the near-total penetration of high-speed Internet connections in Blacksburg, Virginians are at home with technology and the digital economy.

Information technologies add richness to the Virginia economy, lifestyle, workplace, educational system and government. And Virginia puts its indelible stamp on the applications of digital technology.

The state constitution begins with an explanation that all Virginians are naturally and equally free. These people are the source of political power and their government is, or ought to be, instituted for the common benefit. Information technologies that drive the digital revolution affirm and make more complete these founding principles of the state government.

The opportunities of the global Internet are experienced in intensely “local” settings: at the level of an individual. Likewise, the basis for advanced policies in the digital realm is found in time-tested policies from the analog era: property rights, government that is limited in size and scope, and respect for a healthy marketplace. While the digital revolution does not fundamentally change the relationship between citizens and their government, it can make that relationship richer and more rewarding. The digital revolution provides opportunities for individual citizens to maximize their health, education, and welfare, to increase productive efforts in their chosen fields of labor and to bring efficiencies and expertise to the fingertips of public servant and citizen-consumer alike.

An embrace of the recent revolution in digital communications will make the Digital Dominion a reality for Virginians. Two years ago, the Progressive Policy Institute ranked Virginia 12th among the states in their State New Economy Index.¹ An annual survey of how state governments use digital technology by The Progress & Freedom Foundation showed Virginia moving from 17th to 16th between 1998 and 2000.² The next set of Virginia leaders will determine whether the Old Dominion will continue on a trend toward excellence and leadership in the digital marketplace.

¹ “The State New Economy Index” by Robert D. Atkinson, Randolph H. Court, and Joseph M. Ward, The Progressive Policy Institute, Washington, DC, July 1999.

² “The Digital State 2000” by The Progress & Freedom Foundation, September 2000.

The release of this paper comes as Virginians consider who should become their 69th governor and which men and women should represent them in Richmond for the 2002 legislative session. The ideas and policy proposals presented in this paper are for the voters at least as much as for future policymakers because improved public policy is the result of well-informed public discourse.

This paper contains basic policy recommendations. The first recommendation is in a category by itself because of its overarching significance. Leadership in this field requires more than the development of new laws, it is also necessary to teach colleagues, to learn from citizens and to drive change throughout our public institutions in order to realize the full benefits of the digital revolution.

A second, and more direct, set of policy initiatives follows. From the manner in which old-line regulatory policy is reviewed by the legislature to the role of the county manager in promoting streamlined e-communities, five recommendations are made. Some policy initiatives cannot fit neatly into a single branch of government, agency, or area of expertise for the professional staff that is called upon to implement public policy. Nonetheless, ideas that cross over traditional boundaries in the policymaking arena are necessary to make a transition so that the citizens of the Silicon Dominion reap the benefits of the digital revolution on a day-to-day basis. Therefore, two crossover ideas are presented.

Leadership – The outgoing Gilmore Administration teamed with the legislature, the private sector, and Virginia's academic institutions to produce an enviable record of accomplishment in technology policy. The record is well known – from the development of New Economy jobs across Virginia, to the establishment of the first cabinet-level technology position in the nation, to the international success of the World Congress on Information Technology and the Global Internet Summit, Virginia plays on the world stage of technology policy.

In May of 1998, Governor Gilmore established a Commission on Information Technology that through the course of 18 months reported on every major aspect of the digital revolution in Virginia. Chaired by Secretary of Technology Don Upson, the Commission investigated and reported on the relationship between public policy and growth of the Internet, an investment strategy for information technology, improving the information technology workforce and a wide range of tax and regulatory policies. A point of pride for the Gilmore Commission is its stakeholder style of policy development. Through consultation with local and regional experts, private sector executives from a wide range of fields and participation by state level public officials, the Commission developed a series of policies that had immediate viability in the policy process.³

The pace of change to the fundamental structures of how Virginians work, play, learn, manage their private and public sector organizations, and interact on a regular basis are

³ For a review of the Commission on Information Technology, visit the website of Secretary of Technology Don Upson at <http://www.sotech.state.va.us>.

still in a state of dramatic change due to the unfolding implications of information technology.

Leadership begins with a clear idea of what must be accomplished. But leadership is only realized if its principles are applied on a daily basis. As a result, understanding and promoting the social and economic gains available from the digital revolution must not be simply one of many set speeches; it must be integrated into every speech. Likewise, e-government services should not be an afterthought of an agency that interacts with the public, but a core channel of interaction. To lead in this field, the implications of information technology must be recognized in nearly all facets of our daily life.

The greatest policy challenge for any political leader will be understanding and promoting the power of digital technologies. While past officials have done well, their work should serve as a foundation and platform for the future.

Direct Policy Initiatives -- The Virginia community, political and policy leaders who blaze the path into the first digital century must do so with concrete proposals for change. While there can be no substitute for leadership, the following five proposals are a framework upon which digital policy initiatives can be measured.

E-Communities – A major issue in any discussion of technology policy is connectedness. Usually, this term refers to bit-rates, network reliability, broadband access and computer penetration in a given demographic group. The widespread diffusion of digital technologies throughout Virginia also offers an opportunity to maintain and improve a more traditional understanding of connectedness.

Governor Gilmore and Secretary Upson vigorously engaged in the digital policy debate. However, one initiative – the e-Communities program – deserves ongoing and extended attention. At a minimum, Virginia's e-Communities program would serve as a resource to highlight best practices among local government officials, an online economic development tool, and it would continue to encourage local governments to create online portals for their communities. At best, the e-Communities program can foster innovative solutions to the age-old problem of providing high-quality public service to constituents with a minimal amount of costs and bureaucratic layers.

Online government sites – whether they are found through an e-Community portal or independently – should adhere to the following guidelines. First, avoid the temptation to simply create an electronic brochure or billboard. The power of information technology is not that it simply offers new media to broadcast information to large numbers of people. Rather, information technology makes it possible to personalize information, offer supplementary channels through which citizens can utilize public services, and to solicit public feedback in a cost-effective manner that can go straight to the line-managers of public programs. The revolution in digital technologies means that e-government can allow many government services to become electronic, easy and engaging. The difference between an electronic brochure and an engaging online presence can be summarized as the difference between a static presentation of

information and a dynamic presentation of city services and public information. The former could be printed and sent through the mail. The latter would allow features such as search and retrieval of public documents and an interactive process where citizen feedback reaches program managers in the public sector.

Second, a recent report by the Civic Resource Group found that of the websites for cities with a population of more than 100,000, only 8 percent provided a statement about its privacy policy and 2 of 5 websites used cookies without disclosing this fact to visitors.⁴ A defining virtue of any community is a high level of trust among members. Virginia's e-Communities portals should encourage the highest level of public understanding and awareness about how personal information – whether gathered on- or offline – is used by public agencies. In general, all public entities must be accountable for the balance between public information and personal privacy; the advent of the digital technologies only accentuates this responsibility.⁵

Third, Virginia policymakers must keep in mind that true e-Communities are more than an online gathering of geographically close businesses, regional government agencies and services, and citizens who participate in online dialogue. Individual citizens – people with the energy, education, skills and employment – are the foundation of any community. An idea advanced by scholars at the Progressive Policy Institute must be kept in mind as digital policies are considered and adopted for Virginia. Robert D. Atkinson and Paul D. Gottlieb argue persuasively that “America is predominantly neither an urban nor a rural nation, but rather a metropolitan nation where the majority of the population lives and works in large metropolitan areas that include both historic central cities and dispersed suburban development.”⁶ And as such, Virginia law must continue to adapt and allow flexible policymaking to address the unique needs of metropolitan regions within the Commonwealth. Three Virginia New Economy metropolitan areas are among the 50 largest in the nation – Northern Virginia, Richmond-Petersburg, and Norfolk-Virginia Beach-Newport News – and each has significant regional problems to address in order to improve Virginia's status as a world leader in the digital marketplace. Likewise, the less populated regions of the state are in position to develop and market to the world the positive lifestyle attributes unavailable in large metropolitan areas.

A temptation of the e-Communities program may be to encourage public entities – cities, counties, regional boards, etc. – to own telecommunications facilities in competition with the private sector. This temptation must be avoided. In the past, better economic judgment has often ceded to this temptation by expanding the charter and scope of

⁴ “Cities on the Internet 2001: E-Government Applied,” Civic Resource Group, August 2001.

⁵ For a book-length description and analysis of privacy issues for the public sector, see “Privacy and the Digital State: Balancing Public Information and Personal Privacy,” Alan Charles Raul, Kluwer Academic Publishing 2001, forthcoming. See also, “Privacy and the Commercial Use of Personal Information,” Paul H. Rubin and Thomas M. Lenard, Kluwer Academic Publishing 2001, forthcoming.

⁶ “The Metropolitan New Economy Index,” Robert D. Atkinson and Paul D. Gottlieb, The Progressive Policy Institute, April 2001.

existing municipal electric utilities or cable providers to allow entry into the telecommunications business.⁷

Currently, Virginia has a statutory prohibition on municipal entry into the telecommunications marketplace. Next year, it is highly likely that the General Assembly will consider a repeal of this prohibition. *Lawmakers should not allow public ownership in the highly dynamic telecommunications marketplace.*

Broadband Deployment – Broadband is a term used to describe high-speed transfers of data. In common usage, broadband services are simply faster than a dial-up connection on a traditional copper loop offered by telephone companies. The FCC uses a measure of more than 200 kilobits per second in at least one direction. Needless to say, there are a variety of levels of broadband service that are offered in the marketplace on any one of several technological platforms.

Upgraded cable systems – fitted with fiber-optic cable to supplement the traditional coaxial cable plant – are the current market leader with approximately twice as many subscribers as telephone-based broadband services. The vast majority of the broadband lines served from the telephone network are ADSL – asymmetric digital subscriber line – technologies. In addition, some portions of the high-end marketplace support entirely fiber-optic networks or fixed wireless systems that rely on the electromagnetic spectrum to transmit data. Each technology platform brings a different complement of attributes to the marketplace including variable download and upload speeds, price, flexibility and reliability.

Broadband deployment is a critical policy issue because it is a core driver of a growing and prosperous economy. Between 1995 and 2000 the information technology sector consistently accounted for between 27 and 34 percent of all economic growth in America and computers and software are the largest sub-category of the information technology sector.⁸ Computers and software are the point at which individuals connect with high speed, broadband Internet connections that change and improve the way Virginians work, learn, heal, play, and communicate. During the same time, the information technology sector has provided a downward pressure on inflation averaging .44 percent per year.⁹

Broadband policy is rooted in economics because it is a measure of how well Virginians are prepared to engage in, lead and contribute to the digital economy that is radically changing everything from how we interact with the government to old-line economic mainstays such as agriculture, shipbuilding and real estate. Last year, for the first time, more than 50 percent of Americans were regularly accessing the Internet.

The most recent data from an ongoing national survey by the Federal Communications Commission shows that Virginia is ahead of most states in the deployment of broadband

⁷ For a full discussion of this phenomena, see “Does Government Belong in the Telecom Business,” Jeffrey A. Eisenach, Progress on Point 8.1, The Progress & Freedom Foundation, January 2001.

⁸ Digital Economy Factbook, Third Edition, The Progress & Freedom Foundation, page 82.

⁹ Digital Economy Factbook, Third Edition, The Progress & Freedom Foundation, page 84.

communications facilities. A 173 percent increase in Virginia subscribership for high-speed services during calendar year 2000 is evidence that demand exists for fast Internet connections. This growth in adoption of high-speed service exceeds the national average of 158 percent.¹⁰

Virginia does trail slightly the national average of high-speed connections that are to a home or small business. In Virginia, nearly three out of five (58 percent) broadband connections are in this category compared to nearly three out of four (73 percent) nationally.¹¹ The most interesting observation of the FCC data may be that Virginia is home to 17 different providers of high-speed lines which places the Commonwealth in the upper quartile of all states, the District of Columbia, the Virgin Islands and Puerto Rico.¹²

The prognosis of broadband deployment in Virginia is good although significant opportunities exist to improve the health of the broadband marketplace. In general, broadband policies should encourage the deployment of facilities-based competition without a policy advantage to one platform or technology over another. Many of these policy decisions must be made at the federal level. However, state and local decisions on taxation, access requirements, and municipalities as providers of telecommunications services remain critical to the future of broadband deployment.

State regulatory bodies, including the Virginia Corporation Commission, have an important role to play in facilitating the growth of broadband services. Indeed, Section 706 of the 1996 Telecommunications Act requires the Federal Communications Commission, as well as each state commission, “to encourage the deployment on a reasonable and timely basis” of advanced telecommunications capabilities by utilizing regulatory tools such as forbearance.

It is particularly important that Virginia regulators refrain from imposing new regulatory burdens that would discourage investment into broadband facilities. For example, excessive unbundling requirements on broadband facilities that apply to the traditional telephone companies but not to other firms in the marketplace should be reduced. Likewise, Virginia should adopt a streamlined process to consider applications for regulatory relief and market entry under federal law without allowing competitor complaints and calls for new restrictions on lines-of-business to overtake the regulatory process. Without facilities – up-to-date equipment capable of delivering high-speed services – consumers will not realize the benefits of competition.

¹⁰ “High-Speed Services for Internet Access: Subscribership as of December 31, 2000,” Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission, Table Six, August 2001.

¹¹ “High-Speed Services for Internet Access: Subscribership as of December 31, 2000,” Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission, Table Seven, August 2001.

¹² “High-Speed Services For Internet Access: Subscribership as of December 31, 2000” Industry Analysis Division, Common Carrier Bureau, Federal Communications Commission, August 2001; Table 5 combined with author’s analysis.

Taxation¹³ – Nationally, taxes on telecommunications average about 18 percent. Due to the variety of services offered and the various local attitudes toward taxation of telecommunications, there are at least 37 different types of telecommunications taxes. Virginia telecommunications taxes are heavily skewed toward localities.

State and local taxes constitute on average, just over 14 percent of a typical telephone bill. In Virginia, the average rate is just over 19 percent. The Commonwealth has the 14th highest telecommunications tax rate in the United States. How is this accomplished? The average Virginia state telecommunications tax rate is about one percent and near the bottom of national rankings. However, the average local tax rate is about 18 percent and is the second highest in the country.

Of 95 cities for which the FCC collects data, Richmond is by far the telecommunications tax leader with a rate of 35.7 percent. With a few notable exceptions, the local consumer utility tax is capped at 20 percent of the first \$15 billed to residential customers. However, there are no statutory caps on the taxes applied to business rates. To take but one example, the city of Suffolk charges 13 percent on the first \$10,000 of a commercial bill. At as much as \$1,300 a month, tax payments dramatically increase the cost of new telecommunications services.

A firm that offers telecommunications services statewide must file 4,341 tax returns in Virginia each year.¹⁴ This compares quite unfavorably with the typical Virginia business that files about a dozen each year.

The first step for Virginia's digital policy leaders is to identify and simplify the overwhelmingly complex tax rate structures. In the past, telecommunications services were a slow-growth industry dominated by a few near-monopoly providers who offered relatively few products. The marketplace today is radically different. Communications services continue to grow despite this year's slump in the economy. The FCC data cited above shows that the days of a single monopoly provider have passed. High-speed services are offered by the traditional cable television, long-distance telephone and local telephone service providers as well as by satellite television providers, wireless telephone service providers and new entrants in the local and long-distance telephone marketplace. There are a plethora of providers who differentiate their services to consumers. When high-speed cable is a ready substitute for high-speed DSL (telephone-based) service, it does not make sense to have differing tax structures.

The second step for telecommunications tax policy should be to avoid discrimination among similar services that would allow for an eventual reduction of tax rates on this vibrant and critical component of the economy.

¹³ Many data in this section are gathered from the presentation of Jeffery A. Eisenach to the Governor's Commission on Information Technology, October 26, 1999. The full presentation can be found at <http://www.pff.org/CITPresentation102699a/index.htm>.

¹⁴ Committee on State Taxation, 50-State Study and Report on Telecommunications Taxation, Committee on State Taxation, Washington, D.C. September 1999.

Since Virginia's localities out-tax the state on an 18 to 1 basis, Richmond policymakers face two choices. The 2002 Legislature and the new Governor could focus on other, less important, policy issues because the overwhelming majority of the problem lies in the hands of local political leaders. Or, Richmond policymakers could help to identify statutory changes that are revenue-neutral to the localities and allow them to reformulate their tax base without creating a "new tax." As a political model, it is easy to imagine Richmond officials advocating a tax cut – reduction in the state revenues due to a diversion of an existing revenue source toward localities – while local officials clean up their own house with respect to telecommunications taxes by substituting a new revenue stream for their former telecommunications tax base. The result would be a political win-win situation while Virginia adopts policies to move away from its basement rankings for telecommunications tax burden.¹⁵

Executive Order 65 (00) And Seat Management – Nearly one and a half years ago, Governor Gilmore signed Executive Order 65 to create a legal framework for statewide e-government initiatives. Among the specific programs cited by the order were electronic procurement, digital signatures and seat management.

Seat management is a method of managing information technology where all of the desktop needs of an employee – hardware, software, maintenance, upgrades, help desk, service calls and training – are provided for a fixed fee by a vendor based on the number of employees, or seats, covered by the contract. In essence, computing and networking become a resource rather than an asset of the state. And, when the assets in question have notoriously fast rates of depreciation and obsolescence this form of outsourcing is a boon to cost-conscious managers.

Seat management took a great stride forward with the completion of a statewide contract in April 2001. However, as long as current budget practices remain in force, seat management will not likely gain momentum within state agencies. In the past, technology hardware and software was purchased as a capital expense and held onto until it outlived its usefulness or appropriations could be secured for replacements. As a result, departments and agencies often operate with a mishmash of equipment and systems that do not interoperate well and are a source of expensive investments in employee training.

Seat management would transform those expenses into predictable and regular operating expenses – similar to a health plan or an electricity bill – and bring down overall outlays on technology. However, shifting appropriations between capital and operating budgets must be done by the legislature and not department or agency heads. Obviously, the legislative branch retains more discretion and control over the capital budgets because they are approved on an as-needed basis. More discretion and control would be gained by the executive agencies that utilize seat management because their recurring operating budget would grow to account for the new information technology management system

¹⁵ For an in-depth analysis of telecommunications tax policy, see also "The Tangled Web of Taxing Talk: Telecommunications Taxes in the New Millennium," Joseph J. Cordes, Charlene Kalenkoski, and Harry S. Watson, Progress on Point Rel. 7.12, The Progress & Freedom Foundation, September 2000.

while their capital budgets – controlled by the legislature, would diminish in a corresponding fashion.

Early evidence on the cost effectiveness of seat management should be monitored closely. If savings can be realized, and management of information technology systems can be improved, a more aggressive push toward seat management may be sound policy in the near term future for the state government.

Regulatory Relief – Too often regulatory relief is the policy of choice only when the situation has deteriorated beyond tolerance. It is used as a tool to avoid total economic breakdown when the pace of change in an industry or practice has outstripped the legal environment by leaps and bounds. This is akin to emergency medical care for the intersection of public policy and the economy. It is more costly than regular check-ups, it requires special treatments and processes and it does not improve the overall health of the economy.

Executive Order 65 (00) has set the stage for a sea change in how Virginia addresses regulatory relief. Virginia's next policy leaders have the opportunity to put an end to reliance on the emergency care model for regulatory changes. Rather, a new system of ongoing examinations of the regulatory environment can be adopted. Like any patient, the health of the regulatory climate in Virginia will improve as regular preventative and wellness care replace ad-hoc emergency care.

In part, Executive Order 65 (00) reads as follows,

Identifying barriers in regulation and in the *Code of Virginia* to continued expansion of the use of electronic procurement for purchasing and for establishing contracts.

This is an instruction to the Virginia Department of General Services to seek out regulatory barriers to the implementation of e-government procurement initiatives and is a seed from which an expanded and regular program can be developed for regulatory relief.

When the Commonwealth created a new Secretary of Technology and related offices, it was done in part “to ensure that Virginia provides the best business environment for technology industry anywhere.” In addition to procurement policy, any regulatory barrier to the attraction, development, or deployment of digital communications services should be flagged, reviewed and abolished if possible. The 2002 Legislative Session should adopt a systematic approach to regulatory relief. A general model follows for consideration as well as three specific suggestions for action.

A Model for Regulatory Red Flag Day in the General Assembly

- Establish one day a month for each month that the General Assembly is in session or at least three days as a “Regulatory Red Flag Day;”

- Any regulatory impediment to a more complete transition through the digital revolution – in e-government, the economy, the workplace or the home – can be presented to the Committee of the Whole in either legislative body for the review under the following procedures if it has the support of at least twenty percent of the body;
- The legislative body shall refer the Red Flag regulatory impediment to an appropriate committee with an instruction to review and discharge it within 48 hours with a recommendation to the full legislative body;
- The Red Flag regulatory impediment shall come to the floor for a vote by the full legislative body within one week of receiving a recommendation from the appropriate committee(s).
- Any Red Flag regulatory impediment sent from one legislative body to the other shall be considered as a Red Flag in the receiving body and shall proceed to refer it to an appropriate committee within 48 hours and follow the other procedures for Red Flag regulatory impediments.

Specific Suggestions for Regulatory Red Flags

1. Telephone rate regulation is in need of an adjustment to spur entry of competitive, facilities-based firms into the marketplace. The historical regulatory model that arbitrarily sets fees for interconnection access without respect to market forces while it simultaneously holds some prices below costs is a barrier to competition and should be replaced.
2. New competitive broadband services should not be brought under the umbrella of old regulatory burdens that were designed for monopoly-era service offerings.
3. Neither the General Assembly nor any state agency should pursue policies that would impose unnecessary and costly regulatory burdens by mandating particular forms of business organization or restrict firms from particular lines of business.

Crossover Initiatives – Some policy initiatives do not fit neatly into the level or area of government administration. Likewise, many initiatives require a multi-year phase-in. These issues that cross over traditional boundaries are no less important for Virginia's policymakers. Two ideas are briefly presented below.

Digital Work Incentives – Earlier this year, the General Assembly passed and the Governor signed HB 1713 to formulate and promulgate telecommuting standards for state employees. This will be the first step toward an analysis of how the advent of telecommuting may improve the quality of transportation and the environment in Virginia while providing government services with fewer overhead expenses. HB 1713 is not a rush toward all state employees working from home, all of the time, but it does represent a systematic and forward-looking approach to public policy that capitalizes on the digital revolution to improve Virginia.

Universal Service Reform – More than two years ago, the tremendous changes in the telecommunications industries was cause for a few leading scholars to conclude that,

“Television is leaving the air in favor of the wires; the telephone is leaving the wires in favor of the air. Copper and coax, wired and wireless, terrestrial and satellite: digital data networks are rapidly emerging as the new, universal, universally interconnected standard for the transmission of everything—voice, data, video, the lot.”¹⁶

The pace, rate and import of change has not changed in the field of telecommunications. Traditional technologies, the networks that provided services to consumers, and the legal structures that regulate communications are increasingly out of balance. One area in particular in need of comprehensive reform is universal service. The current regulatory model promotes near universal access to basic telephone service through a complex array of federal and state subsidies. This subsidy system was developed when there was a single – or even a few – near-monopoly providers of telephone service. Today competition thrives and new entrants into the marketplace are common. As a result, there is a great deal of pressure to reform the system and to analyze the underlying assumptions that currently favor wealthy, suburban, residential consumers at the expense of poor, rural, and difficult to serve, business consumers. The universal service system is an amalgam of federal and state telecommunications rate-regulation and subsidy policies and therefore requires a comprehensive approach. The system will soon become unsustainable. As we look to the future, it is necessary to ask, should complex universal service subsidies be carried forward into the digital age and can we achieve the same or similar goals more efficiently as a result of new technologies and policies?

Former Massachusetts public utilities chairman Ken Gordon has recently published a concise assessment of how universal service can be reformed.¹⁷ Gordon outlines a need for rate-rebalancing and access charge reform – two regulatory issues discussed above – and summarizes the objective of reform thusly,

“My most fundamental recommendation is to pare back the extensive programs that have been developed in the name of universal service and replace them with a more limited, targeted, needs-based program.”

In short, any helping hand from the public sector to maintain and extend a broad deployment of telecommunications services should provide aid directly to individual Virginians. Universal service policies should not bolster particular regions of the state, departments or agencies of the government, firms or technologies in the marketplace.

¹⁶ “Federal Telecommunications Law,” Second Edition, Peter W. Huber, Michael K. Kellogg and John Thorne, Page 3, 1999.

¹⁷ “Communications Deregulation and FCC Reform: Finishing the Job,” eds. Jeffrey A. Eisenach and Randolph J. May, The Progress & Freedom Foundation, 2001.

Summary

Virginians are well positioned to expand upon their position as a market leader in the digital revolution. The leading candidates for governor have experience with the effect of public policy on the information technology sector. The legislature has shown a willingness to experiment with and to adopt new policies to augment the government's ability to deal with the impact of technological changes on society.

Telecommunications tax policy stands out as the leading area in need of reform due to its incongruity with other features of Virginia's approach to the digital revolution. Similarly, the state government must continue to extend itself to local governments to create solutions to problems that can only be solved cooperatively. From the e-Communities initiative to dampening a zeal for local regulatory control over telecommunications networks, the state government is in a position to offer expert advice and incentives to create a healthy environment for technology statewide.

The original authors and advocates of Section 15 in the Virginia Constitution (below) could not have foreseen the state of technology today nor its impact on our lives. However, the wisdom of this statement realizes the fullness of its impact no less now – with the widespread deployment of broadband networks, personal communication devices, terrestrial and satellite wireless networks and an Internet connection reaching into every schoolhouse – than it did more than 200 years ago.

“That no free government, nor the blessings of liberty, can be preserved to any people, but by a firm adherence to justice, moderation, temperance, frugality, and virtue; by frequent recurrence to fundamental principles; and by the recognition by all citizens that they have duties as well as rights, and that such rights cannot be enjoyed save in a society where law is respected and due process is observed.

“That free government rests, as does all progress, upon the broadest possible diffusion of knowledge, and that the Commonwealth should avail itself of those talents which nature has sown so liberally among its people by assuring the opportunity for their fullest development by an effective system of education throughout the Commonwealth.”

About the Author

Kent Lassman is a research fellow and the director of the Digital Policy Network at the Progress & Freedom Foundation. The Digital Policy Network serves policy centers across America that seek to understand the implications of the digital revolution for the policies and practices of state and local governments. Lassman is the author of more than 50 policy papers, opinion-editorials, and essays. His work has been published by the Richmond *Times-Dispatch*, the Manchester *Union-Leader*, the *Wall Street Journal*, National Review Online, and the Federalist Society. He has testified before Congress, state legislatures and in regulatory proceedings and briefed presidential candidates, governors, and members of Congress. Prior to joining the Progress & Freedom Foundation he was the director of technology and communications policy at Citizens for a Sound Economy. Topics of his research, testimony and speeches include universal service, price-cap regulation, Internet and telecommunications taxation, and privacy as well as federal budget and housing policy. Lassman graduated from The Catholic University of America with honors for his work on market theory and in NCAA III Men's Swimming. He lives in Raleigh, North Carolina.