

Broadband: Who's Digital Highway Is It Anyway? A Media Battlefield Revealed

By Leo B. Willner, Ph.D. and R. Gregory Kalsow

Who's 'Digital Highway' is it anyway, and what will become of broadband communications?

"Who is that on my digital highway, who's that trespassing on my broadband?" "A customer doing business my Lord, just some digital transactions on their way." "Did you pay the toll to cover all of my fees and expenses?" "I did sir, I paid in full to your Conditional Access and Digital Rights gatekeeper." "Then be on your way in good cheer my son and good luck." "To show my gratitude to you my Lord for this great kindness, I must relate what some have said to me: that it would be better by far for us to fight this broadband oligopoly than live with such bad company." "Hush, hush now son, don't get yourself worked up and all upset. Them 'lefties' out there always say things like that because free market ways they do not understand. You can see for yourself son, a friendly and polite monopoly like us is really not so bad."

It is indeed valid to suggest that a friendly and polite monopoly need not be all that bad. Yet time and circumstance have a way of eroding the best of good intentions, especially when no force exists that can even to a small degree push back. So Adam Smith, after a deep analysis of many markets, was moved to suggest that a competitive market is needed to create the counter forces that ensure balance, harmony

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"It is indeed valid to suggest that a friendly and polite monopoly need not be all that bad."

and fair dealing. If, in some special case, as with the Hoover Dam this will not do, then set a regulatory body in place to do the job and thereby keep price, quality and service in reasonable harmony. These are lessons the markets have taught us well for many years, lessons that light the path to real growth without at the same time stifling the public's will or its intent.

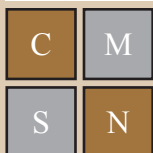
In this issue we survey the good, the bad and the ugly of that digital highway called 'Broadband', and make a few predictions as to how it might all turn out.

THE DIGITAL HIGHWAY

By digital highway we refer to that collection of electronic resources and other means that act as the broadband electronic communication, entertainment and commerce byways of the world. In part, this

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"Validating the Middle Ground"



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high-speed network is based on copper wire and fiber optics technology as in most telephone networks, cable company operations and private communications systems. Other parts of the digital highway operate by satellite transmission and wireless access modes to enable such things as TV programming and Internet enabled cell phones. Together these various systems make up the infrastructure to energize the broadband network that moves communications traffic at 250–5000 Kbps speed per individual connection. As a result, the telephone networks, the Internet, the wide area computer networks, the cell phone systems, the entertainment networks and the like traffic in information for profit. Due to its rapidly expanding success, the digital highway has become a major player within the US economy that represents a growing force capable of much further development and economic growth.

Herein we have the problem, the opportunity and the challenge of Broadband. For, as the importance of the digital highway grows, so too does the necessity for it to operate in a truly open and equitable manner. To do so, it must provide equal access to multitudes of applications and services in a way that is reasonable for all parties concerned. That is also the great challenge facing government agencies such as the FCC and the U.S. Patent and Trademark Office (USPTO) as they endeavor to enable free enterprise without allowing matters to degenerate into a contentious business free-for-all that victimizes the public. On the corporate side, how the vast investment now in place at the telephone and cable companies is best managed in the interest of their shareholders, while still meeting the needs of the public for fair and open access is still an open question? The agencies entrusted with the public interest must recognize both needs as they seek to enjoy the public trust while avoiding any accusations that they are unnecessarily interfering with free enterprise.

“...broadband organizations, as though highwaymen-of-old, block access and act as their own law.”

For direction, regulators might look to approaches that address fair dealing in a market-based broadband world, and seek out ways to enable the utilitarian concept of the greatest good for the greatest number of people. It is also essential to develop methods of protecting the broadband access rights of minority interests as well as the young and the elderly. Finally and most critically, while satisfying the needs of consumers, they must look for ways to fully protect the legitimate rights of the many vendors and service providers.

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Warning! — Private Property — Trespassers Will Be Prosecuted.

Not many in America are aware of the common law right institutionalized in Great Britain long ago that guarantees free passage through any public or private land to any wayfarer wishing to pass by. It is a limited usage right to crossover other people's private land. It does not grant rights to a fixed encampment or to engage in commerce on another's private property. When traveling along public roads there are even greater rights and fewer restrictions. For instance, any law-abiding citizen or foreign visitor is allowed more or less unbridled access to use the public road for his or her own purpose. In another case as with public or private toll roads, there might be a common-to-all usage fee for passing by. Yet, individuals, regardless of their honest purpose, are free to travel untethered and unfettered by unreasonable limits and controls. In all these cases no one but the police or other public authorities, within the limit of their jurisdiction and the law, can stop a wayfarer on his way or limit his or her access.

Not so today on the Broadband Digital Highway! By means of restrictions, private rules and all manner of idiosyncratic practices, various broadband organizations, as though highwaymen-of-old, block access and act as their own law. On these private communications networks, cable operations,

private satellites and other powerful components of the digital highway, fair unbridled access is seldom the norm. You play by their rules or you don't get to play. It's their ball, their field and their rules — like it or not. For, waiting in the wings, they have the political muscle of PACs and lobbyists — stabled in their gilded lobbies — as sycophants and fellow travelers eager to protect and expand their so-called 'free enterprise rights'. Such banditry is not free enterprise.

All is not lost, not yet anyway. With Senator John McCain as Chairman of the Commerce Committee, Michael Powell in charge of the FCC and others alert to the danger, the public interest is being protected and, where necessary, likely to get its day in court. This public interest also covers the need to nurture and protect the newer, less entrenched enterprises from the jaws of their better-equipped larger neighbors. Yet no one should minimize the power or the pervasiveness of the well-entrenched private establishment interests such as the MPAA and it's fiery leader Jack Valenti to act with great vigor and persuasiveness in the halls of power in Washington, D.C.

The primary idea that needs to be institutionalized to protect the public and a lot of business interests is that of **ORCA**, or **Open Revenue Channel Access**, that should be made available on equal terms to all who wish to use the public's broadband digital highway. That is, all who are willing to pay a fair price receive open access to the communications networks, the Internet, the cable networks, the metropolitan area networks, the satellite systems and the like. Not free access but fair access, where all share more or less equally in maintaining the system in accordance to their actual level of usage. That way honest commercial enterprise can hope to grow and prosper and earn fair dividends for its shareholders and to serve the public as well.

BUSINESS INTERESTS-PUBLIC RIGHTS

At times we may forget that, first and foremost, the ultimate purpose of business is to serve the interests of the public — not the other way around. Within this context and whenever effective competitive forces are at play, it is only right and proper for every commercial interest to seek to maximize its growth and profit. Yet the mistaken notion that business exists solely for its own purpose, that it is simply engaged in a marketing game against competitors, the society and the public institutions in order to survive, grow and profit — irrespective of any outside interests — still falsely persists. Indeed such a misguided perspective is not uncommon in business today; it can even be heard around the halls of some distinguished business schools.

As a consequence of such a view of business and the world we should not be surprised to see PACs, PR firms and law firms lobbying on

behalf of special interests whose agenda is contrary to the public good. At times they even represent errant business interests looking to remold the commercial rules "nearer to their heart's desire." It all comes from a sense held by a powerful few that all is fair in business, as long as you don't get

caught. Numerous recent articles in the press have depicted that there is now a long line of Enrons, WorldComs and others awaiting prosecution for deceptive accounting, criminal behavior and other abuses of the public trust.

Unfortunately, the digital highway and the Internet with which it is closely allied are already endangered by such elements. Due to the newness of its systems and the access it provides worldwide it can be a fertile ground for unsavory characters and their dubious business practices both here and abroad. However, if the digital highway is to be entrusted with international commerce and entertainment it must be squeaky clean.

SECURITY, PRIVACY AND THE LAW

Unquestionably it is a great challenge for all concerned to balance the need

*"You play by their rules
or you don't get to play.
It's their ball, their field
and their rules..."*

to guarantee open access, true privacy and secure data while meeting the requirements of law enforcement to secure the digital highway so it is not used for illegal purposes including piracy, terrorism and more common criminal activities. As the broadband pipe will soon be carrying a very large percentage of all entertainment, communication and commercial traffic including banking, the authorities do face an august challenge. The easy thing for them to do is to carelessly trample on the rights of the public as they move to maintain law and order. However, history has shown that, from ancient Rome to modern China, freedoms once lost are hard to regain. On the commercial side any lack of oversight can simply mean allowing might to make right. That is, allowing the most powerful firms to grab and hold the advantage over less established more innovative enterprises — the very ones that carry the seed of future progress — forcing them to buckle under, sell out or simply fail.

As the digital highway in some ways represents a paradigm shift to a new world of communication and commerce, established legal and commercial protections long afforded to the public are less likely to be effectively applied. Therefore, we should not be too surprised that subterranean efforts are underway to dismantle consumer rights and small business protections in favor of broader more expansive commercial rights. If these initiatives should succeed, we may soon witness new restrictions on broadband usage and the imposition of additional fees and new controls on public access. All of this could be in place long before the public takes notice and can act to protect itself and its interests.

For the regulatory and other authorities charged with the great responsibility of protecting the public while facilitating legitimate business, the task is a daunting one. The challenge they face will naturally move them to vigorously pursue wrongdoers, while at times trampling on the public's rights and the public good. What choice do they have

when terrorists and thieves abound who are hell-bent on using the digital highway to endanger the public and the nation, by trafficking in information about weapons of mass destruction, military and civilian authorities and the like. It is only via the interplay of the agencies of the executive branch, the congress and the courts that the overall communications, computing and entertainment system can be rebalanced to once again ensure that the public's rights are protected while criminals and other enemies of the nation are effectively dealt with according to the law.

"...privacy and other sacrosanct aspects of family life must continue to be protected."

All the while, privacy and other sacrosanct aspects of family life must continue to be protected from the prying eyes of business, government and outside parties. For anything that endangers the sanctity of the home and the institutions that protect it threatens

damaging what we all hold most dear. First and foremost is the right of people to raise their families in their own way — and in full privacy. The powers of the media and the capabilities of the digital highway can threaten this sacred institution while seeking to inform, entertain and advertise to family members. The dangers inherent in this process are evident to many public officials and private citizens alike, yet few if any know how to greatly improve this situation.

ON-DEMAND VERSUS PROGRAMMING CHANNELS

With all the power of the Internet and other on-demand sources of information and entertainment available through the broadband pipe, it has now become unclear, even to the wisest among us, what is the best way to organize and manage the massive amount of content and its distribution. The old concept of an entertainment 'channel' worked very well for many years both in radio and television broadcasting and cable. Each station would organize its channel's programming in such a way as to provide information and

entertainment in accordance with the perceived needs and wishes of its chosen audience.

To this day each channel targets an audience of its choosing and then, by time of day, day of the week and month of the year organizes its programming choices in a manner that optimizes its viewing audience and thereby maximizes its advertising and other revenue.

Unfortunately the channel concept begins to lose credibility and practicality when a great abundance of content is universally available on CD, DVD, the Internet, cable VOD services, pay-per-view, storage on PVRs and DVD recorders and the like. With these new developments becoming pervasive, the focus is shifting away from tuning-in 'Channels', to varieties of surfing content libraries at home and on the broadband pipe for desired information and entertainment. Thus the focus is shifting to content and away from networks, and content is indeed in the process of becoming king. As a consequence the brand value of Channels is beginning to fade, and many may even disappear.

TECHNICAL STANDARDS & INNOVATION

As always, setting standards on the design of electronic interfaces and operating systems and methods is somewhat of a double-edged sword. On the one hand such standards make it possible to interoperate multiple systems and multiple technologies in a manner that makes it easier and more convenient for user and provider alike. On the other hand, setting standards serves the purpose of institutionalizing existing technology and therefore stifling new innovation and change. Suggesting otherwise only indicates some inexperience in these matters, or perhaps a different agenda. It is generally understood that as a technology matures a greater emphasis on standards and compatibility brings real benefits to many users. Better standards help to empower markets, institutionalize new modes of business and generally make devices work better.

During periods of very rapid innovation standards sometimes need to be avoided, as they tend to place obstacles in the way of progress. The more cynical among us may even spy that standards have been used sub rosa in the past by the likes of IBM, Apple, Microsoft and others as an effective anti-competitive barrier to help them maintain hegemony. No wonder many technology companies look to place their engineers on the standards committees of organizations such as the IEEE, the Institute of Electronics and Electrical Engineers. If they can influence the standards in the name of good business, then they can hope to control the rules of the road.

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To see how this practice can go wrong, consider the example of the early railroads. During the latter part of the eighteenth century the great railroad barons fought each other tooth and nail over what should be the standard gauge of railroad track. It was a donnybrook as they couldn't or wouldn't agree. As a result, for many years it was necessary to repeatedly load, unload and reload railroad cars as great trains passed from one railroad company jurisdiction to another as goods and people crisscrossed the American continent. Thus standards can be very useful when properly designed and applied. The broadband highway is already a multi-headed hydra of standards as the many technologies seek to come together. What with computer technology, telephony, entertainment devices and consumer electronics all looking to merge, converge or at least interoperate, the standards issue continues as one of the major obstacles to progress on the digital highway.

COPYRIGHTS, DIGITAL RIGHTS AND CONTENT

It is only natural that those who invest their time, energy, money and intellect to create valuable intellectual property should feel that they have an unlimited right to protect this property and keep it as their own. When such rights are in place, innovative people are motivated to risk failure for the promise of great

commercial and personal success, or else Mark Twain might not have been energized to write his *Tom Sawyer* or *Huckleberry Finn* novels.

The battle is joined when the extra term 'unlimited' is applied to the copyright concept. It was never intended to be unlimited. In fact the US Constitution created copyright protection for intellectual property as a limited right. Furthermore, the concept of Fair Use came into being as part of the legal process as a pressure relief valve to allow limited copying and distribution of intellectual property for non-commercial purposes. Indeed the great libraries of America including the Library of Congress are among the staunchest defenders of Fair Use.

"The battle is joined when the extra term 'unlimited' is applied to the copyright concept."

The idea of copyright was instituted for the benefit of the people-at-large, not for the aggrandizement of the creative or gifted few. When such innovators and creators bring their intellectual creations to the public, it is for the public to benefit. The copyright holders are protected and enriched as a way of making it all work, not so much for their benefit, but primarily for the benefit of the public.

As broadband evolves into one of the primary means of enabling communications, commerce and entertainment, issues of copyright and Fair Use gain greater importance. There are many including the MPAA, who wish to restrict the public's right of Fair Use in order to maximize their commercial interests. These folks are well entrenched with the money, power and the connections in Washington and elsewhere to suggest that they can make their wishes come true. That is, unless a vigilant public rises up to reclaim its constitutional rights and thereby put such greed-inspired conspiratorial forces back in their place, along with their many lawyers, sycophants, lobbyists and other supporters. Surely it will not be easy and the battle is already well joined.

FEES, TAXES AND FREE ENTERPRISE

For the dominant industrial and commercial enterprises and the government, the way forward is to seek

to set the rules of the road in an advantageous manner. Wherever possible, there are even those who would put barriers in place to prevent the public from getting in the way of established business and political interests. Where that is impractical some might wish to go further and charge the public the maximum toll, or tax they think they can get away with. Think for example of the start of the Prohibition on alcohol, and later on, when that failed, the imposition of massive taxes on alcohol that followed. So for the powers that be, it can be a game of blocking and taxing in such a manner as to create the most profitable wedge into the economic game. Historically this is a way that those who do not 'toil in the field' have still managed to grab a major share of the spoils.

For these reasons, many powerful commercial interests have positioned themselves to grab a major share of the wealth being created by the digital highway. After all, they own much of the turf and they set many of the rules of the road. Where this is not possible they seek, by force or connivance, to find other ways to feast at the broadband table. At heart many mostly want to own the game. While that may not suggest an ideal form of free enterprise, these practices can at times help to stabilize markets and thereby gain the approval of the public. Though perhaps an unkindness, some may conclude that these interests represent the license-carrying bad boys of broadband. One is reminded of the behavior of 'big brother' Microsoft.

STEALING, SNOOPING AND THE IDEA OF PRIVACY

This brings us to some real miscreants. These are unethical folks who strive by illegalities to participate in the wealth being created by the digital highway. They seldom own the turf or the technology, neither do they hold the copyrights, nor do they control the technologies, and even more rarely do they have the public authorities on their side. These are the people who want to snoop, steal and pirate the broadband pipe of

its content and break the rules for their own profit.

Some would have us believe that college students 'Napstering' CD content are the main miscreants. A more reasoned opinion would have us understand that these students couldn't afford to buy too many CDs or DVDs anyway. Similar sophist reasoning has been used to argue that poor sick folks in Africa should not be offered life saving drugs at marginal cost. Instead they should be made to buy them at full price. The truth of the matter is that these so-called 'consumers' can never afford to buy at full price because they do not have the money. Thus, whether 'Napstering' CDs or providing life-saving drugs at marginal cost, the main market is not reduced in any significant way. All the lost revenue calculations brought up in the newspapers and on TV showing vast loses for pharmaceutical houses and Hollywood studios are just flim-flam. These greedy folks might wish to recall that legitimate business is only entitled to a reasonable profit, not an unlimited one at any cost.

Having said that, it still follows that the real crooks must be dealt with or the digital highway will not reach its potential. Conditional Access methodology is most important. Digital Rights Management within fair limits is also a true necessity. Satisfactory civil and criminal laws to enforce the will of the people are of great utilitarian value. As one famous golfing philosopher from West Virginia was heard to say in his last days: "Let's go get them!"

BROADBAND GOOD AND EVIL

T rue broadband success means massive amounts of information on the move that can cross vast distances at light speed and low cost. That generally is a very good thing, as with seeing live pictures from afar such as of your daughter's graduation. So too is the blessing of videoconferencing with a sick friend from across the miles. Of course, conducting business utilizing the broadband

can save a lot of time and money and be an effective way to facilitate better commerce. New technologies, new forms of entertainment and better ways to enable commerce are all to the greater good. So broadband is surely a fine thing, without a doubt.

Now wait a minute. If one's privacy can easily be threatened and personal property readily stolen away, we must have a problem. If the sanctity of the home can be readily and persistently violated, then the family unit is under attack. If commercial interests can electronically invade the home, the residents will not be happy being interrupted against their will. Even more upsetting, should the rights of the citizens be violated by government institutions on their way to defending the broadband pipe from illegal actions, a lot of unhappy voters may be crying uncle. Also, if commercial intellectual property covered by patents and copyright can be readily subject to electronic thievery on broadband, then a great harm can be done. So broadband could also mean a lot of trouble, without a doubt.

"New technologies, new forms of entertainment and better ways to enable commerce are all to the greater good."

So it is, as with so many powerful and important things in the world, the good and the bad clash. The very appeal of broadband brings in-train great problems, great risks and great challenges. That is why we need institutions like the FCC, the FBI and the USPTO to help manage and regulate the process, keep the crooks at bay and protect the interests of a free public.

[Don't miss Kalsow's Back-Channel; turn to the last page. —Ed.]

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KALSOW'S BACK-CHANNEL: "Validating the Middle Ground"

Last month we observed that PASSAGE, the new conditional access product from Sony, looks capable of threatening the Motorola / Scientific-Atlanta set top box duopoly. Now it seems that Sony's unveiling of PASSAGE could provide the double whammy to those box makers as the CAP-EX limits of the MSOs have already slashed the sales and earnings of the 'masked duo' dramatically. With their Q4 2002 sales and earnings down some 50% and more off their 2000 peaks, the devil may not be in the details but in the MSO boardroom. If the tests of PASSAGE now scheduled at major MSOs succeed, a brave new world may be dawning for MSO and subscribers alike. Sorry fellas.

Sounding a clarion call for Democrats or Republicans regarding the actions of the FCC, the SEC, the Senate Commerce Committee and the Senate Judiciary Committee is a lot of poppycock. The truth of the matter is that the issues involving copyrights, digital access, broadcast flags, HDTV and the like far transcend politics. Attempts on the part of special interests to gather partisan forces to defend their right to disadvantage the nation are certain to fail. The debate is about American issues, about America's digital future and the

right of a free public and a free enterprise system to live together in harmony. Our leaders including Senator John McCain, Chairman Michael Powell of the FCC and many others in Congress and elsewhere will do what is right by the US Constitution and its People. To think otherwise regarding their resolve and political courage is to fail to recall the many similar chapters in our history.

In the year 2000, CTAM, the NCTA and the rest of the US cable industry agreed that DBS service would peak at some 13 million subscribers. This editor strongly disagreed, suggesting instead that 20 million would be passed in 2003 with more growth to come for EchoStar and DirecTV. The reasons then and the reasons now remain the same, the top cable management is in turmoil and unable to face reality when it comes to business, marketing, new technology or understanding its customer. Charging the public some \$50/month and then disrespecting it in multiple ways is not a recipe for cable success fending off DBS. Have they noticed that it is the educated and the affluent that are flocking to DBS in the greatest numbers? Reducing digital churn is easy: treat the customer with care and stop all anti-consumer practices, then see churn collapse. It's not about VOD or SVOD or any other technology fix, it's about ceasing simplistic bullyboy ways of dealing with the public.

Losing Ted Turner is a very sad occurrence in the annals of the US cable industry. He is and was a great innovator, a great pioneer, an inspirational leader, a visionary and a marvelous iconoclast. The fact that the FCC, the SEC, the industry leaders and the American public could not see through the AOL takeover scam is tragic. It demonstrates once again that shortsightedness, avarice and financial trickery are not proper substitutes for vigilance and common sense in business. There are many victims to the AOL Time Warner debacle, but none greater than that American icon Ted Turner. With the clearer lens of time long-passed, history may come to honor his many outstanding contributions to the American scene including CNN, TNT and TBS. Also, his great philanthropy at the United Nations and elsewhere and his contributions to ending the cold war; not to mention the America's Cup he won so valiantly. Great is as great does.

As the controversy over Copyright and related Fair Use issues concerning the legality of PVR, VOD and DVD rages on, the passage of the Digital Media Consumers' Rights Act of 2003 is of importance to all concerned. In the end, its passage will benefit content owners, content providers and the public alike. Just remember how the VCR enriched Hollywood, the media industries and benefited the public. It is important to recall that open business is good business. As a valid current example, take notice of how — to the surprise of so many — IBM, Apple, Microsoft, SUN, Nokia and many others are now praising the values of convergence, open systems and interoperability. Who would have 'thunk' it even a few years ago — especially for Apple and IBM, those paragons of the closed technology society. Live and learn.

[Your mileage may vary. —RGK]



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Every month you will enjoy thought-provoking analysis of the significant issues driving the growth of new media, technology and entertainment.

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