A Friendly Future for New Media

TELUS®

The Authors

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Contents

A note about terminology used in this document. To be consistent with the CRTC, we've opted to use the same term they do: "new media". However new media is a nebulous term. It can include online media content that is in some way analogous to television content (the focus of the upcoming CRTC hearing). It can also include content – ranging from "webisodes" to user-generated content, and much more – that is unique to the Internet. The differences are important since the former tends to gravitate debate towards cultural issues, while the latter raises matters of a social or economic import, and, in turn, raise broader political and industrial policy questions.

Further, for the purposes of this paper, we'll consider "new media" to be that which is available by way of "traditional" Internet access as is provided by Internet Service Providers (ISPs) as opposed to content and services offered through mobile carriers. **The real question on everyone's mind today is "should we regulate the Internet.**" While wireless will be an increasingly important element in the debate over time, the shift to new media will only accelerate as advanced 3G and 4G networks are rolled out over the next 5 years.

Finally, TELUS notes that the issue of broadband deployment and investment is raised only peripherally in this paper. While continued investment in next generation broadband networks by facilities-based competitors is critical to innovation and growth, many of the issues that this raises will be detailed in a future paper.

Executive summary

The real question on everyone's mind today is "should we regulate the Internet?" On May 15, 2008, the CRTC launched a consultation process on "broadcasting in the new media environment" as a preparatory step for a public hearing to be held in early 2009. The CRTC last took an in-depth look at new media online in 1999 and much has changed since then.

Context, perspective and semantics matter in the "new media" debate. We seem to be at once both within, and poised to begin, a period of extreme transition in media. While this has been said before, the difference between this statement today and 5 years ago is that it is now true. You don't have to go further than Facebook, Google, YouTube or CBC.ca to get the message.

Ultimately in considering the impact on the Net of the CRTC's new media initiative and other policy issues from net neutrality to copyright, we have to ask ourselves, will intervention help or hinder the development of new media in Canada? Is anything needed and, if so, what is it and where should it come from? TELUS submits that the starting point for any discussion of new media should not focus on traditional broadcasting. The online world is so much more than that.

The interactive nature of the Internet offers content creators and advertisers new opportunities to engage and interact with audiences in many ways on many levels. Content can be immersive, allowing the viewer to participate. Social networking can be used to build content-centric communities that enhance the experience and give participants a greater feeling of engagement than ever before. In some cases, content creators have used new media to engage in collaborative content creation or story-telling activities. Gaming is big on the Internet. It is story-telling in a very different way, where each player experiences the story differently.

The Internet presents many great and unprecedented opportunities for Canadians, such as global reach and fewer barriers to entry, interactivity and engagement, personalization and the possibility for virtual worlds.

New media also presents new challenges, with new solutions. The media industry is being challenged in many ways. Existing models often don't work in the new media space. But the reality is that we simultaneously have a strong traditional broadcast system in terms of choice, diversity and Canadian success stories and a strong Internet model in terms of access to content and the dissemination of ideas. That's an opportunity. Because the traditional broadcast system is so healthy, policy makers can focus their energies on how to exploit the new world rather than regulate it in an attempt to protect the old.

Moreover, the original reasons for regulating broadcasting in the conventional media world don't apply in the new media world. There's no scarcity of capacity and the traditional barriers to entry for content creation and distribution are gone. Access to venture capital may be the greater challenge.

A strategy that focuses on industrial development, rather than culture, would provide the flexibility needed to harness the opportunities available in the new media environment.

Traditional media could benefit from more innovation online, but the growth of Canadian new media in general does not require cultural protection. It requires an industrial strategy that helps media businesses and content providers achieve global scale. Our traditional television content creation industry has grown over the years through the benefit of protectionist measures and an artificial economy but many elements of this model don't work in the digital age.

The focus online should be on enabling the opportunities presented by the digital economy. At the end of the day, this means a focus on enabling Canadian consumers to access, create and interact with content on whatever platforms exist – and doing this through industrial policy and economic stimulation is the way to go.

New media offers great opportunities for Canadians to develop, promote and sell content on the world stage with greater ease than ever before. The world of new media is furthering the objectives of the *Broadcasting Act* in terms of diversity, choice and access for more voices. There's no evidence that new media poses an imminent threat to the existence or reasonable profitability of traditional media. An industrial strategy that balances, on the one hand, network investment in broadband with access, on the other hand, or fair use of content with the right to exploit intellectual property, is a better recipe for future success than regulation.

Balance is also required in addressing network neutrality concerns. TELUS believes that Canadian Internet users should be able to access and use the legal Internet content and applications they choose, including services featuring different levels of access to different content and applications (such as enhanced quality of service for gaming applications or remote medical monitoring). On the other hand ISPs should be able to offer value-added services to content and application providers and to provide their own or affiliated content and applications, so long as: (a) the value-added services are generally available to other content and application providers, and (b) they do not have a material adverse effect on the ISPs' customers' ability to access and use the legal Internet content and applications of their choice.

TELUS makes the following ten recommendations to build a successful Canadian new media industry:

1. No content regulation of the Internet. It is already a hotbed of innovation, diversity and choice. The new media exemption is still the right policy. The issue is how to successfully take Canadian new media to market.
2. No new consumer taxes for Canadian production either through fee-for-carriage on traditional platforms or a new ISP tax. Rather, TELUS supports more efficient use of current mechanisms.
3. The government should match the BDU contribution to the CTF dollar for dollar with the new money being targeted to new media extension of linear content. This probably means another $50 million from government.
4. The government should allocate the revenues from the 700 MHz auction to a fund for online new media content that is not associated with traditional broadcasting. That would begin in 2012 and focus on ensuring Canada's global competitiveness in this space.
5. Real new media (Web 2.0, social networks, etc.) should be viewed as economic/global market opportunities, not as raising cultural issues.
6. Funding of new media (as opposed to old media) online should be part of an industrial strategy. Funds and tax incentives should include dollars for application and network infrastructure development necessary to support the new media environment.
7. Creating incentives for deployment of even more advanced broadband infrastructure by facilities-based competitors should be promoted over more intrusive policies like unbundling that may stifle investment in Next Generation Networks (NGNs).
8. Rights holders should expect that their intellectual property in content and applications is protected through a balanced approach to copyright that equally enables fair dealing to promote innovation (e.g. mash-ups, etc.) and commercial returns.
9. Consumers should be able to access whatever content they want online, subject only to applicable law, governing contracts, and reasonable network management, and should have the freedom to choose Internet access services that suit their needs.
10. The CRTC should use its powers under Section 27(2) of the *Telecommunications Act*, if required, to ensure that ISPs provide Internet access without unjust discrimination or undue preference or disadvantage.

I. Introduction

On May 15, 2008, the CRTC launched a consultation process on "broadcasting in the new media environment" as a preparatory step for a public hearing to be held in early 2009. The CRTC last took an in-depth look at new media in 1999 and much has changed since then.

Context, perspective and semantics matter in the "new media" debate. We seem to be at once both within, and poised to begin, a period of extreme transition in media. While this has been said before, the difference between this statement now and 5 years ago is that it is now true. You don't have to go further than Facebook, Google, YouTube or CBC.ca to get the message.

As we try to find our way forward, we need to pause to examine whether we are asking the rights questions, or viewing things in the right perspective. Do we really have 'traditional' media, 'new' media and 'digital' media – or, fundamentally, are they all one and the same? Is it really the same old story, merely in a newly packaged (or packetized) form, or is this a major upheaval that brings with it significant new challenges and new cultural and economic opportunities?

It's both. Much of what we see today on the Internet is a re-packaging of our traditional story-telling approaches but in an Internet wrapper. At the same time, a more immersive form of media (Web 2.0) is moving communications rapidly toward a world that will bear little resemblance to that which we know today.

Ultimately in considering the impact of the CRTC's new media and other policy proceedings, we have to ask ourselves, will intervention help or hinder the development of new media in Canada? Is anything needed, and if so, what is it and where should it come from? TELUS submits that the starting point for any discussion of new media should not be traditional broadcasting. New media is so much more than that.

II. "There's something happening here, what it is ain't exactly clear…"[1]

In the digital world it's important to recognize that new opportunities exist to deliver different experiences to different audience segments centred on the same content. Some consumers prefer a passive, lean-back experience while, at the other end of the spectrum, some want to be actively involved in the content to the point of influencing the storyline or directing the actions of characters. At this extreme, the lines between gaming, storytelling and television content blur; new forms of entertainment are born. We'd be naïve to think that this is a temporary anomaly – these trends will only increase with future generations.

[1] From the song *For What It's Worth* by Buffalo Springfield.

To best understand the new media revolution, industry and policy makers should look to the "Millennials" or "Generation Y". It's this group that, for the first time in history, grew up with computers in the home, and these young adults spend more time at the computer than they do watching conventional TV, and, indeed, often do both at the same time. These people don't just watch content – they participate in the experience. While they do want to be told stories, they want to tell stories, too.

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The media world needs to understand that the "Millennials", and those who follow, will be driving the economy and will take it in new directions. We need to create products and services that address their needs and allow them the freedom of cultural expression, and we need to create an industry that is in tune with them and will provide jobs that cater to their creative desires. This is not to say that long-form linear content is old school. Long-form programmes and features will continue to resonate but will do so on multiple platforms and screens, with increasing amounts of time-shifting and place-shifting, and with increasing amounts of interaction and engagement by viewers, whether sanctioned by the producer or not.

Public policy debates with respect to "new media" are often being styled by participants from traditional media – media "immigrants from the old world" – who seek to adapt and apply old-world concepts to this new technology. The "immigrants" are driving the debate because they have the greatest investment in terms of capital, networks, markets and intellectual property. At the same time, the "Millennials" are out there creating and using this new media, unaware of the need for any "public policy". To the extent that they become aware, they resent any intrusion on their current perceived freedoms.

There are many issues in contention, but the heart of the debate between the "immigrants" and the "Millennials" on the future will boil down to content rights. And whether or not they engage in the policy debate, the "Millennials" will have a significant influence on the evolution of the new media model. They have got the one thing going for them that matters most: they own the future. They also live the technology and are increasingly in control of how, when and where they consume content. In fact, increasingly they are part of the process of content production and distribution.

Finding the right balance between satisfying user wants and needs and protecting the integrity and value of rights holders' content may ultimately turn out to be the real key to unleashing the power of the Internet.

A. New media, new opportunities

New media presents many great and unprecedented opportunities for Canadians.

> The market is North America and the world. That reduces the need for subsidies intended to offset serving sub-scale audiences.

i) Global reach and fewer barriers to entry

For the first time, anyone has access to cost-effective global distribution to reach previously inaccessible or untapped audiences. For existing content creators this means new reach. For new content creators, this means that there are opportunities to by-pass conventional gatekeepers and find an audience through their own efforts. Most important it means our creators are no longer tied to a market of thirty million people. The market is *North America and the world*. That reduces the need for subsidies intended to offset serving sub-scale audiences.

Moreover, anyone can create content and distribute it on the Internet. Not only is the platform accessible, but so is the equipment. Sophisticated cameras and editing tools are now available, to anyone, at a fraction of historical costs, allowing many more would-be creators to enter the fray.

When content is posted on the Internet, whether on the content creator's website or on a video-sharing site like YouTube, there are no barriers to the size of potential audience. Would-be producers can test their fledgling wares at little or no distribution cost to them. If it's good, the viral nature of new media can lead to unexpected success and the content creators can take their concept and content to the next level.

The new media world allows for gradual and progressive growth and refinement – something foreign to the unforgiving world of traditional TV when you're only as good as your latest ratings numbers, or you eat or starve based on the opinion of a commissioning editor.

ii) Interactivity and engagement

The interactive nature of new media content offers content creators and advertisers new ways to engage and interact with audiences in many ways and on many levels as never before. Content can be interactive, allowing the viewer to participate. Social networking can be used to build content-centric communities that enhance the experience and give participants a greater feeling of immersion and engagement than ever before. In some cases, content creators have used new media to engage in collaborative content creation or story-telling activities. Gaming is big on the Internet. It is story-telling in a very different way, where each player experiences the story differently.

While some Interactive TV (ITV) is available through set-top boxes, its usage is very limited and its availability is quite limited today. The Internet has changed that. For traditional content creators, there is now a wealth of opportunity for re-purposing content and extending brand and reach beyond the current exhibition platforms.

iii) Personalization

The Internet offers many opportunities to really know your audience. The better you know the individual the more effectively you can create content for them or advertise to them.

Content on the Internet is generally “pulled” by the user rather than being “pushed” by a broadcaster. This difference means that the content publisher can gather some significant details about the size, geographic location and, depending on other tools, other personal information about the people who are consuming their content.

For the consumer, this is convenience, they just grab whatever content they want whenever they want and often on whatever device they want. The consumer is increasingly in charge and in control of her own media experience.

For the advertisers and others attempting to make a business case for publishing new media content, this is an opportunity as the detailed information gathered on users enables content personalization to the level of the individual, including the advertising, making the ad content more relevant and therefore more effective.

iv) Virtual worlds

Virtual worlds are a very noteworthy new media phenomenon. In these worlds, users are represented by avatars. Avatars are graphical representations that are customizable by the user, often to reflect his or her real-world appearance. Within these virtual worlds, avatars, under control of their owners, interact with each other and with their virtual surroundings, much like we do in the real world.

Many such worlds exist but some of the best-known are Second Life, Habbo (formerly Habbo Hotel), and Club Penguin. Club Penguin, a Canadian success story out of Kelowna, B.C. and now owned by Disney, is specifically targeted to children, while Habbo is aimed at teens and Second Life’s terms of service limit it to those over the age of 18.

Unlike the popular “shoot ‘em up” massively multi-player online games (MMOGs), in virtual worlds, elements of social networking and gaming converge – but that’s not where it ends. Second Life, for example, has its own economy, based on a currency called Linden Dollars, and virtual goods and real estate are bought and sold. Currency exchanges exist where Linden Dollars can be exchanged for real U.S. dollars. Many large multinationals including Dell, IBM, Leo Burnett Worldwide, Mazda and Starwood Hotels have presences within Second Life, some of which engage in commercial activities.

Second Life boasts over 13 million registered users, with over 800,000 active in the last 30 days[2]. As of May 2008, Habbo has 9.5 million combined unique visitors to its thirty-two "local communities" every month[3]. Club Penguin officially launched in October 2005 and at the time of its purchase by Disney in August 2007, Club Penguin had 12 million user accounts[4]. These numbers, particularly for Habbo and Club Penguin, which cater exclusively to a young demographic, tell us that virtual worlds are taking off. As a percentage of potential consumers, though, the participation rate is still well below what it potentially may become.

The presentation varies among these worlds. Club Penguin's graphics are cartoon-like, though three-dimensional, while Second Life approaches a photo-realistic level. As these environments mature, and technology improves, there's little doubt that the experience will become increasingly complex and more and more realistic. It's perhaps not unreasonable to speculate that someday we'll see such multi-player simulations approach the visual realism of Star Trek's fictional "holodeck".

It's tough to anticipate or plan for the impact these enhanced experiences will have on network infrastructure and capacity. In part, that will depend on the speed at which they evolve. As well, the extent to which the visual components of the environment are communicated as pre-rendered images versus as data to be rendered on the receiving end will make a big difference. The former would have far greater impact than the latter. In either case, it's likely that in the future, virtual worlds will push the limits of real-world networks to an extent we've not seen before.

B. New challenges with new solutions

While new media presents a wealth of opportunity for new entry into the content business, it also presents some significant challenges, both for new entrepreneurs and for traditional media. Traditional paradigms are being challenged and yet business cases for new media remain elusive. The only thing that is certain is that the internet provides seemingly unlimited opportunities.

> The future of new media isn't uncertain, it's just unclear, meaning that it's not going away, it will be a major force, but it's not clear yet how it will evolve.

Changes in the media environment are deep and widespread. Where television watching was once a stationary experience, using a dedicated built-for-purpose device, with viewing following broadcasters' linear programming schedules, today time-shifting, place-shifting and device-shifting are becoming commonplace. The lines between new media and traditional media blur

[2] Source: Second Life website (http://secondlife.com/whatis/economy_stats.php) as of June 2, 2008.
[3] Source: Sulake Inc. http://www.sulake.com/habbo/
[4] Source: Wikipedia (http://en.wikipedia.org/wiki/Club_penguin)

across *all* distribution methods, whether that be the Internet, wireless or regulated BDU channels (cable, satellite and telco IPTV), and those lines are becoming more blurry all the time.

No one within the media industry, the delivery value chain, or the regulatory bodies that govern television is immune to these changes nor are they exempt from the resulting challenges. Indeed, even the consumer is not without his/her concerns and uncertainties at this turbulent time.

i) Money still matters

The media industry is being challenged in many ways. Traditional media companies, which are often best-positioned to bring popular programming to new media, have to re-invent how they do business. Existing models often don't work in the new media space.

Canadian broadcasters have been tentative in their adoption of the Internet as an alternative delivery channel for TV content, even though it provides the opportunity for an unregulated revenue stream from advertising or content sales. To date, it seems that broadcasters haven't been very successful in selling advertising for their new media broadcasting initiatives. Advertisers aren't spending on broadcasters' sites because Canadians aren't watching; Canadians are frustrated and aren't watching because content isn't there[5]; the content isn't there because advertisers aren't sponsoring it – a vicious circle that needs to be broken. **Special tax credits for new media advertising by Canadian companies on Canadian sites could do a lot to help spur things forward.**

Moreover, the delivery of content on new media platforms is hampered by the absence of proven and standardized revenue models and terms of trade. Developing equitable and sustainable agreements that serve the long-term interests of all parties has proven to be a considerable challenge. New media issues were at the heart of the recent ACTRA (Alliance of Canadian Cinema, Television and Radio Artists) and WGA (Writers Guild of America) strikes, and are looming over other negotiations, too.

Business cases for new media are also challenged by shifts in the cost structure for new media. An interesting characteristic to note about broadcasting in the conventional media world is that there is no incremental cost for additional consumers. A television broadcaster's costs remain the same whether 100 or 100,000 people tune in. The technology and the business models scale very well to handle audience growth. As Peter Grant points out in his article entitled *Canadian Cultural Product and the Long Tail: The New Economics of Production and Distribution in Canada*[6]*,* economists characterize [cultural] products like TV shows as being what they call "public goods". At a technical level, a "public good" is a product whose cost does not vary with the number of people consuming it."

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[5] Only very recently did CTV strike a deal with U.S. broadcaster ABC to offer through the CTV Broadband network episodes of the top shows Grey's Anatomy and Lost. However, much content, across most broadcasters, is still not available to Canadian viewers except as linear programming.
[6] http://www.mccarthy.ca/article_detail.aspx?id=781

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While digital *reproduction* costs are zero (unlike in the conventional media world), digital *distribution* costs generally increase with the growth of the audience size. If an additional viewer starts streaming a program, someone somewhere in the distribution value chain usually incurs additional cost. Often people will overlook the fact that, in the new media world, cultural products – the so-called “public goods” – generally do have costs (distribution) that increase as more people consume them, in contrast to the conventional media world. **Finding venture capital to help take small Canadian successes to scale is a key challenge in building global players. That may be the critical barrier to Canada becoming a force in the Web 2.0 world.**

Those involved in the distribution of content worry, too, about the net neutrality issue and whether their distribution plans will be somehow affected by the actions of some ISPs to recover their costs of increased distribution. Ironically there may be network solutions to reduce costs but there is a concern that only those willing to pay for enhanced service would benefit. This is the basis for the concerns about a “two-tier” Internet. See the section of this paper titled *The complex debate over net neutrality* for more detailed information.

ii) Content rights matter too

Rights (the entitlement to use content in specific ways) are particularly problematic in the new media world because of the “disintermediative” effects of digital technologies, the primacy of traditional broadcast windows and revenue streams, and the difficulties in creating a culture that supports content monetization online. Copyright is an issue for new media, though, in particular with respect to “Millennials”. The “Millennials” often don’t understand the concept of copyright and may simply ignore it, or even take pride in the fact that they aren’t “lining the pockets of big corporations” – much to the consternation of content owners and legitimate licensees. Other “Millennials” who do understand the premise of copyright, view it as a potential barrier to their right to creative expression since their concept of what is a legitimate derivative work is very different from traditional thinking.

Copyright law varies from country to country and that increases complexity. Some contend that Canada’s copyright laws have made it a hotbed for new media piracy, while others respond that Canada’s regime is in fact stronger than that of the U.S. in many ways. The subject of much debate, there’s one thing that most, if not all, will agree on with respect to Canada’s copyright laws – they need to be updated to reflect the realities of the digital age. Care is required, though. Legislative reform is notoriously complex, given the number of competing interests and policy considerations. As University of Ottawa law professor Michael Geist puts it, we “must be sure to avoid merely providing Canadians with analog rights in a digital world”.

As the Internet's capabilities increase, rights holders will likely become increasingly aggressive in protecting their rights. Fights against piracy will collide with potential fair use opportunities as long as both sides of the rights debate remain polarized. Media companies have traditionally been unwilling to rely on copyright law to protect their content and have turned to Digital Rights Management (DRM) schemes. These have always met with considerable consumer resistance and are becoming less common. Determined consumers often found ways to circumvent DRM, anyway.

For conventional broadcasters, one of the major challenges is obtaining rights to use content on the Internet at a reasonable cost. Online rights to the popular U.S. shows that cross-subsidize Canadian content can be expensive. Rights clearance can be a very difficult task, too, as much extant content was developed under agreements that did not address or anticipate its use in other ways or the need to extend contracts to cover these uses.

Producers see things through a different prism. Among producers, a common complaint is that broadcasters insist that the producer give up the new media rights as part of the TV sale – with little or no compensation offered – and then do nothing with the new media rights. This precludes the independent producers from distributing their content by way of the Internet and denies consumers the opportunity to enjoy the content on their own terms. Before worrying about Canadian content online, reasonable terms of trade must be established. Otherwise long-form media on the Internet will mostly be foreign content.

iii) And how do geographic and territorial boundaries matter?

The Internet, at least in the "free world", doesn't concern itself with geo-political borders and, for the most part, packets flow freely and indiscriminately around the world at dazzling speed. That's great for many purposes, but not all media companies see this as an advantage. The model for content licensing is very much built on the concept of territorial licensing of content – and most media companies want to see that perpetuated on the Internet. To that end, many have adopted a practice that is variously known as "geo-blocking", "geo-fencing" and "geo-filtering". What this does, in effect, is to block access to content to those located in a different territory. It's the reason why users of the Internet in Canada can't access content at CBS.com and likewise why CTV.ca won't stream content to Internet users who appear to be located in the U.S. The technology is far from perfect, and can be circumvented by those who wish to make a small effort, but the majority of users don't do so. That said, geo-fencing is not a popular thing and many Internet users are upset that they can't watch some of their favourite shows online because the U.S. network blocks them and the Canadian network that carries the show doesn't make it available online[7].

[7] For a detailed discussion on geo-blocking and broadband streaming of broadcast content, see the CRTC-commissioned study, *Changing Channels: Alternative Delivery Channels for Television Content* by Two Solitudes Consulting.

Big media costs big money and creators and media businesses don't consider themselves to be in the business of giving intellectual property away.

Again there is a clear message here. Big media costs big money and creators and media businesses don't consider themselves to be in the business of giving intellectual property (IP) away. Until new models arise that allow IP owners to monetize their investment, the battle lines will be drawn. Many consumers will find ways to justify outright piracy but others may end up in a trap where copyright rules tighten because no one supported a middle ground. **You can't expect content owners to discuss fair use (known in Canadian law as "fair dealing"), if consumers are unwilling to pay for any content.** That's why TELUS has joined Google, broadcasters and other key players in promoting a balanced approach to copyright that promotes fair use for consumers and protection of creators' rights to compensation. No balance means no Canadian new media business.

iv) Why traditional media still matters

New media services provide the opportunity to do highly targeted advertising based on the behaviour and interests of the individual consumer.

While the relative distribution of ad dollars between over-the-air television and specialty services has changed, overall television advertising revenues continue to grow at a healthy rate.

The appeal of this is obvious to advertisers and, as a result, advertising in interactive media is growing at a phenomenal rate. However, while it is growing quickly, it still represents a small portion of overall advertising spend and advertising spend continues to grow across all media, including conventional and specialty television services. While the relative distribution of ad dollars between over-the-air television and specialty services has changed, the television medium as a whole continues to be an important vehicle for advertisers and overall television advertising revenues continue to grow at a healthy rate. In 2007, advertising for Canadian specialty, pay, pay-per-view television and video-on-demand services totalled $948 million, an increase of about 7.5% over 2006 and an increase of 56% since 2003[8]. For private conventional broadcasters, advertising revenue in 2007 totalled $1.9 billion, a 1% increase over 2006 and an increase of 4.9% since 2003[9]. Combined advertising totalled over $2.8 billion in

[8] Source: CRTC financial summaries for pay, PPV, VOD and Specialty Services 2003 -2007 (http://www.crtc.gc.ca/eng/publications/reports/BrAnalysis/p&sp2007/individual/COVER.htm)
[9] Source: CRTC financial summaries for convention television in Canada 2003 – 2007 (http://www.crtc.gc.ca/ENG/publications/reports/BrAnalysis/tv2007/tv2007.htm)

2007, a 17.8% increase over 2003. Total Canadian Internet advertising spending, in comparison, was $1.0 billion in 2006[10].

Furthermore, the Commission's May 2008 report entitled Perspective on Canadian Broadcasting in New Media notes increased interest and spending by advertisers in new media. When broadcasters make video content available on the Internet, it is usually accompanied by video advertising. When inserted before the requested video content, this is known as pre-roll advertising. When embedded within the video stream such advertising is called mid-roll, and when it follows the content it is known as post-roll advertising. The use of pre-roll advertising is very common in both Canada and the U.S. but, as was noted in a January 2008 report by Two Solitudes Consulting that was commissioned by the CRTC, the amount of paid third-party pre-roll advertising on Canadian broadcaster broadband sites lags far behind the amount found in the United States. New media, therefore, has not at this time had a materially adverse affect on traditional Canadian broadcasting revenues.

TELUS sees two things of note in these numbers. First, the rapid growth in online advertising is not happening at the expense of advertising on the traditional broadcast system in general. In fact, more revenues seem to be flowing from conventional channels to more-targeted specialty services but remaining within the traditional broadcasting system. Second, broadcasters can:

- develop a strong online presence that extends your brand and brings your content to users wherever they are
- take advantage of digital technologies to target linear-channel audiences
- use VOD platforms to increase targeting and responsiveness

and thus increase their advertising revenues. **All this to say that new subsidies for traditional broadcasting content providers are not necessary.**

Indeed, the evolution of the "traditional" broadcasting framework may also go a long way towards addressing concerns relating to content on the Internet. At this point in time, traditional distribution platforms such as satellite, broadcast, cable and the VOD offerings from the operators of such services remain more efficient means of mass content distribution and provide the best means of protecting the intellectual property of content companies. Producers of expensive content will always prefer a protected form of distribution that enables the secure monetization of their content investment. That's a huge advantage for the traditional media world, and it can continue to grow if broadcasters work to unleash the power of VOD to allow consumers to view the best in television anytime, any place, reducing the need for consumers to seek their content elsewhere. **Reduced regulation of VOD, combined with more innovation, is the best way to slow down any perceived threat posed by the Internet to traditional media players.**

[10] Source: Interactive Advertising Bureau (IAB) of Canada (http://www.iabcanada.com/reports/IABCanada2006-07COA_report.pdf)

v) Definitions matter

Putting aside, for the sake of argument, the question of whether you can apply the current definition of broadcasting to the Internet, it's fair to say no one had the Internet in mind when the *Broadcasting Act* was drafted. In fact the extension of jurisdiction online may ultimately call into question whether video-on-demand is actually, or should be considered, broadcasting.

> However, the *Broadcasting Act* doesn't specifically acknowledge the existence of streaming and downloading, and therefore its definitions neither explicitly include nor preclude either from being considered under the definition of "broadcasting".

New media is for the most part an on-demand model. Inherent in that, then, is the fact that media consumption, increasingly, will follow the one-to-one rather than one-to-many transmission model. This can be as much a substitute for other forms of consumption (retail, movie theatre) as it is for traditional TV viewing.

In the traditional television world, all content was aggregated and distributed by a broadcaster. With the Internet, it is now possible for content creators to distribute their content directly to the consumer without going through a broadcaster or any other aggregator. An independent content producer can, it would seem, be a broadcaster in the new media world. For the most part, though, new media distribution is still done through aggregators. These may be the web sites of traditional broadcasters (for example, CTV.ca or ABC.com) or new media pure plays like Joost, Hulu or iTunes.

The *Broadcasting Act* was conceived in a world of time-sensitive transmission, a world where signals were transmitted at a given time and if not received and viewed at that same time, the content – and the opportunity – was gone. The new media world, though, has long operated in a bi-modal fashion: there's streaming, which is pretty much analogous to traditional transmission, and there's downloading, which is generally done to facilitate the new time-shifting, place-shifting and device-shifting paradigms that have become commonplace. However, the *Broadcasting Act* doesn't specifically acknowledge the existence of streaming and downloading, and therefore its definitions neither explicitly include nor preclude either from being considered under the definition of "broadcasting".

The traditional TV world, with the exception of pay-per-view (PPV) services and some video-on-demand (VOD) content, is not a transactional model. That is, the viewer doesn't pay a direct incremental charge to watch a program. In the new media world, though, such models are not uncommon and the usage of a *la carte* pricing models is likely to increase.

We are moving toward a model where retail sales of content are adopting an electronic delivery format in lieu of 'traditional' physical media (such as DVDs). When sold on a DVD, whether ordered online or by way of a traditional bricks-and-mortar operation, TV content has never been considered to be under the regulation of the Commission. The move to an electronic delivery model for retail sales fulfillment doesn't fundamentally alter the nature of the transaction or the ability of the consumer to experience the content, nor, therefore, should it alter that fact that such retail transactions are beyond the scope of the Commission's domain.

Is the paid downloading of TV program content on the Internet a broadcasting activity or a retail sales activity – and how do we unambiguously distinguish between the two?

So, we are left with a fundamental – and unresolved – question: is the paid downloading of TV program content on the Internet a *broadcasting activity* or a *retail sales activity* – and how do we unambiguously distinguish between the two?

At a technical level, streaming and downloading are very similar. In most cases, streamed content is buffered within the storage of the receiving device in order to provide smooth playback that doesn't reflect the starts, stops, slowdowns and packet retransmissions that occur during transmission. Indeed, in many cases, the entire program that is being streamed will be cached in storage – just as it is when content is downloaded. Differentiating between the two, from a legal standpoint, could be very challenging, and if there were regulatory requirements, particularly taxes, associated with streaming, but not with downloaded content, the waters could get very muddy indeed.

The solution is simple. If it's not regulated, it's not an issue except as dinner discussion for lawyers.

III. Let's continue not to regulate the Internet

A lot has happened since the CRTC took a hands-off approach to the regulation of new media in 1999. The recent announcement by the Commission of a 2009 New Media review raises a key question: "In terms of media creation, production and consumption, is government intervention required online?"

In examining this question, we can frame our overall discussion around the following:

Do we need to regulate the Internet in order to…

- stimulate the production and dissemination of Canadian stories?
- ensure access and diversity?
- stimulate the growth and development of Canadian content, applications and media businesses online?

... or, in fact, is the Internet a healthy and diverse ecosystem that fosters both Canadian culture and commerce and offers unprecedented opportunities for Canada and Canadians?

TELUS submits that the CRTC got it right in 1999 and its hands-off approach to regulation of new media has helped contribute to more diversity, choice and innovation than could have been imagined 10 years ago. Why mess with success?

Rather than looking to apply old rules and protections to the online world, the Commission should instead learn from the quickly evolving online world and seek to export some of those lessons to the traditionally regulated space.

Much has changed since 1999, and there's no doubt that the Internet today provides more choice and flexibility to consumers with respect to television content than it did in 1999. However, as much as things have changed, the findings of the Commission in 1999 are still valid today. Much Canadian content is available to Canadians by way of alternate distribution channels today and there are numerous public- and private-sector funds available to Canadians to aid in the creation of new media.

As things stand today, the Commission's findings in 1999 are still valid and there's no justification for subjecting new media distribution to any form of regulatory intervention.

We simultaneously have a strong broadcast system in terms of choice, diversity and Canadian success stories and a strong Internet model in terms of access to content and the dissemination of ideas.

Indeed, in its May 15, 2008 news release titled *CRTC launches consultation on broadcasting in new media for future hearing*, Konrad von Finckenstein, Q.C., Chairman of the CRTC, said "our intention is not to regulate new media, but rather to gain a better understanding of this environment and, if necessary, to propose measures that would support the continued achievement of the *Broadcasting Act*'s objectives."

Based on the Chairman's comments, TELUS further concludes that the Commission has rightly recognized that regulation of new media is not the correct direction to follow and that the Commission is disposed to pursuing a policy-based rather than regulation-based approach to ensuring that the Canadian new media world evolves in a way that supports the objectives of the *Broadcasting Act*.

Arguably not only has the current broadcast model worked fairly well, it continues to work well even with the emergence of the Internet as a major force in the world of communications, entertainment and information.

The reality is that we simultaneously have a strong broadcast system in terms of choice, diversity and Canadian success stories *and* a strong Internet model in terms of access to content and the dissemination of ideas. That's an opportunity. Because the traditional broadcast system is so healthy, policy makers can focus their energies on how to exploit the new world rather than regulate it in an attempt to protect the old.

The Internet is a global, unregulated content distribution channel that is populated for the most part by unlicensed and unrestricted content distributors. Our licensed broadcasters must compete for the consumer against these unlicensed entities and it's very important that nothing be done to put them at a competitive disadvantage. So far they are winning the TV war, while the Internet has become a hotbed for innovative new forms of content.

The Commission would be within its powers, were it so disposed (though the authors believe that it is not), to introduce regulations that affect content distribution on the Internet (or other alternative distributions channels) within Canada. Politically that would create a firestorm. Realistically, though, it doesn't have the manpower or cycles to regulate the plethora of *unlicensed* broadcasters.

Furthermore, if the Commission were to attempt to classify services such as iTunes and YouTube as broadcasting services and thus bring the *Broadcasting Act* into play, existing restrictions on foreign ownership and control could force the Commission to block access to such services – a move that Canadians simply would not tolerate.

Traditional television licensing deals respect international boundaries even if radio-waves don't. The issue of cross-border leakage of signals has been around for a very long time and the industry has found ways to live with the fact. Besides, signals only travel a limited distance, so the scope of the problem is naturally contained.

Cultural protection is a problem if applied to new media. It is important to note that many "Millennials" rebel against the notion of being denied access to content, or only receiving it at a degraded level of service. Many "Millennials" would also reject the notion that they should be presented with an experience that represents a restricted, Canada-specific, form of access. Many already worry about the prospect of regulation of the Internet, and some already perceive that regulatory controls are restricting their access to content online, mistakenly thinking that regulation is the cause of geo-blocking or is the reason that iTunes doesn't offer the same content in Canada as it does in the U.S.

A. From a world of scarcity to a world of abundance

> The original reasons for regulating broadcasting in the conventional media world don't apply in the new media world. There's no scarcity of capacity and the traditional barriers to entry for content creation and distribution are gone.

Whether it was the limited broadcasting spectrum, the limited capacity of analogue cable TV systems, or simply limited shelf space at the retail level, the conventional media world as we know it today developed out of a world of scarcity. Regulatory policy reflected scarcity – we could only have a small, finite number of TV channels so it was important to make the most of what was available and to ensure that the content that was carried on these precious few channels in the limited hours available to each in a given day was of varied format, reflected Canadian culture and values, and represented a diversity of voices. That model also worked in the past because the CRTC ensured that, as each new generation of services came along, there was room for commercially popular foreign channels along with Canadian choices. In effect, the model ensured a balancing of the *Broadcasting Act* objectives with the demands of the consumer market.

Because of the inherent scarcity in transmission capabilities, broadcasters have traditionally acted as gatekeepers – content couldn't be distributed in the conventional media world unless it was transmitted by a broadcaster. Today, there is much more than just over-the-air television, but the number of licensed or authorized specialty services exceeds the distribution capacity of the broadcast distribution undertakings (BDUs) and, to an increasing extent, BDUs have therefore become gatekeepers as channels compete for carriage. While some barriers to entry continue to exist in the conventional media world, they are diminishing. Digital capacity and VOD are providing traditional platforms with more diverse options and choices.

In stark contrast to conventional media's limitations, the new media landscape is one of abundance. There is no limit to the number of "channels" that the Internet can support, nor are they confined to the linear-programming model of conventional television that limits broadcasters to 24 hours of content in a given day.

The original reasons for regulating broadcasting in the conventional media world don't apply in the new media world. There's no scarcity of capacity and the traditional barriers to entry for content creation and distribution are gone.

The abundance of content choice available on the Internet is much, much greater than whatever was contemplated for the "200 channel universe". In a universe of virtually unlimited channels, having "access to carriage" is in no way a guarantee of being seen by your target audience. Content aggregators are helping to solve the problem with their search capabilities and recommendation engines but it is often through viral word-of-mouth recommendations that content on the Internet finds its biggest audiences.

These aggregators are perhaps the most significant players in the new media space and, indeed, may be viewed as the new "gatekeepers". Very few of these are Canadian, yet the opportunities for more Canadian voices to be heard have actually increased as a result of these newer forms of aggregation. While these aggregators may act as gatekeepers in terms of their role in distributing content in the new media world, services like YouTube allow anyone to post content. In turn, this leads to a great diversity of voices and has led to a vast amount of Canadian content being created and consumed.

With new media, though, the "viewer" can interact with content in many ways. Consumers can create their own content from scratch, create mash-ups using the content of others, play games, engage in real-time chat as part of the holistic viewing experience, and much more. It is this repurposing of content that has led to calls for fair-use rules on the one hand and greater control of copyright on the other. As a member of the Business Coalition for Balanced Copyright, TELUS supports creator rights but equally supports fair use for consumers to drive innovation and reflect digital realities. The so-called Web 2.0 world has brought engaging social media elements to the world, and these are becoming increasingly intertwined with more-traditional media content. These new levels of engagement and interactivity have created an online media world that is very different from its traditional media predecessors. Indeed, on some levels, each consumer can have a participatory media experience that is unique to them alone – a far cry from the traditional shared broadcast experience.

So the big question for policy–makers is: does Canada need more Canadian aggregators in order to compete with the likes of Facebook and YouTube? If yes, TELUS submits that this is not an issue of cultural policy or regulation, it's a matter of developing industrial policy that will help more Canadian businesses to get in the game. Second, if we are to develop a truly innovative new media economy, we must find a way to balance fair use for consumers with new protections for creators.

B. A supportive and viable new media eco-system

The ability for Canadians to overcome the challenges and exploit the opportunities depends on a lot, though. First of all, we need barrier-free access to the Internet. TELUS does not intend to get in the way of its customers exercising their freedom of choice and believes that the CRTC shouldn't either.

New media depends on broadband networks. **Policy makers need to foster an environment that is economically viable for distributors and ISPs; one that rewards investment and innovation.**

Canadians need a digital economy that is sustainable and that fosters Canadian employment, wealth and diversity. It's not just culture that's content/application driven, it's also commerce, education, health and global competitiveness.

Cultural quotas were of limited effectiveness in a world of spectrum scarcity. In the world of limitless choice, these will be totally ineffectual and policy makers need to realign their thinking from an approach in which they enforce the creation of content that is Canadian in nature to one in which they stimulate the creation of content by Canadians. **There are a number of tools to stimulate economic activity:**

- **Government should exploit other sources of funding by incenting Canadian new media advertising through tax credits**
- **We need to take steps to grow the pool of venture capital funds available to Canadians**
- **And we need to think harder about current cultural funding mechanisms**

The combination of costs that increase with scale and business models looking for a revenue stream strongly supports the argument that regulation remains unnecessary; at issue is the willingness of governments to invest in a broadband future in anticipation of economic returns it will enable. It is not simply culture but also digital commerce that will benefit.

The Canadian television funding model is built entirely around the premise that all content to be funded will have a broadcast window on some form of traditional television (conventional, specialty or pay). Access to the system is closed to those who wish to by-pass traditional broadcasting and instead opt for the new media route alone. It is also limited in terms of the ability of traditional screen producers to dedicate some funding to new media. While there are some funding mechanisms for new media (for example, there are funds such as the TELUS Innovation Fund, which are dedicated entirely to new media projects, and the Ontario Media Development Corporation and Telefilm Canada both fund some new media projects), the funds available are minor in comparison to those available to those who pursue traditional avenues of distribution.

TELUS believes that support for the extension of traditional programming into the interactive space should be eligible for funding mechanisms like the CTF (Canadian Television Fund). A more immersive video experience may well be the future of broadcasting. However we believe that there are mechanisms available to include funding for new media as part of the traditional subsidy system – without the need for new taxes on broadcast distributors or ISPs. **For a start, the Government of Canada could increase its contribution to the CTF by matching BDU contributions dollar for dollar.** Currently BDUs carry the majority of the costs while government sets the funding agenda. If the government upped its contribution for traditional media extension online, it would create a lift for Canadian brands like CTV and thus more windows for creators.

> Traditional media could benefit from more innovation online, but the growth of Canadian new media in general does not require cultural protection. It requires an industrial strategy that helps media businesses and content providers achieve global scale.

Traditional media could benefit from more innovation online, but the growth of Canadian new media in general does not require cultural protection. It requires an industrial strategy that helps media businesses and content providers achieve global scale. New media cannot be viewed merely as the distribution of conventional broadcast television content over the Internet. As we've seen, that's just the tip of the iceberg. Emerging consumers want and expect a much more dynamic and engaging experience. If the Canadian media industry doesn't provide it they will find it elsewhere. Indeed, even as Canadian online content increases, it will only form a part of the vast smorgasbord of content on which Canadian consumers will dine. A controlled environment, with limited content that is selected based on broadcaster choice and/or CRTC regulation, won't work online.

The most important thing that industry and policy makers can do is to create an environment in which Canadians can create and distribute all kinds of content. The emphasis shouldn't be on 'telling Canadian stories', it needs to be on enabling 'storytelling by Canadians'. If we do the latter, the former will follow as many of the stories that Canadians tell will inevitably be Canadian stories. Fostering storytelling by Canadians will stimulate jobs and the economy and help to both promote and preserve our various cultural identities.

The emphasis shouldn't be on 'telling Canadian stories', it needs to be on enabling 'storytelling by Canadians'.

Doing so requires policies that are industrial in nature, not cultural. Where cultural policy makers can contribute is by making it easier for traditional broadcasters to escape from the constraints of a sub-scale market and help them to sell into North American or global markets. Our traditional television content creation industry has grown over the years through the benefit of protectionist measures and an artificial economy but many elements of this model don't work in the digital age.

IV. Accessing content in the new media environment

"Digital inclusion", or the so-called "digital divide", is an issue in all nations, including Canada. There are still those who don't have computers or Internet access. Video content is bandwidth intensive, too, and those who use dial-up Internet access won't be able to access the majority of new media content. We are fortunate in having a very high rate of high-speed Internet penetration so this is actually less of an issue for Canada than it is for most nations. But it remains an issue for many rural Canadians that won't disappear any time soon.

For the long tail and for immersive and innovative content, the Internet rules – and it does so without protection or rules that restrict its operation.

This is important in terms of traditional media distribution because the Canadian market reach of the Internet will remain less than the penetration of broadcasting and broadcast distribution. In a market, like Canada, that is already of a small scale that is a challenge for some time to come. Thus, the traditional platforms remain more powerful vehicles for broadcasting than the Internet. Even VOD has cost advantages relative to broadband on-demand. But, for the long tail and for immersive and innovative content, the Internet reaches global markets – and it does so without protection or rules that restrict its operation.

It is also this shift in consumption caused by the video revolution that has reignited the debate about net neutrality and traffic shaping. Continual network improvement requires considerable on-going capital expenditure which is only recouped over long periods of time. What is viewed as adequate today in terms of capacity and speed will require constant improvement and billions of dollars of investment to remain adequate over the next five years. As well, network improvements require the ability to recover these investments with differentiated pricing across different categories of consumers and the ability to provide differentiated services to applications providers on a non-discriminatory basis. It also raises a fundamental question as to whether network investment can keep up with accelerating demand for more capacity.

The opportunity to fully exploit IP technology platforms, particularly the Internet raises infrastructure-based policy issues that require separate debate. **The fundamental building blocks remain broadband networks and Canada's continued leadership on networks depends on a policy environment that incents billions of dollars of investment and this permits access to advanced services for all Canadians.** That means:

- Policies that consistently promote facilities-based competition rather than forced unbundling,
- Policies that provide a reasonable opportunity for return on investment from all users,
- Policies that do not tax away incentives to build broadband infrastructure, and
- A case-by-case approach to dealing with matters relating to net neutrality instead of restrictive new regulations of general application which would have the effect of deterring investment.

For TELUS, it's not simply a policy debate, it's a critical element in making billion dollar investment decisions. That money has to be invested to support Canadian success online so it's in all our interests to create the right policy environment to encourage new investment.

A. The complex debate over net neutrality

Net neutrality has become an increasing hot topic in the world today. Traditionally, the Internet has been thought of as an "open pipe" and the Internet has been akin to a "wild west frontier" where anything goes. The Internet itself is architected on a best-effort delivery model. All Internet traffic is broken into many tiny segments known as packets. For the most part, all packets are "created equal" and receive the same level of "priority" as they travel from source to destination (which is to say, no particular priority at all). As the Internet matures, though, the way we use it and our expectations of it are changing. Newer time-sensitive applications like Internet telephony and real-time video streaming are leading to Quality of Service (QoS) considerations that aren't inherently compatible with a "best effort" design.

It is the shift in consumption caused by the video revolution that has reignited the debate about net neutrality and traffic shaping.

Understanding where we are, and how we got here, is important. From a planning and regulatory point of view, the Internet snuck out the back door by piggy-backing on existing networks the world over. Networks that were generally built for other purposes. Had its development and deployment been a planned activity, requiring new physical networks for distribution, regulators and governments all around the world would likely have taken a considered approach to its deployment (as was the case with services like wired telephony and cable TV when they were introduced) and we'd likely operate in a very different, and less innovative, world than we know today. Even within the community of engineers and computer scientists who designed it, knowledge of what the Internet would become would almost certainly have led to different technical design decisions affecting the very core of the Internet. As well, important issues like privacy policies that have emerged as an afterthought would have been addressed in advance. But that's not the way it happened, and as a result, the Internet has grown organically and is doing much that it was never intended to do – with unintended consequences.

The ad hoc development of the Internet as we know it today is both a blessing and a curse. Because it wasn't burdened by regulation and the delays associated with disciplined planning, it took off very quickly and we've benefited from rapid innovation. At the same time, because it has come to be used in extremely bandwidth-intensive ways that were largely unforeseen, it has been necessary to continuously rebuild the underlying networks, expand capacity, and manage traffic in ways that were not originally expected to be necessary. The increase in investment has required carriers to reflect on how to continue to ensure a return on investment and helped ignite debate about reasonable measures.

The ongoing policy debate under the net neutrality banner engages fundamental questions regarding the form of governance that best protects the interests of Internet stakeholders and advances the development of the Internet itself. While incidents sparking net neutrality concerns in North America have been isolated, often misunderstood, and rarely repeated, the attention that they have attracted is indicative of the level of interest in this issue.

There are a variety of legitimate concerns on all sides:

Internet users are:

- concerned about whether they will be able to continue to experience the Internet in the manner in which they have in the past,
- beginning to demand increased transparency from their Internet service providers (ISPs) regarding network management practices, and
- increasingly expecting the Internet to be able to support real-time and extremely bandwidth-intensive uses.

Content and application providers are:

- concerned about whether the terms on which they reach their audiences over the Internet may change,
- eagerly anticipating upgrades to the Internet's infrastructure that will enable them to offer better applications and services, and
- increasingly, lobbying for increased intervention by ISPs to protect their intellectual property rights.

Internet service providers (ISPs) are:

- concerned about how, in the short term, they can deal with the consequences of technological changes that are upsetting the economic assumptions on which the provision of retail Internet access is based,
- searching for ways to differentiate themselves from their competitors in order to attract and retain customers, and
- unsure whether new rules will affect their incentive to make and their opportunity to recover the significant investments required to continue to meet their customers' ever-rising expectations for what the Internet can be.

Governments are:

- interested in ensuring that the public has access to robust, competitive telecommunications services that serve their users' needs,
- increasingly considering forcing ISPs to intervene in the traffic they carry to enforce public policies in areas such as broadcasting regulation (Canadian content), law enforcement, and child protection, and under pressure to appear to act in respect of net neutrality concerns prior to significant problems.

B. Balancing capacity and demand

Even as capacity is continually increased, any network will, at any time, have limitations. This isn't a new problem. Traditional wired telephone networks have always had capacity limitations, and network operators have always had to invest capital to redesign and rebuild their networks to increase capacity and accommodate demand. Even so, such networks still have limitations – if everyone in the city tried to make a phone call at the same time the system couldn't deal with the load. The telephone world is simple, though, compared to the Internet. In a traditional switched telephone network, capacity planning involves merely modeling the number of consumers who will be making a call at a given time. A consumer is either on the phone or they're not. The load placed on the network doesn't vary between one caller and another.

The Internet, though, is a very different story. The load placed on the network varies widely from one user to another. Even so, until recently, the magnitude of that variance was limited. Heavy Internet users were those downloading music files, or streaming low-quality video content. Today, though, the variance can be huge between a user who is checking e-mail or surfing the web and the high-bandwidth user who is concurrently downloading and uploading multiple “torrents” of data using peer-to-peer file-sharing applications. The growth in this type of activity is now placing demands on the networks that they weren’t designed to accommodate. A Japanese government-sponsored survey[11] of its ISP industry revealed that 1% of users consume 60% of backbone bandwidth. In most cases, the networks to which we connect, and which combine to create the Internet, weren’t designed with high-bandwidth video (whether accessed by way of streaming or peer-to-peer file sharing) in mind. This has led some ISPs to take steps to mitigate the impact these users are having on their networks.

i) Peer-to-peer (P2P) distribution

Peer-to-peer (P2P) application technologies split large files into a great number of small pieces and allow these pieces to be replicated on a vast number of computers connected to the Internet. When downloading a file using P2P technology, the receiving computer obtains the necessary pieces from the closest possible networked computers. The more computers that have the content, the greater the likelihood that the desired pieces can be found “close to home”. This will tend to increase traffic within an ISP’s network and on its links with nearby networks, but will also reduce the amount of traffic that flows across Internet backbone links, the “big pipes” that link the various individual networks that make up the Internet.

P2P technology works very well and the result is that much more video is delivered over the Internet today than would be possible using a traditional point-to-point connection method in which all of the content was served from a single source, regardless of whether that source is a media company or a distributed node on a Content Delivery Network (CDN) like Akamai. Since ISPs don’t incur usage-based costs for intra-network traffic, but do incur such costs for backbone traffic, intra-network P2P file sharing traffic is not as costly for ISPs to support. For media companies distributing their content by means of P2P applications, the reduced frequency with which content must be obtained directly from the provider’s server leads to lower networks costs for them, too. Their distribution costs are essentially supported by the Internet users whose computers host and serve the pieces of their content.

While much of the P2P traffic is alleged to involve the unauthorized exchange of copyright content, companies like BitTorrent, aggregators like Joost, and broadcasters like Canada’s own CBC have embraced P2P as a delivery approach for legitimate content. Adobe has built support for P2P content distribution into the up-coming version 10 of its Flash Player.

It’s doubtful that any network engineer would dispute the advantages of P2P technology. The practical problem lies not in the technology, which is beneficial, but in the sheer popularity it has attained – too much of a good thing. As stated, P2P has enabled more content to be delivered than would otherwise be possible, but the total volume is nonetheless cumulatively placing unprecedented demand on networks.

As well, the BitTorrent protocol (the predominant P2P video protocol) is designed to take advantage of as much Internet bandwidth as it can, without regard for the impact on other

[11] Japan, Ministry of Internal Affairs and Communications, Working Group on Net Neutrality, Report on Net Neutrality (September 2007), unofficial English translation, http://www.soumu.go.jp/joho_tsusin/eng/pdf/070900_1.pdf.

applications or users. Thus, its design violates long-standing Internet engineering community norms and the terms of service of most residential Internet access services.

ii) Throttling

In today's world, some ISPs are dealing with the impact of the huge volume imposed by P2P and other video traffic issues differently than others. Bell Canada has taken the well-publicized approach of "throttling" (slowing) some traffic, most notably, peer-to-peer (P2P) traffic, at some times. This has led to a complaint by the Canadian Association of Internet Providers (CAIP) to the CRTC. While not granting any immediate relief to the complainants, the CRTC has asked Bell to provide data to support the claims it has made in defence of its throttling actions.

In the United States, Comcast, a very large ISP that throttles specific types of traffic, has agreed to cease doing so by the end of the year and, while continuing to manage its network to provide the best possible experience for the majority of users, will do so in a content-agnostic manner. As well Comcast is, reportedly, working with BitTorrent to find ways to better manage the impact that P2P has on the network. Comcast has also recently invested in GridNetworks, a company that develops software to help manage peer-to-peer video traffic.

While considering Comcast, it's a good time to point out a significant difference between Canada and the United States with respect to the Internet: the availability of remedies under Canada's *Telecommunications Act* for discriminatory behaviour that cannot be justified. In Canada, Internet access is treated as a telecommunications service, whereas in the United States it is considered an "information service" and therefore not subject to traditional telecommunications rules. The CRTC has jurisdiction over ISPs under the *Telecommunications Act* and while it doesn't regulate Internet content or retail access in any way, as a result of the 1999 New Media Exemption Order, it still can intervene if it sees unjustly discriminatory or anti-competitive behaviour. So while ISPs are within their rights to treat some traffic differently from other traffic, causing net neutrality advocates to worry that ISPs may give preferential treatment to some content over other content, the throttling behaviour documented to date is discriminating by traffic type, not source. That is to say, when P2P traffic is being slowed down, all P2P traffic is being affected, not just that from selected sources. In this regard, the CRTC would likely take the stance that this does not constitute unjustly discriminatory or anti-competitive behaviour.

TELUS is taking a hands-off approach when it comes to video on the Internet and believes that the CRTC should do likewise.

TELUS does not throttle or otherwise interfere with P2P traffic, and will continue in that manner for as long as that position remains tenable. TELUS is clear in its position on this matter: TELUS is taking a hands-off approach when it comes to video on the Internet and believes that the CRTC should do likewise.

iii) The future

Today, the increase of high-definition video content is a big challenge. The key to meeting consumer demand is a public policy environment in which network operators are incented to pour more and more capital into rebuilding their networks. Unnecessary and onerous levies to fund old media production online could stand in the way, as could attempts to impose restrictions on pricing or further unbundling rather than letting market forces prevail.

But other challenges also remain. Even as networks develop the capacity to deal with increasing volumes of high-def video content, new, even more demanding requirements will emerge from consumers who want to access even higher resolution formats or, someday, share in a three-dimensional virtual experience. The reality is that no matter how much capacity operators can afford to put into their networks, demand will always put pressure on capacity. In order to ensure that the majority of consumers have the best possible experience, network operators will need to manage their networks and those consumers who are pushing the limits may find that they face consumption caps or speed limitations. This will likely be a cyclical phenomenon, too, as at times network capacity will tend to catch up to demand and, at other times, new bandwidth-intensive applications will come along and increase the gap between the demand that can be accommodated and the actual total demand.

C. Public policy principles

While some are calling for new legislation or regulation of Internet access to address net neutrality concerns, unlike the United States, Canada's existing *Telecommunications Act* clearly provides the CRTC, under sections 27(2) and 36, all the authority it needs to address any problems that may arise[12].

> ISPs should be able to offer value-added services to content and application providers and to provide their own or affiliated content and applications, so long as: (a) the value-added services are generally available to other content and application providers, and (b) they do not have a material adverse effect on the ISPs' customers' ability to access and use the legal Internet content and applications of their choice.

[12] A more detailed discussion of these principles and the interpretation of the relevant provisions of the *Telecommunications Act* can be found in Craig McTaggart, "Net Neutrality and Canada's Telecommunications Act," presented at the Fourteenth Biennial National Conference on New Developments in Communications Law and Policy, Law Society of Upper Canada, Ottawa, Ontario (26 April 2008). The paper is available at http://ssrn.com/abstract=1127203.

While TELUS supports case-by-case regulation to help shape the rules of the road, we propose certain general public policy principles regarding residential wireline Internet access (the authors consider the wireless environment to be out of scope due to its immaturity):

- Canadian Internet users should be able to access and use the legal Internet content and applications of their choice.
- Subject to certain exceptions, ISPs should not interfere with the ability of their customers to access and use the legal Internet content and applications of their choice. Exceptions:
    - **Customer choice:** Customers should have the option of choosing Internet access services that meet their own needs, including services featuring different levels of access to different legal Internet content and applications (such as enhanced quality of service for gaming applications or remote medical monitoring)
    - **Compliance with legal requirements:** ISPs should be able to comply with legal requirements such as statutory obligations and court orders
    - **Enforcement of contracts:** ISPs should be able to take reasonable steps to enforce the contracts between themselves and their customers
    - **Reasonable network management:** ISPs should be able to take reasonable steps to enhance the security, efficiency, and/or availability of their networks
        - Reasonable network management practices are those technical measures undertaken in a non-discriminatory manner with the intention of enhancing the security, efficiency, and/or availability of a network
        - Network management practices that have a material adverse effect on the ability of customers to access and use the legal Internet content and applications of their choice should be disclosed to customers
- ISPs should be able to offer value-added services to content and application providers and to provide their own or affiliated content and applications, so long as: (a) the value-added services are generally available to other content and application providers, and (b) they do not have a material adverse effect on the ISPs' customers' ability to access and use the legal Internet content and applications of their choice.

TELUS abides by these principles today and encourages the industry at large to adopt them as well in order to best balance the needs and interests of consumers, content and application providers, governments, and ISPs.

V. Conclusion

An industrial strategy that balances investment and access, fair use and the right to exploit intellectual property is a better recipe for new media success.

A healthy digital economy *can* mean a healthy digital culture; an unhealthy digital economy *guarantees* an unhealthy digital culture. **The real need is to focus on enabling the opportunities presented by digital economy.** At the end of the day, the focus needs to be on enabling Canadian consumers to access, create and interact with content on whatever platforms exist – and doing this through industrial policy and economic stimulation is the way to go. New media offers great opportunities for Canadians to develop, promote and sell content on the world stage with greater ease than ever before. The world of new media is furthering the objectives of the *Broadcasting Act* in terms of diversity, choice and access for more voices. At the same time, there's no evidence that new media poses an imminent threat to the existence or reasonable profitability of traditional media.

For Canadian businesses to be competitive, though, in an increasingly fragmented global marketplace, and to leverage the new opportunities available, Canada needs to define effective industrial policy that works in conjunction with realistic regulatory and cultural strategies and, more than ever, with market forces. Industrial strategy is critical; regulation is not. If we create an environment that enables Canadians to tell stories to the world, many of the stories they tell will be Canadian.

A key part of the puzzle is the need to break down economic barriers to the distribution of conventional content via alternative delivery channels; these barriers include

- infrastructure capacity (e.g. wired broadband, wireless, etc.)
- rights
- copyright
- online distribution costs

Canada, as a nation, needs to look not one year out but many, and create a robust participatory *domestic* media environment or we will lose consumers to foreign content and sites. We will only get there, though, if we develop the right policies and focus on sound and economically sustainable commercial and industrial approaches to fostering content creation. Artificially sustained, protectionist media economies are no longer viable nor do these reflect evolving communications and communities in a digital world. Failure to adapt policies to embrace new realities puts us at a competitive and cultural disadvantage.

TELUS' ten recommendations to build a successful Canadian new media industry

1. No content regulation of the Internet. It is already a hotbed of innovation, diversity and choice. The new media exemption is still the right policy. The issue is how to successfully take Canadian new media to market.
2. No new consumer taxes for Canadian production either through fee-for-carriage on traditional platforms or a new ISP tax. Rather, TELUS supports more efficient use of current mechanisms.
3. The government should match the BDU contribution to the CTF dollar for dollar with the new money being targeted to new media extension of linear content. This probably means another $50 million from government.
4. The government should allocate the revenues from the 700 MHz auction to a fund for online new media content that is not associated with traditional broadcasting; that would begin in 2012 and focus on ensuring Canada's global competitiveness in this space.
5. Real new media (Web 2.0, social networks, etc.) should be viewed as economic/global market opportunities, not as cultural issues.
6. Funding of new media (as opposed to old) online should be part of an industrial strategy and funds and tax incentives should include dollars for application and network infrastructure development necessary to support the new media environment.
7. Creating incentives for deployment of even more advanced broadband infrastructure by facilities-based competitors should be promoted over more intrusive policies like unbundling that may stifle investment in Next Generation Networks (NGNs).
8. Rights holders should expect that their intellectual property in content and applications is protected through a balanced approach to copyright that equally enables fair dealing to promote innovation (e.g. mash-ups, etc.) and commercial returns.
9. Consumers should be able to access whatever content they want online, subject only to applicable law, governing contracts, and reasonable network management, and should have the freedom to choose Internet access services that suit their needs.
10. The CRTC should use its powers under Section 27(2) of the *Telecommunications Act*, if required, to ensure that ISPs provide Internet access without unjust discrimination or undue preference or disadvantage.