Carriage vs Content

As [Chief Scientist at APNIC, Geoff Huston] heads APNIC Labs, conducting leading research on Internet infrastructure, standards, and operations. During the 1990s, Huston was instrumental in the establishment of the Internet in Australia, first through the academic network, AARNet, and then through Telstra's national Internet services.

Does anyone remember the Internet before Google? And no, using Google to ask about the pre-Google Internet is not going to work all that well! For those of you who can recall the Internet of around 2000, do you also recall what debates were raging at the time? Let me give you a hand in answering that question. One big debate at the time was all about the relationship between the carriage service operators and the content providers, and, as usual, it was all about money. The debate was about who owed who money, and how much. Ten years later and it seems that nothing much has changed.

It's International Telecommunications Regulations (ITR) season once more, and all these traditional and well rehearsed debates about who owes who money seem to have resurfaced. After all, if I can get a government-blessed regulation to support my claim that you owe me money, then my financial prospects are looking a whole lot better! On this topic, this is the latest pronouncement from the European Telecommunications Network Operators (ETNO), an organization that represents a number of European network operators:

6 July 2012

[…]

"The Executive Board of ETNO reiterates its call for a new sustainable economic model for the Internet, insisting that it should be based on commercial agreements between all players of the value chain. The ITRs must reflect market changes and encourage future growth and sustainable development of telecoms markets, without changing any of the guiding principles that have contributed to the success of the Internet so far", says Luigi Gambardella, ETNO Executive Board Chair.

What is this "new sustainable economic model for the Internet"? What sustainable model is so unsustainable that it is only achievable through a path of regulatory intervention and the imposition of ongoing regulatory measures within the supply chains of carriage and content services for the Internet?

I guess that the reference to "all players of the value chain" is a bit of a give away here. What this appears to be alluding to is a case being put forth, by a number of large scale carriage operators in Europe, that the content providers should pay these carriage operators to allow content reach their customers. In other words this ETNO position is arguing that content should now pay a carriage toll.

Looking Back: "You owe us money!"

In looking at this I am reminded of a very similar debate that occurred some ten years ago. Let's look back to 2001 and see what we were discussing then. I'd like to reproduce a part of an article that I wrote on this topic at the time:

This Message is bundled with your Internet Service

The original concept, of a separate and distinct content economy as an overlay on top of the underlying connectivity of the Internet is one that has not been realized so far. Yet, paradoxically, every day tens, if not hundreds, of millions of individuals spend tens, if not hundreds of millions of hours viewing content downloaded from billions of web pages published on the Internet. Most of this content is free to the viewer, and this raises the issue that if all content on the Internet is to remain free of consumer charges then we are going to have to work out some other way to compensate the original author or creator of the content.

We are not quite in that dire position yet, as there is one other consumer relationship in the Internet economy that may be used to sustain a viable content economy. This relationship is the provision of Internet access, where the consumer pays the ISP, or access provider, for access to the Internet. The line of argument here is that without content there would be no demand for Internet access and no access market, and, bearing this in mind, the case is made that the access provider should use some of the access revenue to compensate content providers.

[…]

So the prediction remains that the Internet content market will be a robust and highly valued market. Its just that we've yet to reach that particular reality where this prediction becomes established fact. Full article

Around ten years ago the Internet content industry was having a hard time. Providing content on the internet was a task of devotion and faith, as the activity was generally without remuneration. Almost everything the content folk had tried in terms of sustaining an Internet-based content economy was failing. Nobody was buying subscription services. Banner ads were widely viewed as an annoyance. The all-important click rate on banner ads was just too low to sustain a rich content industry. Portals and attempts to corral the user, such as the much touted Look Smart of the Internet boom of the preceding years, were now looking distinctly passé and certainly not a revenue opportunity. Efforts to use search engines as advertising platforms got nowhere once it was revealed that some search engines' ranking result order was essentially for sale. Nothing seemed to be working as a viable content model.

So content looked for where the money was at the time, and they saw the access service providers, who were billing every customer every month. We heard the strident call from the content providers: “Access is only useful if there is content. Access is essentially reselling our content, but not paying for it. This is theft! You owe us money!”

Of course they were not quite as rude as me! The rhetoric we were hearing at the time from the content providers sounded more like: The structure of the Internet market must reflect market changes and encourage future growth and sustainable development of the Internet, without changing any of the guiding principles that have contributed to the success of the Internet so far.

Yes, that should sound familiar. It’s the same argument we are now hearing from the carriage operator, now arguing that there should be a monetary flow in the opposite direction!

The Different Paths of Content and Carriage

Aside from the obvious amusement value, what is there to learn from this change in attitude that the industry has managed to achieve in the past decade? What happened?

I suppose that the major shift was a dramatic change in the advertising model, and the best example I can think of to illustrate this comes from Hal Varian, a noted economist in the information space who observed in the late 1900s that spam is merely a failure of information about the consumer. If you knew all there was to know about that consumer then you could ensure that what you sent to the consumer was not unwanted digital detritus, but timely and helpful advice!

What content providers started doing a decade ago was intensively scrutinizing their users. What web pages did they linger on? What content attracted their interest? What makes a user come back to a content site? What is the user wanting to purchase? Can we help in facilitating this purchase? What could we do for the user that would provide even more knowledge about the user’s preferences? Would running their mail service provide that depth of information? How about running their document storage system? How about helping them create their documents? All of these online services might be free to the user, but at the same time they are immensely valuable services. They provide a rich vein of real time information about each and every user. This stream of information can be sold to advertisers as intimate knowledge of a consumer’s preferences and interests.

This form of user-generated data mining in this online environment has proved to be transformational for the content industry. Until now it has not been a battle between the carriage operators and the content providers over the money. It’s been a battle within the content industry itself, where the Internet has been pitted against the traditional content behemoths, the newsprint industry and newspaper advertising revenue. The Internet has won this struggle. The factors of declining readerships, falling advertising revenues, and the shrinking pool of journalists, are all visible across most of the print news world. At the same time the stock prices of the giants in the Internet’s content factory, such as Google, continue to show an optimistic outlook.

Obviously the content providers quickly forgot all about their earlier arguments with the carriage operators, and quickly walked away from their previous strident demands for payment as they turned their attention to a far larger potential revenue stream. The rise in the value of the online market not only stimulated ever greater shifts to online advertising, but also reinvigorated various other forms of sponsorship of content, and even has lead to a revival of the content subscription model. Content was now not only a viable industry, but one that appeared to be growing at such a pace that it was looking as though it would soon dwarf the carriage sector in economic terms.

While the content world had managed to stumble upon a business model that has just worked for them, the carriage world is now working with a business model that is creaking and groaning with age. In 1999 modems were still very common as the last mile access method. A modem, even running at full speed, doesn't carry much traffic. The difference in load between the most intense users and the average user load profile is slight. The "flat fee" retail tariff that did not take into account the traffic volumes was one that was extremely simple and had minimal risk exposure in terms of variations in the load profile of individual users. These days it's all DSL and cable and the prospect of fibre. The variation of data volumes is higher and a uniform flat fee exposes a greater degree of risk for the carrier. The top 5% of the most intense users are probably using upwards of 50% or even 75% of the carriage operator's total capacity when looking at aggregate volumes. But, like the road system, its not aggregate volumes that count – it's the ability to clear the traffic during peak hours, and at these times the baseline average peak use is a critical metric. As long as this peak use profile does not shift dramatically the flat fee access model is sustainable at the current price point. But of course everything changes, and with the advent of content services such as Netflix, Hulu, and the massive uptake of YouTube, today's "average" user during peak hours is looking a lot like yesterday's "heavy hitter" but they are still paying the carriage operator yesterday's flat access fee. The carriage operator is now claiming that they have to beef up their capacity, and spend additional money in augmenting carriage infrastructure capacity. But where are the funds to support this work? Where is the business case?

Today: "No, its you who owe us money!"

The carriage operators are now trying to make the case that their activity is unsustainable, much the same way as the content providers tried to make the same case a decade ago. The carriage operators have argued that raising retail tariffs for the Internet would be "discriminatory" for their users. Discriminatory or not, the underlying observation is that having established a price point in the consumer market, its hard for any single provider to lift their prices without dramatically losing market share. If all the carriage operators acted in unison the consumer protection agencies and market regulators would tie them up in protracted and expensive proceedings over cartel-like behaviour and abuse of market power. If it's not the user who will pay, then the choices are pretty limited.

It's no surprise that the carriage operators' attention has quickly fixated on where they believe the money is. They have turned their attention to the content industry as their financial salvation, and they are now attempting to enlist government regulation to assist them in their efforts of financial extortion of the content industry.

But creating structural distortions in the carriage business by imposing a levy on content and passing the proceeds to the carriage providers would be as unwise now as performing the opposite structural cross-subsidy would've been ten years ago.

It's not that the carriage role is unsustainable. It's not that imposing a levy on content to subsidize the carriage industry is essential for any future of the carriage operator. Not at all. It's that yesterday's business models aren't necessarily appropriate for today, let alone tomorrow. There are carriage operators carrying a large portfolio of legacy carriage products, high debt levels with high interest premiums, and a collection of challenging managerial and shareholder expectations about return on investment that all take their toll on the efficiency of their respective business models. There is still a continual theme that the glories of the past in terms of the telco monopolies of decades ago can somehow be reconstructed within the landscape of the Internet.

However, this is not a universal picture and while many carriage operators, particularly those with a past in the telco sector, are still carrying with them these inefficient burdens of legacy, there are other more recent entrants in this market who see a sustainable role in viewing IP carriage as a commodity utility operation. With more modest expectations about revenues and margins these more recent enterprises are not just surviving, but evidently thriving in today's carriage market. It is evidently possible to operate a carriage service efficiently, and it is evidently possible to meet the demands for delivered capacity in the Internet, but undertaking this role demands the rigours of being a simple utility operator, rather than fostering the lingering pretense of being a "full service telecommunications service provider."

Maybe that's a good thing. Deregulation of this industry did not mean that we unleashed a new set of lumbering behemoths to fight it out in the dinosaur swamps with the incumbent set of behemoths. Exposing this industry to the rigours of competition exposed it to competition from specialist enterprises, which all competed for market share within a narrow area of specialist activity. The old behemoth relied on monopoly power over a market in order to sustain structural cross-subsidy of the various component activities. Deregulation and competition has pulled those cozy arrangements apart. The outcomes are all working to the benefit the end user, who is the beneficiary of an immensely rich world of content, information, and personal empowerment, at a price which is still well below what used to be the monthly cost of the rental of those clunky old handsets.

How should we respond to ETNO's demands for regulatory intervention to impose a "new sustainable economic model for the Internet"?

Our response now should be exactly the same as it was 10 years ago – **no**!