ATUG Opinion – 24 October 2007

The last few days have seen much discussion about yet more Broadband Rankings based on reports from the Information Technology and Innovation Foundation – http://www.itif.org/index.php?s=whoweare :

> The Information Technology and Innovation Foundation (ITIF), is co-chaired by former Members of Congress Jennifer Dunn and Calvin Dooley, and was created in partnership with the Information Technology Industry Council (ITI), recognizing the increasingly central role of technology in ensuring American prosperity..

The ITIF held a forum on the 19th of October Building the Broadband Economy and Society: A Forum: http://www.itif.org/index.php?id=83 :

> At this forum, leading national experts will discuss not only how new "killer apps" in these areas can spur further broadband adoption, but how further broadband progress can spur economic growth, better and cheaper health care, and citizen empowerment and stronger engagement in civic life. However, realizing these benefits will require continued deployment and adoption of high-speed broadband and the right public policies to support that.

The first of the papers presented was The role of Competition in a National Broadband Policy by Robert Atkinson - http://www.itif.org/index.php?id=87 :

> There is perhaps no issue more central to the debate about broadband policy than the state of and role of competition…. Although some advocates claim that the current state of broadband competition is more than adequate, others decry market conditions and seek proactive public policies to spur more competition. …
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> Yet, the Washington consensus in favor of more broadband competition ignores the fact that broadband displays natural monopoly or duopoly characteristics. Because of the nature of the broadband industry, there are significant tradeoffs between more competition and goals of efficiency, innovation, low prices, and higher speeds and broader deployment.
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> This paper starts by reviewing the affordability of broadband in the United States. It then postulates two starkly different views toward broadband competition: the "engineers' view" and the "economists' view." Finally, it reviews the four main policy options toward broadband competition: 1) keep the same number of "pipes"; 2) spur the deployment of more pipes; 3) force incumbents to open up existing pipes to competitors, and 4) regulate "duopoly" pipes. Although each policy track will achieve some benefits, each also brings with it costs and risks. Policymakers need to balance the desire for more competition to enhance consumer welfare in the broadband realm with the need for the most efficient broadband industry structure.

The Atkinson paper refers to a paper by Daniel K Correa, "Assessing Broadband in America: OECD and ITIF Broadband Rankings," published in April 2007 - http://www.itif.org/index.php?id=57 :

> The United States continues to fall behind in broadband adoption, ranking 15th among 30 OECD nations according to the latest installment of the organization's semiannual survey of broadband subscribership….. When the OECD first collected this data in 2001, the United States ranked 4th among the 30 nations surveyed. After several years of steady decline in the rankings, we now rank 15th..
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> While adoption rate is an important measure, it is not sufficient to accurately assess a nation's relative position in broadband technology. A more complete measure would also consider speed and price. Increasingly, in the digital economy it is the speed and capacity of the network that matters. Therefore, ITIF has expanded upon the OECD rankings, developing a model that measures broadband penetration, price and speed in OECD countries. The findings show that America, which ranks 12th overall, faces a multifaceted broadband challenge.

The ITIF Rankings which have been the subject of discussion this week are at page 4 of this report which is reprinted below.

The rankings are derived in the following way:

Table 1: ITIF Broadband Rankings[11]

		Penetration	Speed	Price	
Rank	Nation	Subscribers per Household	Average Speed (mbps)	Price per Month for 1 mbps, Fastest Technology (USD PPP)	Overall Score
1	Korea	0.90	45.6	0.45	15.73
2	Japan	0.52	61.0	0.27	14.99
3	Iceland	0.83	6.0	4.99	12.14
4	Finland	0.57	21.7	2.77	12.11
5	Netherlands	0.73	8.8	4.31	11.87
6	Sweden	0.49	18.2	0.63	11.54
7	France	0.49	17.6	1.64	11.41
8	Denmark	0.70	4.6	4.92	11.37
9	Norway	0.64	7.4	4.04	11.29
10	Canada	0.62	7.6	6.50	11.11
11	Belgium	0.54	6.2	6.69	10.60
12	United States	0.51	4.8	3.33	10.47
13	Switzerland	0.68	2.3	21.71	10.40
14	Australia	0.50	1.7	2.39	10.23
15	Austria	0.42	7.3	5.99	10.08
16	Portugal	0.42	8.1	10.99	9.92
17	United Kingdom	0.50	2.6	11.02	9.92
18	Germany	0.38	6.0	5.20	9.81
19	Italy	0.38	4.2	3.36	9.78
20	Luxembourg	0.51	3.1	18.48	9.71
21	Spain	0.44	1.2	12.46	9.48
22	New Zealand	0.36	2.3	9.20	9.26
23	Ireland	0.37	2.2	13.82	9.14
24	Poland	0.20	7.5	13.00	8.69
25	Czech Republic	0.27	1.6	24.10	8.11
26	Hungary	0.30	3.0	44.24	7.53
27	Greece	0.12	1.0	33.19	6.93
28	Slovak Republic	0.16	2.8	50.15	6.58
29	Mexico	0.16	1.1	60.01	6.00
30	Turkey	0.17	2.0	115.76	3.81
	Average	**0.46**	**9.0**	**16.52**	**10.00**

Penetration: OECD Directorate for Science, Technology, and Industry, “Broadband Statistics to December 2006,” (April 2007): http://www.oecd.org/document/7/0,3343,en_2649_34223_38446855_1_1_1_1,00.html#Graph2 ITIF has used average household size to convert OECD per capita penetration data to household penetration data.

Price: OECD Directorate for Science, Technology, and Industry, “Multiple Play: Pricing and Policy Trends,” (April 2006): http://www.oecd.org/dataoecd/47/32/36546318.pdf This report uses September 2005 prices. The table of prices per mbps are at page 24.

Speed: OECD Directorate for Science, Technology, and Industry, “Multiple Play: Pricing and Policy Trends,” (April 2006): www.oecd.org/dataoecd/47/32/36546318.pdf ITIF speed rankings involves weighted average speeds of the incumbent DSL, cable and fibre offerings.

The table (September 2005/December 2006 data) shows Australia at 14th position overall:

- Australia is equal 13th with UK for penetration on a household basis.
- Australia is 26th lowest for speed.
- Australia is 5th lowest for price at 1 Mpbs, fastest technology USD, PPP.

In the June 2007 paper, The Case for a National Broadband Policy http://www.itif.org/index.php?id=52 Atkinson argues,

> "There is considerable reason to believe that there are in fact significant positive externalities from high-speed broadband and that left to themselves, market forces alone will lead to less investment in broadband than is societally optimal."
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> On the needs in regional areas:
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> "While broadband can't create competitive advantage for a region, lack of it can retard it. For example, between 1998 and 2002 employment in communities with broadband grew 1 percentage point faster annually than communities without. This means that a community with 50,000 jobs with broadband would have added 500 more jobs over four years than a similar community without broadband."

ATUG's 2007 Regional Roadshow supported these claims with on the ground stories from communities all over Australia.

Atkinson summarises by saying that policies should focus on stimulating both the supply and demand for high-speed broadband:

Supply-side policies include:

- more favorable tax policies to spur investment in next generation broadband networks;
- policies that ensure that there is significantly more spectrum available for next generation wireless data applications;
- support for research and development related to advanced networking technologies, such as Internet 2.0;
- removal of regulatory barriers to deployment;
- targeted direct funding for deployment in some high-cost areas;

Demand-side policies include:

- targeted and reformed universal service support for advanced broadband;
- spurring the next phase of e-government;
- fostering applications like tele-work, tele-medicine, and e-learning;
- encouraging digital literacy for all Americans;

A number of these policies have relevance and are underway as Australia contemplates a high speed broadband future. Core issues of affordability, ubiquitous access and competition are the key parameters against which to assess policy announcements on broadband over coming weeks. All Australians, wherever they are, need access to broadband at prices they can afford, for the speeds they need.

Broadband is a policy issue which has evolved from performance to speed to price to availability and back again. As end users learn how to get the maximum value from broadband communications they will demand better performance to support the applications of choice. On the other hand, as they realise the value of broadband to their business, family and community life, "upselling the sizzle" should be easier for industry.