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What you don't know can hurt you

How market concentration threatens internet diversity

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Summary

The internet today stands at a crossroads. Entry into the online marketplace is in theory open to virtually anyone with sufficient technological know-how and a viable business model. As a result, the World Wide Web is now the very model of diversity, with more information, more products and more opinions accessible more easily than through any other medium in history.

Conceivably, the internet could maintain this degree of pluralism indefinitely. But there is another possibility: that the internet will follow the path that various other information industries have gone down over the past century or so. In telegraphy, telephony, radio and television, a familiar pattern has unfolded: after an initial period of innovation and vigorous competition, a small number of players often end up enjoying almost complete control of the mainstream market.

This paper seeks to describe what kind of online environment we can expect if market power is allowed to grow unchecked, and shows how internet search engines can amplify the effects of market concentration in other areas. It has been written in order to prompt greater awareness of why market power online is just as important as in any other industry, and of how normal everyday habits can reinforce incumbent interests.

Online retail

Online commerce is fundamentally changing the way products and services are marketed and sold. Perhaps the most important factor pushing sales online is price. Online retailers do not face the same overheads as firms with a physical presence, and can therefore offer lower prices and still make the same level of profit. From a consumer's perspective, prices are generally easier to compare online than in a physical store: instead of needing to seek prices from multiple stores, with all the effort that entails, the cheapest price can be found within seconds. Some might visit the websites of the retailers they would normally shop at in person, while others may seek out retailers which have an online presence only or are based overseas. To the extent that consumers shop at their 'usual suspects', online sales will reflect sales in bricks-and-mortar stores. But if consumers are open-minded about where they shop, then their spending decisions will result in substantial changes to the distribution of retail sales.

Yet even if consumers vote with their feet by shopping elsewhere, it is conceivable that online sales could follow a similar path to the pattern in some parts of the retail sector (and indeed in various industries), with a relatively small number of players making up the majority of sales. If this situation comes to pass, then the online marketplace could consist of a small number of dominant retailers, most of whom do not compete directly with each other.

If the set of internet retailers becomes too small, then this undermines another critical motivation for shopping online: the diversity of offerings available on the internet compared with bricks-and-mortar stores. If one of the internet's key assets in its bid for the retail dollar is greater choice, then it will only continue to offer such choice *if consumers opt for a wide enough range of retailers*. If they do not – a very real possibility – then online retail in the future may share some of the negative aspects of today's shopping malls: the appearance rather than the reality of extensive choice, the dominance of big-name brands and retailers, and a lack of serious price competition in all but a few product categories.

The role of search engines

A critical aspect of the online economy is the ability of users to search the internet for what they want. Search engines such as Google, Yahoo! and Bing are the nexus between millions of internet users and the huge variety of products and services available online. Unless someone knows exactly what site they are looking for, then they will generally turn to a search engine for help. Internet search might then be characterised as an essential online service, much like electricity, telephony and banking.

However, key information about the way search engines work - the algorithms used to generate search result rankings – is generally not available to the public or to regulators. Instead, they remain a 'black box' controlled by and known only to the companies which provide search services. Essentially, search algorithms represent the opinion of the search provider about which webpages are most likely to match the user's search. If enough people use a particular search service, the power wielded by such opinions can be significant, influencing economic behaviour and determining what online content users are most likely to access.

Given the key role of search engines in online activity, it is noteworthy that one search provider in particular, Google, enjoys a virtual monopoly in many countries. Public goodwill and the obvious quality of its products have delivered Google a massive share of the search market, including over 90 per cent in Australia. But domination of any market brings with it the potential for adverse outcomes that would not be possible in a market with a larger number of more effective competitors. Just as market power remains a concern in the banking, mining and retail sectors in Australia, the market power that this particular firm wields in internet search should concern regulators. As a publicly listed company, ownership and corporate strategy can change virtually overnight, and there are no guarantees that future owners will act in the public benefit rather than their own.

As marketers have known for decades, giving something away for free is a powerful motivator for consumers. Habits are important, and once people get used to doing something in a certain way it can be difficult to get them to change. In the case of internet search, the changes in behaviour that a free service can encourage may turn out to be to the long-term detriment of consumers, because their attention tends to cluster around a small number of prominent listings at the expense of legitimate competition. This pattern is of course not confined to Google, but because the vast majority of web searches are made via Google then the consequences tend to originate most through Google-generated rankings.

The technical nature of any web search operation means that certain arbitrary rules need to be built into a search algorithm, and website operators must respond to those rules if they wish to be ranked prominently. Webpages (and online businesses) that do not make it to the search 'elite' will stagnate or disappear completely. But if the search engine market were less concentrated – that is, if users did not rely so heavily on any one algorithm to find content on the web – then the idiosyncrasies of one algorithm would be corrected by another, and webpages which struggle for rankings with one provider might generate traffic via another. Put simply, if there were greater diversity in web search, then there would be greater diversity in online commerce.

Survey of Australian internet users

To gather information about public attitudes and beliefs about online competition, The Australia Institute conducted an online survey of 1,084 people in July 2011. The results suggest that Australians do not necessarily realise the potential for competitive pressure that a diverse collection of online business – including small and local businesses – can offer. They also demonstrate how differently Australians think about competition in various online spheres, such as retail and search, compared with competition in other areas of commerce, such as banking.

Survey results highlight how much power search engines have to determine what people buy online and where they buy it from. Around half of online shoppers (46 per cent) admit that the order in which search results appear always or sometimes influences their purchasing decisions. The role of search engines in online shopping is particularly prominent where online shoppers are yet to make up their mind about exactly what they want to buy. If they already have a product in mind, on the other hand, they are more likely to turn to price comparison sites. However, search engines like Google, Yahoo! and Bing play a key role in controlling which price comparison sites – including their own services – appear high up in search rankings. The more that one search provider dominates the market, the more that its own algorithm – and any idiosyncrasies that may be built into it – will shape online behaviour in arenas far beyond search.

Survey results also indicate a widespread lack of awareness and knowledge about certain basic aspects of the way search engines work. Misconceptions are particularly noticeable in relation to the way search engines treat their own affiliated services and paid advertising. Indeed, more than a third of internet users (37 per cent) were unaware that search engines display paid advertising.

Not surprisingly, self-reported behaviour confirms how critical the first few search results are to the websites people subsequently visit. Just 15 per cent of respondents indicated that in their most recent web search they went past the first page of search results. Many people readily admitted that they did not know much about how search engines worked, but even those who believed they had a good understanding often demonstrated a false confidence in their own knowledge. Among people who said they had a very good understanding of how search engines work:

- 34 per cent did not know that search rankings will change depending on which search engine is used
- 42 per cent believed that relevance was more important than paid advertising in determining what appears at the top of search results
- 27 per cent were unaware that search engines display paid advertising at the top of search results.

There appears to be a substantial degree of community concern about a practice that is integral to many online businesses: the payment of commissions to a referring website. Survey respondents were more concerned about this practice in the context of online shopping than the use of commissions in bricks-and-mortar stores. This is a good example of how public attitudes to business ethics are not necessarily consistent across online and offline spheres. The fact that commission payments are more or less hidden from view when using a search engine (or indeed any other website) probably contributes to this inconsistency.

Despite a lack of understanding on the part of many Australians about certain basic features of search, the public's desire for an online environment characterised by healthy competition

and diversity is unmistakable. Two in three respondents (62 per cent) said they would prefer to have access to a larger number of websites, including some that they don't know about, rather than a smaller number of well-known websites (26 per cent). In addition, most respondents (63 per cent) preferred the government to intervene if necessary in the interests of competition rather than leaving the internet to develop without interference (26 per cent).

Conclusions

If the internet is to evolve in ways which Australians say they want it to – with growing levels of diversity and choice, not less – then regulators and consumer groups need to pay serious attention to market power on the internet. With only six per cent of all retail sales in Australia currently made online but internet commerce expanding rapidly, now is the time to lay the foundation for a truly competitive online marketplace.

There are a range of measures which regulators can take to deal with the causes and effects of market concentration online, both in search and in other areas. Advocates for competitive arrangements in various communications mediums – including Google – often refer to the need for 'network neutrality'. It may be that the principle of 'search neutrality' – under which search engines would need to treat all webpages, including those that they are commercially affiliated with, without discrimination – will become just as important as network neutrality in determining the matter in which the internet evolves.

Another principle should underlie a range of policy interventions: transparency. At the moment much of the activity that consumers might conceivably object to online is in fact shielded from the public gaze, either completely (in the case of proprietary search algorithms) or in effect (as with the vast amounts of small payments that flow between online advertising businesses – including search engines – and advertisers). If this hidden activity were made more visible to internet users and to regulators, then consumers and the public at large would have a chance to object. As is stands, what you don't know can hurt you.

1 Introduction

The internet is now central to the way Australians live and work. The ease with which we can find information, make purchases, make social connections and entertain ourselves online has fundamentally changed the way many people experience daily life. The direct economic value of the internet's role in the Australian economy has recently been estimated at around $50 billion annually, or 3.6 per cent of GDP – roughly equivalent to the size of the entire retail sector. The level of online activity continues to grow rapidly, doubling over the past four years.[1] That the Australian Government plans to spend many billions over the next decade on the rollout of the National Broadband Network is testament to how central the internet is to the economy.[2] Of course, alongside the economic contribution of the internet are less tangible social and cultural benefits, which are hard to quantify in dollar terms but are very real nonetheless.

A critical aspect of the online economy is the ability of users to search the internet for what they want. Search engines such as Google, Yahoo! and Bing are the nexus between millions of internet users and the huge variety of products and services available online. Unless someone knows exactly what site they are looking for, then they will generally turn to a search engine for help. Deloitte Access Economics has estimated that the ability to search accurately for information online is worth around $7 billion per year, or $500 for each Australian, as a result of the time it saves.[3]

Internet search might then be characterised as an essential online service, much like electricity, telephony and banking. However, key information about way search engines work - the algorithms used to generate search result rankings – is generally not available to the public or to regulators. Instead, they remain a 'black box' controlled by and known only to the companies which provide search services. Essentially, search algorithms represent the opinion of the search provider about which webpages are most likely to match the user's search. If enough people use a particular search service, the power wielded by such opinions can be significant, influencing economic behaviour and determining what online content users are most likely to access.

Given the key role of search engines in online activity, it is noteworthy that one search provider in particular, Google, enjoys a virtual monopoly in search in many countries, including Australia. This is undoubtedly the result of market forces: millions of users have judged Google to be superior to its competitors, or at least good enough to prevent them switching *en masse*.[4] It is no accident that 'google' is now a verb in common use, given widespread goodwill towards Google and the services that it provides to consumers without charge. Indeed, Google actively encourages the impression that it is that rare thing: a company who cares. The prospectus to the floating of the company on the stock exchange in 2004 included the following statement from its founders.

> *Don't be evil. We believe strongly that in the long term, we will be better served — as shareholders and in all other ways — by a company that does good things for the world even if we forgo some short term gains.*

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1 Deloitte Access Economics 2011. *The Connected Continent: How the internet is transforming the Australian economy*, produced for Google Australia, August.

2 NBNCo Ltd 2011. 'Corporate Plan 2011-2013', December, p.23, <http://www.nbnco.com.au/assets/documents/nbn-co-3-year-gbe-corporate-plan-final-17-dec-10.pdf> accessed 8 August 2011.

3 Deloitte Access Economics 2011. *The Connected Continent*.

4 The authors would like to acknowledge at the outset that they are frequent users of Google's services.

Public goodwill and the quality of its products has delivered Google a massive share of the search market that it now uses to generate substantial revenues through advertising. But domination of any market brings with it the potential for adverse outcomes that would not be possible in a market with a larger number of more effective competitors. Just as market power remains a concern in the banking,[5] mining[6] and retail[7] sectors in Australia, the market power that this particular firm wields in internet search should concern regulators. As a publicly listed company, ownership and corporate strategy can change virtually overnight, and there are no guarantees that future owners will act in the public benefit rather than their own. As Google's founders, Larry Page and Sergey Brin, observed before the company was floated, 'advertising income often provides an incentive to provide poor quality search results'.[8] Worryingly, there is some evidence that Google is already using its market power – and its proprietary algorithm – to privilege the online offerings of some firms and penalise others. In the process, it is in effect determining the winners and losers in a range of online markets, including some in which Google itself now has a stake.

History repeating?

In 1922 Herbert Hoover, United States Secretary of Commerce, declared at the first National Radio Conference in Washington, D.C.: 'It is inconceivable that we should allow so great a possibility for service, for news, for entertainment, for education, and for vital commercial purposes to be drowned in advertising chatter.'[9] By the time Hoover became President just seven years later, the newly created Federal Radio Commission (FRC) had divided up the radio spectrum in ways which favoured established commercial interests, and which ensured that advertising would become the most lucrative way for broadcasters to make money. While the early days of radio in the United States were characterised by an explosion of innovation and experimentation by amateur hobbyists, the FRC frowned on such diversity, announcing that 'there is not room in the broadcast band for every school of thought, religious, political, social, and economic, each to have its separate broadcasting station, its mouthpiece in the ether.'[10]

It was by no means inevitable that broadcast radio in the US would end up primarily as a commercial medium. Other countries eschewed advertising altogether or supported alternatives to commercial broadcasting, for example by regulating a private monopoly (as with the BBC in Great Britain)[11] or via public broadcasting (as with the ABC in Australia).[12] But the American regulator laid the groundwork for the domination of the radio airwaves by a small number of large commercial networks for many decades. The imperative to attract advertisers influenced what these big radio networks chose to broadcast, and in turn what listeners expected to hear.

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5 Fear, J., Denniss, R. and Richardson, D. 2010. *Money and Power: The case for better regulation in banking,* The Australia Institute, August, <https://www.tai.org.au/index.php?q=node%2F19&pubid=776&act=display>.; Richardson, D. 2010. A License to Print Money: Bank profits in Australia, The Australia Institute, March, <https://www.tai.org.au/index.php?q=node%2F19&pubid=733&act=display>.

6 Market power in the mining sector is a topic that will be addressed in a forthcoming paper to be published by the Australia Institute.

7 Irvine, B., Richardson, D., Fear, J. and Denniss, R. 2011. *The rise and rise of online retail*, The Australia Institute, May, <https://www.tai.org.au/index.php?q=node%2F19&pubid=859&act=display>.

8 Brin, S. and Page, L. 1998. *The Anatomy of a large scale hypertextual web search engine,* InfoLab.Stanford.edu, <http://infolab.stanford.edu/pub/papers/google.pdf> accessed 11th August 2010.

9 Quoted in Wu, T. 2010. *The Master Switch: The rise and fall of information empires*, Atlantic Books, London, p.74.

10 Quoted in Wu 2010. *The Master Switch*, p. 83.

11 Wu 2010. *The Master Switch*

12 Australia Broadcasting Corporation 2011. 'History of ABC Radio', <http://www.abc.net.au/radio/celebrate100/history.htm> accessed 25th July 2011.

As Tim Wu has observed, 'early radio was, before the internet, the greatest open medium in the twentieth century.'[13] And like radio in the 1920s, the internet today stands at a crossroads. Entry into the online marketplace is in theory open to virtually anyone with sufficient technological know-how and a viable business model. As a result, the World Wide Web is now the very model of diversity, with more information, more products and more opinions accessible more easily than through any other medium in history.

Conceivably, the internet could maintain this degree of pluralism indefinitely. But there is another possibility: that the internet will follow the path that various other information industries have gone down over the past century or so. In telegraphy, telephony, radio and television, a familiar pattern has unfolded: after an initial period of innovation and vigorous competition, a small number of players often end up enjoying almost complete control of the mainstream market. 'Network effects' in industries with economies of scale mean that tiny advantages in the early stages of development can lead to market dominance once a market matures.[14] Network effects have already been apparent in the first few decades of the IT industry: Microsoft in operating systems, Google in internet search and Facebook in social networking. But these examples do not imply that control of an entire medium need end up in the hands of a small number of firms, so long as regulators are vigilant about how the market power of individual firms affects long-term consumer welfare.

This paper explores how consumer habits influence what products and services are readily available online, and compares this to what the Australian public hopes the internet will look like online. It considers what role internet search providers in particular can play in determining which products and information consumers are given access to, and reveals what the wider implications of this are for market concentration in other areas of online commerce. Finally, the paper ponders what, if anything, regulators can do to ensure that market power today does not crowd out tomorrow's legitimate competition.

This paper is not intended to provide a definitive account of market power online, nor does it address the technical questions that any discussion of such matters can raise. Instead, it seeks to describe what kind of online environment we can expect if market power is allowed to grow unchecked, and shows how internet search can amplify the effects of market concentration in other areas. It is certainly not in the public interest for the online marketplace to resemble a modern-day shopping mall, in which the appearance of choice exists but actual choices are in fact limited to a small number of players. The paper has been written in order to prompt greater awareness of why market power online is just as important as in any other industry, and of how normal everyday habits can reinforce incumbent interests.

[13] Quoted in Wu 2010. *The Master Switch*, pp. 35-6.

[14] Farrell, J. and Klemperer, P. 2007. 'Coordination and Lock-In: Competition with Switching Costs and Network Effects' in Armstrong, M. and Porter, R. (eds.) *Handbook of Industrial Organization*, Vol. 3, North-Holland.

2 Competing visions of the internet's future

Given the unparalleled diversity of its content and its users, describing what the internet looks like today, let alone how it might look tomorrow, is no simple matter. In order to address the issue of market power, however, it is worth considering how change in two broad areas of online activity may influence the evolution of the internet, and in turn the way information economies are organised.

Online retail: the shopping mall of the future?

Online commerce is fundamentally changing the way products and services are marketed and sold. Some parts of the retail sector, such as books and music, are already or are soon to be dominated by online sales.[15] Other kinds of retailers, such as grocery sellers, continue to do most of their business through bricks-and-mortar stores but many have nonetheless adopted a dual sales approach in anticipation of future changes in customer preferences.

Perhaps the most important factor pushing sales online is price. Online retailers do not face the same overheads as firms with a physical presence, and can therefore offer lower prices and still make the same level of profit. From a consumer's perspective, prices are also generally easier to compare online than in a physical store: instead of needing to seek prices from multiple stores, with all the effort that entails, the cheapest price can be found within seconds. Previous findings from an online survey of internet shoppers by The Australia Institute[16] showed that 65 per cent of shoppers use the internet to compare products and prices. Around half of all respondents who did not shop online (48 per cent) still reported using the internet to research one or more types of products before eventually buying them at a bricks-and-mortar store. This ease in gathering product information to support decision making presents a challenge to the kind of temporary or local monopoly that bricks-and-mortar stores have historically been able to exploit.

Clearly consumers have choices about which prices they will seek out and compare online. Some might visit the websites of the retailers they would normally shop at in person, while others may seek out retailers which have an online presence only or are based overseas. To the extent that consumers shop at their 'usual suspects', online sales will reflect sales in bricks-and-mortar stores. But if consumers are open-minded about where they shop, then their spending decisions will result in substantial changes to the distribution of retail sales.[17]

Yet even if consumers vote with their feet by shopping elsewhere, it is conceivable that online sales could follow a similar path to the pattern in some parts of the retail sector (and indeed in various industries), with a relatively small number of players making up the majority of sales. If this situation comes to pass, then the online marketplace will essentially become like a modern-day shopping mall: a collection of a small number of outlets, most of which do not compete with each other, and which are largely homogenous in any location around the country (and indeed across much of the world). This is not necessarily a desirable outcome,

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[15] Productivity Commission 2011. *Economic Structure and Performance of the Australian Retail Industry*, Draft Report, Commonwealth of Australia, July, p. 91, <http://www.pc.gov.au/__data/assets/pdf_file/0010/111151/retail-industry-draft.pdf> accessed 9th August 2011.

[16] Irvine et al. 2011. The rise and rise of online retail.

[17] Such changes pose a threat to established bricks-and-mortar retailers. In early 2011, some of Australia's largest retailers launched a campaign against the GST exemption that currently applies to goods purchased overseas for less than $1,000, claiming that the exemption favoured overseas over Australian retailers Source: Speedy, B. 2010, 'Major retailers to copy miners in campaign over GST brawl', *The Australian,* <http://www.theaustralian.com.au/business-old/industry-sectors/major-retailers-to-copy-miners-in-campaign-over-gst-brawl/story-e6frg9h6-1225972956210> Accessed on 10th August 2011.

particularly when 32 per cent of Australian online shoppers do so specifically to avoid the experience of going to a shopping centre.[18]

More to the point, if the set of internet retailers becomes too small, then this undermines another critical motivation for shopping online: the diversity of offerings available on the internet compared with bricks-and-mortar stores. Two in three online shoppers in Australia (64 per cent) shop online to buy things that can't be found in stores.[19] If one of the internet's key assets in its bid for the retail dollar is greater choice, then it will only continue to offer such choice *if consumers opt for a wide enough range of retailers*. If they do not – a very real possibility, as this paper will make clear – then online retail in the future may share some of the negative aspects of today's shopping malls: the appearance rather than the reality of extensive choice, the dominance of big-name brands and retailers, and a lack of serious price competition in all but a few product categories.

Advertising: an audience at any cost?

Of course, not all online activity involves a financial exchange between buyer and seller. Indeed, if the internet were only a virtual shopping mall (which it is to some degree) it would not be the revolutionary medium that it is. Millions of people use the internet to find information and to access entertainment – pursuits that are often free.

But while free services do not require users to pay providers directly, they often carry implicit or indirect costs. Good content can be expensive, and must be paid for somehow. Some websites, such as Wikipedia, operate on a non-profit basis, but they still depend to some extent on the generosity of users who decide voluntarily to support them financially.[20] Other websites might monitor users' behaviour and sell commercially valuable information that they generate.[21] But the principal way in which information and entertainment available online can be commercialised is through advertising, reflecting long-standing practice in the mass media.

A key advantage for firms who advertise online is that they can more precisely target their intended audience than through mass media advertising, which tends to be a rather blunt instrument. On the internet, different advertisements can be shown to different users depending on the information they provide or based on their past habits. Moreover, commercial messages are no longer limited to banner ads or pop-ups. The manner in which advertisements are presented and targeted is now limited only by the imagination and technical ingenuity of the vehicles in which they appear. For example, advertising is now often embedded in videos and games, bringing product placement to a new level.

From a user's perspective, so long as the interface in which advertising is delivered is not overly intrusive or irksome, users may be willing to look through or around paid advertisements in order to find the information or entertainment they want. This trade-off means that consumers pay little or nothing to access a great deal of online content, while providers can still generate sufficient revenue to make it worth their while to keep making the content available.

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[18] Irvine et al. 2011. *The rise and rise of online retail.*

[19] Irvine et al. 2011. *The rise and rise of online retail.*

[20] Wikimedia Foundation 2011. 'An appeal from Wikipedia founder Jimmy Wales', <http://wikimediafoundation.org/w/index.php?title=WMFJA085/AU&utm_source=donate&utm_medium=sidebar&utm_campaign=20101204SB002&country=AU&referrer=http%3A%2F%2Fen.wikipedia.org%2Fwiki%2FMain_Page> accessed 27th July 2011.

[21] Valentino-Devreis, J. 2010. 'What They Know About You', The Wall Street Journal, 31st July, <http://online.wsj.com/article/SB10001424052748703999304575399041849931612.html> accessed 27th July 2011.

Online advertising accounts for 17 per cent of total global advertising expenditure and is expected to grow by 12.5 per cent in 2011.[22] The growth of online advertising suggests that millions of internet users are apparently willing to enter into such a pact with content providers. This unspoken and perhaps misunderstood agreement mirrors a pattern established by other forms of commercial media which also provide free or subsidised content in exchange for being able to deliver paid advertising to their audiences. The prime example is free-to-air television, which (in Australia) anybody with a signal and the right equipment can tune into. Despite the growth of online advertising, prime-time TV remains the primary means through which advertisers who need to target mass audiences can disseminate their messages – in return for substantial sums of money.

The business model which underlies free-to-air television may be lucrative, but it does not necessarily ensure that viewers can access the best content available. In reality, commercial TV stations sometimes broadcast content of dubious quality, even during prime time. But this does not at all imply that audiences for free-to-air television are small; TV stations are generally in the business of delivering audiences to advertisers and require a profit to be made if they are to continue to do so. The reason that TV stations sometimes provide mediocre content is that there is a tension between the interests of viewers (high quality content that is individually suited to themselves) and the interests of TV stations (mass audiences at the lowest cost).

If in the future advertising remains the primary means through which online content is paid for, will this mean that the internet will also come to resemble free-to-air television – that is, intended to maximise audiences rather than to provide the best possible information and entertainment? Obviously there are great differences between these two media, both in the way they interact with audiences and in the dynamics of each market. Yet fundamental questions remain: will there by more choice on the internet or less in the future? How will consumers find the content which best suits them? And how can we ensure that this most promising medium continues to be characterised by competition and innovation, rather than becoming the purview of established interests?

So which path will the internet go down – pluralism or corporatisation? It is entirely conceivable that the online retail marketplace of tomorrow will resemble a virtual shopping mall, in which choices are apparently extensive but in reality heavily restricted by the commercial imperatives of big retail. It is also possible that the entertainment offerings online will be reminiscent of today's advertiser-funded television stations. To understand whether choice is indeed under threat, we must consider the most important arbiter of how internet users behave online: search engines.

[22] Magnaglobal 2011. 'Advertising forecast 2011', <http://www.neoadvertising.com/ch/wp-content/uploads/2011/06/2011-MAGNAGLOBAL-Advertising-Forecast-Abbreviated.pdf> accessed 8th August 2011

3 The role of internet search providers

Search – a free market?

At first glance the market for internet search appears to be the very model of consumer choice in action. Search engines are free for users – if not for advertisers – and if consumers are not happy then a competitor's search engine is but one click away.'[23] Switching providers in this particular market would seem to be about as easy as it gets. Any firm which gains a dominant market share might legitimately attribute its success to the quality of its offerings. If it is true that consumers know exactly which services best suit their needs at any given time, then Google's services – including its proprietary algorithm – are the best on offer, since it enjoys 93 per cent market share in Australia and 83 per cent globally.

Table 1: Search engine market share

	Google	Bing	Yahoo!	Ask
Australia[24]	93.22%	3.39%	1.94%	0.28%
UK[25]	91.65%	2.88%	2.51%	1.36%
USA[26]	67.55%	14.64%	13.28%	2.62%
Global[27]	82.76%	3.76%	6.57%	0.55%

There is some truth to this interpretation, which might be called the 'revealed preference' perspective on the search engine market. But what makes any analysis of this market more complicated is the fact that users do not pay directly for the services they receive through search engines. This is as true for Bing, Yahoo! and any other search engine as it is for Google. In fact, much online content relies on what has been called a 'third-party payer' model, whereby end users can find and access content without direct charge but firms pay to advertise to them. The standard model is for search firms to charge advertisers via an auction process, with the highest bidders getting the most prominent listings. Meanwhile, consumers pay nothing at all.

> *By separating the user and the payer, these business models make the price of search essentially irrelevant. Users use any search engine they choose because it's free, and bidders for keywords pay whatever they have to for access to those users*

[23] Google itself is fond of making this very point: 'We may be the world's most popular search engine, but at the end of the day our competition is literally just one click away.' Source: Google 2010. 'Competition in an instant', Google Public Policy Blog, September 17, <http://googlepublicpolicy.blogspot.com/2010/09/competition-in-instant.html> accessed 11th August 2011.

[24] Experian Hitwise 2011. 'Top Websites and Search Engine Analysis - Australia', 6th August, <http://www.hitwise.com/au/datacentre/main/dashboard-1706.html> accessed 8th August 2011.

[25] Chandler Nguyen Digital Marketing Blog 2011. 'Search Engine Market share by country Mar 2011' 13th March, <http://www.chandlernguyen.com/2011/03/search-engine-market-share-by-country-mar-2011.html> accessed 8th August 2011.

[26] Goodwin, D. 2011. 'June 2011 Search Engine Market Share from comScore, Hitwise', *Search Engine Watch*, 14th July, <http://searchenginewatch.com/article/2094160/June-2011-Search-Engine-Market-Share-from-comScore-Hitwise> accessed 8th August 2011.

[27] NetMarketShare 2011. 'Search Engine Market Share', July, <http://marketshare.hitslink.com/search-engine-market-share.aspx?spider=1&qprid=4> accessed 8th August 2011.

> *since there is no cost-effective alternative … this separation of user and payer effectively decouples the price of search from the discipline of the market.*[28]

As marketers have known for decades, giving something away for free is a powerful motivator for consumers. Habits are important, and once people get used to doing something in a certain way it can be difficult to get them to change. In addition, as already explained online content is only 'free' in a limited sense. In the case of internet search, the changes in behaviour that a free service can encourage may turn out to be to the long-term detriment of consumers. Moreover, it seems that many people lack sufficient awareness of the way online content is compiled and delivered to discern whether they are being presented with advertising. A survey of 15,000 respondents by marketing firm iProspect found that only 40 per cent could distinguish between paid advertising and unpaid search engine listings.[29]

Search engines may have severed the link between users and the cost of the service, but they still rely on consumer behaviour (their clicks) to inform their rankings. If user clicks were a reliable guide as to what is in the best interests of consumers, then basing search rankings on consumer behaviour would be entirely sensible. Unfortunately, consumers sometimes make choices that may bring immediate benefits but are nevertheless not in their long-term best interests. As Eric Clemons has argued, 'Free or subsidised offerings can appear to offer additional choice but they often kill competition, harming the competitive process. This inevitably reduces consumer choice.'[30]

This effect – the tendency for the big players to crowd out competition – is particularly prominent in search because users tend to concentrate almost exclusively on links which rank highest and ignore lower-ranked links. One study has found that the first search result (across different search engines) receives on average 72 per cent of user clicks, with second and third results receiving 13 per cent and 8 per cent respectively.[31] Other analysis has found that the number one ranking in a Google search translates into double the traffic compared with the number two ranking, and more traffic than is generated through rankings 5 to 20 (that is, the bottom half of the first page of results and the entire second page of results).[32] This pattern is of course not confined to Google, but because the vast majority of web searches are made via Google then the consequences tend to originate most through Google-generated rankings. Reaching the number one Google ranking is critical to the success of any enterprise which relies on web-generated traffic, and will only become more important as internet use grows. By the same token, being ranked low by search engines can mean that online businesses simply cannot compete.

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[28] Clemons, E. and Schwartz, J. 2010. 'Inside the Bidding Wars Behind Online Search Words', *Business Insider,* 14th October, <http://www.businessinsider.com/the-danger-of-third-party-payer-business-models-2010-10> accessed 27th July 2011.

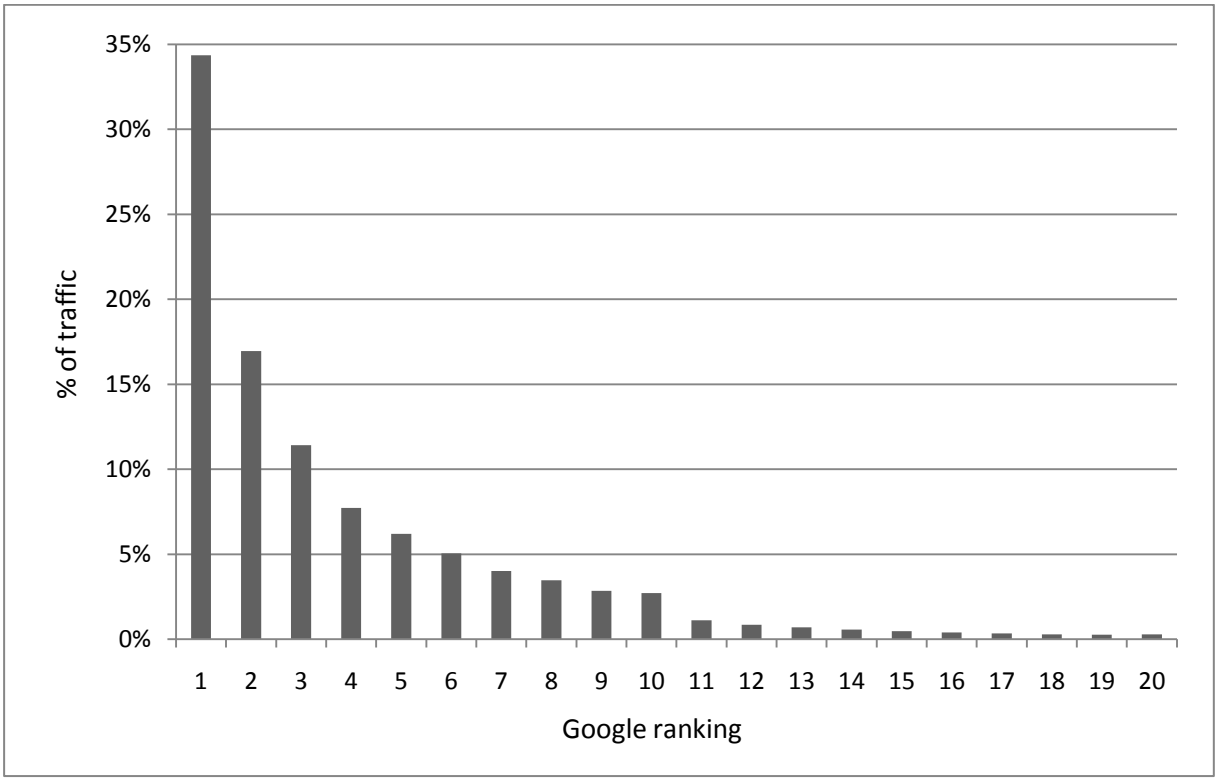
[29] Sinclair, L. 2010. 'Users befuddled by paid search results', *The Australian*, 8th November, <http://www.theaustralian.com.au/business/users-befuddled-by-paid-search-results/story-e6frg8zx-1225949102430> accessed 10th August 2011.

[30] Clemons, E and Madhani, N. 2011. 'The need to focus on the correct issues in Google, power, and antitrust', *Huffington Post*, 19th April, <http://www.huffingtonpost.com/eric-k-clemons/the-need-to-focus-on-the-_b_851102.html> accessed 4th August 2011.

[31] Edelman, B. and Lockwood, B. 2011. 'Measuring bias in "organic" web search', January, <http://www.benedelman.org/searchbias/> accessed 4th August 2011.

[32] Chitika Insights 2010. 'The value of Google result positioning', May, <http://insights.chitika.com/2010/the-value-of-google-result-positioning/> accessed 4th August 2011.

Figure 1 : Percentage of traffic generated for Google rankings 1-20



Source: Chitika

The strong preference of Google users for the first few results could of course be interpreted as evidence of the quality of its search algorithm. That is, users might be clicking almost exclusively on the first few links because they are most relevant to their needs. Similarly, it may be because users have become very adept at using the right search terms to find exactly what they want. There is also undoubtedly a kind of feedback effect in which the most popular links today are even more likely to be the most popular links tomorrow, because users become used to those particular websites at the expense of others. Again, habits are just as important in this context as with any other aspect of consumer behaviour.

Nevertheless, many legitimate websites that would be an automatic choice for a high search ranking actually appear lower than they should due to various technical factors which have little to do with the relevance of the website and more to do with the way search engines index webpages and decide the order in which they should appear to users. Indeed, the technical nature of any web search operation means that certain arbitrary rules need to be built into a search algorithm, and website operators must respond to those rules if they wish to be ranked prominently. But when the first two links in a typical search will attract half of all traffic, arbitrary technical decisions by search providers can clearly have substantial influence over the development of any market with an online presence. And where one search engine enjoys more than 90 per cent market share, these apparently minor decisions can have major ripple effects far beyond search and into a vast range of online environments.

The fact that users tend to pay attention to the first few links from a web search, and at best the first page of results (i.e. the first ten results) brings with it the risk that webpages (and online businesses) that do not make it to the search ‘elite’ will stagnate or disappear as more and more people use the web for business and pleasure. If the search engine market were less concentrated – that is, if users did not rely so heavily on any one algorithm to find content on the web – then this would be less of a concern, because the idiosyncrasies of one provider would be corrected by another, and webpages which struggle for rankings with one

provider might generate traffic via another. If there were greater diversity in web search, then there would be greater diversity in online commerce. But search around the world is dominated by just one provider.

The risks just outlined might appear to be somewhat theoretical. Unfortunately, there are already some examples of how Google's market power is directing web traffic in certain ways and harming consumer choice in the process.

Universal search

In 2007, Google announced that it was instituting a 'universal search model' which would integrate a range of different kinds of content into the one set of search results. Universal search incorporates information from hitherto separate sources, including videos, images, news, maps and books. According to Google, its 'vision for universal search is to ultimately search across all its content sources, compare and rank all the information in real time, and deliver a single, integrated set of search results that offers users precisely what they are looking for.'[33]

Universal search is an attractive proposition for web users, who by now almost expect search engines to pre-empt their desires. For people who are looking for content in the other formats covered by universal search, it reduces the number of times they need to click to find what they are looking for – a sensible approach with any online service. However, universal search also favours the various services which Google itself provides over its competition. For example, searching for addresses and local businesses will return results via Google Maps, instead of competitor mapping services such as Whereis (in Australia) or MapQuest (in the United States) – regardless of whether Google's competitors' offerings are better or worse. Google has even admitted to this practice, with Google's Vice President of Search Product and User Experience, Marissa Mayer, saying the following at a 2007 conference in Seattle: 'When we rolled out Google Finance, we did put the Google link first. It seems only fair right, we do all the work for the search page and all these other things, so we do put it first… That has actually been our policy, since then, because of Finance. So for Google Maps again, it's the first link.'[34]

With the first link occupying such a powerful position, Google is effectively giving preferential treatment to its own services over those of competitors. Consumer Watchdog, an independent non-profit US organisation, has argued that 'Universal Search…is taking Google across an invisible line in the marketplace from a neutral purveyor of choices to an agent which preselects choices.'[35]

Of course, it is not just Google that favours its own services through a universal search model. Research has demonstrated convincingly that Google, Yahoo! and Bing all favour their own services in search results.[36] It is the 'free' (i.e. ad-funded) search model employed by all these firms that creates an environment in which search results can be skewed in such ways. As Edelman and Lockwood observe, 'the economic incentives for bias are overpowering: search engines can use biased results to expand into new sectors, to grant instant free traffic to their own new services, and to block competitors and would-be competitors.'[37] However, the problems associated with search bias are amplified to a greater

[33] Google Inc. 2007. 'Google begins move to universal search', May, <http://www.google.com/intl/en/press/pressrel/universalsearch_20070516.html> accessed 5th August 2011.

[34] <http://www.youtube.com/watch?v=LT1UFZSbcxE#t=44m50s> accessed 5th August 2011.

[35] Consumer Watchdog 2010. *Traffic Report: How Google is squeezing out competitors and muscling into new markets*, June, p. 16.

[36] Edelman, B. and Lockwood, B. 2011. 'Measuring bias in "organic" web search'.

[37] Edelman, B. and Lockwood, B. 2011, 'Measuring bias in "organic" web search'.

extent in a marketplace in which one search provider dominates and where consumers do not always understand that providers will tend to favour their own services over those of competitors.

Search penalties

General search engines like Google, Yahoo! and Bing, which cover the entire web, are sometimes known as 'horizontal search engines'. 'Vertical' search engines, by contrast, focus on a narrower range of web content and are designed to provide more detail or comparative information in that specific domain. For example, the vertical search engines Expedia and Webjet compare flight prices from multiple airlines, while GetPrice compares prices for specific retail products. Increasingly, horizontal search engines are competing with vertical search engines, through services like Google Shopping and Bing Shopping.

Foundem, a vertical search engine based in the United Kingdom, alleges that Google intentionally lowered Foundem's rankings between June 2006 and December 2009. Because of the broad spectrum of Foundem's content, it is very much a competitor to Google in the area of price comparison across a wide range of products. Over the period in question, Foundem claims that it was 'effectively 'disappeared from the internet' by a penalty that systemically excluded all of its content from Google's search results.' Foundem also claims that its paid Google ads were subject to penalties which massively increased the prices it paid for listings. These penalties were lifted some two years after Foundem initially appealed to Google, and just after the UK media began to show an interest in Foundem's situation.[38]

Some have challenged the validity of Foundem's claims against Google. One commentator observes that 'normally when firms blame Google for their problems it is related entirely to their web strategy (or lack of it), as opposed to some outlandish flaw with Google's algorithm.'[39] However, in late 2010 the European Commission responded to complaints by Foundem and others by opening a formal investigation into allegations of antitrust violations by Google. In announcing the investigation, the EC made the following statements:

> *The Commission will investigate whether Google has abused a dominant market position in online search by allegedly lowering the ranking of unpaid search results of competing services which are specialised in providing users with specific online content such as price comparisons (so-called vertical search services) and by according preferential placement to the results of its own vertical search services in order to shut out competing services. The Commission will also look into allegations that Google lowered the 'Quality Score' for sponsored links of competing vertical search services. The Quality Score is one of the factors that determine the price paid to Google by advertisers.*
>
> *The Commission's probe will additionally focus on allegations that Google imposes exclusivity obligations on advertising partners, preventing them from placing certain types of competing ads on their web sites, as well as on computer and software vendors, with the aim of shutting out competing search tools. Finally, it will investigate suspected restrictions on the portability of online advertising campaign data to competing online advertising platforms.*

[38] Search Neutrality 2011. 'Foundem's Google Story', <http://www.searchneutrality.org/foundem-google-story> accessed 5th August 2011.

[39] Lake, C. 2009. 'Foundem vs Google: a case study in SEO fail', *Econsultancy*, 18th August, <http://econsultancy.com/us/blog/4456-foundem-vs-google-a-case-study-in-seo-fail> accessed 5th August 2011.

In addition to investigations in Europe, the Federal Trade Commission (FTC) in the United States has launched a probe into Google's dominance of the search market. Because no public announcement has been made by the FTC, limited information exists on the areas that this investigation will focus on beyond statements made by Google itself.[40] A US Senate subcommittee also plans to hold hearings into Google's market power later in 2011.[41]

Implications

The practices described above are just some of the many ways in which a search provider with market power may choose to exploit it. However, the consequences of these kinds of practices can spread much further than the search market, which after all is dominated by a firm whose products and services appear to be superior to its competitors. And because of the amplificatory effects of concentration in search, it is not necessary for any bias or misconduct to take place in order for other parts of the online economy to feel the effects. On the other hand, if there were more diversity in search, then this would result in greater competition in many arenas of online activity, both commercial and non-profit.

This raises questions about what effects market concentration in search will have on the way the internet evolves and on which online offerings thrive or wither. The next section describes the results of survey research on the kind of internet Australians would like to see and how their own online behaviour may shape the future of the web.

[40] Waters, R. and Kennard, M. 2011. 'FTC opens formal probe against Google', *Financial Times*, 24th June 24, <http://www.ft.com/intl/cms/s/2/9e830f1c-9e9b-11e0-9469-00144feabdc0.html#axzz1UhXuhk5B> accessed 11th August 2011.

[41] Letzing, J. 2011. 'US Senate To Hold "Power Of Google" Hearing On Sept 21', *The Wall Street* Journal, 28th July, <http://online.wsj.com/article/BT-CO-20110728-720832.html> accessed 11th August 2011.

4 Survey of Australian internet users

To gather information on how Australians use search engines and their attitudes and beliefs about online competition, The Australia Institute conducted a survey of 1,084 people over the age of 16 in July 2011.[42]

Awareness and understanding of search engines

Survey respondents were asked how well they understood how search engines determine which results appear at the top of the list of search results. Some 29 per cent of respondents said they had *a very good understanding*, while around half (49 per cent) said they had *some understanding.* Around one in five respondents (22 per cent) said they had *very little understanding* or that they *don't understand it at all – it just happens*.

As Figure 2 shows, women were more likely than men to report knowing little or nothing about how search engines determine rankings. Older people were also more likely than younger people to be unsure of how search engine rankings are generated, as were people with less formal education.

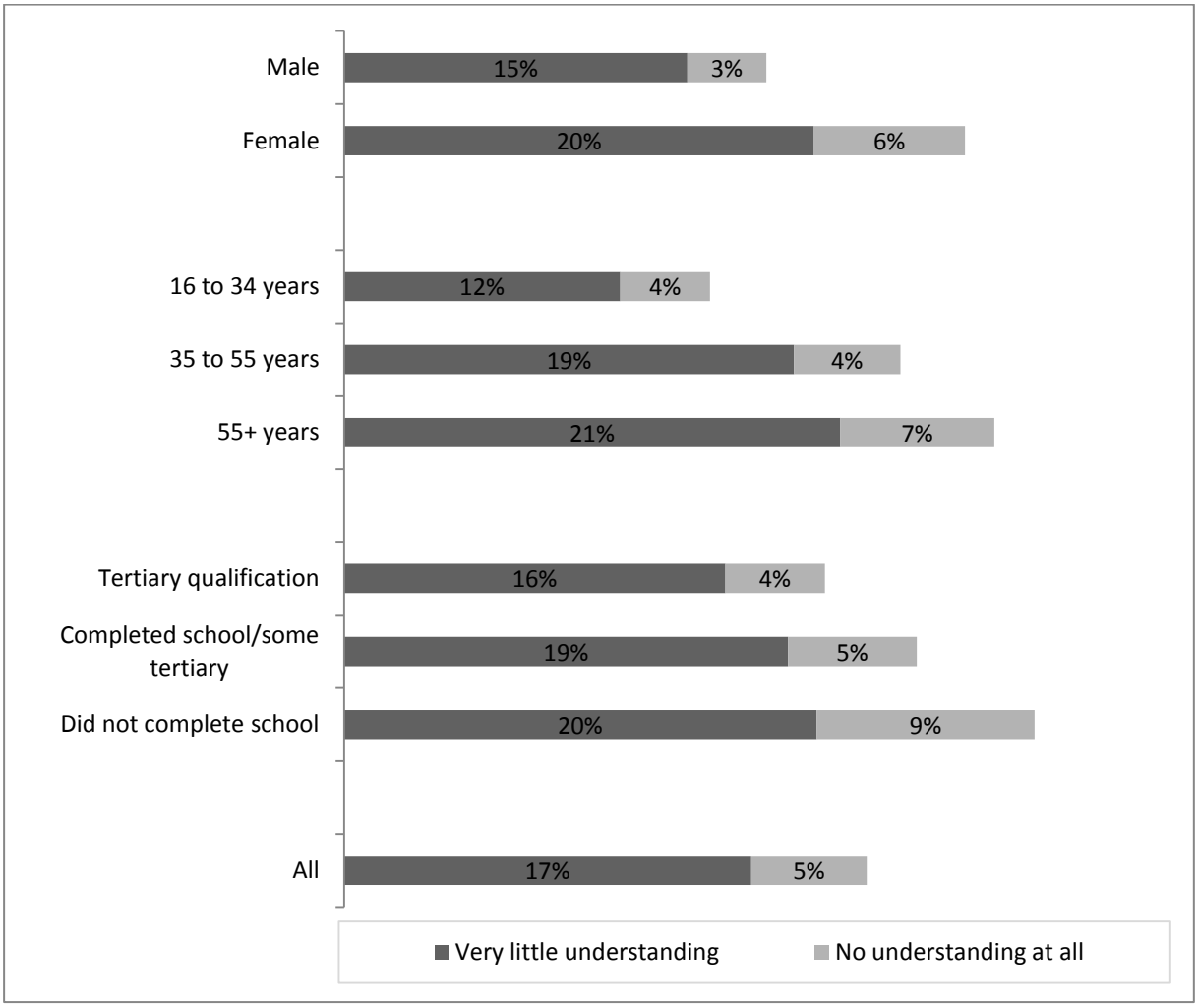
Every search engine has its own proprietary algorithm for ranking search results, meaning that each will return different rankings for any given search. Around two in three respondents said (correctly) that *the links that appear at the top of my search list will change depending on which search engine I use*. Another 17 per cent said (incorrectly) that *the links that appear at the top of my search list will be the same regardless of which search engine I use*, while another 20 per cent were unsure. In other words, one in three internet users are confused about this basic aspect of web search.

Interestingly, 34 per cent of respondents who believed that they had a very good understanding of how search algorithms work answered this question incorrectly or didn't know the answer. This kind of false confidence was observable in relation to various aspects of internet search, as described below.

When asked what kinds of web pages tend to appear at the very top of their search results, most respondents (52 per cent) chose *the webpage that is most relevant to my keyword(s)*. A smaller proportion (40 per cent) chose *paid advertising*, despite the prominence of paid advertising in search engine results; a further 8 per cent were unsure. 42 per cent of respondents who said they had a very good understanding of search algorithms also believed that relevance was more important than paid advertising in determining what appears at the top of search results – another example of false confidence in users' knowledge of search services.

[42] The survey was conducted online, with the survey sample was sourced through a reputable independent online panel provider. Results have been weighted to reflect the broader adult Australian population by age and gender.

Figure 2: Self-reported lack of understanding of how search engines determine rankings



Base = 1,084. Question wording: 'How well do you understand how internet search engines (e.g. Google, Yahoo!, Bing) determine which results appear at the top of the list of search results? [I have a very good understanding/I have some understanding/I have very little understanding/I don't understand it at all – it just happens]

A majority of respondents (63 per cent) reported knowing about paid advertisements displayed through search engines. However, more than a third said that they did not know that paid advertisements were displayed at the top of search results (30 per cent) or that they had not noticed such links (7 per cent). Around a quarter of people who said they had a good understanding of how search engines work (27 per cent) were unaware of paid advertising through internet search engines, again demonstrating a substantial level of false confidence in their own comprehension of the way search engines determine which results are ranked highest.

A majority of respondents believed that internet search engines give preferential treatment to paid advertising (60 per cent), products and services from the search engine itself (60 per cent) and products and services from companies owned by or linked to the search engine (51 per cent). As Table 2 shows, roughly one in three respondents were unsure about how search engines treat these kinds of links, indicating widespread lack of awareness about this aspect of internet search.

Table 2: 'To the best of your knowledge, do internet search engines (e.g. Google, Yahoo!, Bing) give preferential treatment to any of the following in their search results?'

	Yes	No	Not sure
Paid advertising	60%	11%	29%
Products and services from the search engine itself (e.g. maps, shopping, travel)	60%	9%	31%
Products and services from companies owned by or linked to the search engine	51%	10%	39%

Base = 1,084.

Search habits and behaviour

Survey results reflect common wisdom about how internet users interact with search engines. When asked about their most recent web search, most respondents reported clicking on only the first search result (11 per cent) or some of the first few search results (56 per cent). Most notably, only 15 per cent of respondents went to the second or subsequent pages of search results. If these results reflect broader behavioural patterns, they imply 85 per cent of click-throughs are made from the first page of search results.

Table 3: Self-reported behaviour at most recent internet search

Clicked on only the first search result	11%
Clicked on some of the first few search results	56%
Clicked on all or most of the search results on the first page	19%
Clicked through to more pages of search results	15%
Total	**100%**

n=1,054. Excludes respondents who said they were not sure or could not remember. Question wording: 'Please think about the last time you used an internet search engine (e.g. Google, Yahoo!, Bing). To the best of your memory, did you…?'

As already noted, 63 per cent of respondents said that they know about the paid advertisements that are often shown at the top of search results. These people were subsequently asked how they respond to paid advertising. Most (61 per cent) said that they *try not to click on the paid links*, while 34 per cent said that they *click on the paid links if they are to a website I am looking for*. For the purposes of comparison, these groups have been labelled 'ad-tolerators' and 'ad-avoiders' in the text below.

Around 86 per cent of respondents (936 people in total) said they made purchases online at least once a year and were asked a series of questions about their habits when they shop online. These respondents have been further divided into *regular online shoppers* (those who shop online once a month or more often) or *occasional online shoppers* (those who shop online less often than once a month) for the purposes of further analysis.

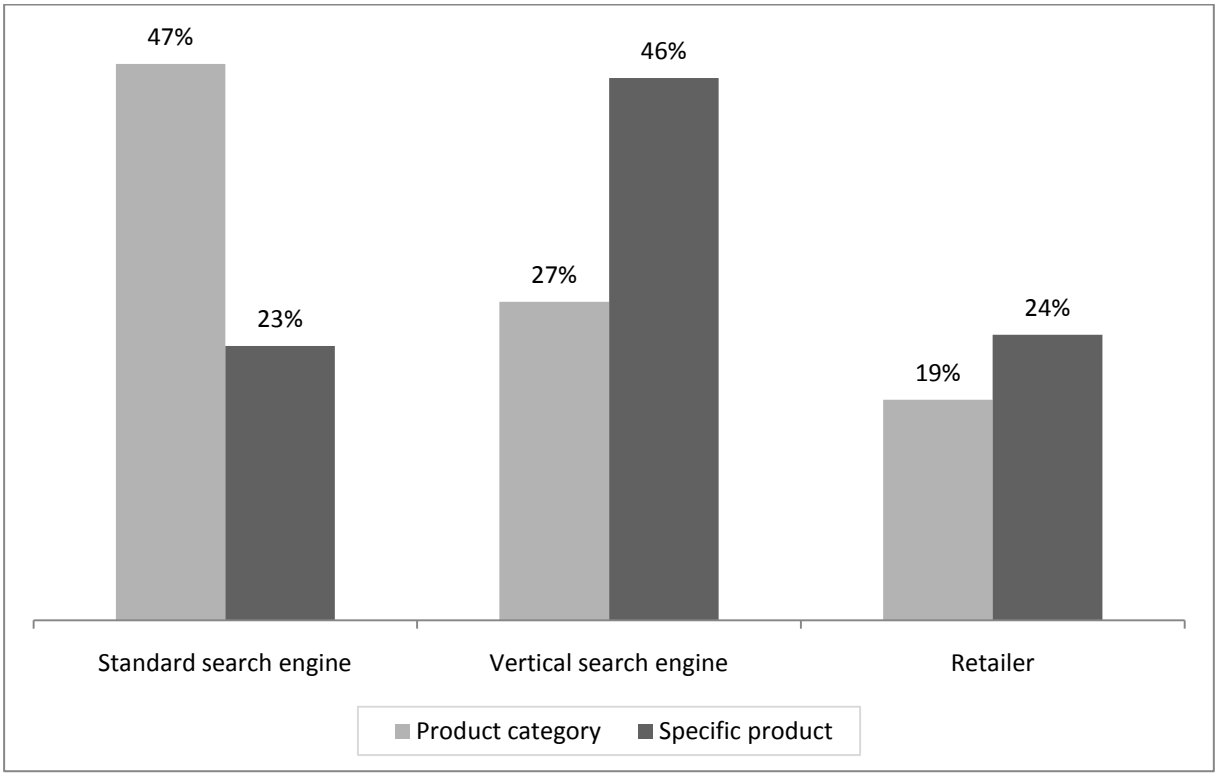
Just under half of all online shoppers admitted that the order in which search results appear affects what they eventually buy online, either often (6 per cent) or sometimes (40 per cent).

Regular online shoppers were even more likely to report that search rankings influence their purchasing decisions, with 49 per cent of these people saying that the order of search results often or sometimes affects what they buy (compared with 42 per cent of people who shopped online occasionally).

Online shoppers were asked about two kinds of situations in which they might want to purchase something online. In the first situation they did not know exactly what product they wanted to buy, while in the second situation they knew exactly which product they wanted; in each circumstance respondents were asked where they would start looking online. Figure 3 illustrates how differently online shoppers will behave depending on whether they know roughly what they want ('product category') or exactly what they want ('specific product').

For those in search of a product category, a standard search engine (such as Google, Yahoo! or Bing) was by far the most popular place to start looking online (47 per cent, compared with 27 per cent for a vertical search engine). By contrast, vertical search engines were the most popular place to start looking for a specific product (46 per cent, compared with 23 per cent for a standard search engine). This result indicates that standard search engines have particular power to influence purchase decisions where online shoppers are yet to make up their mind about exactly what they want to buy.

Figure 3: Initial website for online purchases



Base = 875-879. Graph excludes respondents who nominated another kind of website or said they were unsure. Question wording: 'Suppose you decided to buy something online buy you don't know exactly what product you want/knew exactly what product you wanted to buy online. In this situation, where would you start looking online? (a) Website of a particular retailer, (b) Website that gives you prices from multiple retailers, (c) Search engine (e.g. Google, Bing, Yahoo!), (d) Another website, (e) Not sure.'

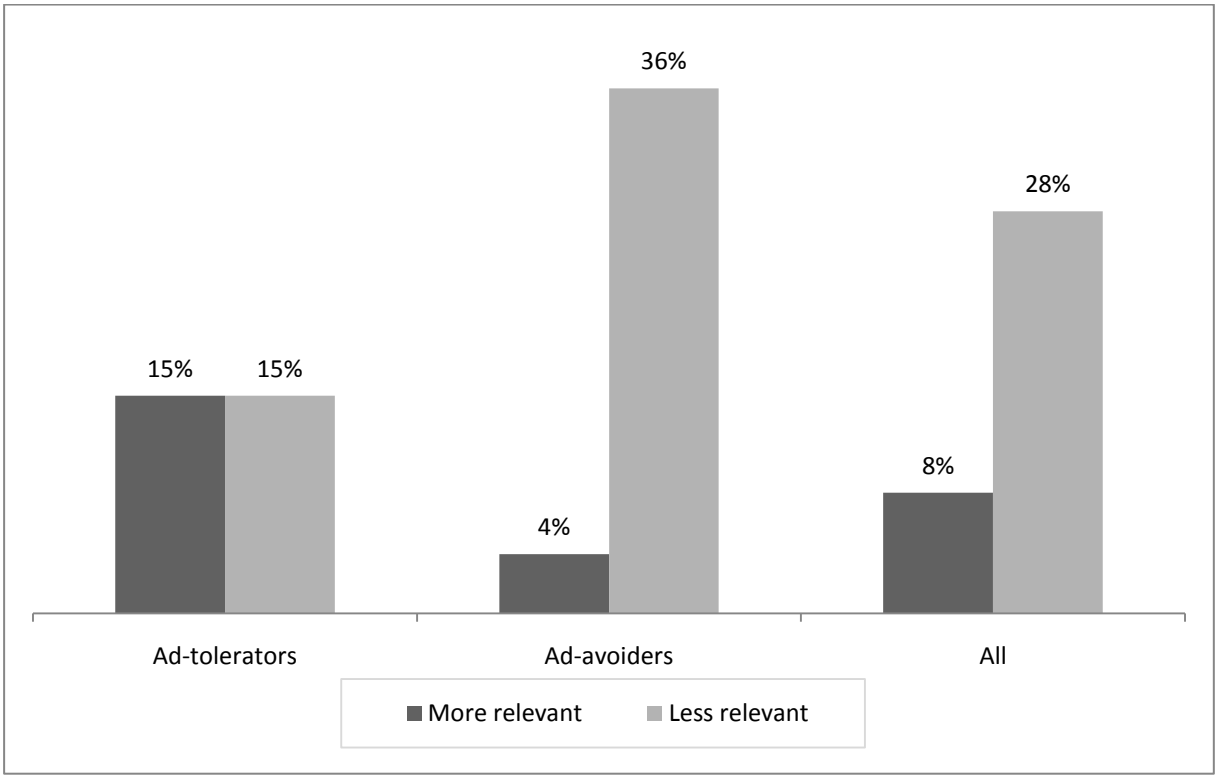
Attitudes towards search-based advertising

Respondents were asked whether paid advertisements make internet search results more or less relevant to them. Most respondents (60 per cent) said paid advertisements *make no*

difference to the relevance of search results. A quarter (28 per cent) said they make results *less relevant, while* only 8 per cent said they make results *more relevant*.

As noted above, 'ad-avoiders' (people who try not to click on paid advertising in search engine results) are more common than 'ad-tolerators' (people who click on paid advertising if it is relevant to them), at least among people who are aware of paid advertising in a search engine context. As shown in Figure 4, ad-tolerators were divided equally between those who thought that paid advertising makes search engine results more relevant and those who thought it makes results less relevant. However, ad-avoiders were much more likely to think that paid advertising makes search engine results less relevant.

Figure 4: Impact of paid advertising on relevance of search results



Base = 685. Excludes respondents who said they did not know about paid advertisements displayed in search engine results. Question wording: 'In your view, do paid advertisements mean that internet search results are (a) more relevant to me, (b) less relevant to me, (c) paid advertisements make no difference to the relevance of search results, (d) not sure.' Graph does not present results for respondents who answered (c) or (d).

Attitudes to commission payments

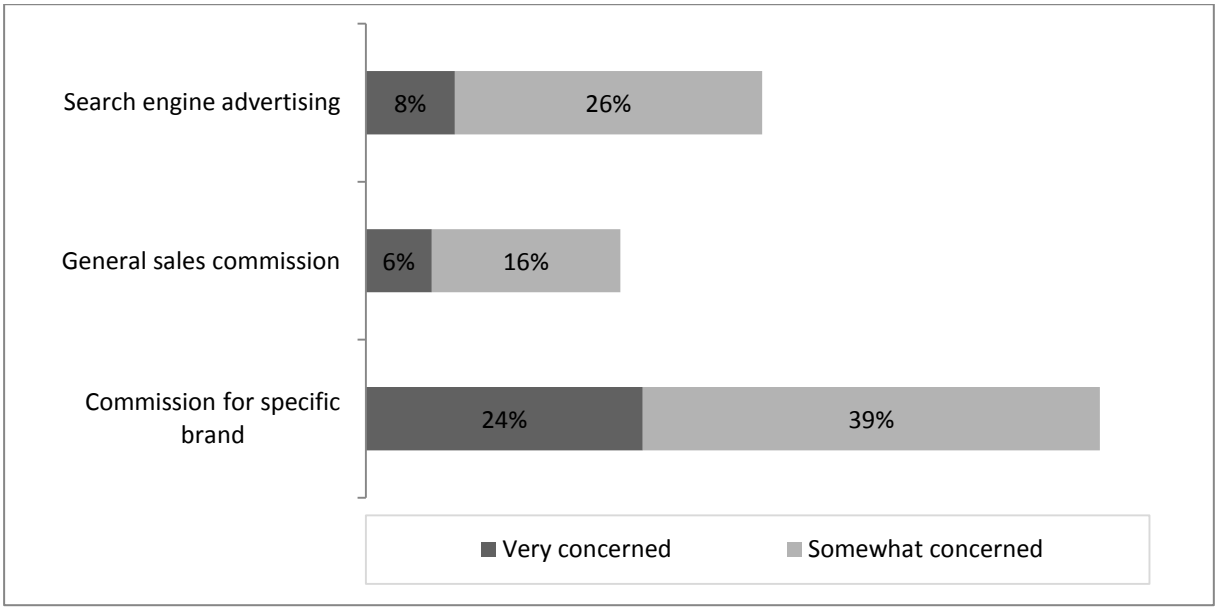
The survey presented respondents with a series of hypothetical scenarios which involved the payment of commissions for purchases made in a variety of contexts and were asked whether they would be concerned about such commissions being paid. These were presented as follows:

- *Scenario 1:* 'Suppose you bought something online. If you discovered that the website you bought it from paid a commission to a website which 'referred' you, would you be very concerned, somewhat concerned, not very concerned or not at all concerned?'
- *Scenario 2:* 'Suppose you bought something in a physical store and then found out that the salesperson received a commission for the sale. Would you be very concerned, somewhat concerned, not very concerned or not at all concerned?'

- *Scenario 3:* 'Suppose you bought something in a physical store and then found out that the salesperson received commissions only for the product that you bought but no other products. Would you be very concerned, somewhat concerned, not very concerned or not at all concerned?'

As Figure 5 shows, respondents were most likely to be concerned about commissions paid under Scenario 3, with two in three respondents (63 per cent) saying they would be *very concerned* or *somewhat concerned*. By contrast, only 22 per cent said they would be concerned about a general commission as per Scenario 2. Around a third of respondents (34 per cent) said they would be concerned about Scenario 1, in which commissions are paid to a referring website – a regular practice in online retail. Further, respondents were more concerned about this practice than the use of commissions in bricks-and-mortar stores, so long as those commissions were not tied to a particular brand. Taken together, these results indicate that attitudes about the flow of commission payments linked to product purchases are very different depending on whether such purchases are made online or offline.

Figure 5: Levels of concern about different forms of commission



Base = 1,084. Respondents who answered 'not very concerned', 'not at all concerned' or 'not sure' are not presented in graph.

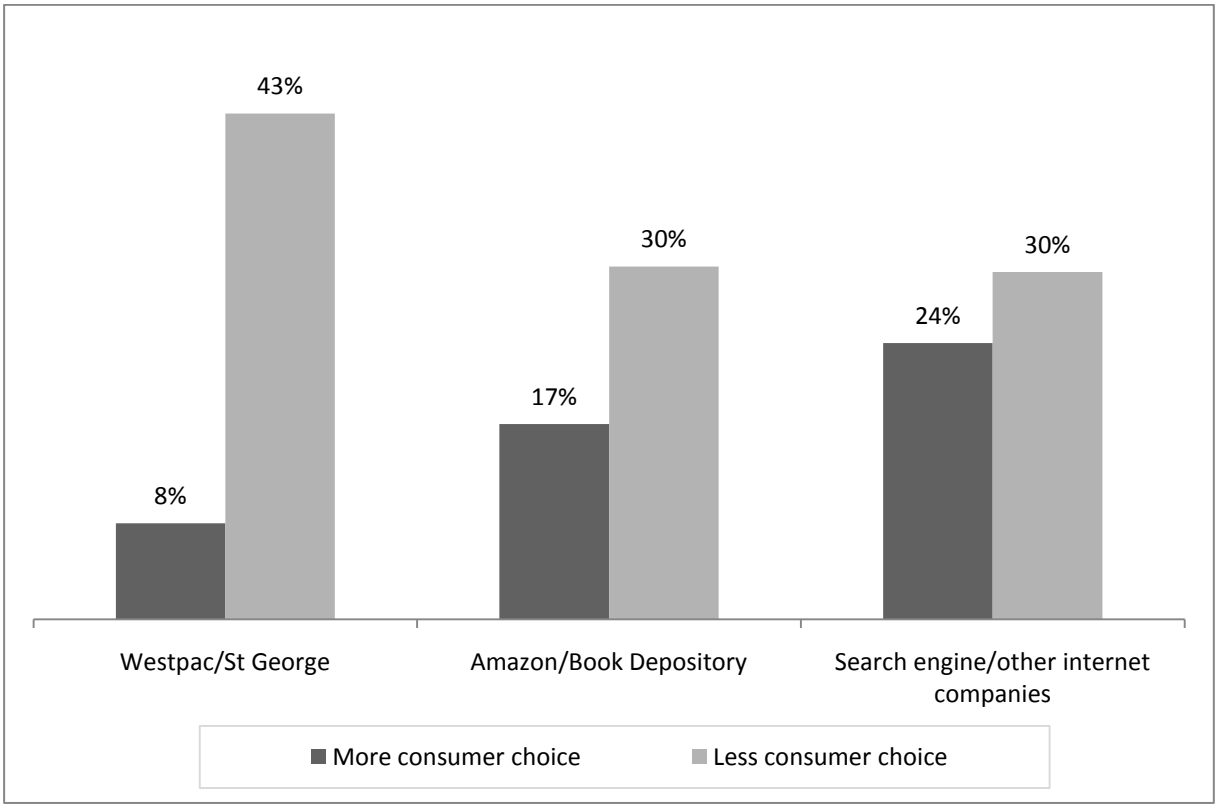
Attitudes to online and offline market power

The survey presented respondents with three situations in which corporate takeovers or buyouts might affect the degree of choice consumers have:

- The takeover of St George by Westpac in 2007
- The purchase of Book Depository by Amazon in 2011
- A search engine taking over companies which provide other kinds of online services, such as maps, shopping or travel services

For each situation respondents were asked whether such a takeover would give consumers more choice, less choice or make no difference. In each case, respondents were more likely to say that takeovers would result in Australian consumers having less choice. As Figure 6 illustrates, this was particularly true in relation to the Westpac/St George merger.

Figure 6: Attitudes to the impact of corporate takeovers on consumer choice



Base = 1,084. Question wording: 'In 2007 Westpac took over St George. In your view, did that takeover…?/ Recently the US-retailer Amazon took over UK-based retailer The Book Depository. In your view, will this takeover…?/If a search engine (e.g. Google, Yahoo!, Bing) were to take over companies which provide other kinds of online services (e.g. maps, shopping, travel), do you think such takeovers would…? (a) Give Australian consumers more choice, (b) Give Australian consumers less choice, (c) Make no difference to the amount of choice Australian consumers have, (d) not sure. Respondents who answered (c) or (d) are not presented in graph.

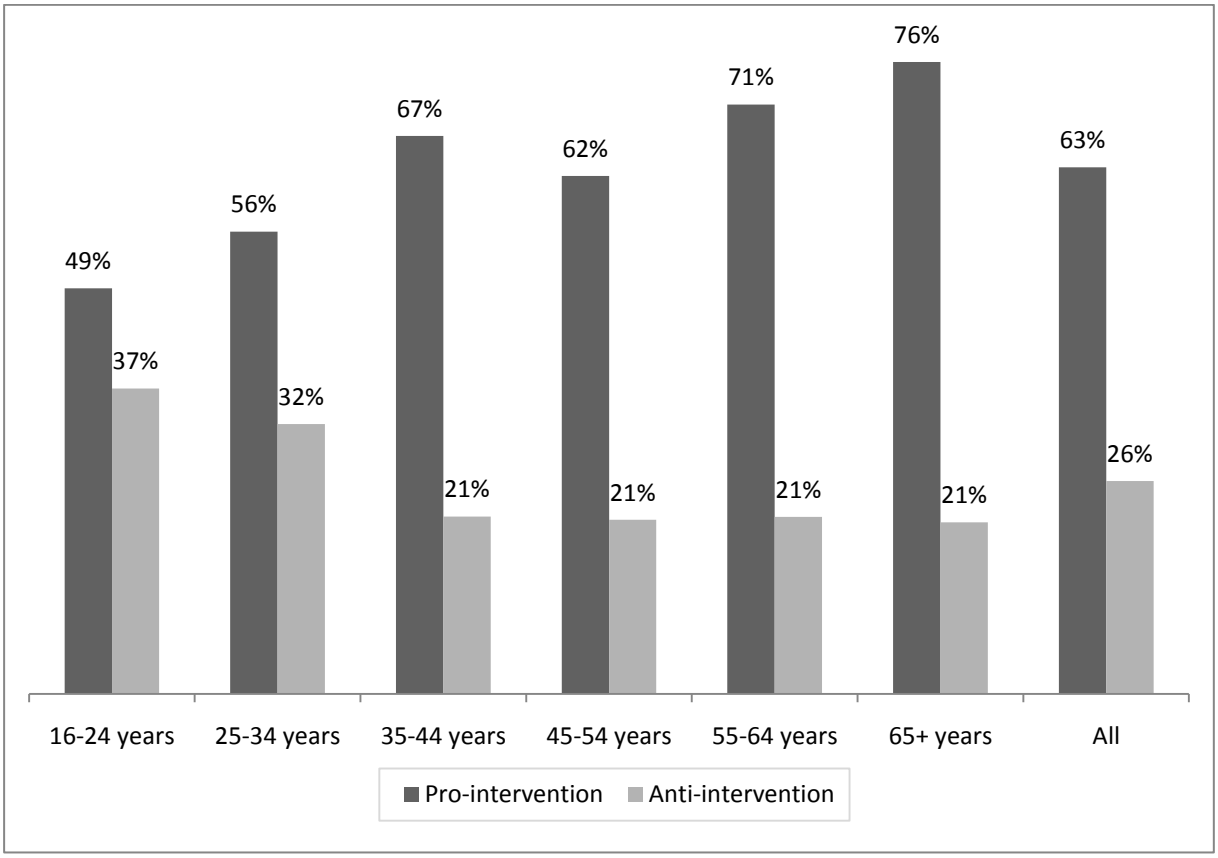
Beliefs and attitudes about the internet's future

Respondents were overwhelmingly of the opinion that the amount of choice and diversity on the internet in the future will remain the same as it is now (21 per cent) or grow (67 per cent). Most respondents also expressed a desire for more choice and diversity, with 62 per cent preferring *a larger number of websites, including some that you don't know about* and only 26 per cent preferring *a smaller number of well-known websites*.

While most respondents expressed a desire for more diversity and choice, they were also in favour of government intervention to ensure a competitive marketplace online. Two in three people (63 per cent) believed that the government should *do everything it can to ensure that the internet is as fair and competitive as possible*, compared to 26 per cent who would prefer the government to *allow the internet to develop without interference, even if it is less fair or less competitive as a result*.

Attitudes to government intervention were strongly related to the age of respondents, as Figure 7 illustrates. Among people aged 16 to 24 years, 49 per cent were in favour of intervention while 37 per cent were against. At the other end of the age spectrum, respondents over the age of 65 were much more strongly in favour of intervention, with 76 per cent of these people saying that that the government should do everything it can to ensure that the internet is as fair and competitive as possible.

Figure 7: Attitudes to government intervention to ensure fair competition online



Base = 1,084. Question wording: 'In your view, should the Government (a) do everything it can to ensure that the internet is as fair and competitive as possible, (b) Allow the internet to develop without interference, even if it is less fair or competitive as a result, (c) not sure.'

Implications

The survey results reported above demonstrate a widespread lack of awareness and knowledge about certain basic aspects of the way search engines work. Misconceptions are particularly noticeable in relation to the way search engines treat their own affiliated services and paid advertising. Indeed, more than a third of internet users appear to be completely unaware that search engines display paid advertising. In addition, there are various ways in which public attitudes towards the same general phenomena differ markedly depending on whether they appear online or in a more conventional environment.

Not surprisingly, self-reported behaviour confirms how critical the first few search results are to the websites people then visit. Just 15 per cent of respondents indicated that in their most recent web search they went past the first page of search results. Most respondents who knew about paid advertising through search engines said that they try not to click on the paid links. These 'ad-avoiders' were strongly of the view that paid advertising makes search results less relevant, not more.

Many people readily admitted that they did not know much about how search engines worked, but even those who believed they had a good understanding often demonstrated a false confidence in their own knowledge. It may be that the prevalence of misunderstanding and false confidence is linked to the fact that search engines can be used free of charge. As with any free service, users do not necessarily invest much time or mental effort in ensuring that the service they are receiving is valuable or comes 'with a catch'.

Survey results highlight how much power search engines have to determine what people buy online and where they buy it from. Around half of online shoppers admit that the order in which search results appear always or sometimes influences their purchasing decisions. The role of search engines in online shopping is particularly prominent where online shoppers are yet to make up their mind about exactly what they want to buy. If they already have a product in mind, on the other hand, they are more likely to turn to a vertical search engine to find the best price. However, as noted earlier, horizontal search engines like Google, Yahoo! and Bing play a key role in controlling which price comparison sites – including their own services – appear high up in search rankings. The more than one search provider dominates the market, the more that its own algorithm – and any idiosyncrasies that may be built into it – will shape online behaviour in arenas far beyond search.

There appears to be a substantial degree of community concern about a practice that is integral to many online businesses: the payment of commissions to a referring website. Survey respondents were more concerned about this practice in the context of online shopping than the use of commissions in bricks-and-mortar stores; the exception to this was where commissions in bricks-and-mortar stores were linked to a particular brand, which many respondents said would concern them. However, this kind of 'tied' commission is exactly the kind of model that search engines use when they present paid advertisements in a more prominent position than organic or non-paid search results. This is a good example of how public attitudes to business ethics are not necessarily consistent across online and offline spheres. The fact that commission payments are more or less hidden from view when using a search engine (or indeed any other website) probably contributes to this inconsistency.

Despite a lack of understanding on the part of many Australians about certain basic features of search as well as the possible consequences of their own behaviour online, the public's desire for an online environment characterised by healthy competition and diversity is unmistakable. In addition, most respondents preferred the government to intervene if necessary in the interests of competition rather than leaving the internet to evolve on its own with no guidance from regulators. The next section makes some suggestions about how governments might realistically be able to act in this area.

5 Conclusions

The survey results described in this paper suggest that Australians do not necessarily realise the potential for competitive pressure that a diverse collection of online business – including small and local businesses – can offer. This may be the long-term detriment of consumers, even though in the short term they are simply making choices about what best suits their needs at any given moment. Our research also demonstrates how differently Australians think about competition in various online spheres, such as retail and search, compared with competition in other areas of commerce, such as banking.

If the internet is to evolve in ways which Australians say they want it to – with growing levels of diversity and choice, not less – then regulators and consumer groups need to pay serious attention to market power on the internet. With only six per cent of all retail sales in Australia currently made online[43] but internet commerce expanding rapidly, now is the time to lay the foundation for a truly competitive online marketplace.

We have seen how market concentration in one area of online activity can lead to or reinforce market concentration in other areas. The way people behave online can create a feedback loop in which the most prominent providers of online content attract more traffic via other websites, and will tend to grow faster than less prominent providers. This is particularly true in the case of internet search, for a number of reasons: because search is now an essential service for virtually all users of the internet, because people's behaviour online is greatly skewed towards the highest-ranked links that search engines generate, and because one search provider dominates the global market. Together, these factors mean that the promise of the internet as a permanently revolutionary medium in which choice and diversity will continue to grow indefinitely may turn out to be illusory. If we are not careful, the internet could follow the path of other communication channels, such as radio and television, which ended up being dominated by corporate interests that moved early to secure their place in the market and were able to shut out potential competition.

Of course, there is no suggestion that content on the internet will actually *disappear*. Admittedly, some online businesses may decide not to compete in particular markets because they know how strongly initial conditions can favour first movers in online commerce. But there is no suggestion that search engines are actually censoring or removing reference to content that they choose not to favour. Instead, the iterative and self-reinforcing manner in which search engines favour already dominant interests in practically every other area of online activity (including services they actually own) means that some online offerings will thrive while others will wither. This is only to be expected; problems arise when it is not consumers who ultimately determine winners and losers but a small collection of firms. Tiny and seemingly arbitrary decisions by search engine providers can have massive consequences for online retailers and for many other businesses with an online presence. And it is the sophisticated opinion of one particular firm – its search algorithm – that is at the centre of this Gordian knot.

There are a range of measures which regulators can take to deal with the causes and effects of market concentration online, both in search and in other areas. Advocates for competitive arrangements in various communications mediums – including Google[44] – often refer to the need for 'network neutrality' – the principle that 'public information networks [should] treat all content, sites, and platforms equally'.[45] It may be that the principle of 'search neutrality' – under which search engines would need to treat all webpages, including those that they are

[43] Productivity Commission 2011. *Economic Structure and Performance of the Australian Retail Industry*.

[44] Google Inc. 2010. 'Facts about our network neutrality policy proposal', *Google Public Policy Blog*, <http://googlepublicpolicy.blogspot.com/search/label/Net%20Neutrality> accessed 9th August 2011.

[45] Wu, T., 'Network Neutrality FAQ' <http://timwu.org/network_neutrality.html> accessed 9th August 2011.

commercially affiliated with, without discrimination – will become just as important as network neutrality in determining the matter in which the internet evolves.

Rather than discussing how various measures to promote search neutrality might work from a technical perspective, it is worth highlighting the principle which should underlie a range of policy interventions: transparency. At the moment much of the activity that consumers might conceivably object to online is in fact shielded from the public gaze, either completely (in the case of proprietary search algorithms) or in effect (as with the vast amounts of small payments that flow between online advertising businesses – including search engines – and advertisers). If this hidden activity were made more visible to internet users and to regulators, then consumers and the public at large would stand to benefit. The internet might currently appear to make everything available to everyone at the click of a button, but in fact it is very hard indeed to find information that somebody doesn't want to give you.

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Appendix: Survey Questions

The following questions are about how you use the internet.

Please think about the last time you used an internet search engine (e.g. Google, Yahoo!, Bing). To the best of your memory, did you…?

- Click on only the first search result
- Click on some of the first few search results
- Click on all or most of the search results on the first page
- Click through to more pages of search results
- Not sure/can't remember

How well do you understand how internet search engines (e.g. Google, Yahoo!, Bing) determine which results appear at the top of the list of search results?

- I have a very good understanding
- I have some understanding
- I have very little understanding
- I don't understand it at all – it just happens

When you use a search engine (e.g. Google, Yahoo!, Bing), which of the following do you think happens? Please answer to the best of your knowledge. [randomise]

- The results that appear at the top of my search list will change depending on which search engine I use
- The results that appear at the top of my search list will be the same regardless of which search engine I use
- Not sure

When you use a search engine (e.g. Google, Yahoo!, Bing), what kinds of web pages tend to appear at the very top of your search results? Please answer to the best of your knowledge. [randomise]

- The webpage that is most relevant to my keyword(s)
- Paid advertising
- Not sure

To the best of your knowledge, do internet search engines (e.g. Google, Yahoo!, Bing) give preferential treatment to any of the following in their search results? [Yes/no/not sure]

- Paid advertising

- Products and services from the search engine itself (e.g. maps, shopping, travel)
- Products and services from companies owned by or linked to the search engine

Do you think it is good for competition for internet search engines (e.g. Google, Yahoo!, Bing) to give preferential treatment to these kinds of links in their search results? [Fair/Unfair/Not sure]

- Paid advertising
- Products and services from the search engine itself (e.g. maps, shopping, travel)
- Products and services from companies owned by or linked to the search engine

Sometimes a search engine (e.g. Google, Yahoo!, Bing) will display paid advertisements at the top of your search results. If you click on these links, the advertiser will pay the search engine a small amount of money. Did you know that these links were paid advertisements?

- Yes
- No
- Haven't noticed these links

When you search the use a search engine (e.g. Google, Yahoo!, Bing), do you…?

- Click on the paid links if they are to a website I am looking for
- Try not to click on the paid links
- Not sure

How often do you make purchases online?

- Once a week or more
- At least once a month
- At least once every 3 months
- At least once a year
- Less than once a year Never
- Not sure

The following questions are about shopping online.

When you are looking to buy something online and use a search engine (e.g. Google, Yahoo!, Bing), does the order in which search results appear ever affect what you eventually buy?

- Often
- Sometimes

- Rarely
- Never
- Not sure

Suppose you decided to buy something online but you don't know exactly what product you want. In this situation, where would you start looking online?

- Website of a particular retailer
- Website that gives you prices from multiple retailers
- Search engine (e.g. Google, Bing, Yahoo!)
- Another website
- Not sure

Suppose you knew exactly what product you wanted to buy online. In this situation, where would you look for the best price?

- Website of a particular retailer
- Website that gives you prices from multiple retailers
- Search engine (e.g. Google, Yahoo!, Bing)
- Another website
- Not sure

Suppose you bought something online. If you discovered that the website you bought it from paid a commission to a website which 'referred' you, would you be…?

- Very concerned
- Somewhat concerned
- Not very concerned
- Not at all concerned
- Not sure

Suppose you bought something in a physical store and then found out that the salesperson received a commission for the sale. Would you be…?

- Very concerned
- Somewhat concerned
- Not very concerned
- Not at all concerned
- Not sure

Suppose you bought something in a physical store and then found out that the salesperson received commissions only for that brand but no other brand. Would you be…?

- Very concerned
- Somewhat concerned
- Not very concerned
- Not at all concerned
- Not sure

The following questions are about competition and choice.

In your view, should the Government…? Please select the option which best reflects your views.

- Do everything it can to ensure that the internet is as fair and competitive as possible
- Allow the internet to develop without interference, even if it is less fair or less competitive as a result
- Not sure

In the future, do you believe there will be…?

- More choice and diversity on the internet than there currently is
- The same amount of choice and diversity on the internet as there currently is
- Less choice and diversity on the internet than there currently is
- No opinion

In general, would you prefer to have access to…?

- A smaller number of well-known websites on the internet
- A larger number of websites, including some that you don't know about
- Not sure

In 2007 Westpac bank took over St George bank. In your view, did that takeover…?

- Give Australian consumers more choice
- Give Australians consumers less choice
- Make no difference to the amount of choice Australian consumers have
- Not sure

Recently the US-based online retailer Amazon took over UK-based online retailer The Book Depository. In your view, will this takeover…?

- Give Australian consumers more choice
- Give Australians consumers less choice
- Make no difference to the amount of choice Australian consumers have
- Not sure

If a search engine (e.g. Google, Yahoo!, Bing) takes over a company which provides other kinds of online services (e.g. maps, shopping, travel), do you think such a takeover would…?

- Give Australian consumers more choice
- Give Australians consumers less choice
- Make no difference to the amount of choice Australian consumers have
- Not sure