

The digital divide and taxpayer rights – cautionary findings from the United States

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Abstract

Increasingly, tax authorities are digitising taxpayer services as part of a more general trend toward ‘e-government’. However, in making this shift, tax authorities must be conscious of the existence of a significant and rapidly evolving ‘digital divide’ between various demographic groups.

Recent research commissioned by the United States National Taxpayer Advocate (NTA) highlights the issues, indicating that the digitising of authority services may have especially adverse consequences on vulnerable taxpayer groups - low income taxpayers, seniors, and those with disabilities.

These findings, coupled with the Australian Taxation Office commitment to ‘digital by default’ provision of tax services, give good cause for closer examination of the NTA findings and the potential lessons for Australian tax administrators. This article contains this examination. It also proposes extending and refining the NTA work to ensure that any shift toward increased web-based tax services proceeds only with full appreciation of the potential consequences for vulnerable taxpayers.

Key words: taxpayer rights, digital tax services, vulnerable taxpayers

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1. INTRODUCTION

Increasingly, government bodies are shifting services, communication channels and information provision to their online platforms as part of a general trend toward ‘e-government’.¹ Broadly speaking, this is considered a positive development for public authority accountability and citizen rights. In particular, it is generally accepted that the expansion of ‘e-government’ has potential benefits in terms of promoting ‘transparency, accountability, efficiency and citizen engagement in public service delivery’.²

However, care should be taken to ensure that expansion in e-government is carried out in a manner which ensures such benefits flow through to all citizens. In particular, it is important that any expansion in online service and information delivery is carried out in a manner cognisant of the existence of a significant and evolving ‘digital divide’ between various demographic groups. Those on the wrong side of this divide may find it difficult or impossible to access or use e-government services.

The fact that there exists a ‘digital divide’ between those who use technology and the internet and those who do not is not new. It has long been recognised that there are potential equity of access issues associated with the increasing expansion of online service and information provision. At a very basic level, these equity of access issues stem from differential levels of access to computer hardware and the internet between various demographic groups. Increasingly, however, there is a recognition that equity of access, whilst important, is only the starting point. The real measure of success in bridging any ‘digital divide’ also hinges on acknowledging and addressing disparities in the resources and skills needed to use such technology among different demographic groups.³

Contemporary definitions of the digital divide reflect this broader and continually changing imperative. For example, the Secretary-General of the Organisation for

¹ The Organisation for Economic Cooperation and Development (OECD) defines e-Government as ‘...the use of new information and communication technologies (ICTs) by governments as applied to the full range of government functions’: OECD, ‘E-government: Analysis Framework and Methodology’, OECD Public Management Committee paper PUMA(2001)16/ANN/REV1 (13 December 2001) 2. The United Nations provides a more elaborate (but broadly consistent) description: ‘Traditionally, e-government has been considered as the use of ICTs for improving the efficiency of government agencies and providing government services online. Later, the framework of e-government has broadened to include use of ICT by government for conducting a wide range of interactions with citizens and businesses as well as open government data and use of ICTs to enable innovation in governance. E-government can thus be defined as the use of ICTs to more effectively and efficiently deliver government services to citizens and businesses. It is the application of ICT in government operations, achieving public ends by digital means’: United Nations, ‘UN E-Government Knowledgebase’, <https://publicadministration.un.org/egovkb/en-us/About/UNeGovDD-Framework> (accessed 24 December 2018).

² United Nations, *United Nations E-Government Survey 2016: E-Government in Support of Sustainable Development* (2016) xviii, <http://workspace.unpan.org/sites/Internet/Documents/UNPAN97453.pdf>.

³ For example, there is evidence that mobile devices are overtaking computers as the primary avenue for accessing the Internet (see the data cited below at n 24). This evidence is particularly strong among low income groups. Yet, it is not enough to assume that effective information and services can be provisioned to mobile devices in the same manner as to computers. People do not and cannot use smartphones and tablets in the same ways that they use computers because of the differing interfaces – smaller touch screen interfaces compared to a keyboard and mouse are significantly different. Mobile digital literacy therefore involves a different skill set that providers of digital information and services need to consider in order to format content to work on and for the mobile medium. These facts need to be taken into account in contemporary efforts to define and bridge the digital divide. For detailed discussion of the various approaches to defining in the digital divide, see *ibid* 97.

Economic Co-operation and Development (OECD) in a 2016 statement noted that ‘new digital divides are emerging, linked to a lack of adequate skills and a lack of use and access to digital technologies at work or in education’.⁴

Similarly, the United Nations Department of Economic and Social Affairs, citing the 2013 International Telecommunications Report on Measuring the Information Society,⁵ has described the digital divide as follows:⁶

...the digital divide refers to the gap among individuals, households and businesses at different socio-economic levels with regard to both their opportunities to access ICTs, and their use of the Internet for a wide variety of activities...The digital divide includes imbalances both in physical access to technology, as well as in the resources and skills needed to effectively use such technology.

Recent research commissioned by the United States National Taxpayer Advocate (NTA) highlights the relevance of these issues in a tax context. In particular, the interim findings of this research into the effect of Internal Revenue Service (IRS) service delivery choices on different demographic groups indicate that there might be good cause for caution. Particular care must be taken to ensure the transition to digital service delivery and information dissemination to taxpayers does not come at the sacrifice of more traditional forms of communication with taxpayers – especially identified vulnerable taxpayer groups (low income taxpayers, seniors, those with disabilities and taxpayers with limited English proficiency).⁷ These findings were affirmed in the final results of that research published in the NTA’s 2017 Annual Report to Congress.⁸

Key findings of the NTA research include insights into the relatively limited and/or low-quality broadband access of taxpayers in these vulnerable groups, their relative

⁴ OECD, ‘Seizing the Benefits of Digitalisation for Growth and Well-Being’, Note by the Secretary-General DSTI/IND/STP/ICCP/CP(2016)3/REV1 (23 May 2016) 4,

[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/IND/STP/ICCP/CP\(2016\)3/REV1&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/IND/STP/ICCP/CP(2016)3/REV1&docLanguage=En).

⁵ See also International Telecommunications Union, *Measuring the Information Society Report 2015* (2015); Anthony Wilhelm, *Digital Nation: Toward an Inclusive Information Society* (MIT Press, 2004).

⁶ United Nations, *United Nations E-Government Survey 2016*, above n 2, 97. The UN survey (at 96) provides an excellent summary of three distinctive approaches to defining the ‘digital divide’ – the ‘access’ divide, the ‘multi-dimensional’ digital divide and the ‘multi-perspective’ digital divide, summarising each as follows: ‘The “access divide” focuses on the division between individuals and groups that do or do not have access to technologies, simplifying therefore the divide as a gap that exists solely as a technological problem...The “multi-dimensional” digital divide implies that the digital divide is not just about access, but more about other social, political, educational and economic issues. This definition ... sees the digital divide as a mirror of social inequality...The “multi-perspective digital divide” builds upon the “multi-dimensional digital divide” and focuses on the interrelationships of technology with race, gender and culture. According to this approach..., the intersection between an individual’s race, gender, and culture affects the use of digital technology. There are other factors as well, such as age’ (citing also Pippa Norris, *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide* (Cambridge University Press, 2001)).

⁷ Mike Nestor, Tom Beers and Carol Hatch, ‘Taxpayers’ Varying Abilities and Attitudes Toward IRS Taxpayer Service: The Effect of IRS Service Delivery Choices on Different Demographic Groups’ in National Taxpayer Advocate, *2016 Annual Report to Congress – Vol II, Taxpayer Advocate Service Research and Related Studies* (2016) 1.

⁸ Mike Nestor, Jeff Wilson and Carol Hatch, ‘A Further Exploration of Taxpayers’ Varying Abilities and Attitudes Toward IRS Options for Fulfilling Common Taxpayer Service Needs’ in National Taxpayer Advocate, *2017 Annual Report to Congress – Vol II* (2017) 62.

infrequency of internet access, the lower levels of digital literacy among those in these vulnerable groups insofar as internet research and use of basic online tools such as email are concerned, and their relative lack of confidence in the security of the internet for sharing of personal financial information. The overall conclusion was that ‘millions of taxpayers ... are still reliant on personal services to address their taxpayer service needs and would face challenges if only online services were available’.⁹

Findings of the United Nations Department of Economic and Social Affairs appear to generally affirm the NTA research findings that caution should be taken in shifting tax services to online platforms. According to the most recent UN e-Government survey, the number of countries providing income tax services online has increased from 73 countries in 2014 to 139 in 2018. However, the UN cautions that ‘digital progress can create new divides. In many ways, segments of the population that remain offline in leading e-government countries are at greater risk of being socially excluded if they cannot use “digital first” policy-enforced e-government services’.¹⁰

More generally, the OECD, while noting the potential benefits for tax administration in increasing digitisation of services and information, has also warned of the need to address equity of access, skills and confidence issues, noting that:¹¹

[f]ailure to address these issues adequately could lead to economic inefficiencies, a worsening of inequalities and an erosion of the social fabric, and could reduce the potential impacts of digitalisation of growth and productivity. A coherent and comprehensive policy approach is therefore necessary to harness the benefits of digitalisation for more – and more inclusive – growth.

In Australia, the Australian Taxation Office (ATO) has recently adopted a ‘digital by default’ strategy – ‘a proposal that will progressively make the method of interacting with the ATO, in a digital manner, with support for those unable to transition’.¹² There has been some public consultation on this initiative, which has acknowledged the need to ensure vulnerable taxpayers are considered in this transition.¹³ However, there has been no specific focus on understanding the potential implications of this increasing digitisation of service provision and information dissemination for particular demographic taxpayer groups.

The ‘digital by default’ initiative is consistent with Australia’s high ranking in the latest UN e-government survey, which ranks Australia second in the world in the adoption of

⁹ Ibid 64.

¹⁰ United Nations, *United Nations E-Government Survey 2018: Gearing E-Government to Support Transformation Towards Sustainable and Resilient Societies* (2018) 42, https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2018-Survey/E-Government%20Survey%202018_FINAL%20for%20web.pdf.

¹¹ OECD, ‘Seizing the Benefits of Digitalisation for Growth and Well-Being’, above n 4, 4.

¹² Australian Taxation Office (ATO), *Digital by Default Consultation Paper – November 2015* (2015) 3. This initiative was part of the ATO response to a federal government budgetary directive to develop ‘digital by default service for provision of information and making payments, improvements to data and analytics infrastructure and enhancing streamlined income tax returns through the myTax system for taxpayers with more complex tax affairs’: Australian Treasury, *Budget Measures 2015-16: Budget Paper No 2 2015-16* (2015) 176.

¹³ See Australian Taxation Office, *Digital by Default – Findings Report* (2016) 2. The findings in this report are discussed further in section 3 of this article.

e-government.¹⁴ Notwithstanding this world-beating high adoption rate of e-government, work by the Australian Human Rights Commission (AHRC) suggests that similar issues to those raised by the NTA research might be relevant in the Australian context. For example, the AHRC submission to the Australian Parliament Joint Select Committee Inquiry into Cybersafety for Senior Australians in 2012 noted that ‘due to the speed with which the information technology revolution has occurred, many older people in Australia had found themselves on the wrong side of the digital divide’.¹⁵

The AHRC has also posited that issues of access, confidence and security not only affect senior Australians. They also affect people with disabilities, those from culturally and linguistically diverse backgrounds, people living in remote communities where information and communications technology (ICT) infrastructure is most deficient, and people from lower socio-economic backgrounds who cannot always individually afford access to these technologies.¹⁶

Various recent surveys by the Australian Bureau of Statistics (ABS) into internet access and usage among the disabled, older Australians and low-income Australians support the AHRC assertions. The ABS data indicate potential material disadvantages for taxpayers in these vulnerable groups in accessing online assistance and information from the ATO when compared to other taxpayers. Broader recent Australian research by writers such as O’Sullivan and Walker into digitisation of social services and its effects on vulnerable citizens highlights the complex nature of the potential disadvantages – even where basic transactional interactions are concerned – and the relative lack of attention being paid to these potential disadvantages.¹⁷

All of this, coupled with recent high profile ATO system failures in 2016¹⁸ and 2017¹⁹ and the potential consequent erosion of taxpayer trust and confidence in tax administration, particularly among taxpayer groups more distrustful or less proficient in the use of technology, give good cause for closer examination of the NTA findings and

¹⁴ Australia is ranked second, behind only Denmark. The United States, by comparison, ranks outside the top 10 – at 11th on the list of 193 countries (although it has improved a place on its rating in the 2016 survey). See United Nations, *United Nations E-Government Survey 2018*, above n 10, 226.

¹⁵ Australian Human Rights Commission, *Submission to the Joint Select Committee on Cybersafety Inquiry into Cybersafety for Senior Australians* (January 2012) [6], <http://www.humanrights.gov.au/inquiry-cybersafety-senior-australians-2012>.

¹⁶ Australian Human Rights Commission, *Background Paper: Human Rights in Cyberspace* (September 2013) 30, <https://www.humanrights.gov.au/publications/background-paper-human-rights-cyberspace/8-right-access-internet>. Findings of the Australian Bureau of Statistics (ABS) also support the NTA findings that prime among the main reasons for not accessing the internet at home among vulnerable groups were lack of confidence or knowledge in the use of technology and cost of access. See Australian Bureau of Statistics, *Household Use of Information Technology, Australia, 2014-2015*, Cat 8146.0 (18 February 2016).

¹⁷ See Siobhan O’Sullivan and Christopher Walker, ‘From the Interpersonal to the Internet: Social Service Digitisation and the Implications for Vulnerable Individuals and Communities’ (2018) 53(4) *Australian Journal of Political Science* 490, 502: ‘While digitisation is noted as a major reform reshaping relationships between clients and the state, it appears limited attention has been paid to the transitional process that many vulnerable individuals must undergo as their mode of citizenship engagement is reshaped into the digital domain’.

¹⁸ The ATO statement on what happened is here: <https://www.ato.gov.au/About-ATO/Commitments-and-reporting/In-detail/ATO-systems-report/>.

¹⁹ For a good example of the media reports into the 2017 system failures, see Stephanie Borys, ‘ATO launches investigation into website failure, says “situation could have been worse”’, *ABC News online* (6 July 2017), <http://www.abc.net.au/news/2017-07-06/ato-launches-investigation-into-website-failure-during-tax-time/8682612> (accessed 24 December 2018).

the potential lessons for Australian tax administrators and policy-makers. This article provides this examination and confirms a number of parallels, particularly insofar as lack of confidence or skill in the use of technology and cost of internet access for vulnerable taxpayer groups is concerned.

The analysis extends further, suggesting expansion and refinement of the NTA research before any continued rollout of online tax service and information provision. The article also calls for express consideration of the potential impact of an unquestioning shift toward online provision of tax information and services on the climate of trust and confidence necessary for effective tax administration.

2. THE NTA RESEARCH

As part of its investigation into concerns that US Internal Revenue Service budget cuts could be having an adverse effect on taxpayer service standards, the National Taxpayer Advocate commissioned independent research in 2016. In particular, the NTA research centred on the potential impact of any IRS reduction in personal services provided by phone and in person in preference for increased reliance on web-based service provision. In its 2016 Annual Report, the NTA set out the interim findings²⁰ of this research. These findings serve as a useful primer for beginning ‘to explore the broader issue of how a transition to predominantly web-based services impacts the various demographic groups that comprise the taxpayer population’.²¹ These findings were affirmed in the NTA’s 2017 Annual Report which included the final findings of the research.²²

The research paid particular attention to the ramifications of any increased reliance on web-based service provision on ‘vulnerable’ taxpayer groups. The vulnerable groups surveyed were low income taxpayers (with income below 250 per cent of poverty level income²³), seniors aged 65 or over, those with long-term disabilities and taxpayers with limited English proficiency.²⁴

The findings of the NTA research can be clustered into three core issues of particular relevance to those in the vulnerable taxpayer groups: (1) issues concerning access to internet and technology; (2) proficiency in the use of technology to access services; and (3) concerns about internet security and privacy. It is useful to use these groupings to elaborate the NTA findings.

2.1 Access concerns

A key contributor to reliable web-based access to tax information is the availability of high speed internet. The NTA report noted that ‘[t]axpayers with internet service connections slower than broadband will likely experience delays when trying to access

²⁰ Nestor, Beers and Hatch, above n 7. It should be noted that the NTA research is still in progress with the preliminary findings being based on 1,910 survey responses of the total 4,000 survey responses commissioned as part of the research.

²¹ *Ibid* 3.

²² Nestor, Wilson and Hatch, above n 8.

²³ Based upon household size, income, and location. Nestor, Beers and Hatch, above n 7, 4.

²⁴ Whilst the NTA research refers to those with limited English proficiency as one of the vulnerable groups considered, the data presented does not refer specifically to any findings concerning this vulnerable group of taxpayers. The findings presented are limited to low income taxpayers, taxpayers with disabilities and older taxpayers.

large files or complex web pages'.²⁵ The overall findings estimated that approximately 10.4 per cent of US taxpayers do not have internet access at home. However, internet access at home is far less common among the vulnerable taxpayer groups – 35 per cent among the low income group, 41.7 per cent among seniors, and 31.2 per cent for disabled taxpayers.²⁶

The NTA findings also suggest that vulnerable taxpayers are more likely to use a device other than a computer to access the internet.²⁷ Whilst the NTA report does not extend to detailed extrapolations from these particular findings, there are potentially clear ramifications for policy-makers and tax authorities. The obvious conclusion is that a shift to online service provision with a corresponding reduction in traditional methods for accessing tax information and services will have a disproportionately larger impact on these vulnerable taxpayers than on others.

Further, though, these findings hint that mobile technology may be the more likely form of access to the internet among vulnerable group members. The implication is that any increased reliance on web-based support for vulnerable taxpayers should specifically prioritise optimising digitised tax resources for viewing and access on mobile devices.²⁸

The NTA findings also indicated that vulnerable taxpayers are far more likely to access the internet less than once per week (or not at all) than the overall taxpaying public. In the case of seniors, for example, almost 28.7 per cent reported never using the internet when compared to approximately 4.3 per cent among 'not low income' taxpayers.²⁹ This obviously has potential severe ramifications in the face of increasing reliance on electronic communications to advise taxpayers of their rights and obligations.

In summary, insofar as equity of access to the internet is concerned, all of the NTA research measures show that vulnerable taxpayers are much more likely to be disadvantaged by digitisation of tax services and information than other taxpayers – in fact, on almost every measure at least more than twice as likely.³⁰

²⁵ Nestor, Beers and Hatch, above n 7, 7.

²⁶ Nestor, Wilson and Hatch, above n 8, 72.

²⁷ Specifically, 21.9 per cent among low income groups, 13.5 per cent among seniors and 23.7 per cent among the disabled: Nestor, Beers and Hatch, above n 7, 9. This would be consistent with reported worldwide trends. Worldwide, smartphones and tablets have overtaken computers as the predominant means via which people access the internet. See StatCounter, 'Mobile and tablet internet usage exceeds desktop for first time worldwide', press release (1 November 2016), <http://gs.statcounter.com/press/mobile-and-tablet-internet-usage-exceeds-desktop-for-first-time-worldwide> (accessed 24 December 2018). Recently, the Android mobile operating system overtook Windows 'in terms of internet usage': see StatCounter, 'Android overtakes Windows for first time', press release (3 April 2017), <http://gs.statcounter.com/press/android-overtakes-windows-for-first-time> (accessed 24 December 2018). Following this global trend, recent Australian data also highlights that more Australians now own smartphones than laptops: see Sensis Pty Ltd, *Sensis Social Media Report 2016: How Australian People and Businesses Are Using Social Media* (1 June 2016), https://www.sensis.com.au/asset/PDFdirectory/Sensis_Social_Media_Report_2016.PDF.

²⁸ The article returns to this implication in section 4.

²⁹ Nestor, Wilson and Hatch, above n 8, 73. Among low income taxpayers, 11.8 per cent reported never using the internet, and 16.1 per cent of taxpayers with disabilities reported never using the internet.

³⁰ The only exception being internet access by a device other than a computer – with 13.5 per cent of seniors falling into this category when compared to 9.2 per cent among the 'not low income' taxpayer community.

2.2 Proficiency concerns

Consistent with contemporary definitions and nuances of the digital divide (as outlined in the introduction of this article) the NTA research extended beyond physical access measures of potential disadvantage among the vulnerable taxpayer groups. Specifically, the research examined taxpayer skill and comfort levels in doing internet research and sending emails.

In terms of internet research skills, respondents were asked to assess whether they felt skilled in doing internet research. Whilst approximately 93 per cent of respondents who were not in the vulnerable groups self-identified as being skilled, only 86 per cent of low income respondents identified in this way, 72 per cent of disabled respondents and only 77 per cent of seniors felt comfortable in carrying out internet research.³¹

There were similar findings insofar as use of email was concerned. Whilst comfort levels with email outside the vulnerable groups were in the range of 87 per cent, only 73 per cent of low income taxpayers identified as comfortable sending emails, and only approximately 68 per cent of both seniors and disabled taxpayers.³²

Whilst the NTA study did not extend to other technological communication skills such as social media usage and telephone texting, the findings are troubling. It is difficult to conceive of how a taxpayer who is not comfortable and proficient in searching and obtaining information via the internet and who, equally, is not proficient in the use of email to communicate could make use of even the most basic of tax information or assistance provided via these avenues. In a system exclusively reliant on provision of support and information via these channels, such a taxpayer would effectively be denied knowledge of and access to information about their taxpayer rights and obligations.

2.3 Security and privacy

The NTA research also explored the influence on vulnerable taxpayers of concerns about internet privacy and security in sharing financial information over the internet. Specifically taxpayers were asked to comment on their sense of security in sharing personal financial information with a government agency over the internet. While taxpayers generally shared high levels of concern, again, all of the vulnerable groups exhibited statistically significant greater levels of distrust than other taxpayers. In particular, almost two-thirds (68.2 per cent) of seniors and 61.9 per cent of disabled taxpayers felt uncomfortable sharing personal financial information over the internet.³³ These levels are significantly higher than the estimated 45.4 per cent of taxpayers overall who had similar concerns.

2.4 Other findings

The results of the NTA research released to date do not extend significantly beyond exploring the three dimensions outlined above. However, arguably the most interesting findings are the glimpses the NTA research provides into future willingness of vulnerable taxpayers to utilise web-based tax support and information services and a

³¹ Nestor, Wilson and Hatch, above n 8, 74.

³² Nestor, Beers and Hatch, above n 7, 11.

³³ Nestor, Wilson and Hatch, above n 8, 81.

sense of the relative significance of each of the reasons for current unwillingness or inability to use those services.

Insofar as the former is concerned, seniors and the disabled were identified as less willing to use the web for tax services in the future when compared to low income taxpayers. Low income taxpayers rated their willingness to utilise these services in future as similar to taxpayers who were not in the vulnerable groups.³⁴ Consistent with these findings, low income taxpayers expressed greater concern at the prospect of losing web-based services than disabled or senior taxpayers.³⁵ This suggests that addressing access issues may be a more effective strategy for engaging low income taxpayers than for engaging the disabled or the elderly.

Particularly interesting are findings that those who are infrequent users of the internet do not use the internet more often because of lack of convenient access and concerns about security. By comparison, internet costs were less often raised as the reason of the infrequency of access.³⁶ This stands in contrast to available Australian data, which frequently cites the cost of high quality internet access as a primary cause for limited access.

3. THE AUSTRALIAN CONTEXT

As noted in the introduction to this article, the Australian Taxation Office has recently adopted a ‘digital by default strategy’ – ie, ‘a proposal that will progressively make the method of interacting with the ATO, in a digital manner, with support for those unable to transition’.³⁷ As part of this initiative, the ATO conducted community consultation, which found that 51.5 per cent of respondents thought a greater use of digital services would benefit all those dealing with the ATO.³⁸ The same consultation process also produced an acknowledgement of the community expectation: ‘that some users will never go digital’ and a recognition of the need to provide those taxpayers with other options and exemptions. These exemptions should ‘ensure that vulnerable users are not disadvantaged or excluded from the system’.³⁹ Seniors, the disabled and low income earners were specifically singled out as those potentially entitled to exemptions.

Despite this acknowledgement, in Australia there has been no tax-specific research equivalent to the National Taxpayer Advocate research in the US into vulnerable taxpayer access to the internet, comfort and skill in using the internet and preferences of various vulnerable taxpayer groups to accessing online tax information and services. Given the ‘digital by default’ direction of the ATO, the need for such research is clearly warranted and relatively urgent.

³⁴ Nestor, Beers and Hatch, above n 7, 16.

³⁵ *Ibid.* It should be noted, however, that as the authors of the NTA report note, these differences were not statistically significant due to the relatively low sample size involved.

³⁶ *Ibid.* 14.

³⁷ ATO, *Digital by Default Consultation Paper – November 2015*, above n 12, 3. As noted at n 12 and accompanying text, above, this initiative was part of the ATO response to a federal government budgetary directive to develop ‘digital by default service for provision of information and making payments, improvements to data and analytics infrastructure and enhancing streamlined income tax returns through the myTax system for taxpayers with more complex tax affairs’: Australian Treasury, *Budget Measures 2015-16: Budget Paper No 2 2015-16* (2015) 176.

³⁸ ATO, *Digital by Default – Findings Report*, above n 13, 2.

³⁹ *Ibid.* 5.

As a starting point, there have been general investigations into questions concerning the digital divide and vulnerable groups of Australian citizens – pertinently including low income, senior and disabled citizens. This work suggests that the many of the NTA findings are likely to resonate among vulnerable Australian taxpayer groups. Like the NTA research, these findings also raise specific issues concerning access, digital literacy and security and confidence in sharing private information over the internet.

3.1 Access

The Australian Bureau of Statistics carries out regular research into household use of information technology. Recent results were published in 2016 and relate to surveys undertaken in 2014-2015. The results showed that at that time 86 per cent of Australian households had internet access at home. The number of Australian households without internet access was 1.3 million.⁴⁰

Compared to the NTA research, the ABS data provide little insight into the access available to vulnerable groups when compared to others. There are however some useful observations which indicate trends comparable to those found by the NTA insofar as internet access of older people and low income earners is concerned. For example, the ABS data indicated that Australians aged 65 or over are the least likely age group to access the internet – with only 51 per cent of this age group identifying as internet users accessing the internet for personal use in a typical week.⁴¹ For those seniors who identified as regular internet users, the weekly hours spent online were lower than for other age groups.⁴² This data supports a general conclusion that increasing reliance on digital delivery of tax information and services may particularly disadvantage senior Australian taxpayers.

The Australian ABS data also indicate that low income earners are significantly less likely to be internet users, with the ABS concluding: ‘For those in the highest equivalised household income quintile 97% were internet users compared with 67% of those in the lowest income quintile’.⁴³ This is consistent with the further finding that one of the main reasons cited for limited access to the internet by the respondents to the ABS survey was cost.

Setting aside the correlation between low income and disability, insofar as disabled taxpayers are concerned, it should be acknowledged that the ATO has invested significantly in ensuring its online services meet the accessibility requirements for taxpayers with disabilities.⁴⁴ However, most of these efforts are only useful for those with disabilities who are digitally literate and willing and able to access the online services provided. Unfortunately, ABS survey data specifically examining disability

⁴⁰ ABS, *Household Use of Information Technology, Australia, 2014-2015*, above n 16.

⁴¹ *Ibid.*

⁴² According to the ABS findings, for all internet users, the mean number of hours per week spent on the internet for personal use was 10. Those aged 15–17 years spent the highest mean number of hours per week on the internet (18 hours per week) and those in the 45–54 years, 55–64 years and 65 years or over age groups spent the lowest mean number of hours (7 hours per week). *Ibid.*

⁴³ *Ibid.*

⁴⁴ For a sense of these efforts, see ATO, ‘Our services for people with disability’, <https://www.ato.gov.au/Individuals/People-with-disability/Our-services-for-people-with-disability/> (accessed 24 December 2018).

and access to the internet in 2009 found similar themes to those flagged in the NTA research:

70% of Australians with a disability had access to a computer at home; this was lower than the 78% recorded for the Australian population in 2008-09. Access to the internet was also lower for people with a disability (61%) than for the Australian population (72%).⁴⁵

The ABS data went further, showing that computer usage by people with a disability is markedly lower than other social groups, notwithstanding relatively high levels of computer and internet access:

Access to computer technology however, does not necessarily equate to actual use. In 2009, only 57% of people with a disability aged 15 years and over reported having actually used a computer in the 12 months prior to interview and 53% had used the internet in the same time frame.⁴⁶

Accordingly, the commendable ATO efforts to ensure the accessibility of online information for the disabled will fail to reach a significant number of disabled taxpayers.

While the ABS data fall far short of the tax-specific insights provided by the NTA research, the general demographic trends insofar as internet and computer usage and access are concerned are broadly consistent with the NTA findings. In short, the poor, the elderly and the disabled in Australia have statistically lower internet access and usage rates. Prima facie, this places these vulnerable groups at particular disadvantage relative to other taxpayers in accessing tax information and assistance only readily available online.

3.2 Digital literacy

There is relatively little available Australian data specifically examining the digital literacy of the elderly, disabled and low income groups. However, a good starting point for examining the digital literacy of Australian vulnerable taxpayer groups is a 2009 study by the Australian Communications and Media Authority into internet trust and confidence. The Australian Communications and Media Authority work found a high negative correlation between age and digital literacy levels.

The study found that self-assessed skill levels for those 75 and over were the lowest among age-delineated demographic groups.⁴⁷

The Australian Communications and Media Authority report did not specifically examine any correlation between digital literacy levels and disability or income level. However, the report found a high correlation between skill level and frequency of use. Those who go on the internet more frequently were also more security-aware (although

⁴⁵ ABS, *Profiles of Disability, Australia, 2009*, Cat 4429.0 (27 August 2012), <http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4429.0Main+Features100142009>. Curiously, there does not appear to have been any more recent research carried out by the ABS to update this work.

⁴⁶ *Ibid.*

⁴⁷ Australian Communications and Media Authority, *Australia in the Digital Economy, Report 1: Trust and Confidence* (March 2009) 31,

<https://www.acma.gov.au/-/media/Research-and-Analysis/Report/pdf/ACMA-20092010-Communications-Report-Series-Australia-in-the-Digital-Economy-Report-1-Trust-and-Confidence.PDF>.

not necessarily the most security-conscious). Therefore, to the extent that there is ABS data (discussed in section 3.1 above) indicating that disabled and low income individuals have lower computer and internet usage than other social groups, it follows from the Authority's findings that these individuals are also more likely to have lower digital literacy levels.

3.3 Security and confidence

The NTA research indicates that older taxpayers are particularly nervous about using the internet to transmit personal financial information. General data indicates the likelihood of a similar phenomenon in Australia. In a 2012 address, the Australian Age Discrimination Commissioner, Susan Ryan, provided insights into why this might be the case:⁴⁸

Older Australians are nervous Internet users for good reason. Older Australians are vulnerable to online scamming and nervous about being scammed. Almost 64 per cent of respondents to a 2011 National Seniors Australia survey reported that security was an issue 'preventing' them from using the Internet or 'improving' their computer skills.

These findings are consistent with the more general findings in the 2009 report by the Australian Communications and Media Authority into internet trust and confidence discussed above.⁴⁹ This report found that self-reported confidence levels in internet usage and trust fell with age.

Perhaps the most interesting and current insights available are from a 2017 survey conducted by National Seniors Australia.⁵⁰ The survey investigated access by seniors to 'intermediaries' for financial information or assistance, and reported trends based on the value of the individual's savings and investments. The results show that access to physical government offices was 36.8 per cent overall, with access to government websites trailing at 30.2 per cent. However, when the value of individual savings and investments is taken into account, the findings are much more revealing.

Generally, the lower the value of investments the more likely the individual was to utilise physical government offices, and the less likely they were to utilise government websites. Those with savings less than AUD 50,000 were almost twice as likely to use physical government offices rather than government websites.⁵¹ Hence, the findings could suggest that low income earners are likely to harbour a comparatively greater

⁴⁸ Hon Susan Ryan (Age Discrimination Commissioner), 'Age Discrimination and the Internet - Older People in the 21st Century' (Ruby Hutchison Memorial Lecture, Melbourne, 14 March 2012), <http://www.humanrights.gov.au/news/speeches/ruby-hutchison-memorial-lecture-2012>.

⁴⁹ Australian Communications and Media Authority, above n 47, 31.

⁵⁰ National Seniors Australia is the primary Australian consumer lobby group for older Australians and claims to be the 4th largest organisation of its type in the world. They gather data about service access and general wellbeing of older Australians through an annual survey of their 200,000 members, recorded policy forums, and qualitative interviews. In a pertinent observation in the introduction to the 2017 survey, National Seniors Australia noted: 'It has become apparent that digital access and literacy are pressing concerns for older Australians. In public policy forums in 2017, we have had trouble in getting debates to move beyond digital literacy and issues with new technologies, to discuss other policy issues': J McCallum, K Rees and J Maccora, *Bridging the Senior Digital Divide* (National Seniors Australia, 1 December 2017) 6.

⁵¹ *Ibid* 32.

distrust of online financial service and information delivery when compared to higher income earners – a finding broadly consistent with the NTA research.

4. NEXT STEPS FOR AUSTRALIA AND THE UNITED STATES

Whilst the available Australian data falls far short of confirming the trends identified in the NTA data, it certainly provides a sufficient basis for exploring the possible existence of similar equity concerns for vulnerable older, disabled and low-income taxpayers in any further transition of tax authority information and support online.⁵² By comparison, the NTA research findings provide deeper and more significant insights into the potential adverse effects of the shift of tax information and support online on vulnerable taxpayers. At a minimum, therefore, Australian regulators would be well-advised to follow suit and commission similar research in Australia. This is particularly true if the acknowledged concern to ensure protections for vulnerable taxpayers in the ATO ‘digital by default’ transition is to be taken seriously and translated into practice.

However, there are a number of nuances and insights lacking in the NTA research which it will be necessary to address in order to provide meaningful guidance to policy-makers in both Australia and the United States. These nuances and insights will be important, irrespective of the extent of any corresponding decline in traditional forms of supply of tax information and support which might accompany the transition to online provision of this support and information.

These include: (1) the need for insights into how to design online information and support to best cater for the needs and preferences of members of the vulnerable taxpayer groups; (2) the need for more nuanced categorisation of members of the vulnerable taxpayer groups, and (3) the potential impact of a shift to online provision of tax services and information on trust and confidence of vulnerable taxpayers in the tax administration system.

4.1 Designing online tax information and services for vulnerable taxpayers

Irrespective of whether there is a reduction in traditional methods of support and information for taxpayers accompanying any shift to online service provision, research such as that by the NTA should extend to providing insights into ensuring any online services are designed with the needs and preferences of vulnerable taxpayers in mind. There are a number of insights which need further exploration to ensure this occurs.

One such need is greater clarity on whether and to what extent mobile phones and tablet devices are most likely to be utilised by these taxpayer groups to access tax information and support. If heavy mobile device reliance is found to exist among vulnerable taxpayers, then ensuring equity of access will depend on ensuring affordable and reliable access to mobile technologies. Equally, it is important to employ approaches to online service provision and information design which are optimised for mobile use.

The issue is live as there is solid data to suggest mobile technology in general is increasingly being used to access online government information and assistance. In the

⁵² No doubt, when the research is complete, there will also be insights into the equity issues facing non-English speaking taxpayers. As already noted, whilst the National Taxpayer Advocate report refers to this group as one of the vulnerable groups surveyed, the report does not presently contain any data or findings specifically relating to this group.

Australian context, 2017 ABS data shows that the volume of internet data downloaded via mobile phone handsets for the three months ended 30 June 2017 was 175,076 terabytes – representing a 19.9 per cent increase in data downloads via mobile handsets for the three months ended 30 June 2017 and a 44.5% per cent increase in downloads in the year ended 30 June 2017.⁵³

The OECD has noted similar increasing reliance on mobile broadband access via smartphones across the OECD member countries:⁵⁴

80% of OECD citizens have broadband subscriptions with the majority accessing the Internet via a smartphone, ushering in an era of ubiquitous computing ... The smartphone is both a platform and the leading example of a linked device, and the harbinger of the Internet of Things, with between 20 and 50 billion devices expected to be connected to the Internet globally by 2020.

Similarly, the UN in its 2016 e-government survey noted that:⁵⁵

Mobile broadband is the most dynamic market segment; globally, mobile broadband penetration reached 47% in 2015... there are substantive shifts both from fixed into mobile broadband as well as from fixed to mobile cellular telephones per 100 inhabitants.

More specifically, beyond these general trends, there is data available which indicates growing preferences among vulnerable taxpayer groups to accessing the internet via mobile devices. For example, recent research by the Australian Communications and Media Authority found that the use of tablet devices is higher among older internet users (18 per cent) compared to the adult population (16 per cent).⁵⁶ In addition:⁵⁷

...while desktop and laptop computers are still the most often used Internet access devices for older Australians, there was a decline in the use of these devices and an increase in the use of tablets and mobile phones between May 2014 and May 2015). In the six months to May 2014, tablets were the most often used Internet access device for 10 per cent of older Internet users. A year later, this number had increased to 18 per cent. Similarly, the mobile phone is the most often used device to go online for 12 per cent of older users—up eight percentage points from 2014.

The Authority cites evidence of a similar trend in the United Kingdom although the trend is not as evident in the United States.⁵⁸

⁵³ Australian Bureau of Statistics, *Internet Activity Australia – June 2017*, Cat 8153.0 (29 September 2017).

⁵⁴ OECD, 'Seizing the Benefits of Digitalisation for Growth and Well-Being', above n 4, 1.

⁵⁵ United Nations, *United Nations E-Government Survey 2016*, above n 2, 90.

⁵⁶ Australian Communications and Media Authority, 'Digital lives of older Australians', research snapshot (4 August 2016), <https://www.acma.gov.au/theACMA/engage-blogs/engage-blogs/Research-snapshots/Digital-lives-of-older-Australians> (accessed 24 December 2018).

⁵⁷ *Ibid.*

⁵⁸ According to the Australian Communications and Media Authority: 'A similar situation was also observed in the UK, where the number of people aged 65 and over accessing the internet rose by more than a quarter in 2013, driven by a three-fold increase in the use of tablet computers to go online. In the US, tablet ownership has risen tenfold since 2010. In 2015, 32 per cent of Americans aged 65 and over owned a tablet, compared to 45 per cent of all US adults': *ibid.*

Commentators have also observed an apparent trend in Australia toward the emergence of mobile-only access to the internet among low income families.⁵⁹ And, insofar as disabled citizens are concerned, there are also signs also that mobile internet access may be growing although, as Goggin observes: ‘[a]s yet there is little research that provides a good picture of disability and mobile Internet’.⁶⁰ However, as also noted by Goggin, comments of the Pew Research Center made in the context of findings, that disabled Americans have continuing significantly lower internet access rates than the general public, suggest that mobile technology may assist in addressing the relatively low internet participation rates of the disabled (and other vulnerable groups including those with low incomes):

The rise of mobile is changing the story. Groups that have traditionally been on the other side of the digital divide in basic Internet access are using wireless connections to go online. Among smartphone owners, young adults, minorities, those with no college experience, and those with lower household income levels are more likely than other groups to say that their phone is their main source of Internet access.⁶¹

All of this strongly suggests that there are sound reasons to ensure that any shift toward provision of tax information and support online should be optimised for mobile access. Doing otherwise threatens to particularly disadvantage vulnerable taxpayer groups. At a minimum there is a strong case for more tax-specific research to test this proposition in the tax context. To illustrate the point by way of a simple example: although many vulnerable taxpayers may generally access the internet using a mobile device, are they just as likely to be willing and able to carry out relatively complex online tasks such as completing their tax return using a mobile device? If the answer is no, and this is the only internet access option for those vulnerable taxpayers, is there some way such tasks can be made more ‘mobile-friendly’ so that such vulnerable taxpayers are not effectively excluded from being able to utilise such online tax services?

Ensuring the best prospect of reaching vulnerable taxpayers also requires having the best possible insight into the preferred online activities of those taxpayers. For example, National Seniors Australia research reveals interesting trends on the use of the internet by seniors for social contact such as through the use of social media. The suggestion is that seniors are more likely to use social media than other forms of internet. These findings appear to be supported by 2014-15 ABS data which reveal that social media usage rates equally highly as a main reason for accessing the internet irrespective of the age group.⁶²

⁵⁹ See, for example, Crystle Martin, ‘Many Low-Income Students Use Only Their Phone To Get Online. What Are They Missing?’, *Huffpost* (11 February 2016), http://www.huffingtonpost.com/the-conversation-us/many-low-income-students_b_9212926.html (accessed 24 December 2018).

⁶⁰ Gerard Goggin, ‘Disability and Mobile Internet’ (2015) 20(9) *First Monday: Peer Reviewed Journal on the Internet*, <http://firstmonday.org/ojs/index.php/fm/article/view/6171/4906>.

⁶¹ Kathryn Zickuhr and Aaron Smith, *Digital Differences*, Pew Internet Project report (13 April 2012) 2, <http://www.pewinternet.org/2012/04/13/digital-differences/>. The Pew survey found that US adults living with a disability were significantly less likely than other adults to go online (54 per cent vs 81 per cent).

⁶² Australian Bureau of Statistics, *Household Use of Internet Technology Australia – 2014-2015*, above n 16. The OECD has already examined the potential use of social media by governments, although this work does not extend specifically to the potential use of social media to reach vulnerable groups – see Arthur Mickoleit, *Social Media Use by Governments: A Policy Primer to Discuss Trends, Identify Policy Opportunities and Guide Decision Makers*, *OECD Working Papers on Public Governance* No 26 (2014).

Of course, without specific research into the issue, solid conclusions are difficult to draw. As the OECD has pointed out:⁶³

Social media can help address some of those ‘traditional’ access and use divides for digital government.... The potential for governments to use social media to reach vulnerable groups is certainly there, but it is heavily dependent on local context. Governments need to avoid falling for preconceived notions that suggest social media are per se a tool to empower vulnerable groups of society.

The implications are interesting in a number of respects. For example, whilst the NTA research examines internet and email usage and proficiency, there may be merit in examining whether the best vehicle for more fully assessing digital literacy and for conveying information to members of vulnerable groups is to include social media in the mix. Insofar as digital literacy and confidence is concerned, it may also be that the best way to build confidence and literacy is for revenue authorities to reach out to vulnerable taxpayers via social media. A good start might be to use social media to provide vulnerable taxpayers with options to support them in building their skills and confidence in interacting with and accessing online tax information and services.⁶⁴ The Australian Inspector-General of Taxation (IGT) has acknowledged the potential of social media ‘to better understand the needs and behaviours of individuals and small businesses’.⁶⁵ Again, this is a matter which warrants specific investigation.

This is just one of the many more detailed insights into technology usage and preferences of vulnerable taxpayers which the NTA research could be refined and expanded to glean. The next stage of research of this kind should involve designing and applying a detailed internet attitude scale instrument to add nuance to the NTA identified perceptions and comfort levels among the vulnerable groups toward accessing web-based tax information services. There is a significant body of literature built up around adding this type of nuance and accuracy to our understanding of levels of comfort and general attitudes toward internet usage in the scholarly computer science literature.⁶⁶ It is trite but true that ‘[b]y understanding the technology access and

⁶³ Ibid 32-33.

⁶⁴ This approach is suggested in the National Seniors Australia report which describes trends such as the use of online for social contact by seniors as ‘potential touch points of interest for older people where digital literacy education and training could be focused.’ McCallum, Rees, and Maccora, above n 50, 9.

⁶⁵ Inspector-General of Taxation, *A Submission to the House of Representatives Standing Committee on Tax and Revenue Inquiry into Taxpayer Engagement with the Tax System* (February 2017) [4.43], citing Mickoleit, above n 62,

https://cdn.tspace.gov.au/uploads/sites/64/2016/04/IGT_Submission_to_Taxpayer_Engagement_Inquiry-1.pdf. However, the IGT has also warned about the public perception that governments are using social media in an intrusive way, leading to concerns regarding privacy breaches and perceived surveillance. The IGT cites as an example, the November 2016 media reports that the Australian Taxation Office was using Facebook, Instagram and other social media to confirm the accuracy of information that is reported to it. See, for example, Brett Williamson, ‘Tax Office trawls Facebook Instagram and other social media to catch out dodgers, cheats’, *ABC News* online (17 November 2016), <http://www.abc.net.au/news/2016-11-17/australian-taxation-office-trawls-facebook-for-tax-cheats/8032974> (accessed 24 December 2018).

⁶⁶ For a good example see Brendan Morse et al, ‘The Development of a General Internet Attitudes Scale’ (2011) 27(1) *Computers in Human Behavior* 480. The survey instrument proposed by the authors in this work is typical of the detailed insights such surveys seek to glean. The items included the following (assessed on a 7 point Likert scale): 1. ‘I enjoy shopping online’; 2. ‘I enjoy browsing (surfing) websites without any specific purpose’; 3. ‘I feel anxious that online communications can potentially be seen, heard, or otherwise accessed by other people’; 4. ‘I feel that the Internet limits my productivity’; 5. ‘I feel that the

capabilities of the various segments of users, governments can develop systems that better meet the needs of users, but also understand the types of training and support users may need for successful engagement of E-Government'.⁶⁷

These insights are not simply important in designing online services and information that are most palatable and accessible for vulnerable taxpayers. They also add nuance to our understanding of the extent to which, for example, the lack of digital literacy and confidence in internet security among particular vulnerable taxpayer sub-groups is due to lack of access and experience and/or due to fundamental ideological preferences for more traditional forms of communication.⁶⁸ These types of insight can assist in directing scarce resources to those who are likely to respond most positively and benefit most from the provision of enhanced access and online support. Ultimately, they can also provide a justification to retain a baseline level of traditional forms of support targeted for those who simply cannot be expected ever to fully embrace online information and service provision.

4.2 Refining the vulnerable taxpayer group classifications

In any expansion or refinement of the NTA research, more refined classifications of the members of the vulnerable taxpayer groups should also be considered - particularly classifications of older taxpayers. Specifically there is an increasing recognition of the need to distinguish between 'young olds', who are more likely to be digitally literate and comfortable in using internet-based services, and those of older generations – for example, those over 80. The latter are far more likely than 'young olds' to be completely excluded insofar as accessing information and services is concerned.⁶⁹ Work by Bergström suggests that two-thirds of those in the 80-85 age group are not taking part

Internet has allowed me to keep in touch with many people'; 6. 'I feel anxious that my personal information may be available over the Internet'; 7. 'I like to look up information about businesses, services, and/or products on the Internet'; 8. 'I have had more good experiences than bad experiences using the Internet'; 9. 'I would prefer to communicate through writing a letter or a memo rather than an email'; 10. 'I feel uncomfortable using my credit card online'; 11. 'I enjoy using the Internet to pass time and/or to have fun'; 12. 'I would prefer to go online to conduct most of my banking'; 13. 'When searching for information, I would rather read books, magazines, and newspapers than browse the Internet'; 14. 'I only feel comfortable using online stores to browse or compare prices'; 15. 'I avoid using the Internet whenever possible'; 16. 'I enjoy using the Internet for instant messaging or other types of real-time communication'; 17. 'Overall, I enjoy using the Internet'.

⁶⁷ John Carlo Bertot, Paul T Jaeger and Charles R McClure, 'Citizen-centered E-Government Services: Benefits, Costs, and Research Needs' (2008) (*Proceedings of the 9th Annual International Digital Government Research Conference* 137, 139,

<http://www.ala.org/advocacy/sites/ala.org/advocacy/files/content/advleg/federallegislation/govinfo/egovernment/citizencenteredegov.pdf>.

⁶⁸ These insights can reveal vulnerable taxpayer 'digital accents' – a more subtle appreciation of the characteristics of those with limited exposure and experience with technology who were previously simply described as 'digital immigrants'. Prensky gives a sense of the meaning of 'digital accent': 'Digital Immigrants learn – like all immigrants, some better than others – to adapt to their environment, they always retain, to some degree, their "accent", that is their foot in the past. The "digital immigrant accent" can be seen in such things as turning to the Internet for information second rather than first... There are hundreds of examples of the digital immigrant accent. They include printing out your e-mail (or having your secretary print it out for you – an even "thicker" accent); needing to print out a document written on the computer in order to edit it (rather than just editing on the screen); and bringing people physically into your office to see an interesting Web site (rather than just sending them the URL)... My own favorite example is the "Did you get my e-mail?" phone call': Marc Prensky, 'Digital Natives, Digital Immigrants Part 1' (2001) 9(5) *On the Horizon* 1, 2.

⁶⁹ McCallum, Rees and Maccora discuss this issue in the 2017 National Seniors Australia survey report, above n 50.

in digital applications at all.⁷⁰ If policy-makers and tax authorities are to completely appreciate the impact on older taxpayers of shifting services and information online, they must be armed with information to understand that there will likely be a different impact on taxpayers who are in their 60s when compared to those in their late 70s or 80s and beyond.

Similar more detailed delineations insofar as disabled taxpayers are concerned might also be helpful in any proposal to shift further tax services and information online. For example, the nature of an individual's disability may provide the best insights into that individual's ability and predisposition to use online information and support. Useful categorisations might cover long-lasting severe vision, hearing, mobility, and manual dexterity problems, as well as physical or mental conditions that make it difficult to leave the house. There is a strong probability that attitudes toward internet access of tax information will vary depending on the nature of the disability (all other things being equal). For example, intuitively a person with a physical or mental condition making it difficult to leave the house could be expected to be positively disposed toward accessing information online or by telephone. Such intuitively logical propositions warrant testing and quantification if possible.

The possible existence of significant numbers of taxpayers who fall within more than one vulnerable group also warrants closer investigation. The NTA report only passingly touched upon this issue, by drawing a distinction between frequency of internet use by lower income seniors and higher income seniors, and seniors with and without a disability respectively.⁷¹ Australian data shows strong correlations between older Australians and the prevalence of disability and low income. In 2015, the ABS found that 50.7 per cent of older people (aged 65 or older) were living with disability. There have been strikingly similar findings in the United Kingdom. Research by Pilling, Barrett and Floyd found that over half of the UK disabled population were over 65 (according to data from the late 1990s).⁷²

Returning to the Australian data, the ABS has also found a significant correlation between age and low-income status, finding that 67.3 per cent of older Australians reported their household income as in the lowest two quintiles.⁷³ Similarly, the ABS found that the median income for those with a disability was approximately half of those without a disability indicating that the link between low-income status and disability is also strong.

If the intention is to fully appreciate and remedy any disadvantages vulnerable taxpayers may face, recognising that a large number of these taxpayers are likely to be exposed to a number of vulnerabilities affecting their use of and attitudes toward the provision of online services and information is vital. For example, what is the dominant reason for a low-income earning, older taxpayer who has an age-related disability being unable or unwilling to access online tax services or information? Is it their age, their disability or their low-income status? Understanding the answer to this question can be an important

⁷⁰ Annika Bergström, 'Digital Equality and the Uptake of Digital Applications among Seniors of Different Age' (2017) 38(S1) *Nordicom Review* 79.

⁷¹ Nestor, Wilson and Hatch, above n 8, 74.

⁷² Doria Pilling, Paul Barrett and Mike Floyd, *Disabled People and the Internet: Experiences, Barriers and Opportunities* (City University, 2004) 5.

⁷³ ABS, *Disability, Ageing and Carers, Australia: Summary of Findings, 2015*, Cat 4430 (18 October 2016), <http://www.abs.gov.au/ausstats/abs@.nsf/PrimaryMainFeatures/4430.0?OpenDocument>.

aid to policy-makers in prioritising how to addressing the challenges faced by vulnerable taxpayers.

Work by the US Department of Commerce in 2002 examining the use of computers and the internet by those with disabilities highlighted the complexity.⁷⁴

The charts and tables above are suggestive that people with disabilities tend to use computers and the Internet at rates below the average for the population. From these tables, however, it is not possible to discern whether other factors, such as education or income, are actually the variables driving the disparity, rather than the fact of the disability.

More recent findings from the United States Pew Research Center identified the same challenges:⁷⁵

There are many factors associated with disability that are generally associated with lower Internet use—such as being older, being less educated, and living in a lower-income household.

4.3 Trust and confidence and online tax services and information

Dissertations have been written on the concept of trust and the complexities of how trust can be established between users in digital environments who are strangers. Even beginning to explore all of these complexities is beyond the proper scope of this article.⁷⁶ However, the question of trust has particular resonance in a tax administration context and warrants specific attention.

Tax authorities are quick to acknowledge the desirability of fostering a relationship of trust and confidence with the taxpaying public. For example, the ATO has described its vision as follows: ‘...our vision is that we are a trusted and respected administrator both here and internationally’.⁷⁷ In the US, the Taxpayer Advocate, Nina Olson, has urged an IRS shift to emphasise trust and confidence, pointing out that ‘[t]o create an environment that encourages taxpayer trust and confidence, the IRS must change its culture from one that is enforcement-oriented to one that is service-oriented’.⁷⁸

There are good reasons to focus tax administration efforts on building taxpayer trust and confidence. Apart from arguably being an absolute good, there is a significant body of research confirming the positive taxpayer compliance effects of fostering a relationship

⁷⁴ US Department of Commerce, *A Nation Online: How Americans Are Expanding Their Use of the Internet* (February 2002) 71, <https://www.ntia.doc.gov/files/ntia/publications/anationonline2.pdf>.

⁷⁵ Zickuhr and Smith, above n 61, 11. The authors of the Pew Research Center survey go on to point out that: ‘When we control for all of these demographic factors, however, we still find that living with a disability in and of itself is negatively correlated with the likelihood that someone has internet access’.

⁷⁶ For a prime example, and excellent analysis of the literature surrounding these complexities, see Natasha Dwyer, *Traces of Digital Trust: An Interactive Design Perspective* (PhD thesis, Victoria University, 2001).

⁷⁷ James Beeston (Assistant Commissioner), ‘The ATO’s evolving approach to client and industry engagement’ (speech delivered to the Tax Institute of Victoria Fourth Annual Forum, Melbourne, 5 October 2016), <https://www.ato.gov.au/Media-centre/Speeches/Other/Our-evolving-approach-to-client-and-industry-engagement/>. See also Jo’Anne Langham and Neil Paulsen, ‘Effective Engagement: Building a Relationship of Cooperation and Trust with the Community’ (2015) 13(1) *eJournal of Tax Research* 378.

⁷⁸ National Taxpayer Advocate, *2016 Annual Report to Congress, Executive Summary: Preface, Special Focus, and Highlights* (2016) 4, https://taxpayeradvocate.irs.gov/Media/Default/Documents/2016-ARC/ARC16_ExecSummary.pdf.

of trust and confidence between taxpayer and tax authority.⁷⁹ The work of Kirchler, Hoelzl and Wahl is especially noteworthy. Kirchler, Hoelzl and Wahl have modelled and validated the positive correlation between trust and voluntary tax compliance in developing the ‘slippery slope’ tax compliance model which maps both the power of tax authorities and trust in the tax authorities as critical for understanding enforced and voluntary compliance behaviour.⁸⁰ Equally, therefore, there is good reason to ensure that any shift toward provision of taxpayer support and information online does not unwittingly erode taxpayer trust and confidence among vulnerable taxpayer groups.

This is especially true if the motivator for any such shift is cost-saving and efficiency. The NTA report certainly characterised the IRS shift in these terms:

The IRS is concerned with conserving scarce resources, especially in a tight budget environment. Taxpayers need services that will enable them to understand their tax obligations and resolve tax issues without imposing undue burden. Frequently, these needs are best met by personal services that are more costly to the IRS than automated services, such as Internet based services.⁸¹

If this is correct, at a minimum, any assessment of the net cost savings from any such measures needs to also consider the other side of the ledger. It needs to take into account the potential revenue collection losses stemming from possible reduced levels of voluntary compliance if the digitisation of tax services erodes taxpayer trust and confidence. The extent of the impact will vary depending on the mix of tax authority power and trust driven voluntary compliance relied upon to ensure revenue collection in the relevant tax administration system.⁸²

Subject to this important proviso, there is a good case for extending the NTA research to specifically understand the impact of a shift to digitisation of tax support and information on trust-based compliance behaviour of vulnerable taxpayer groups. The latest National Seniors Australia survey suggests that this could be a real issue for older taxpayers. The reported prevailing view among members of this cohort was that ‘[t]he digital world gets large amounts of information around quickly, but it doesn’t build the relationships and trust that makes information reliable and usable’.⁸³ When Australian seniors were asked about their willingness, for example, to use online banking services, the conclusion was that a willingness to use these services depends on the trust between

⁷⁹ For a good Australian example of such a study see Jenny Job and Monika Reinhart, ‘Trusting the Tax Office: Does Putnam’s Thesis Relate to Tax?’ (2003) 38(3) *Australian Journal of Social Issues* 299, 307. See also Kristina Murphy, ‘The Role of Trust in Nurturing Compliance: A Study of Accused Tax Avoiders’ (2004) 28(2) *Law and Human Behavior* 187. There has also been significant international focus on the relationship between trust and compliance behaviour – including in the United States. See, for example, John T Scholz, ‘Trust, Taxes, and Compliance’ in Valerie Braithwaite, and Margaret Levi (eds), *Trust and Governance* (Russell Sage Foundation, 1998) 135.

⁸⁰ See Erich Kirchler, Erik Hoelzl and Ingrid Wahl, ‘Enforced Versus Voluntary Tax Compliance: The “Slippery Slope” Framework’ (2008) 29(2) *Journal of Economic Psychology* 210.

⁸¹ Nestor, Beers and Hatch, above n 7, 5.

⁸² This is broadly consistent with the Kirchler, Hoelzl and Wahl ‘slippery slope’ compliance model, above n 80. For example, the ‘slippery slope’ model predicts that in a tax administration system driven by absolute tax authority power to compel compliance, any reduction in trust is likely to have a negligible effect on revenue collection. Conversely, in a tax administration system highly dependent on voluntary compliance, any erosion of trust is likely to have a more significant adverse impact on revenue collection.

⁸³ McCallum, Rees and Maccora, above n 50, 5.

the bank and the customer. However, the view among those surveyed was that such trust could only be built upon personal relationships.

There may be a lesson in this for tax authorities to proceed with caution before rushing to shift information and service provision online at the expense of traditional forms of more personalised service. Doing so may come at the expense of the ability to establish the trust and confidence necessary for the efficient operation of the tax system and a climate of voluntary compliance – at least insofar as older taxpayers are concerned. There also may be good reasons in this to ensure that any online tax service provision is designed in a manner which does not unnecessarily risk eroding the potential establishment of trust-based personal relationships.

One strategy might be to ensure that vulnerable taxpayer groups have a specific personalised single point of preliminary contact for accessing online services. Another possibility is to ensure that any replacement of face-to-face services with digital technologies takes place only after establishing programs for vulnerable taxpayers who need support to learn the new systems and adjust to the digital way of doing things they previously did face-to-face. Equally, the prime importance of ensuring concurrent development of digital assistive devices and systems specifically designed to cater for the physical capabilities and service needs of vulnerable taxpayers such as the elderly or disabled may bring efficiency gains in terms of engendering trust and confidence of these groups in the tax administration system.

In the Australian context, experiences with ATO problems in implementing online systems⁸⁴ give rise to particular incentives to ensure that the drive to digital-first interaction with taxpayers does not erode already weakened trust and confidence in the ability of the ATO to deliver digital services. The ATO itself has acknowledged that any shift to ‘digital by default’ depends on ‘us building trust in our ability to deliver and improve digital services...The community also needs confidence in the security, privacy, use and storage of data’.⁸⁵

5. CONCLUSIONS

The transition to increasing provision of online tax services and information appears to be a relentless and irresistible force. Equally, though, if the interests of vulnerable taxpayer groups are to be taken seriously in this transition, the online shift cannot be absolute and accompanied by complete discontinuance of traditional face-to-face and telephone service alternatives. The National Taxpayer Advocate research bears this out and the rhetoric emanating from both the Internal Revenue Service and the Australian Taxation Office appears to accept this reality.

The real issue, therefore becomes one of ensuring that the rhetoric is translated into practice in striking an informed and appropriate balance between traditional and digital

⁸⁴ The Inspector-General of Taxation summarises these recent problems in its submission to the 2016 Australian Government Inquiry into Taxpayer Engagement with the Tax System: ‘In addition to lack of access to the internet or digital technology, there may be unforeseen technological outages such as the one which occurred in late 2016 and which the Commissioner has referred to as the “worst unplanned system outage in recent memory”. A second system-wide ATO outage occurred in early February 2017. Large-scale systems upgrades may have a similar effect, such as those experienced during the ATO’s Change Program which led to significant delays in tax return processing’: Inspector-General of Taxation, above n 65, [3.28].

⁸⁵ ATO, *Digital by Default – Findings Report*, above n 13, 3.

forms of online service and information delivery. This is unsurprising. As the National Seniors Australia researchers have eloquently observed:

Every new digital wave brings with it the fantasy that it will make everything better, but we now have enough experience to know that this is unrealistic. The choice is never absolute between digital and more traditional modes of information or service delivery, rather we're looking for the right balance between the two.⁸⁶

In examining the NTA research into vulnerable taxpayer groups and the general data available in Australia examining access, confidence and proficiency of vulnerable citizens in utilising online services and information, it has been seen that both jurisdictions currently lack sufficient information to ensure that an informed and appropriate balance can be struck.

This article has only scratched the surface in identifying some of the gaps in the available information. However, even fleeting analysis reveals a need for deeper and more nuanced understanding of our most vulnerable taxpayers. These include appreciating differences between sub-groups of vulnerable taxpayer groups, (such as differences between 'young olds' and the very elderly). They also include better understanding the effects on taxpayers suffering from more than one vulnerability. To understand and address the challenges faced by these individuals requires being able to distinguish to what extent each of their vulnerabilities contributes to challenges and attitudes to accessing online tax information and services. That understanding is presently lacking both in Australia and the US.

We also propose that much more information is required in order to confidently design online services in the manner most likely to address the challenges faced by vulnerable taxpayers. These include the most effective and appropriate use of social media and the possible advantages of utilising a mobile-optimised approach to the provision of information and support.

Perhaps most significantly, however, we have proposed a need for closer consideration of the potential corrosive effects of a transition to online tax service and information provision on vulnerable taxpayer trust and confidence. Tax authorities and regulators should be particularly keen to fully investigate these potential effects as any such erosion may reduce or eliminate economic savings and efficiencies underpinning digitisation initiatives. This is especially the case if increased distrust manifests in the form of greater resistance to voluntary tax compliance.

The shift to increased online tax service and information provision holds real promise of potential to address inequality and disadvantage of vulnerable taxpayers. There is little cause to question conclusions that such initiatives *could* enhance accountability and participation and provide equitable and effective public services for all – including the poorest and most vulnerable. For example, access to online tax services holds promise to provide older people with greater independence and empower them with greater capacity to participate in society and the economy. Similarly, such initiatives

⁸⁶ McCallum, Rees and Maccora, above n 50, 20. It is also worth noting that it is necessary to be more vigilant in reviewing the compatibility between the fast-changing digital ecosystem and people's digital literacy before it is possible to prescribe the next digital wave.

‘...have a tremendous potential to broaden the lives and increase the independence of people with disabilities’.⁸⁷

None of this is possible, however, without the underpinning research to ensure that barriers to access, proficiency and confidence in online services faced by vulnerable and marginalised taxpayer groups are identified and completely understood, and to ensure that digitised services are developed and constructed in a manner most likely to overcome those barriers. However, this is just the start. There is also the need to remain ever-vigilant to the changing nature of the digital challenges faced by the vulnerable to become and remain digitally literate and connected. The social partnership of trust and confidence between vulnerable taxpayers and an increasingly online tax administration system can only come from a foundation built upon this attitude of vigilance.

⁸⁷ H Stephen Kaye, ‘Computer and Internet Use Among People with Disabilities’, US Department of Education Disability Statistics Report (March 2000) 1, <https://files.eric.ed.gov/fulltext/ED439579.pdf>.