Moving Personal Tax Online:
The Australian Taxation Office’s E-Tax Initiative

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EXECUTIVE SUMMARY

In exploiting the capabilities of online technologies, governments have developed policies and launched projects to conduct transactions and deliver their services through the Internet. The motivations for this include cost cutting, efficiency improvements, service enhancements, and leadership in business transformation. However, these diverse goals are not necessarily consistent, especially in the early stages of implementation. The e-government initiative discussed in this case study (E-Tax) provided an additional service to individual Australian taxpayers by enabling them to file their tax returns online. This case study provides an analysis of the E-Tax implementation in the first three years of its operation. Data on E-Tax use compared to other filing methods show that the package worked well technically, was favorably received by users, and was consistent with policy on e-government. However, adoption levels in the early stages did not meet government targets. The analysis suggests that impediments to a greater level of E-Tax use included entrenched patterns of filing, the nature of the taxation system, and political sensitivities. The E-Tax case demonstrates how complex e-government projects can be and the need to take contextual factors into account in planning and evaluating e-government implementation.

Keywords: e-commerce implementation; e-government; electronic service delivery; government online; government to citizen e-commerce; governmental IS; Internet taxation

SETTING THE STAGE

Paying personal income tax is one of those melancholy, although necessary, duties that most adults have to perform. But think for a moment about those whose job it is to manage the system that facilitates this (usually annual) process. Surely technology can come to the rescue, making the process easier and more successful for the taxpayer and more efficient and less costly for the taxation office. Such a project would be a good example of e-government, especially consistent with governments’ goals to transact with their citizens online, making their lives more convenient and, in the process, saving money for the taxpayers. But what might be involved in such an implementation?
What factors should be considered in mounting a project to file tax returns or other government documents online?

In this study, we report a case of a government using electronic service delivery for just such a purpose. We outline the experience of the Australian Taxation Office (ATO) in developing a simple, free system that allows taxpayers to submit their annual returns online. The system, known as E-Tax, was designed to reduce the ponderous inefficiencies and delays that are an unavoidable part of systems based on paper returns. It is a case that demonstrates the issues surrounding e-government initiatives as a form of electronic business or electronic government. It highlights the complexities in balancing gains in efficiencies for individual transactions, efficiency, and coherence across the whole system of service delivery with access for the diverse population of end users whose needs must be met. It also emphasizes the lengthy implementation period that such initiatives may require in order to achieve success.

We begin by describing the Australian government’s policy framework for online services and e-business development. Like many other governments world over (La Forte et al., 2001; McCartney & Wilson, 2001), Australia has sought to utilize information and communication technologies to improve government business processes (ANAO, 2000; Thibodeau, 2000) for the convenience of its clients (Power, 2001; Symonds, 2006; Tillet, 2000) and to provide an example of effective use of these technologies (Government On-line, 2000) for business and community. We then outline the E-Tax project and describe the early implementation period of this initiative. The discussion that follows points out the lessons this case holds, both for electronic government initiatives and for other service organizations embarking on similar ventures.

CONTEMPORARY GOVERNMENT PROVISION OF SERVICE ONLINE

GOVERNMENTS AS MANAGERS AND PROVIDERS

There are two main goals underlying initiatives for government online service delivery: increased government openness, including better provision of citizen services; and business process improvement (Chamberlain & Castleman, 2001). The prevailing motivation for electronic government initiatives appears to be their potential to improve business processes. They are seen to maximize business efficiency and effectiveness. Such improvements relate primarily to the delivery of services to the public and information dissemination, typical transactions performed by governments every day (Public Management, 2000). Business efficiency and effectiveness can be measured principally against the reduced costs of administering citizen transactions. Reduced transaction costs are presented as major arguments by governments in justifying business cases for implementation of online innovations. In this way, governments also exercise their accountabilities to the public by demonstrating the effective allocation of public funds (Al-Kibsi et al., 2001; Colecchia, 1999; Girishankar, 1997).

Contemporary governments must legitimise themselves both as good managers of public resources and as providers of appropriate services to the population. It is in the best interest of governments to demonstrate that, by their online activities, they use...
public resources more rationally and more economically and can deliver better services. However, should these goals not be achieved through the implementation of this technology, a government will confront other political problems, especially those associated with rising expectations. Governments are working to understand how their initiatives to use the Internet for communication and transacting with citizens can achieve the desired outcomes and where the pitfalls in strategy and implementation lie. The apparently seamless rhetoric of benefit does not acknowledge that there may be conflicts between business efficiency and citizen service (Chamberlain & Castleman, 2002). The multiple agendas of governments must still be balanced.

**Online Strategy of the Australian Government**

Australia has a federated system of government. There are six state governments and two territory governments as well as the federal (national) commonwealth government. The Australian Commonwealth government's online strategy is expressed comprehensively in a document published by the Department of Communications, Information Technology and the Arts, titled Government On-line Strategy (Government On-line, 2000). It is in this strategy that the federal government recognizes that its own transition to the online environment is critical to instilling public confidence in that environment. The strategy includes provision for security, authentication, privacy, accessibility, navigability, and standards. Through this strategy, the government delegates to its agencies the decisions about which programs, such as citizen tax return administration, should be placed online first, how it will be done, and which applications are best not to go online.

The four stated objectives of the government online strategy are as follows:

1. An environment where almost all government services are available around the clock to anyone;
2. A complete range of high-quality, low-cost online services;
3. Tailored services that are easy to use and that allow people to interact with government in a way that is natural to them; and
4. Bringing government closer to people to encourage people to interact with government (Government On-line, 2000).

The Australian government believes that its online strategy is a natural and important step in the development of government and community interaction. It believes that it will enable a stronger service quality emphasis and that it will enhance the delivery of client needs by breaking down the traditional barriers typically faced by clients. It also believes that it will positively impact older and disabled Australians as well as those living in regional communities. It believes that greater public convenience will be facilitated via around-the-clock access to Web site information and services and that both business and government will experience reduced costs and faster operational processes (Government On-line, 2000).
ORGANIZATION BACKGROUND

E-Government and the Australian Taxation Office

As an agency of the government, the Australian Taxation Office (ATO) administers the majority of federal taxes in the country, including the administration and collection of income taxes from Australian citizens. The ATO is the government's prime revenue collector responsible for the collection of about 96% of revenue, which accounts for more than $140 billion in income taxes per year (e.g., more than $142 billion in 2004) (Australian Taxation Office, 2004). Income tax constitutes the majority of the federal revenue collections. In 2000, approximately 11.9 million taxpayers filed returns, and of these, individuals accounted for 85% of total taxpayers (more than 10,000,000 individuals representing 53% of the total Australian population as of June 2000), while companies accounted for about 5%, partnerships and trusts about 4%, and funds about 2% (Australian Taxation Office, 2003). The ATO Strategic Statement 2000-2003 acknowledges that one of the five key issues that will shape the future of Australia's revenue administration is the impact of internationalization and the growth of the Internet and electronic commerce (Australian Taxation Office, 2001).

In 2001, the ATO noted that internationalization along with the growth of e-commerce and the Internet would shape the future of Australia's revenue administration (Australian Taxation Office, 2001). To align itself with these trends, the ATO developed an online e-business strategy to steer the reengineering of its business processes and its relationships and interactions with the community. The ATO argued that, for the majority of its clients, interactions would be performed increasingly online. The ATO has long been recognized as a government leader in the provision of services online. This is exemplified through a number of its programs, including the following:

- Online registration by companies to receive their Australian Business Number (ABN);
- Online filing by companies of their quarterly sales tax statements;
- An online tax filing system used by tax agents and accountants; and
- E-Tax, an individual's tax return preparation and online filing program (Australian Taxation Office, 2000, 2001).

The ATO's e-commerce strategy was described as "revolutionising the way we do business and our relationship/interaction with the community" (Australian Taxation Office, 1999b, 1999c, 2000).

For several years, the ATO has been committed to service delivery, which is secure, low-cost, easy-to-access, and easy-to-use (Australian Taxation Office, 1999c). In pursuit of this objective, electronic techniques have been actively pursued both to replace and to enhance conventional forms of interaction with the community. The ATO aimed to be a leader in the effective use of electronic services. This approach to service delivery has been expressed explicitly in whole-of-government and whole-of-ATO terms.
A key driver of the ATO's pursuit of electronic service delivery has been the search for transactional efficiencies in its systems. These include the following:

- The technological transformation of businesses and associated processes and the opportunities offered by technology for gains in strategic and operational efficiency and effectiveness;
- The high levels of service consistently demanded by clients and their inherent expectations, as influenced by change in their general environment (e.g., an increasing exposure to the Internet and its capabilities); and
- Budgetary constraints that consistently require that more be done with less, thus influencing the selection of technologies and communications channels with a view to obtaining those with the potential to deliver the highest-quality service at the least cost to the ATO and to its clients (Australian Taxation Office, 1999d).

International experience has indicated that significant efficiency gains can be made by filing tax forms and managing data electronically (Al-Kibsi et al., 2001; EzGov, 2002; Faipo, 1999; Inland Revenue Service, 2002, 2003).

While seeking to improve the operational and cost effectiveness of its administration, the ATO also has been committed to supporting the government's larger agenda of developing online government and e-commerce capabilities more generally. As a result, it was outward-looking and policy-oriented, fully aware of the broader issues involved in the development of its online tax filing application.

The ATO has carefully observed the progressive adoption of the Internet by Australian industry and its clients and has seen this as a credible means through which to communicate and conduct business. The ATO has embraced leading-edge technological business applications delivered online (Australian Taxation Office, 2001).

CASE DESCRIPTION

The E-Tax Initiative

In 1997, the ATO introduced an electronic version of its traditional paper-based personal income tax form. The electronic version is called E-Tax and is the ATO's Internet-based income tax return preparation and filing software. Individuals can download the E-Tax package from the ATO’s Web site to their personal computers. It assists clients (i.e., individual taxpayers) with the preparation of tax returns and then lodges those returns securely over the Internet. This is quite distinct from the electronic facility used by tax agents to lodge individual and business tax returns on behalf of their clients, which has been in use since 1992.

E-Tax assists users in determining whether they should file a tax return and, if so, proceeds by asking the user a series of questions, guiding them to complete the actual return. The E-Tax software user is “interviewed” and is required to respond to a series of relatively straightforward questions with yes and no answers, not unlike responding to an expert system. The E-Tax system analyzes responses as it receives them and proceeds by asking the user only those questions relevant to his or her personal tax affairs.
This aids in the speed and accuracy of the completion of the return; in contrast, taxpayers using the paper return must work through more than 100 pages of publications. Anecdotal evidence suggests that E-Tax preparation can be completed in as little as half the time required for paper returns.

The E-Tax program collates all of the typically required tax return data, including information on the taxpayer's income, deductions, losses, tax offsets (rebates), the national health levy, and adjustments. It also provides an estimate of the taxpayer's assessment (i.e., the dollar amount of tax owing or refundable). Validation and consistency tests check answers, figures, and incomplete items. Public Key encryption technology is used to ensure security, privacy, authenticity, and integrity. Partially completed returns can be saved, and several members of a household can use this software on the same computer after downloading their individual secure electronic keys and digital certificates (Australian Taxation Office, 1999a; Thomas, 2000).

In the original proof of concept documentation, business arguments were presented in favor of the trial of the E-Tax product including the following:

- Improvements in the level of assistance to taxpayers in filling out their returns;
- Easier tax return preparation;
- Faster tax return preparation;
- Reduction in compliance costs (e.g., filing over the Internet); and
- Better data quality by virtue of client-keyed data and some software error checking (Australian Taxation Office, 1997; McCarthy, 1997).

These business arguments exemplify the efficiency and effectiveness objectives of governments when implementing such innovations. Expected gains included reductions in processing and compliance costs and increased effectiveness in terms of client service and data quality. All arguments reflected the ATO's wider strategic plans in place at that time.

E-Tax commenced in 1997 as a proof-of-concept project and continued as a pilot-only scheme in 1998. Technically, the program was a success, meeting both the functional and business objectives, and in 1999, the project was implemented fully. The ATO projected a rapidly rising use of E-Tax after the pilot phase. However, although the number of filings increased from 1999 to 2003, usage fell behind the ATO's imputed targets. These trends are shown in Figure 1.

It was encouraging to see the actual figures approaching the target figures more closely, but a different understanding of the E-Tax issue emerges when we look at E-Tax figures in contrast to other types of tax filing. Table 1 shows the number of taxpayers using various filing methods.

These figures show that during 2000, more than three-quarters of Australian personal income taxpayers sought professional accounting assistance to prepare their annual income tax returns. These filings were completed online. The next largest group used paper forms and accounted for nearly 20% of filings.

The problem for the ATO at that time was that, although E-Tax functioned well, not enough people used it, which undermined its ability to deliver the anticipated efficién-
cies. These efficiencies could be achieved only if people shifted from paper returns to E-Tax. The ATO would not gain any efficiencies if the majority of taxpayers who used tax accountants used E-Tax instead, since tax accountants already submit electronically. Individual taxpayers might benefit, if using E-Tax saves the cost of professional services and is a quick transaction, but that would not create any benefit for the ATO. This raises the question of whether E-Tax was a positive contribution to e-government in Australia or whether it was irrelevant in terms of improving government efficiency and taxpayer convenience.

Factors In E-Tax Adoption and Satisfaction

To understand the success and limitations of the E-Tax initiative, we analyzed the characteristics of taxpayers using E-Tax and the users' evaluations of it. This information comes from an analysis of anonymous filing data and responses to a survey of E-Tax users conducted online in 2001.

E-Tax Use and Evaluation Data

Official, complete, and accurate personal income tax return filing data for the years 1997 and 2001 were obtained from the ATO's mainframe computer. A total of 415,436 e-tax records were analyzed. Data examined included summaries of statistics
pertaining to income, deductions, and tax rebates for major income tax lodgment methods (e.g., E-Tax, tax accountants, and paper filings). Other data also were obtained, including E-Tax user gender, residency status, age, residential postal code, filing date, occupation, income level, refund history, and counts of filings made from overseas.

The E-Tax software provides users with an opportunity to voluntarily participate in a 26-question electronic survey, which, when completed, is automatically sent to the ATO upon filing of the individual's income tax return. The survey was introduced in the 2001 filing year. The survey asked a series of questions requiring responses relating to user satisfaction with the E-Tax product and also requested a rating of the importance of various issues. It also canvassed users' views of the importance of a range of motivators that are considered to encourage use of the product. Summarized results of the survey, including responses from 26,662 people comprising 9.73% of all E-Tax users, were obtained and included in this study (the authors acknowledge that conclusions drawn from survey responses are limited to the extent of the sample population).

E-Tax users were unable to be interviewed due to privacy constraints, which inhibited the identification of individual taxpayers using the E-Tax product. The study provides minimal insight into users' motivations and meanings, and any inferences drawn are based on quantitative analysis only. It is important to note that interviewee responses to the E-Tax electronic survey may not represent the motivations and adoption characteristics of all E-Tax users. E-Tax user profiles were deduced from the available data only; however, it is significant to note that complete and official personal income tax return filing population data, rather than sample data, were used in the analysis.

User Satisfaction With the E-Tax Application

A high level of satisfaction was reported by users in the survey about various technical aspects of the system's operation (e.g., ease of download, installation, navigation) and the way they interacted with it. Ninety percent of respondents were either very satisfied or satisfied with the E-Tax interview method. Eighty-nine percent of respondents considered this to be a very important or important feature of E-Tax. Table 2 shows E-Tax users' evaluations of the time-saving and efficiency aspects of E-Tax and its overall popularity with its users. Over 90% of users responded that they were satisfied overall with E-Tax.

Survey questions about specific E-Tax features drew positive responses about the product. The vast majority (80%) of respondents indicated that they were either very satisfied or satisfied with the ability to locate E-Tax on the ATO Web site, and 90% believed that this was either a very important or important feature. Eighty-seven percent of respondents were either very satisfied or satisfied with downloading the E-Tax software from the Internet, while 81% indicated that they were very satisfied or satisfied with downloading the E-Tax security software. This is also pertinent, because the E-Tax software is about four megabytes and takes considerable time to download, especially over a typical telephone line connection and modem.

These results show that, at least for those E-Tax users who responded to the survey as they filed their 2001 income tax returns, E-Tax was received favorably. Ninety-four percent indicated that they would use E-Tax again. As the questionnaire was anony-

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Table 2. User evaluation of E-Tax

<table>
<thead>
<tr>
<th>Questions</th>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Neither</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>How satisfied or dissatisfied were you with E- Tax?</td>
<td>45%</td>
<td>47%</td>
<td>6%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Installing the E-Tax software from the Internet</td>
<td>35%</td>
<td>51%</td>
<td>5%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Installing the E-Tax security software</td>
<td>37%</td>
<td>43%</td>
<td>2%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Installing the E-Tax software on your computer</td>
<td>42%</td>
<td>50%</td>
<td>2%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>The interview approach (where it asks you yes/no questions)</td>
<td>39%</td>
<td>51%</td>
<td>5%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Navigating around E-Tax</td>
<td>33%</td>
<td>21%</td>
<td>3%</td>
<td>7%</td>
<td>1%</td>
</tr>
<tr>
<td>Automatic checking of return to identify incorrect or omissd items</td>
<td>47%</td>
<td>43%</td>
<td>5%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>Ability to check your return details before filing</td>
<td>48%</td>
<td>42%</td>
<td>4%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Automatic calculation of assessment</td>
<td>65%</td>
<td>32%</td>
<td>2%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: E-Tax user survey 2001 (number of respondents: 26,662)

mous, we do not know to what extent the views of the survey respondents reflect those of E-Tax users as a whole. But the positive responses strongly suggest that the package was well received by users and that, thus, it was a viable initiative.

Accessibility

If E-Tax was complicated and required skill and education levels beyond those of the majority of the population, its use might be limited. Was it possible that E-Tax was suitable only for a small group of highly sophisticated, technologically adept users?

Using data extracted from the ATO’s mainframe database, we analyzed the occupations of E-Tax filers on the premise that occupations are related to education and that this gives some indication of a person’s ability to use a system that requires technical competence. Occupations are broadly identified by the ATO with codes representing about 300 occupational descriptions that are based on the Australian Bureau of Statistics standard occupational classifications (ABS, 2005). To make the comparisons clearer, each code was considered and allocated a professional or non-professional status. Seventeen codes representing about 90 occupations were allocated professional status. The remainder were represented as non-professional. Examples of occupations considered to hold a professional status include parliamentarians, judges, managers, scientists, engineers, medical practitioners, teachers, lawyers, and business professionals. Examples of those occupations allocated a non-professional status include carpenters, bricklayers, painters, automobile mechanics, cabinet makers, sales representatives, taxi drivers, and construction workers.

As with other innovations, the early adopters are very likely to be those with a high level of knowledge and skill. Our analysis of the complete E-Tax dataset for the three filing years 1999 through 2001 reveals a gradual decline in the proportion of users in professional employment and an increase in the proportion whose non-professional occupations require less education (see Figure 2). In 1999, 43% of E-Tax users were
Figure 2. Professional and non-professional E-Tax users 1999-2001

identified as professionals, but in 2001, they represented only 31% of the E-Tax user base. Conversely, non-professional E-Tax users increased from 57% in 1999 to 65% in 2001. The fact that non-professionals are a majority and a growing proportion of E-Tax users indicates that the product is accessible not just for an elite group. In fact, the majority of E-Tax users are ordinary taxpayers with moderate levels of education.

E-Tax can be regarded as generally accessible, not just because of these positive assessments on the survey, but because the majority of Australian taxpayers are able to use computers and the Internet. Many Australian households have computers and Internet access, and other forms of provision are available.

The Australian Bureau of Statistics reported that in 2002, 66% of households had access to a computer, 53% had access to the Internet, and 58% of adults accessed the Internet (ABS, 2004). Thus, it is reasonable to conclude that, for the majority of taxpayers, E-Tax is an accessible and satisfactory product well within their competence to use.

E-Tax Ability to Deal With More Complex Tax Issues

Despite a thorough and targeted questioning of the user, there is some question about how well E-Tax deals with more complex tax issues. A deficiency in dealing with more complex tax issues would constitute a disincentive for some people to use E-Tax as opposed to tax agents. We examined this factor by identifying people whose tax affairs are likely to be more complicated. We had no direct measure of complexity, but, for this exercise, we assumed that people in the higher income brackets have more complex tax issues, because they are more likely to run larger operations and to have more items to claim as deductions.

Analysis of the income levels of E-Tax users during the three years 1999 through 2001 revealed that the predominant income range of E-Tax users was between $20,701 and $38,000, (middle-level incomes); 36% of users during the period were in that range. The second highest range fell between $5,401 and $20,700, representing an average of about 27% during the period. Together, these groups represent almost 63% of E-Tax users during the three filing years (see Figure 3). In 2001, the median individual income for people aged 15 years and over was approximately $18,000 per year (ABS, 2001).

Interestingly, E-Tax users receiving income in excess of $50,001 were a substantial group of around 17% of users during the period; however, the proportion of E-Tax
users in this category declined substantially from 22% in 1999 to just over 10% in 2001, reflecting again the broadening of the user base. These figures indicate that, as more people began using E-Tax, the profile of users became increasingly similar to the taxpayer population as a whole.

However, some differences in the groups can be noted. Table 3 shows that in 2000, the average annual income for E-Tax users was marginally higher than for those who used tax agents and significantly higher than for paper form users. However, their average level of deductions was lower than the deductions received by those who used tax accountants, and they had the lowest level of tax rebates among the three groups.

These figures lend further weight to the conclusion that using a tax accountant can help the taxpayer to maximize his or her refund. This is likely to be even more of an issue with the increasing complexity of Australian tax law (Australian Financial Review, 2004). The tradeoff is between a speedy return using E-Tax and a higher return via a tax accountant (although a fee is charged). Interestingly, only 24% of survey respondents reported that the simplicity of their tax affairs was an important or very important motivator for adopting E-Tax. Fifty-one percent indicated that they felt this was neither important nor unimportant. This suggests that the majority of E-Tax users file relatively uncomplicated income tax returns. However, it must be noted that, although the E-Tax application is unable to deal with very high levels of complexity (e.g., intricate property investment schemes and public shareholder investments), it can cope with a wide range

| Table 3. Average income, deductions, and rebates by major filing methods in 2000 |

<table>
<thead>
<tr>
<th></th>
<th>E-Tax</th>
<th>Paper form</th>
<th>Tax agent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Average Income</td>
<td>$35,241</td>
<td>$24,360</td>
<td>$34,563</td>
</tr>
<tr>
<td>Total Average Deductions</td>
<td>$1,351</td>
<td>$856</td>
<td>$1,787</td>
</tr>
<tr>
<td>Total Average Tax Rebates</td>
<td>$730</td>
<td>$818</td>
<td>$858</td>
</tr>
</tbody>
</table>

of tax issues, such as employee work deductions, basic depreciation schedules, and tax refund estimates.

**Speed of Processing**

It is not uncommon for Australian taxpayers to receive a refund at the end of the financial year. A significant advantage of E-Tax is the speed with which a tax return can be filed and a refund provided. This is likely to be attractive to the majority of E-Tax users, and may, to some degree, contribute to its popularity. As pointed out earlier, the processing time for E-Tax is considerably shorter than for paper returns. The ATO indicates that an E-Tax assessment generally will be issued within 14 days, while the assessment of a paper-based tax return can take up to six weeks (ATO, 2005). It also is likely to be shorter than for many accountant-filed returns.

It may be expected, therefore, that E-Tax would be sought out by taxpayers expecting to receive a refund and of much less interest to those who expect to pay additional tax. In fact, the vast majority of E-Tax filers received a tax refund and, thus, had an incentive to use a system that would provide a refund as early as possible. Table 4 reveals that just over 86% of all E-Tax users received tax refunds for the 1999 and 2000 filing years. During the 2001 filing year, this figure had risen to about 90%.

**Outcomes for Tax Payers**

By far, the most common form of filing personal returns in Australia is via a tax accountant, who provides advice in addition to filling out and filing the returns (almost all accountants electronically file the returns that they prepare for clients). Hiring an accountant gives the taxpayer confidence that all potential tax deductions have been considered and included in income tax returns, where possible. This appears to be a well-founded perception. Taken as a group, filings through tax agents received the highest average level of claims for deductions of the major filing methods during the full E-Tax implementation period of 1999 through 2001. It would appear that tax accountants indeed may help taxpayers to increase their deductions and reduce their tax liability. A declining average refund for E-Tax users probably reflects the broader base of users, which, over the years, has included fewer people in professional occupations who will be more likely to have higher incomes.

**Table 4. E-Tax user refunds and additional payments, 1999–2000**

<table>
<thead>
<tr>
<th>Amount of Refund ($)</th>
<th>% of E-Tax Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; 1,500</td>
<td>19.9%</td>
</tr>
<tr>
<td>1,000-1,499</td>
<td>11.2%</td>
</tr>
<tr>
<td>500-999</td>
<td>20.4%</td>
</tr>
<tr>
<td>1-499</td>
<td>34.8%</td>
</tr>
<tr>
<td>Percent receiving refund</td>
<td>86.2%</td>
</tr>
</tbody>
</table>

*Source: ATO Mainframe Data Extract, November 2001*
Table 5. Motivators for adoption and user rating of significance

<table>
<thead>
<tr>
<th>Adoption Motivators 2001</th>
<th>Very Important</th>
<th>Important</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>How important, if at all, were the following motivations or reasons to encourage or convince you to use E-Tax?</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>I could do it anytime at home (convenience)</td>
<td>88</td>
<td>29</td>
<td>97</td>
</tr>
<tr>
<td>In-built calculation tools and help</td>
<td>40</td>
<td>48</td>
<td>89</td>
</tr>
<tr>
<td>Comfort with Internet and electronic transactions</td>
<td>37</td>
<td>52</td>
<td>89</td>
</tr>
<tr>
<td>I felt comfortable with the security software</td>
<td>46</td>
<td>43</td>
<td>88</td>
</tr>
<tr>
<td>Saving time</td>
<td>52</td>
<td>34</td>
<td>87</td>
</tr>
<tr>
<td>Less paperwork</td>
<td>45</td>
<td>35</td>
<td>81</td>
</tr>
<tr>
<td>My tax affairs were simple and straightforward?</td>
<td>34</td>
<td>45</td>
<td>79</td>
</tr>
<tr>
<td>To save money (no filing agent fees)</td>
<td>43</td>
<td>29</td>
<td>72</td>
</tr>
<tr>
<td>To obtain a faster refund</td>
<td>32</td>
<td>36</td>
<td>70</td>
</tr>
<tr>
<td>My tax affairs were complex</td>
<td>7</td>
<td>17</td>
<td>24</td>
</tr>
</tbody>
</table>

To the extent that tax agent filings are recognized as the best way to increase tax deductions, E-Tax will be a less attractive form of filing. Even though E-Tax may provide users with prompts to alert them to the deductions that they might claim, it may not be able to match (or may not be perceived to match) the ability of tax accountants to identify allowable deductions.

Motivators for E-Tax Use

Despite the fact that a large majority of E-Tax users received refunds, the survey results did not indicate that speed of refund was as significant of a motivator for adoption as were convenience factors (see Table 5). Only 76% of respondents said that receiving a faster refund was very important and important as motivators to their use of E-Tax, which is about 10 percentage points less than the percentage of those who received a refund. This might be due to modest refunds for many of the respondents.

Saving money and accessing faster refunds were rated lowest among adoption motivators (although they still represented a sizeable majority of users), while users rated the time-saving convenience of the Internet as well as the instant online help and tools offered in the E-Tax product as more important. To the extent that these responses represent E-Tax users' real motivations, we could expect that they would be willing to use E-Tax, even if they weren't expecting to receive a refund.

Communicating E-Government Initiatives and Their Benefits

One of the issues to emerge about the launching of the E-Tax initiative was that many taxpayers appear not to have been aware of it, or they had difficulty locating the Web site to access it. An ATO marketing strategy document prepared in April 2001 revealed that the growth in the use of E-Tax occurred with only moderate promotion.
Table 6. How users of E-Tax in 2001 learned about it

<table>
<thead>
<tr>
<th>Publicity Medium</th>
<th>% of Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newspaper</td>
<td>7%</td>
</tr>
<tr>
<td>Booklet with paper tax forms</td>
<td>36%</td>
</tr>
<tr>
<td>Friend</td>
<td>21%</td>
</tr>
<tr>
<td>TV</td>
<td>7%</td>
</tr>
<tr>
<td>Internet</td>
<td>17%</td>
</tr>
<tr>
<td>Radio</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: E-Tax 2001 user online questionnaire summary, Australian Taxation Office

mainly through business as usual ATO channels. Examples of such channels include counter and telephone inquiries and advertising within the booklet containing the paper forms and other brochures.

The online survey asked E-Tax users how they found out about it. Table 6 shows the sources from which users learned of E-Tax for the 2001 filing year. The most common source of information was an advertisement in the paper form booklet (36% of users). The mass media were negligible sources of information, since there was no publicity campaign.

The fact that so few E-Tax users learned about the product through mass media indicates that the publicity strategy for E-Tax was inadequate and that it was insufficiently promoted through public channels. The majority of users found out about it through other sources. Without a public information campaign, it is unlikely that the diffusion rate of E-Tax or a similar application would have risen more swiftly. It might have been adopted in preference to paper forms, a private accountant, or one of the commercial providers of tax software. But this raises the question of how actively a government provider should compete in a market of private providers, individual tax accountants, and those selling commercial applications.

CURRENT CHALLENGES AND PROBLEMS FACING THE ORGANIZATION

The Broader Picture for E-Tax

Our analysis of Australia’s E-Tax system suggests that it functions well, saves time, and is appropriate for a wide range of taxpayers. However, in the first four years, its uptake rate was lower than anticipated, and it may not be as cost effective for the ATO as originally hoped. Consequently, there appears to be a tension between e-government policy and the goals of efficiency and cost savings on the one hand and service
to citizens on the other. Is it appropriate to invest in such online services, if insufficient numbers of people use them, thus rendering them uneconomical?

The E-Tax case exemplifies the issues that governments may face in attempting to balance the two objectives of increased government to citizen service provision and business process improvement. Here, we observe government pursuit of business efficiencies and effectiveness from improved online business processes, which also may threaten traditional citizen services and, therefore, citizen interaction with government. The contradiction here is that citizen interaction with governments is crucial in order for governments to serve the needs of citizens. Under-used online services are hard for governments to justify (Al-Kibsi et al., 2001).

Despite disappointing uptake levels, E-Tax performed well and was popular with its users. This case highlights the problems that governments have in balancing client services and business efficiency. E-Tax was effective largely in terms of e-government principles and met at least three of the government’s policy objectives for the online environment by being widely available, easy to use, and low-cost. In meeting service objectives, E-Tax was successful for the small minority of taxpayers who use it. But it remained simply an additional channel, and the government did not see it as feasible to provide strong inducements to use it.

The overall contribution of E-Tax to the government’s online strategy was, therefore, unclear, despite its ability to meet specific targets and comply with government policy directions. This is because E-Tax is not able to replace paper filings totally, neither now nor in the foreseeable future, especially for those taxpayers without IT skills or access to computers. There is a contradiction between its success as an application consistent with government strategy and policy principles and its lack of widespread acceptance as a method of personal tax filing.

REFERENCES


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Jeff Chamberlain worked in national government administration for 20 years. Highlights of this included managing interactive Internet based projects, including involvement with the OECD and the exploration and implementation of the use of knowledge systems, intelligent agents and expert systems for government to citizen electronic services. He is now lecturing post graduate and undergraduate students at Deakin University, Australia, in electronic commerce, IT/IS project management and IT strategy and management. He holds two business degrees—one is a master’s degree in electronic commerce. He has written a thesis on the Australian government online and has published internationally on e-government and IS project management. His PhD studies focus on managerial and strategic issues in government electronic service delivery.

Tanya Castleman is a professor of information systems and head of the Deakin Business School at Deakin University. Tanya's expertise in organisational sociology relates to her main area of research which is the social context of technology, particularly the commercial and social implications of electronic business and electronic government. She has conducted numerous research projects to identify ways in which these technologies are used to enhance business performance, achieve better customer service, derive cost savings, promote community and stimulate economic development. Small business issues and regional development have been a significant part of this research program. Tanya publishes internationally on electronic commerce and electronic service delivery by governments.