Cyberspace Law and Policy Centre
A Centre for the Public Interest in Networked Transactions

Making Victoria's Public Sector Information More Useful

Submission to the Economic Development and Infrastructure Committee, Victoria – Inquiry into Improving Access to Victorian Public Sector Information & Data

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UNLOCKING IP

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Introduction

We have recently made a submission of over 100 pages to the Review of the National Innovation System entitled 'Unlocking IP to stimulate Australian innovation: An Issues Paper' (Greenleaf, 2008). That submission discusses many of the questions raised by this Inquiry's *Discussion Paper*, and we do not think it would be productive to repeat the lengthy analysis of that submission here. We note that the Inquiry has referred in the Discussion Paper to various other submissions to the 'Innovation' Review, and we therefore request that the Inquiry also take into account, as part of this submission, the matters that we raise in our submission to the 'Innovation' Review.

We have therefore restricted ourselves in this submission to brief responses to the specific questions asked by the Inquiry, with some cross-references to our earlier submission.

1. Approaches to PSI access

Q1 What are the advantages and disadvantages of government adopting 'push' and 'pull' models toward the publication of public sector information (PSI), respectively?

The "push" and "pull" models highlighted in the Discussion Paper are proactive and reactive approaches to the dissemination of public sector information. Both approaches provide appropriate mechanisms for the dissemination of some public sector information (PSI) and have been adopted in Australian and other international jurisdictions. The UK government's approach where individual requests have to be made for a licence to re-use government information is an example of a "pull" model being applied not only to access (as is the case with FOI systems) but also to re-use.

With regard to the "push" model, this has the significant advantage of getting a vast amount of information and governmental publications into the community, not only for the purposes of public access, but also for re-use in innovative and productive ways. On that basis, it is arguably beneficial to a government if such a model is adopted, as it means that a large section of the community will be exposed to the information and publications produced by that government. This would be useful across a broad spectrum, ranging from the dissemination of basic information to members of the public on civic and community issues, to possible reuse by the private sector (where appropriate). Further, the adoption of a "push" model is also more consistent with the need for transparency of government within Australian democracy. Indeed, as the Copyright Law Review Committee noted in its 2005 *Crown Copyright* report, "An essential characteristic of modern democracy is open access to government information."[1] The "push" model clearly supports such a finding.

It is also unlikely that the adoption of the "push" model would cause any significant detriment to the government in terms of cost or labour. Of course, a uniform method for deciding which materials should be "pushed" into the community would have to be

[1] Copyright Law Review Committee, *Crown Copyright* (April 2005), at [4.27].

determined. As is noted in the Discussion Paper, "[t]he social repercussions of releasing PSI to the public may not be exclusively positive, depending on the range and type of information made available."[2] There are some materials that would not – and possibly never will – be suitable for dissemination amongst the broader community: for example, those dealing with personal affairs are too sensitive for release. Ultimately, however, the majority of materials and other information will be appropriate for public dissemination.

The main advantage of the "pull" model, on the other hand, is that the government would have greater control over what is released to the community; in fact it would have total control and would only need to surrender documents on the basis of individual requests. However, this model also places a considerable burden on the general public, specifically to narrow down the type of information that is required and make the relevant formal FoI request to the department or agency charged with the production of that information. Where an individual request is made to a department for access or reuse of information or a publication, it is arguable that there is room for inconsistent decisions between departments.

On the basis of these arguments, the adoption of a "push" model by the Victorian Government is more consistent with the type of approach that the Government is considering in this Discussion Paper, with the adoption of Creative Commons and other licensing models.

1. ***Submission:*** *The Victorian Government should primarily adopt a "push" model toward the publication of public sector information. It will only be in certain rare cases that material produced by the various departments and agencies of the Victorian Government will be unsuitable for immediate and direct publication, either online or by another offline mechanism. Further, it is arguable that there will be increased costs in the adoption of a "pull" model, for both individuals who wish to access that information, and the Government itself.*

2. Economic and social issues

Q2 How can improved access to and re-use of PSI drive economic growth, employment opportunities and new commercial ventures?

"The basic argument for supporting improved access to PSI on grounds of economic development is that the revenue and economic activity generated through the use of PSI substantially outweighs costs incurred by government in the course of generating and disseminating that information. However, there is still considerable debate about the categories of PSI that are best suited to this purpose, and the circumstances and conditions under which PSI should be released."[3]

'Public rights' in intellectual goods (the broad usage of 'the public domain') are increasingly important as a driver of innovation in information economies. Any

[2] Economic Development and Infrastructure Committee, *Inquiry into Improving Access to Victorian Public Sector Information and Data*, Discussion Paper, July 2008 at [2.3.2].

[3] The Discussion Paper (DP) at 1.2.1

assumption that proprietary rights in intellectual goods (ie, their 'intellectual property' aspects) are the only rights in intellectual goods which can help to drive innovation is an idea of diminishing importance.

The effects do not come about merely because of reduced costs leading to increased margins and more turnover, as the simpler analyses might suggest. It is also because of the range of new opportunities that become viable as a result of this lower base, and also because of a reduction to some degree of a variety of risks, including legal, licensing, procurement, supply uncertainty, and lack of knowledge about applications of specific types of PSI.

Improved access and re-use based on this spread of 'public rights' has a number of consequences. It creates new value by processes including the following; it:

reduces direct data/information acquisition and licensing costs for the first external acquirer;
reduces legal and compliance costs, cost of protection of downstream products, and associated risks and uncertainty;
reduces the threshold of project commercial viability, to the extent that those factors are significant in terms of overall cost or risk;
encourages collaborative use and re-use of data, and sometimes sharing of solutions and processed data sets on appropriate reciprocal terms;
encourages acquirers to make the resulting processed data sets available cheaply or free, enabling a much broader range of end users to have access on attractive terms.

As a result of the above:
more numerous and diverse projects are thus feasible to develop as proposals, more are funded and commenced, and risk at all stages is lower;
more products and services are generated from these entrepreneurial activities, leading to employment, skills development and other 'virtuous circle' outcomes;
synergies between separate PSI-using projects, services and products can also be easier and safer to achieve, in turn generating new opportunities for further secondary, flow-on or related outputs.

These pathways have implications for the 'categories of PSI that are best suited to this purpose, and the circumstances and conditions under which PSI should be released'.

For instance, to support this, agencies need to analyse the categories of potentially useful PSI they control, the information characteristics of these collections, and their condition and/or the steps needed to access it or make it available for re-use. They also need to publish this 'meta-data' about their collections in accessible networked form, and perhaps also make available tools to extract desired sub-sets, in order to maximize external access to the categories desired.

This analysis of all potential 'release candidate' data collections should work from the broad assumption, proposed above, that almost all PSI and data should be considered for use in this way, in a standard and routine manner, not as a matter of ad hoc, slow and expensive inquiry-driven assessments.

It is also necessary to identify the features of the release process which most directly assist the achievement of the range of benefits listed above, from the perspective and experience of existing and potential new users. Implementing these features can often have significant impact on how easy it is for the PSI to be exploited in practice.

For instance, information on file formats, data description standards, currency or historical depth characteristics, transfer protocols and specific uses or limitations on use will all be valuable for users to have at hand while assessing the feasibility and design constraints of potential projects.

The Discussion Paper notes a number of potential costs and risks in release of PSI. Some of these concerns are real, and deserve close assessment as to whether and how they can be minimised while most benefits of release are obtained (see below); and some may be overstated, or contingent on scenarios which are unlikely or easily averted.

For instance, the possibility of misleading and incorrect analysis is better dealt with by open scrutiny of methodology and access to data by others to repeat or re-assess the results, rather than by keeping the data secret.

Two other circumstances should be taken into consideration.

Governments are best placed to conduct the legal and technical work to identify necessary constraints, limitations and barriers to making certain PSI collections available, whether upon privacy, licensing, commercial secret, technical, public safety or other grounds. Again, this should occur on a systematic basis, with all data categories and collections being assessed in the light of these grounds, rather than a fragmented partial ad hoc basis, and helpful explanatory materials made available online to identify the collections available and their limitations.

Secondly, the range of issues and options about licencing should be reviewed and, where it is decided that material should be available in this way, these issues if possible resolved — with a strong preference for adopting a small number of permissive standard licences, implemented across the board and, only if absolutely necessary, fine-tuned for the typical needs of both users and publishing agencies. This is one central means of reducing the costs of complexity for users.

2. ***Submission:*** *The Victorian Government should require agencies to assess and categorise the types of potentially useful PSI at their disposal, analyse the information characteristics of these collections using common criteria including their condition and/or the steps needed to make them available, and publish this 'meta-data' online, along with tools to help extract data sets. (This should assume most PSI and data is to be considered for routine re-use in a standard manner, not as a matter of ad hoc, slow and expensive one-off inquiry-driven assessments.)*

Q3 What can the Victorian Government do to improve access to PSI in a manner that creates new opportunities for information and knowledge flow, and thereby encourage innovation?

A central government can take on a number of the analytical and assessment tasks that are too expensive for individual projects to rely on but make projects on the whole more viable. It can also adopt policies that facilitate the new models in appropriate scenarios, but help identify situations where this is not appropriate. For instance, reviewing, summarising and publicising:

- the most relaxed justifiable criteria for entities making PSI available under open content-style licences;
- a range of business cases for adopting a variety of business models which involve an open content PSI component, even where there are some commercial aspects;
- an assessment of the features and suitability of a range of open content, open source and open standard models and licences, including explicit discussion of limitations and uses for which they are not suitable, or suitable only as part of a suite of other options;
- some worked examples of application of these models to scenarios;
- revised model policies and procedures which facilitate their use in appropriate cases.

It can also resource certain facilities, infrastructure, functionality or other services which are not viable for individual agencies or businesses to develop, but which offer wide synergies for many participants.

Certain data is best hosted on a central basis for wide re-use, rather than distributed piecemeal. Such hosting can be undertaken by any willing entity that is able to deliver sustained access in a way which maximizes public and private benefits.

3. ***Submission:*** *Appropriate parties should identify the features of the release process which most directly assist the achievement of the fullest range of benefits for existing and potential users; and systematically identify and publish constraints, limitations and barriers to making certain collections available, whether on privacy, licensing, commercial secret, technical, public safety or other grounds. Excessive costs or risks of access to certain data should be flagged, and remedies sought, or access restricted if no remedies are practicable. Licencing options should be reviewed and resolved, with a preference for adopting a few permissive standard licences, adjusted to meet the typical needs of users and publishing agencies.*

Q4 If the Victorian public sector is to provide increased access to information, what kind of information would provide the greatest opportunities to improve or develop:

- **investment and business opportunities?**
- **social, medical and scientific research?**
- **community and civic engagement?**

Although it is commendable that the Discussion Paper recognised these three different areas where increased access to information would be beneficial, it is arguable that such

distinctions should not be made. We believe that the release of all public sector information which is in completed form and which it is practicable to supply to the public (with the exception of the type of materials discussed with regard to Question 1 above) has the potential to benefit the private, public and community sectors. Information which is held by the public sector in an incomplete form while it is collected or developed should not be pro-actively released, even if it might be susceptible to FOI requests under such circumstances. Information which is simply collected or generated during transactions with public sector bodies should obviously not be pro-actively released, mainly because it is of little use to anyone and the costs of release would outweigh any likely benefits.

The type of distinctions that need to be made are: 'Is this information in a suitable form for publication, or could it easily be put into such a form?'; 'Is it practicable to make such information available at a reasonable cost?'; and, 'What is the best quality form in which the information can be made available to facilitate re-use?'. While the second question may involve some judgment about the possibility that the information would be useful, the emphasis should be on avoiding trying to guess what beneficial uses might be made of the information. Instead, the emphasis should be on releasing as much as possible in an accessible way, and then allowing potential users to find their own forms of value-adding.

Should the Victorian public sector increase access to information, innovation will be best encouraged without any distinction being made on whether that information is more appropriate for private sector developments or public knowledge or community benefit. Emphasis should therefore be placed on releasing sets of information in a low-cost, accessible format. Innovation will flow from there.

4. ***Submission:*** *We recommend that, rather than make value judgments as to certain types of information on the basis of what material is perceived to be beneficial to certain sections of the community, the Victorian Government adopt an approach where the community is given access to as much information in completed form as it is practicable to supply, and in as high a quality to facilitate re-use as is practicable.*

Q5 How can social engagement, in particular through the development of spontaneous social networks, be enhanced through the provision of enhanced access to PSI?

Current developments in the US[4] and UK[5] suggest that the past reluctance to make public sector information accessible to citizens is a hindrance to engaging an informed and interested population in social and political activity. There is increasing awareness of the

[4] For example, US FOI legislation was revised in 2007, under the *Openness Promotes Effectiveness in our National Government Act* (2007). See <http://www.usdoj.gov/oip/amended-foia-redlined.pdf> and <http://www.state.gov/m/a/ips/>

[5] The UK government revised its approach to Freedom of Information, with the *Freedom of Information Act* 2000 (UK). See http://www.homeoffice.gov.uk/about-us/freedom-of-information/

importance of encouraging access to public sector information, in order to facilitate innovative and socially valuable uses of such information.

A valuable illustration is the example of Directgov.uk, a website tagged as "the official government website for citizens".[6] Provision of enhanced access to PSI from a range of sectors and public services enables citizens to acquire information related to diverse areas administered by government. Of particular note are tools such as access to information for researching a person's family history, giving access to the UK census and National Archives, [7] and the Draft Legislative Programme, where citizens are able to comment on drafts of Bills and specific policy issues through the one portal.[8]

Creation of a similar government website in Australia, 'ourgov.au', was proposed at the recent 2020 Summit, appearing as a 'top idea' in the Final Report.[9] A website in this vein, based on Victorian public services and information, would provide a widely accessible vehicle for enhanced access to PSI for all citizens. The independent development of social and other networks would be facilitated by such a website; greater access to PSI would further contribute to the civic value of such networks, by allowing sharing of information and knowledge integral to an informed and community-minded electorate. Enabling such services should be founded upon an express commitment to encourage access to and organic development of networks, rather than control of these networks.

5. ***Submission****: Enhanced access to PSI in order to encourage social engagement, particularly through avenues such as social networks, would be greatly facilitated by the provision of a comprehensive government website which allowed and facilitated re-use of the information it provided, not mere access to it. Such a website would offer significantly enhanced access and re-use to PSI of all types via the one portal, as well as providing a focus for the independent development of civically beneficial social and other networks.*

Q6 In what circumstances can open access to PSI empower individual citizens and communities to participate in social and political activities?

Numerous uses and applications of open access information, often enabled by open licensing systems, are increasing in various social and political spheres. The demand for such open access to PSI may therefore already be seen to exist. New and creative uses of PSI that will be socially, politically or economically enriching for Victoria should be enabled. Attempting to define the circumstances under which such access will be useful will not be a helpful exercise; innovation, creativity and socially or politically significant expression cannot be predicted, defined and brought under a list of rules and exceptions.

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6 <http://www.direct.gov.uk/en/index.htm>

7 < http://www.direct.gov.uk/en/Diol1/DoItOnline/DG_4017473>

8 < http://www.commonsleader.gov.uk/output/page2391.asp>

9 Department of the Prime Minister and Cabinet, "The Future of Australian Governance", *Australia 2020 Summit – Final Report* (2008), p308. See <http://www.australia2020.gov.au/final_report/index.cfm>

The following examples illustrate the potential that lies in open access to information, to create conditions that will encourage greater participation in social and political processes by both individuals and groups (although these examples do not involve use of PSI specifically). *YouDecide2007*,[10] a citizen journalism initiative between SBS, On Line Opinion, the Brisbane Institute, and QUT Creative Industries covered the 2007 Australian federal election, using the Creative Commons BY-NC-ND 2.5 AU licence. *On Line Opinion*[11] uses the Creative Commons BY-NC-ND 2.0 licence. *EngageMedia*, a video-sharing website, focuses on social justice and environment issues in Australia, South East Asia and the Pacific.[12] Civil society organisations are also making increasing use of open content tools. The Association for Progressive Communications Australia[13] has released 10 years of documentation on the use of ITC for community development, under a Creative Commons licence (CC BY-NC-ND 2.5 AU) on a publicly-available wiki for Document Freedom Day 2008.[14]

6. ***Submission****: We submit that open access to PSI should be a priority where the participation of individuals and communities in social and political activity is valued. A culture of valuing open access to PSI, without prescribing express circumstances or conditions for access, nor seeking to control resulting projects and activities, will create optimum conditions for innovative, unexpected and useful applications of PSI.*

3. What should be the scope of PSI which is opened up?

Q7 What institutions and agencies should be considered part of the public sector for the purposes of this Inquiry? What advantages will be obtained by encompassing some or all of the following agencies and institutions under this definition:

- **executive government: principally government departments, but also incorporating statutory authorities?**
- **the legislature: including parliament?**
- **the judiciary?**
- **local councils?**
- **other public institutions, such as universities, TAFEs, public hospitals, etc?**

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[10] <http://www.youdecide2007.org/>

[11] <http://www.onlineopinion.com.au/>

[12] <http://creativecommons.org.au/asiaandthecommons/engagemedia>

[13] <http://wiki.apc.org.au/index.php?title=Documents>; See also <http://www.apc.org/en/news/access/asiapacific/apc-aucelebrates-document-freedom-day>

[14] <http://www.apc.org>

We see no reason to exclude any of these institutions from the public sector for the purposes of adoption of a general policy in favour of maximizing release of PSI for both access and re-use.

However, the factors which may legitimately limit either access or re-use in some circumstances are likely to differ between categories, including the following factors:

In relation to case law, there are appropriate restrictions limiting the dissemination (ie re-use) of at least some court decisions on privacy grounds. However, we are not suggesting these limitations should be imposed by reliance on copyright law or licences. Direct statutory imposition of limits is more appropriate.
In relation to the academic outputs of Universities and TAFEs, while there are increasing steps toward making it mandatory for publicly funded research outputs to be available via free access repositories, the reputations and careers of individual authors are very strongly tied to those outputs, so particular care must be taken to protect those interests while balancing them against the public interest in access.

7. ***Submission****: There is no reason to exclude any of these institutions from the public sector for the purposes of adoption of a general policy in favour of maximizing release of PSI for both access and re-use. However, the factors which may legitimately limit either access or re-use in some circumstances are likely to differ between categories, and would be best handled by direct articulation in legislation.*

4. Pricing and PSI

Q11 What criteria should government apply when determining whether to provide access to PSI? Under what circumstances would the following pricing options be appropriate:

- ***no cost?***
- ***marginal cost or cash recovery?***
- ***commercial profit and return?***

8. ***Submission:*** *The Victorian Government should avoid policies which allow 'commercial profit and return' for so-called 'value added' information, thereby restricting free access and re-use to some lesser categories of information. What constitutes 'value adding' is subjective and changeable, and commercialisation based on 'value adding' creates conflicts of interest between the policy of maximising access and the policy of profit-making. Under such circumstances, public access and re-use will inevitably lose out.*

9. *We agree that there is an emerging consensus that free access or marginal cost is the appropriate policy for PSI.*

5. Open content licensing

Q12 What other open content licensing models may be of interest to the Committee?

The AEShareNet Licensing System, operated by TVET Australia, licences about 3,000 learning objects for free educational use, and in some cases with rights to modify, primarily for use in the technical and further education (TAFE) sector. In addition, about 600 pages on the web use its 'Free for Education' (FfE) licence. The AEShareNet licence suite was one of the world's earliest developments of open content licensing. AEShareNet resources are searchable along with other Australian educational resources from all sectors via Education Network Australia (edna), but it is not possible to limit searches there to items that are available for free educational use or modification.[15]

10. ***Submission****: The AEShareNet licensing system may be of interest to the Committee, particularly in relation to the TAFE sector in Victoria.*

Q13 Is the absence of conditions regarding geographical restrictions or no endorsement in Creative Commons likely to be an issue for Victorian PSI?

11. ***Submission:*** *There is no value in geographical restrictions in commons licences. It is of as much value to Victorians to be able to use Western Australian or British Columbian PSI as it is for residents of those jurisdictions to use Victorian PSI. Such 'public rights' are of most value to everyone when they are part of as broad a global system of re-use as possible. Victoria needs to play its part in creating both Australia-wide and global information commons.*

12. ***Submission:*** *Licences are not the only way to impose conditions on particular types of licences, such as 'no endorsement' or 'no derogatory use'. Australia has moral rights law, and for that matter the Australian Creative Commons licences do have a moral rights provision. In general, it would be better to have something like a Public Sector Information Act which simply imposed appropriate conditions on the use of various types of PSI, while leaving the licence, as a matter of copyright law, consistent across all forms of PSI.*

Q14 What are the merits of the Victorian Government developing its own whole-of-government licensing framework as an alternative to adopting the Creative Commons licensing system?

13. ***Submission:*** *There are probably few advantages in the Victorian Government adopting its own whole-of-government licensing framework, in comparison with statutory provisions coupled with Creative Commons licences. Licence simplicity and uniformity is likely to increase both understanding and use.*

[15] See Greenleaf, 'Innovations Review' Submission 2008, pp 6-7

Q15 Is it appropriate for the Victorian Government's licensing framework to comprise both the Creative Commons licenses and other more tailored licenses?

14. ***Submission:*** *It could be appropriate but it might also be unnecessary if appropriate statutory provisions were also adopted.*

Q16 What are the benefits of establishing a central agency whose core responsibility would be managing the Victorian Government's licensing model?

15. ***Submission****: There needs to be a central government point of policy and reference for copyright matters affecting government information; this could just as easily be within, for example, the Attorney-General's department as it could be in a separate agency. Such a body needs to deal with policy matters, licence administration, enforcement of statutory provisions, and relationships with copyright institutions affecting PSI such as Copyright Agency Limited.*

16. ***Submission****: Attention needs to be given, on a whole-of-government basis, to whether PSI available for free access is being subjected to the collection of compulsory licence payments by institutions such as schools, and consistent policies developed and enforced.*

17. ***Additional Submission:*** *The Discussion Paper is correct in stating that effective search mechanisms are essential for an effective system of open content in relation to PSI. However, it seems to incorrectly assume that the search facilities provided by Creative Commons, by Yahoo, to search for Creative Commons licences are effective.*

These mechanisms are not effective, as shown by the work of Bildstein in the 'Unlocking IP' project.[16]

6. Open source licensing

Q18 To what extent have other Australian governments adopted the use of OSS in their ICT business solutions?

Governments in many jurisdictions are exploring the appropriate application of open source models to control, IP and cost containment issues, and implementing policies enabling their use. The pace and scope of implementation has increased over the last decade, [17] in Australia and internationally, although increasingly the open source debate is

[16] http://www.cyberlawcentre.org/unlocking-ip/

[17] At the federal level see Open Source Software Overview', Department of Finance and Administration, November 2007', p1 http://www.finance.gov.au/e-government/infrastructure/docs/ Open_Source_Software_Overview_ November_2007.pdf viewed 2 September 2008. For an international example, see 'Policy on Free and Open-source Software', Government Policy of Iceland, Prime Minister's Office, December 2007 < http://eng.forsaetisraduneyti.is/media/English/ Free_and_Open_Source_Software_-_Government_Policy_of_Iceland.pdf>

being subsumed into a search for business models that can profitably blend open and proprietary processes and products.[18]

One recent international survey divided open source policies into four categories: research, mandates (where the use of open source software is required), preferences (where the use of open source software is given preference, but not mandated), and advisory (where the use of open source software is permitted):

> "In 2007, we found two hundred sixty-eight open source policy initiatives. Of those approved, only six (3.4%) mandated the use of open source software. Another fifty-six policies (31.6%) required government entities to show a preference for open source software in acquisition decisions. Initiatives establishing a preference for the use of open source software were more likely to be approved at the regional or local level, while national level authorities were more likely to approve advisory initiatives for open source software. The majority of approved initiatives in Europe and Asia involve research programs. In Latin America, the majority of approved initiatives are policies calling for a preference for open source in government acquisitions."[19]

NSW has had an open source panel since at least 2005.[20] Panel Contract 2316, Open Source (Linux) Enterprise Software and Services, was the first open source panel contract in Australia.[21] By 2006 NSW was "tipping savings of $2 million a year from the rollout of Sun Microsystems' Star Office package to registry managers and the Mozilla browser and email client to 1500 computers used by the authority's front counter staff in vehicle registries across the state."[22] However, there were reports that other take-up was more limited than expected. Information and awareness were cited as critical.

In December 2003, the ACT Legislative Assembly passed the *Government Procurement (Principles) Guideline Amendment Act 2003*, regarding the use of open source software by ACT government entities. The new Act required government entities to consider open source software, and avoid procuring software that either does not comply with open or ISO standards or allows the software vendor to exercise exclusive control over its sale or distribution.[23]

In Queensland, particular universities such as QUT have OSS preference in policies, but have in practice committed to proprietary integrated solutions on a large scale.[24]

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[18] Government Open Source Policies, Center for Strategic and International Studies (CSIS), August 2007, p1 < http://www.csis.org/media/csis/pubs/070820_open_source_policies.pdf>

[19] *op. cit.*

[20] <http://www.zdnet.com.au/news/software/soa/NSW-announces-open-source-software-suppliers/0,130061733,139187094,00.htm>

[21] CIO 21 March 2006, <http://www.cio.com.au/index.php?id=1990361190&eid=-601>

[22] 'NSW State Government makes Open Source Move' IOSN, 10 July 2007, <http://www.iosn.net/government/news/news_item.2004-07-13.8267091466>

[23] Ian Oi, 'Open Source and the Public Sector', Linux and Open Source in Government 2004 conference paper, <http://classic.auug.org.au/events/2004/ocgconf/programme.html#oi-hughes>

[24] < http://www.mopp.qut.edu.au/G/G_05_03.jsp>

18. ***Submission:*** *The Victorian government should assess the recent development of policies and procedures in relation to procurement and implementation of Open Source software in other Australian jurisdictions, with a view to compiling a 'state of play' summary and observations about best practices, experiences and trends which may inform future policy in this area.*

Q19 What risks and benefits do OSS products offer over proprietary software for use in government operations? Are there opportunities for broader adoption of OSS by the Victorian Government?

The ongoing evolution of OSS, such as that licensed under the General Public Licence (GPL), has demonstrated a vitality and creativity that 'closed' or proprietary software has sometimes struggled to match.

Some OSS software is commercial and some is not. Despite this, the community and business organisations that support FOSS development show a remarkable integration and respect for each other's capacity to contribute, notwithstanding the great range of sizes (from individuals to global giants) and the business models they embody (from loose groups of colleagues contributing to joint projects for a variety of motives to large profit-oriented businesses). This is worth supporting.

One function of government is to support or provide certain infrastructure. OSS can be partially self-financing,[25] compared with the steep investment requirements of physical infrastructure or proprietary asset acquisition, although in some instances it will require investment of a similar order to other models, for example in the case of an industrial-level rollout. It may be fruitful to explore options for strengthening the foundations for this capability, which governments could support and enhance; for instance there are issues concerning tax treatment of contributions, which governments at all levels could help address, as is being done in some other countries.

OSS is one of the more established and mature examples of the operation of a 'commons-based production' system in a global commercial environment. Dating in practical effect from the early 1990s, it has approximately an extra decade of historical evidence demonstrating how it works in the real world than the more recent forms of 'Open Content' licensing discussed earlier in this paper. There is potential for fruitful comparative analysis between these two systems; there may also be further-evolved indications of the sorts of problems that these paradigms experience in widespread practical adoption with real business models, problems that may warrant various forms of support or accommodation if we are to retain the maximum innovation benefit from this model.

Many benefits are claimed for software developed under the OSS model, particularly for governments seeking multiple suppliers, low initial investment, limited 'lock-in', access

[25] Both through voluntary collaborative development and also the wide and rapid takeup of OSS products creating an technical community able to offer support.

to free or cheap utilities, and limited or no licensing costs for large implementations. There are also a variety of impediments to the realisation of these potential benefits.

Recognising where these impediments lie is important to Australia and Victoria for a number of reasons. Due to our small market size and exposure to the products and services of almost every national and international IT industry, we have not yet developed a home-grown global scale IT company or established global industry standards; however, we do we have many micro- and small-to-medium IT businesses and experts, capable of contributing to the leading edge of global-scale projects. Such smaller contributors depend, more than larger players, on access to a range of licensing models, and low cost compatible tools to use in providing competitive services.

A key feature of the OSS system is the ready customisability of such software and software models. This flexibility aligns well with the need to customise generic products for the special needs of specific Australian businesses or groups thereof, especially small-to-medium enterprises (SMEs), who would otherwise often be prevented by cost considerations from tailoring their tools to their requirements. Such tailoring can contribute significantly to productivity and international competitiveness by enabling local businesses to adapt software to their evolving business processes, rather than be constrained to adapt and limit those processes to match relatively inflexible generic software.

There are also substantial initiatives in, for example, the education sector, which increasingly benefits from low-cost compatible tools which can be easily customised. For instance, a project was launched in the US tertiary sector to develop open source accounting and other bespoke software products for that sector, specifically because the education sector, or particular members of it, are not 'big enough' to influence existing software vendors to meet education's needs. [26]

It is worthwhile to note that some less popular Open Source projects may languish from lack of developer interest, or other erosion of active support. The nature of the open source model suggests that external programmers would be well placed to take up the challenge of maintaining such neglected software, perhaps on a contractual basis; nevertheless, there remain questions about the advisability of a government entity taking on such a burden. (Proprietary software companies may of course go out of business or cease to support a product under these circumstances, and the prospect of another developer being able to take over the orphan code would be far more unlikely). These issues are quite significant in the Archive and Data Retention areas.

19. ***Submission:*** *The Victorian government should examine the various means of retaining access to data and functionality of orphaned or non-supported software under both models, and identify risk mitigation approaches to retain the option of reviving or redeveloping such software where it is valuable enough to warrant this..*

[26] UIP Innovations Submission, pp52-53

Q20 What is the capacity for both software models to coexist in the same organisation?

By and large coexistence is viable, both theoretically and in practice. For instance, the 2007 ASK-OSS survey for the federal government found:

> "Over 90% of [federal] agencies believe that OSS and proprietary software can coexist productively" [27]

One of the more ardent proponents of the proprietary model, Microsoft, has in recent years apparently come to accept the desirability of establishing the conditions for co-existence: "While the philosophical differences between the OSS and proprietary software models are substantial, in practice, software developers of all types often pursue licensing and business strategies that reflect elements of both. Both models are likely to continue to play important roles in the years ahead and must be able to peacefully coexist."[28]

But there are serious issues to consider here; the details of specific licences and specific use scenarios are important, as is the option of separate zones of use of one or other model for certain purposes. Standards are also important in mixed environments.

For instance, the GPL v3 may be more restrictive about use in a heterogeneous licence environment than GPL v2. Other licences broadly classed as 'Open Source' may be less or more restrictive, depending on the issue and the specific application. Enforcement and litigation is increasingly possible, so these issues cannot be ignored.

In addition, diverse Open Source licences can themselves be mutually compatible for use in the same project, even where their terms are different and possibly inconsistent: see for example the list of co-existing component licences at <http://code.google.com/ chromium/ terms.html>. [29]

The potential for coexistence between Open Source and proprietary models also depends on a consideration of issues of modularity, boundaries and interactions between the different elements of a software collection, and the use of methods of inclusion of items like libraries of standard code in other tools. This may require careful initial technical analysis to unravel, but it is likely to be feasible and useful to set out a limited number of

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[27] 'Open Source Software Overview', Department of Finance and Administration, November 2007', p1 http://www.finance.gov.au/e-government/infrastructure/docs/Open_Source_Software_Overview_November_2007.pdf viewed 2 September 2008.

[28] Microsoft, 'Primer on Open Source Software and Proprietary Software', draft of 2005; see also more recent discussion at <http://download.microsoft.com/documents/australia/about/microsoft_commercial_software_in_australia.doc>

[29] For instance, the one new browser requires for source code the BSD license, BSD Protection License, GPL 2.0, ICU license, LGPL 2, LGPL 2.1, libpng license, Microsoft Permissive License, MIT license, MPL 1.1, Public domain, Special exception license and zlib license. While these are different and in some respects inconsistent, this does not stop them coexisting in the one piece of executable code derived from the source code licenced under their various terms.

common typical cases into which many real implementations would fall, and over time build business rules and wider understanding of the legal, technical or usage issues which are raised by interactions in such scenarios.

As the various components become closely integrated or interdependent, licencing issues may crystallise; the Open Source legal online discussion fora are filled with such scenarios. In the most extreme case the integration may not be feasible due to incompatible licencing terms, but in practice there are often means of achieving the intended benefit without such an outcome.

This analysis is a useful task for government to facilitate, in conjunction with business, developer, user and research communities.

In addition, standards and standard-setting are particularly important for business models that mix open and proprietary software: "Standards provide the basis for the collaboration. While there is general consensus that "open" standards are best – as they expand the scope for collaboration and innovation – there is less consensus on what qualifies as open. Software designed to an open standard can be either proprietary or open source. The result is a complex mix of issues involving intellectual property and competition." [30]

20. ***Submission:*** *The Victorian government should examine the role of interoperability as a key facilitator in mixed IT licence environments, in particular in the guise of Open Standards, and develop guidelines for the practical application of such preferences for use of tools which support such interoperability.*

21. ***Submission:*** *The Victorian government should support work to identify and describe some of the more common and important ways in which various combinations of licence type variety and component integration give rise to both generic problems for the coexistence of Open Source and proprietary software models, and generic solutions.*

Q21 What is the role of the Victorian Government in procuring and distributing OSS in ICT business solutions?

See above at Q3 and Q20.

It has been noted by many commentators that access to relevant, specific and clear information is critical in deciding to which IT systems or models to commit. There are a number of options for improving the current availability of such data. This is probably a more effective use of limited resources than trying to back certain industry players or projects, as it would harness the great diversity of potential contributors for years to come.

[30] CSIS, *op.cit.*

22. ***Submission:*** *The Victorian government should assess which of the following initiatives would give most sustainable benefit towards building capacity to apply appropriate licence types for a given task, taking into account its licence model and other attributes relevant to its intended use:*

Publication of detailed expert analysis, in plain English, of the specifics of various OSS licences and associated open content licences;

Analysis of the criteria, characteristics and needs which may apply to various typical projects and usage scenarios;

Identification of criteria for selecting between licences for various uses;

Worked examples of the application of the above analyses in real world case studies;

Recommendations upon a range of easily acceptable licences for common uses, and explanations of cautions regarding any reservations or restrictions, eg GPLv3 and patents or other types;

Offering for a number of years as start-up stage assistance, an advice centre which businesses and agencies could seek advice from, whether by email or phone;

Clarifying the criteria for assessment of business cases for OSS procurement, and reviewing existing criteria to remove any arbitrary or unintended barriers to procurement decisions;

In-principle adoption of the most open and compatible standards, formats and interchange models available, so that the range of possible OSS or proprietary implementations which can work with them is maximised;

Extending business case analysis to consider the full range of costs and benefits over the lifetime of products and services; a holistic assessment of competitive benefits for procurement choices should be based on more than a subset of criteria. In some cases, this may suggest proprietary offerings may have a lower total cost of ownership and greater net benefit, while in other cases OSS systems win out. The important thing is to undertake thorough and fair assessments of the needs of the job.

Review the long term benefits of standardisation on proprietary services, to avoid automatic entrenchment of status quo against the weight of net benefits. In some cases these benefits will stack up, but in other cases they may be outweighed by OSS attributes.

Consider using OSS for tools and services distributed by agencies, as these will often have lower distribution costs.

Consider contributions to open source development, infrastructure or resourcing efforts where these may be strategic for government or the local economy. The long term return on such investment may be significant, and in any case the model relies on reciprocal contributions to sustain it, so it is appropriate to make such strategic interventions even where such ROI is hard to quantify.