



Community Languages Online

Current practice and future directions of multilingual information on Victorian Government websites.

June 2007



This report was produced for the Department for Victorian Communities by Vicnet, a division of the State Library of Victoria.

Project team

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Minister's introduction



The internet has become an integral part of modern life. These days we use the internet for everything from checking the weather and reading the news, to online banking, booking holidays, staying in touch with friends and family, or finding a job, home or partner. In the space of a few years, Australia has become one of the top ten countries for internet use in the world. By 2006, 79 per cent of Australians over the age of 16 had used the internet.

Of particular significance is the marked growth in the proportion of people using the internet to interact with all levels of government. Australians already have access to a wealth of government information and services online – from downloading public transport timetables or health information to lodging tax returns, paying rates, claiming benefits, applying for passports, Medicare cards or business licenses. These examples highlight the opportunities available to government to deliver information and services in more creative, efficient and effective ways.

While much of the content on Victorian Government websites is in English, more and more content is available in a range of community languages. Directories such as the health and justice translation directories – which between them provide access to more than 11,000 translated resources in over 65 languages – highlight the extent of multilingual content already available on the internet and the level of interest and initiative within the Victorian Government into making these resources available.

Community Languages Online presents the findings of a research project to examine how government can optimise the way translated content is produced and made available online to Victorian communities. Based on comprehensive research into current Victorian Government practices, and extensive consultation with service providers and ethnic communities, this timely report highlights the need for improved awareness, skills and processes in multilingual web publishing in Victoria.

To address these areas the report recommends a number of simple measures, including the provision of training opportunities for ethnic communities, translating professionals and government staff; creating clear guidelines and standards; and improving the infrastructure and technical systems and support for multilingual web publishing.

Preliminary work has already begun in these areas. Among initiatives being undertaken are the creation of a training module to support translators in upgrading their IT skills and knowledge, and the development of guidelines and tools for multilingual web publishing. In conjunction with seminars and workshops, these resources will help translators and government employees produce effective translations for the web.

Minister's introduction (cont.)

Our vision is the eventual creation of a multilingual online directory that will make it simple and easy for Victorians who speak languages other than English to benefit from using the internet to interact with government. The report contains a blueprint for this vision, illustrated by an online demonstration of what could be achieved through such a model. By putting into practice the report's recommendations we can lay strong foundations for turning this vision into reality.

An opportunity exists for Victoria to take a lead in this emerging area. By improving the quality and extent of multilingual government web content and making it more relevant, accessible and readily available, we can start to ensure that all Victorians benefit from the significant advances in communication and service delivery that the internet has made possible.



HON DANIEL ANDREWS MP
Minister Assisting the Premier on Multicultural Affairs

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1 Executive summary

Language is the foundation of communication between people and is also part of their language heritage. For many, language has far-reaching emotive and cultural associations and values rooted in their literacy, historical, philosophical and educational heritage. For this reason the users' language should not be an obstacle to accessing the multilingual heritage available in cyberspace.¹

1.1 About the project

This report details findings and recommendations from research into how multilingual web-based government information can be created and used in the best way for culturally and linguistically diverse (CALD) communities.

The project was commissioned by the Victorian Office of Multicultural Affairs² (VOMA). Research and subsequent developmental work was undertaken by Vicnet, a division of the State Library of Victoria.

1.1.1 Why consider a multilingual website?

The functionality and usefulness of Victorian government websites have increased significantly as a result of continuous improvement since the use of the web for government communication started almost ten years ago.

As the internet continues to provide a communication channel to the wider community, improvement of translated content on Victorian government websites is needed to ensure that online information is accessible for CALD communities. This is in line with wide-ranging Victorian Government policy that supports access to government information for all Victorians.

The initial vision for this project was to undertake developmental work on a Whole of Victorian Government (WoVG) multilingual website as part of the Victorian Government's Language Services Strategy.

Other online projects developed through the Language Services Strategy are the Health Translations and Justice Translations directories.³ These projects are based on a model where an English-speaking intermediary accesses information on behalf of non-English speakers (mediated access). In contrast, the focus of a one-stop

- 1 UNESCO (2003), *Cultural and Linguistic Diversity in the Information Society*, www.portal.unesco.org/ci/en
- 2 As of May 2007, the Victorian Office of Multicultural Affairs has been absorbed within the Victorian Multicultural Commission.
- 3 <http://www.healthtranslations.vic.gov.au/>; <http://www.translations.justice.vic.gov.au/>. Both websites are directories and do not contain any content of their own.

1 Executive summary (cont.)

WoVG multilingual website was envisaged as a resource that could be accessed in community languages without mediation (direct access).

Research into how CALD communities can best access government information online has broad relevance to many areas within government, particularly those concerned with communications, language services, diversity and community access.

1.1.2 Project objectives and scope

The project had two key objectives:

- to identify a potential model for a Whole of Victorian Government (WoVG) multilingual website to improve CALD communities' access to government information on the internet
- to analyse current practice and make recommendations for improved provision of multilingual web-based government information.

The project included research into how multilingual content is currently created for government websites. It also involved extensive consultation with CALD communities to gauge community perceptions and expectations for online information.

A further focus was to identify key technical requirements and best practice for tailoring online information for CALD communities. In addition, a proof of concept website was created to demonstrate the potential functionality of a WoVG online multilingual access point.

1.2 Overall findings

We found there is interest in, and acknowledgement of, the potential usefulness of a WoVG multilingual website. However, before such a site can be developed, important preliminary steps are necessary. There are two main reasons for this.

First, our research showed it is not yet common practice for people in CALD communities to seek out translated online government information. The current limited use of online translations by CALD communities is, in part, related to the difficulty of discovering and accessing translations.

Second, our research also revealed that the current format of most multilingual information online is not suitable for inclusion on a WoVG website. Without changes to the quality of online information, a WoVG website is premature.

1 Executive summary (cont.)

Given this, we have identified five key steps that need to precede the development of a WoVG website. These form the basis of our project recommendations.

1. Support CALD communities to use the internet.
2. Develop standards and guidelines for the creation of multilingual content.
3. Support skills development for translators.
4. Introduce content management systems⁴ that fully support relevant languages and their scripts.
5. Review progress towards improved support for the provision of multilingual online information.

1.3 How do CALD communities use the internet?

1.3.1 Overall internet use

Community leaders describe internet use among CALD communities as varied: internet use is affected by circumstances, perceptions and individual characteristics. Statistical data from the 2001 census⁵ showed that overall uptake of the internet by Victorians who speak a language other than English at home is slightly lower than that of the English-speaking population. However, for some languages such as Chinese, Spanish and Serbian, uptake was proportionately higher. Regardless of the language spoken, the internet is mostly used by people between 15 and 55; this is similar to uptake in the wider population.

All community leaders we spoke to claimed that internet use will increase, and that perceptions of the internet are changing. For example, some CALD seniors are beginning to demonstrate interest in the internet and more people are acknowledging its potential as an information source. Some new arrivals have come to Australia with established skills and have expressed a need for public internet access.

- A significant issue – raised in more than half of the community consultations – was that some groups within CALD communities experience significant barriers to internet training and access because of limited language skills, the prohibitive cost of home internet access, and difficulty accessing public internet services. These groups are most likely to be seniors, women, people on humanitarian visas⁶ and people on low incomes.

4 A content management system (CMS) is the software and infrastructure to manage and edit the content of a website

5 Australian Bureau of Statistics, Census of Population and Housing, 2001

6 Humanitarian Visa entrants are those who meet the definition of refugee under the United Nations Convention Relating to the Status of Refugee. They are likely to be in relatively disadvantaged social and economic circumstances upon arrival in Australia.

1 Executive summary (cont.)

Recommendation 1: Support CALD communities to use the internet

That more opportunities be provided for CALD communities to access the internet and gain the skills to use it.

This can be achieved by allocating resources for:

- *A detailed needs analysis* that identifies appropriate solutions to the difficulties experienced by CALD communities in accessing both internet training and publicly-available internet computers
- *Development of internet training programs* that respond to the outcomes from such a needs analysis, and enhance CALD communities' skills in accessing online information
- *Increased public internet access points* that respond to the outcomes from the needs analysis, and build CALD communities' capacity to access online information.

1.3.2 Information needs

CALD communities consider access to information 'in language' as important. Opinion about *what* should be translated varied according to the topic and community. While respondents specified a broad range of topics that were important to them, topics most frequently mentioned were housing, education, settlement, concessions and legal aid.

Overall, CALD communities prefer to receive information in a person-to-person situation – this is also the case for the English-speaking community. However, some community leaders and services providers are directing people to online information.

Ethnic radio and newspapers were rated highly as information sources. Because literacy was identified as an important consideration for members of some CALD communities, written information may sometimes need to be supplemented in other formats, such as audio.

1 Executive summary (cont.)

1.3.3 Use of the internet to find government information

Those most likely to seek government information online are community workers who find it a useful way to access information on behalf of clients. In most cases, however, translated material within websites is difficult to find. Also, few people within CALD communities were aware of existing online translated information about government services. In general, people do not expect to find translated government information online.

Recent demographic profiling of users of Victorian Government English websites suggests there is some interest in accessing information in languages other than English. Although preliminary, this data represents the perspective of people who are bilingual and access government information online, and indicates a potential demand for translated information.

1.4 What is happening with translated online government information?

Multilingual information can be located on Victorian government websites in two ways:

- *Direct access* is where an individual can locate information independently because all text and links to information are in the required language.
- *Mediated access* is where translated information is contained within an English language website, usually in PDF⁷ format, and a person with sufficient English literacy is required to navigate information on behalf of a community member.

We found more than 60 instances of translated content on Victorian Government websites. In most cases, the navigation links and signposts are in English, so few people can directly access information in their language. In some cases, the design of websites is optimised for mediation (for example, The Health Translations and Justice Translations directories). This means a practitioner or community worker can locate the information in the required language for a community member after verifying appropriateness by checking the English version of the text.⁸

7 Portable Document Format. A PDF is a type of document file designed to faithfully reproduce a printed version of the document. PDF files are commonly used as an intermediate file that can be sent to commercial printers for printing.

8 68.4% of websites with translated content require mediated access, however, only 3.5% are optimised for mediation.

1 Executive summary (cont.)

1.4.1 Format of translated content

The technical approach used by a web editor to include multilingual content on a website influences how accessible that content will be and affects the quality of the end-user experience.

The most accessible means of incorporating text into a website for *direct access* is through use of HTML (Hypertext Mark-up Language).⁹ This allows information to be easily read on a computer screen. When multilingual text is not in HTML format, it is often embedded in an image – either on the web page or within a PDF file. Although there are now some good examples of government websites with multilingual HTML components, most translated information on government websites is contained within PDF files.

A shift from PDF files toward an increased use of HTML with accessible in-language navigation will greatly improve the usability, accessibility and discoverability¹⁰ of online translated information. This will also make it easier for individual members of CALD communities to directly access that information.

Limitations of PDF files

The use of images within PDF files to display text is not accessible for people with visual impairment, and is disallowed by the current Victorian Government web standards. However, no current government guidelines support the creation of accessible PDF files.

In addition, PDF files are usually meant for print (not screen). This means they are less user-friendly than HTML: time consuming to locate and print; difficult to read onscreen.

Our technical scan also showed that most PDF files are buried within a website without navigational signposts to locate them – undermining any usefulness they might have. As well, most PDF files are not tagged correctly, which means they cannot be located through a keyword search.

⁹ The HTML is interpreted and displayed on the computer screen by web browsers.

¹⁰ Discoverability is the effective ability of a website to connect users to the information and resources it holds. For example, a website is discoverable if it can be located by a search engine through a keyword search.

1 Executive summary (cont.)

Best use of PDF files

The most effective use of PDF files is for material that will be printed, and when navigational sign posts easily enable a user to find the information. It is possible to construct PDF files in an accessible format, and to adjust the file size and screen resolution to improve the end-user experience.

1.4.2 Need for guidelines

Currently, the Victorian Government has no guidelines to support government officers to create non-English web content.

We found a clear need for guidelines and technical advice on how to create accessible and usercentric multilingual components for Victorian Government websites. (For example, PDF files that are constructed in an accessible format with clear navigational signposts and where file size and screen resolution can be adjusted to improve the end-user experience.) This includes publishing in multilingual HTML, and optimising PDF files to meet accessibility requirements.

During interviews, government officers often asked for advice to help them create multilingual content. For example, the person writing the content needs to be aware of the technical requirements for creating translations suitable for HTML format. The person managing the web architecture needs to be able to deal with web internationalisation¹¹ and, if not working directly with a program area, will also need to have an understanding of cross-cultural communication. Further, those involved in making purchasing decisions for content management systems need to be aware of the potential requirements to support languages other than English. Guidelines would also meet this need and foster better consultation and communication.

¹¹ Web internationalisation is the design and development of a web service, web site or document content that enables easy localisation for target audiences that vary in culture, region, or language.

1 Executive summary (cont.)

Recommendation 2: Develop standards and guidelines for the creation of multilingual content

2.1 Guidelines for creating and translating content

That the key existing WoVG communication guide *Improving the Use of Translating and Interpreting Services: A Guide to Victorian Government Policy and Procedures* (VOMA, 2003) be updated to include information on preparing translations for online use. The following information should be included:

- how to brief language service providers on web-based translations
- how to prepare content for translation that is suitable for publishing online
- consultation and communication between web-development departments and other staff.

Agency-specific communication guides should be updated as appropriate.

2.2 Guidelines for technical implementation

That relevant Victorian Government web standards are extended so that multilingual websites meet international best practice – that is, are accessible, discoverable and useable. This will involve:

- updating existing Victorian Government web standards as described in 5.3.2 of this report
- developing a new standard covering languages other than English that addresses web internationalisation issues (as detailed in the technical appendix to this report)
- developing guidelines for PDF accessibility to supplement the Victorian Government's web standard on accessibility.

2.3 Promotion of guidelines and training

That a coordinated program of professional development is provided for Victorian government staff involved in developing multilingual online content. Activities could include:

- targeted seminars
- specialised training sessions
- online support groups
- discussions within appropriate interdepartmental forums.

1 Executive summary (cont.)

1.4.3 Language service providers

Victorian Government departments and agencies use a number of language service providers to translate information for government websites. The way that text is translated and the format it is created in will influence the end result on a web browser.

However, language service providers vary in their capacity to use appropriate accessible formats. In many cases, current practice is to provide text in PDF format. In some cases, language service providers cannot supply translated text in Word document format even though this is more suitable for translations that are to be incorporated into a website as HTML.

Translators (and typesetters) need support to develop their skills so they can supply text in the appropriate format for HTML. Without skill development, the trend to contain translated text in PDF files and images will continue.

Recommendation 3: Support skills development for translators

That translators be supported to improve their technical knowledge and their capacity to provide appropriate translations for online use. This can be achieved through collaborative activities between government, peak bodies (e.g. NAATI and AUSIT) and the language services industry. Activities could include:

- training for translators to update relevant IT skills
- guidelines, toolkits and checklists for language service providers
- specialised professional networks.

1.4.4 Content management systems

The capacity of a content management system (CMS) will determine whether or not multilingual information can be included in an English-language website.

Without functionality to handle complex scripts and languages, or those written from right to left (such as Arabic and Persian), the formats in which information can be published will be limited.

Government officers in web units said they would benefit from advice on multilingual functionality when evaluating new content management systems. Future purchasing decisions for any CMS will determine the extent and quality of

1 Executive summary (cont.)

multilingual information that can be included in Victorian Government websites (at both whole of Government and departmental levels).

Recommendation 4: Introduce content management systems that fully support relevant languages and their scripts

That content management systems for Victorian Government websites have the capacity to support multilingual content.

4.1 To achieve this at a Whole of Victorian Government level:

- The Victorian Government should seek specialised technical advice to ensure that any Whole of Victorian Government web content management platform provides adequate support for multilingual content.

4.2 To achieve this at a departmental level:

- Content management systems that do not support provision of multilingual content should acquire this function either through a migration strategy or future upgrades.
- Departmental information architecture plans and content development plans should be amended to consider the requirements of languages other than English.

1.5 Opportunities for improvement

1.5.1 Multilingual information online for CALD communities

Because people in CALD communities do not expect to find multilingual government information online, and few sites with translated content are known of, the usefulness of web-based information remains untested. As there continues to be more demand for translated information, it is possible that the web can be used to expand access to information about popular topics such as health, housing, settlement, concessions and legal aid.

A practical use of the internet (commonly identified by community workers, particularly in regional areas), is as a repository where a worker can locate

1 Executive summary (cont.)

information on behalf of a client or customer through *mediated access*. If more information can be located through *direct access* in community languages, the mediation role of community workers or family members can include showing people websites where they can independently browse for information.

Opportunities also exist to provide access to information in audio or audio/visual formats. As ethnic radio stations such as SBS and Radio Australia continue to make downloadable audio available on their websites, CALD community's familiarity with this format will increase.

A desirable measure of the usefulness of a site is that it is good enough to be recommended by word of mouth.

1.5.2 Improving the quality of online translated information

All the requirements to create usable, accessible and discoverable translated online content are attainable. The relevant techniques, software and content management systems exist, and some new Victorian Government websites exemplify this.

The quality and usability of Victorian Government websites have improved significantly in recent years. However, the opportunity exists to improve the quality of multilingual web-based government information by raising awareness of technical solutions among government departments and agencies, and by developing applicable WoVG guidelines and standards such as:

- guidelines for creating and translating content (for example, guidelines on preparing online documents for translation or for briefing translation companies)
- guidelines for technical implementation (for example, tools and tests to evaluate multilingual support in content management systems; web development standards and techniques for creating online content in community languages).

As recommendation 2 makes clear, those guidelines also need to be promoted if they are to support change.

They will also need to be supported by relevant training and will need to be promoted to government officers involved in authoring, planning, designing and implementing multilingual online information.

1 Executive summary (cont.)

1.6 Potential for a WoVG multilingual website

A WoVG website that provides a multilingual online government access point for CALD communities is a potentially practical communication mechanism that could:

- increase the distribution of translated information
- provide greater exposure to translated information through aggregation in a single site
- offer translated links and signposts to ensure the site could be accessed directly by individuals in community languages
- provide a useful directory.

In particular, community workers and community leaders saw the potential of such a site that could be easily accessed on behalf of a community member.

A well promoted single multilingual website will address the current issue of limited community awareness of translated government information online. It would also address the current lack of means for CALD communities to easily identify the breadth of information that is available, an issue that will become significant as the amount of translated information on Victorian government websites continues to increase.

An online proof of concept demonstration site has been created as an adjunct to this report to demonstrate the functionality of a potential WoVG website (see link in Chapter 6).

Before a WoVG website is developed, the significant work outlined in recommendations 1 to 4 needs to be well underway. Without this groundwork, development of a WoVG website would be resource intensive and highly complex. As more translated online information is usable, accessible and discoverable by CALD communities, the foundation for a successful WoVG website will be established.

Recommendation 5: Review progress towards improved support for provision of multilingual online information

That a review is undertaken by mid-2008 on progress made under recommendations 1 to 4 of this report.

If sufficient progress has been made, that a strategy is prepared for the development of a multilingual online government website, in line with the model recommended in Section 6 of this report.

2 Introduction

2.1 Background

In the last decade, the World Wide Web has become a well-established communication channel for the Victorian Government. Web-based information is used in several different contexts:

- as an additional contact point to government departments, similar to a telephone call centre or shop front service centre
- as an additional media channel, used for cross promotion with other channels such as radio, print and television
- as a repository and distribution point for written information.

Many government websites reflect Victoria's cultural and linguistic diversity.¹² There are currently more than 60 instances of translated content available on Victoria's government websites.

2.2 About the project

Vicnet, a division of the State Library of Victoria, conducted the project on behalf of the Victorian Office of Multicultural Affairs (VOMA).¹³

2.2.1 Project aims and objectives

This research identified how multilingual information can be created and used in the most effective way for CALD communities. Research focused on web use as an additional not alternative means of communication.

Specific research objectives were to:

1. Identify a potential model for a **Whole of Victorian Government (WoVG)**¹⁴ multilingual website to improve CALD communities' access to government information on the internet.
 - *Would a WoVG multilingual website be a practical information resource?*
 - *What are the necessary conditions for such a site?*

12 20.4% of Victorians speak a language other than English at home (Australian Bureau of Statistics, 2001 census).

13 As of May 2007, the Victorian Office of Multicultural Affairs has been absorbed within the Victorian Multicultural Commission.

14 The scope of a WoVG website is defined as a single site that brings together translated information, not a large-scale duplication of existing English language content.

2 Introduction (cont.)

2. Analyse current practice and make recommendations for improved provision of multilingual web-based government information
 - *How do CALD communities use the internet and translated government materials?*
 - *What are the barriers to and benefits of online information for CALD communities?*
 - *What are the technical and workflow issues for creating multilingual content?*
 - *How can technical standards and strategies enhance current practice?*

Technical aspects of this work are intended to inform the work of the Victorian Government in the development of web standards for web-based information in languages other than English.¹⁵

2.2.2 Project steering committee

The project was overseen by a steering committee comprised of representatives from the Victorian Office of Multicultural Affairs, The Department of Premier and Cabinet Strategic Communications Branch, The Office of the Chief Information Officer and Vicnet.

2.2.3 About this report

The rest of this chapter looks at the context for the research and outlines our research approach.

Chapters 3 and 4 outline our key research findings. Chapter 3 **describes the** perspectives of CALD communities about the use of the internet, interest in online information and need for government information. Chapter 4 **examines what is** happening with translated online government information. We look at **current** multilingual content on Victorian Government websites and how information is displayed, as well as the processes used to create content.

Chapter 5 moves beyond the current situation to outline opportunities for improvement. We **discuss the need for a change in practice to support how improved** multilingual content is provided and we outline how online information can be of value to CALD communities.

¹⁵ The Victorian Government Website Management Framework (WMF) currently enables consistent application of website standards across Victorian Government departments and agencies

2 Introduction (cont.)

While the research does not support the development of a one-stop multilingual website in the short term, Chapter 6 describes the potential for a Whole of Victorian Government multilingual website. That chapter is supported by an online technical proof of concept for a centrally coordinated website. Instructions on how to access this website are detailed in Chapter 6.

A glossary of terms is provided in Appendix A. Technical terms are also defined in footnotes throughout the report.

2.3 Victorian Government context

A number of overarching policy development portfolios shape the way that translated government information is provided online.

Growing Victoria Together: A Vision for Victoria 2010 and Beyond (2005) acknowledges that as part of a greater public participation and accountability, the Victorian Government has increased the amount of information available to the community on the internet.¹⁶

A Fairer Victoria: Progress and Next Steps (2006) outlines support for Victoria's multicultural community with a commitment to 'increase our efforts to improve access to services for our multicultural communities, especially language services, education and health services.'¹⁷

Valuing Diversity (2003) outlines Victorian State Government strategies to encourage participation of CALD communities in social and governmental institutions.¹⁸ Those strategies focus on ensuring government information reaches all Victorians through the use of appropriate media and promotional channels, and through improved delivery of translated government information.

The *Language Services Strategy* covers the development of policy and procedures for use of translating and interpreting services.¹⁹ Two significant web-based projects funded by that Strategy are the Health Translations and Justice Translations Directories.

16 *Growing Victoria Together: A Vision for Victoria 2010 and Beyond*, State of Victoria, March 2005.

17 *A Fairer Victoria Progress and Next Steps*, State Government of Victoria, June 2006, p.11.

18 *Valuing Diversity*, Victorian Office of Multicultural Affairs, Department for Victorian Communities, March 2003.

19 <http://www.healthtranslations.vic.gov.au>; <http://www.translations.justice.vic.gov.au/>
Both websites are directories and do not contain any content of their own.

2 Introduction (cont.)

*Connecting Victoria*²⁰ (1999) outlines the social, economic and educational agenda for universal access to information communications technology. The current framework, *Connecting Communities: the second wave*,²¹ outlines the Victorian Government's ongoing role in supporting public internet access and basic skills for the hardest to reach in the community. This includes people from CALD backgrounds. *A Fairer Victoria: Progress and Next Steps* also highlights this initiative to reduce the remaining barriers to internet uptake in the Victorian community.

*Putting People at the Centre: Government Innovation Working for Victorians*²² (2002) describes how better community engagement and more effective democracy can enable people to have access to competing sources of information and debate.

Figure 1 identifies key stakeholders in relation to policies and guidelines, programs and websites.

20 *Connecting Victoria: The Victorian Government's Strategy for Information and Communications Technologies*, Department of State and Regional Development, 1999.

21 *Connecting Communities: the second wave*, Multimedia Victoria, 2004.

22 *Putting People at the Centre: Government Innovation Working for Victorians*, Multimedia Victoria, March 2002, p. 5. (An update of this vision statement for 2006–10 is underway.)

2 Introduction (cont.)

Figure 1: Relevant policies and guidelines, programs and websites²³

Relevant departmental policies and guidelines

<p>Department of Premier and Cabinet <i>Growing Victoria Together</i> <i>A Fairer Victoria</i></p> <p>Office of the Chief Information Officer WoVG Website Management Framework Web standards & guidelines</p> <p>Strategic Communications Communications guidelines and policies Guide to Victorian Government Services</p>	<p>Department for Victorian Communities <i>Valuing Diversity</i></p> <p>Victorian Multicultural Commission Victorian Office of Multicultural Affairs</p> <p>Language Services Strategy</p> <p>Guide for use of translating and interpreting services</p>	<p>Department of Infrastructure <i>Connecting Victoria</i> <i>Putting People at the Centre</i></p> <p>Multimedia Victoria Victoria Online e-government resource centre</p> <p>Community Development (Connecting Communities initiatives that support communities to gain skills and access the internet.)</p>
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Programs and websites

<p>All department and agency websites</p> <p>Communications Diversity units Web communications</p>	<p>Languages Services Strategy (Online Translations Directories)</p> <p>Department of Human Services <i>Health Translations Directory</i></p> <p>Department of Justice <i>Justice Translations Directory</i></p>	<p>State Library of Victoria (Vicnet)</p> <p><i>Connecting Communities</i> initiatives: Skills.net Roadshow Public internet Access Program (PIAP) My Connected Community (mc2)</p> <p><i>Multilingual online</i> initiatives: MyLanguage.gov.au The Open Road</p>
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²³ The organisational structures and programs tabled represent the status at the time the research was conducted.

2 Introduction (cont.)

2.4 Research methodology

Research activities were undertaken in three areas:

- consultations (community, government, language service providers)
- demographic analysis
- technical research

As well, our analysis draws on information from our literature review (included at the end of this report) and the outcomes from panel discussions at the 2006 Open Road Conference.

2.4.1 Consultations

Community

Extensive consultations with individuals and community leaders from CALD communities were undertaken to answer the following questions:

- How do CALD communities use the internet?
Do members of CALD communities know about and access the existing translated government information that is online?
- How do CALD communities access government information?
Is translated government information online something that CALD community members will find helpful?
- How can online government information be useful to CALD communities?
What is the best way that multilingual content can be incorporated into a website to ensure an accessible and positive user experience?

Twenty-two interviews were conducted through individual and group meetings, telephone and email. In addition, the project and City of Darebin jointly commissioned focus groups with 40 participants representing nine language groups.

Through these consultations, the project engaged with representatives of 20 community and languages groups, both emerging and established:

Arabic	Croatian	Greek	Polish	Somali
Afghan	Eritrean	Iraqi	Portuguese	Sudanese
Burmese	Ethiopian	Italian	Romanian	Turkish
Chinese	Ghanaian	Macedonian	Serbian	Vietnamese

2 Introduction (cont.)

We also asked 18 service providers how they viewed the internet as a tool for disseminating translated information to community members. The range of service providers included ethno-specific organisations, migrant resource centres as well as regional and mainstream community organisations. The statewide peak body for ethnic community organisations, the Ethnic Communities' Council of Victoria was also consulted.

The interviews and forums were constructed on the principles of qualitative research and, although based on a set of questions, respondents were able to express their thoughts freely on other inter-related issues.

A list of the organisations consulted is detailed in Appendix B.

Government

Consultations were undertaken with a wide range of Victorian Government officers, particularly those directly involved in creating or publishing online translated material.

Key questions we asked were:

- How is translated online information created?
Who in government is involved in creating content, and how is this done?
- What technical issues arise?
If there is a need for change, how can change be implemented?
Is there a need for a WoVG website, and what is the recommended model?

A questionnaire was distributed and interviews were carried out with 31 government representatives to identify current practice for online translations, areas for improvement, and mechanisms for change. Government officers came from program areas, diversity and policy units, communications and web units. Some additional interviews and questionnaires were undertaken with local government officers.

A list of all departments and agencies consulted is detailed in Appendix B.

Language service providers

The way that translated text is prepared for online use is technically different from the way text is prepared for a printed or hard copy document. The technical skills of the translator can influence the end result. In view of this, we sought the perspective of language service providers engaged by government agencies to explore specific issues related to the creation of web-based translations.

2 Introduction (cont.)

The key question we asked was:

- What role does the language service industry play?

How do language service providers deal with translations for online use?

If there is a need for change, how can change be implemented?

Interviews were undertaken with seven providers of translation services in Victoria as well as the National Accreditation Authority for Translators and Interpreters (NAATI) and the national professional association, the Australian Institute of Interpreters and Translators (AUSIT).

A list of the language service providers interviewed is detailed in Appendix B.

2.4.2 Demographic analysis of internet use

The 2001 Australian Bureau of Statistics Census included a question about internet use in the week prior to the census. Analysis of the results to this question by age and language group was undertaken to ascertain patterns of use in the English-speaking community and CALD communities.

In conjunction with the interview results from community consultations about internet use, findings from relevant research on CALD communities' use of communication channels were also reviewed.

2.4.3 Technical research

The technical aspects of this research were:

- a scan of all government websites to identify current translated information, and to assess navigation type, access models, format, languages and accessibility
- examination of international guidelines to identify best practice creation of multilingual web-based information
- creation of a proof of concept multilingual website that demonstrates potential for usercentric design, content and navigation.

A list of the websites scanned is provided in Appendix C.

2 Introduction (cont.)

2.4.4 Open Road Conference

In partnership with VOMA, Vicnet presented the Open Road Conference in March 2006.

The conference theme dealt with the challenges and possibilities of access to and development of multilingual content and web services. A key focus was on the provision of translated information (government, non-government and community information).

Two round table discussions offered perspectives on the topic from government, ethnic radio, the translation industry and local government. This feedback contributed to the body of information gathered through the consultations described earlier in this chapter.

Key findings from panel discussions are in Appendix D.

3 What is happening in communities?

To gain an understanding of how CALD communities interact with government – particularly online government information – we asked:

- How do CALD communities use the internet?
- How do CALD communities access government information?
- How can online government information be useful to CALD communities?

This chapter outlines the findings of our community consultations.

3.1 How do CALD communities use the internet?

3.1.1 Internet use is varied

The diverse nature of CALD community groups is reflected in their diverse use of the internet. Community consultations showed that internet use varies across language groups and largely depends on the personal characteristics of individuals within a given language group.

Some language groups came across as higher users than others. Even groups that were the least likely to use the internet – seniors, women, new arrivals on humanitarian visas – varied in the degree to which they suggested or explored opportunities to develop or improve their use of the internet.

I know of a lot of [Arabic] women who want to learn how to use the computer. A group that runs, for instance, a successful catering business see the benefits of the internet and are keen to learn these skills. (Arabic community leader)

Although CALD seniors are often described as not likely to use the internet, anecdotes from consultations showed that some seniors are currently using the internet, and others are keen to learn.²⁴ There was general agreement that the highest users of the internet were younger people (under 30 years).

²⁴ This was also identified in the Multilingual Senior Surfers internet training and awareness program implemented by Vicnet on behalf of the Office of Senior Victorians in 2005.

3 What is happening in communities? (cont.)

3.1.2 Statewide internet use by language

Data from the 2001 Australian Bureau of Statistics (ABS) Census of Population and Housing also highlights the varying degree of internet use across (a) particular language groups and (b) age groups within those language groups.²⁵ This data has limitations because of its age, however, it is the only data source that shows *statewide* internet use by age and language spoken at home. As such, it is the only formal data source that indicates the diversity of internet uptake among CALD communities in 2001.²⁶

Although the ABS data indicated overall lower internet use among people that spoke languages other than English at home, use was proportionately similar or higher for some large language groups as detailed in Table 1.

Table 1: Internet use by language

Language	% language speakers who use the internet	Total numbers
Russian	41.7	13,820
English	42.1	346,7332
Spanish	43.2	22,653
Cantonese	47.9	59,823
Sinhalese	52.0	11,549
Mandarin	56.6	38,398
Serbian	59.4	26,693

Source: 2001 ABS Census data

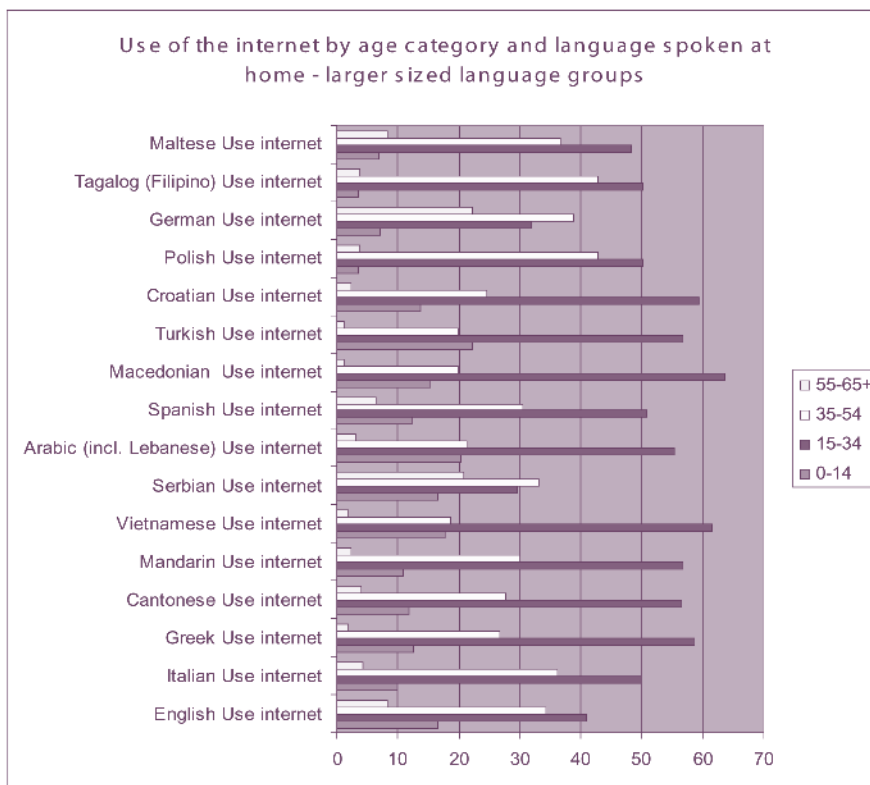
25 Based on Australian Bureau of Statistics data from 2001 Census of Population and Housing. The question asked was: 'Did the person use the internet anywhere last week?' The choices of responses were: No; Yes, at home; Yes, at work; Yes, Elsewhere. It is important to note that census data cannot be used to ascertain what written language people were using when they used the internet as this information was not collected.

26 Details of internet use by language group are provided in Appendix E.

3 What is happening in communities? (cont.)

The age range of people who use the internet in CALD communities is similar to that of the English-speaking population. Even among language groups where the internet was popular, in 2001 it was rarely heavily used among older people (over 55) and the very young (0-14). This age breakdown is demonstrated in Figure 2.

Figure 2: Internet use by age



Source: 2001 ABS Census data

Further details of this data are in Appendix E.

3 What is happening in communities? (cont.)

3.1.3 National trend in internet use

The most recent national data on internet use is the *ABS Household Use of Information Technology* survey, 2004–05.²⁷ Survey data showed 63% of Australians over 18 years use the internet. This demonstrates a significant increase from 2001 when the census data showed internet use at 38%.²⁸

CALD communities are expected to reflect this increased use by the wider population over time.

3.1.4 Expectation that internet use will increase

It is uniformly anticipated among a broad range of community leaders and community members that internet uptake among CALD communities will increase.

For example, a service provider from the metropolitan area noted that while in the past CALD communities might have been less likely to use the internet, this has changed. African community members are using the internet at the migrant resource centre where she works, as are other groups:

One of the first things that the West Papuan refugees asked about was internet access as this is a major link to the outside world. Also, because of the need, people will learn about the IT faster. (Service provider)

internet will grow as it's more useful than printed material. People can just browse through and get only the information they are interested in. (Serbian participant)

3.1.5 Barriers to internet uptake

Although there was general consensus from community consultations that internet use will inevitably grow in the future, participants stressed a number of barriers to internet uptake among CALD communities:

- limited training opportunities
- cultural issues
- prohibitive costs
- public access issues.

27 Australian Bureau of Statistics, *Household Use of internet Technology* 8146.0, 2000–01 and 2004–05.

28 2001 Census: *Computer and Internet Use* (Census paper 03/03), 1 ABS 2003 All people.

3 What is happening in communities? (cont.)

Limited training opportunities

A major unprompted observation from communities was the lack of computer and internet training opportunities for groups most at risk of the ‘digital divide’: women, seniors, recent humanitarian arrivals and people on low incomes. More than half of the people interviewed identified this as a prevailing issue. This included participants from the Italian, Arabic, Chinese, Macedonian, Iraqi and African groups.

I often have them [women] coming to me and crying about this [inability to use the computer] as they often have to rely on their children to find information for them and they also do not like not being able to supervise or control what their children are doing [when using the computer]. (Arabic community leader)

Contrary to the general assumption that older people are not interested in the internet, a lot of requests for training came from very enthusiastic seniors²⁹ who took part in the consultations.

Language can also be a barrier to participation in internet training courses: a Chinese community leader commented that, from personal experience, internet use in the Chinese community would increase if language-specific classes were made available.

Cultural issues

CALD communities saw more traditional ways of communicating information as more accessible than online information. More familiar communication channels included person-to-person, phone or print (mail, brochures):

Sudanese community does not have a habit to use it [internet] – habit of study using books. (Sudanese Community Leader)

Lack of prior experience in accessing information online was given as a reason for not using the internet. Lack of experience and knowledge about the internet also impacted on people’s willingness to use web-based information.

Prohibitive costs

Many people referred to the high cost associated with accessing the internet from home as a barrier to internet use. This is especially significant for newer communities whose greatest need related to basic settlement requirements.

²⁹ The age range of seniors was from 55 to over 70 years.

3 What is happening in communities? (cont.)

Public internet access limitations in libraries

Accessing the internet through local libraries was seen as inconvenient for a number of reasons:

- insufficient number of computers
- language barriers when booking or asking for assistance
- cultural barriers
- lack of child care.

Some Arabic, Sudanese and Italian participants remarked that libraries don't have enough computers and often the computers are booked out. CALD youth members and people living in regional areas also raised this issue. According to a youth service provider representative, CALD youth often complain of not being able to access computers at libraries due to insufficient numbers and, consequently, computer facilities provided by youth organisations are always busy.

Language barriers were often invoked; in the case of those CALD members who are not fluent in English, having to book for a computer or the prospect of having to ask for assistance is intimidating.

Some Arabic and Sudanese participants also noted that women feel uncomfortable using the library. Some of the Muslim women, in particular, found it difficult to use the internet alongside the wider public. Also, Arabic and Sudanese women often visit libraries with their children. Because the women need to supervise their children, using the library internet facilities is difficult.

An issue invoked by a senior Italian respondent who considered using public internet a burden and inappropriate, was that he felt most other users were school children, whom he found disruptive.

3.2 How do CALD communities access government information?

3.2.1 Preferred sources of information

Word-of-mouth (including family and friends) was most commonly described as the preferred source of information about government services. Relying on community organisations or community leaders came second, followed closely by ethnic media – particularly newspapers and radio.

3 What is happening in communities? (cont.)

New and emerging African communities, or those on a humanitarian visa, strongly preferred word-of-mouth. This is understandable given the urgent and acute nature of their information needs (mostly to do with settlement issues) and given the barriers mentioned in section 3.1.5.

According to a Sudanese respondent, members of his community opt for person-to-person engagement because (in part) they lack self-confidence. In particular, they lack confidence in their English proficiency. Being able to speak to someone reduces the risks of mistakes and misunderstanding and enables people to seek further clarification.

For example, a migrant resource centre manager described how services can easily give information that assumes a new migrant has basic knowledge of living in a suburban location. However, when people come from extremely different circumstances, a great deal of verbal explanation is needed to ensure they have fully understood the information (for example renting a house or using public utilities).

Respondents also found the following channels familiar and accessible:

- guest speakers at community meetings
- social networks
- migrant resource centres or neighbourhood houses
- English-language classes.

3.2.2 Use of online government information

Victorian government demographic profile data

The Victorian Government Chief Technology Office conducted a demographic profiling survey of users of Victorian government websites in 2006.³⁰ Users answered questions online about their language spoken at home and preferred language when accessing government websites.

The interim results show that almost three per cent of respondents said they would prefer to use a language other than English for reading government websites. Twenty-nine languages were identified in response to the question about the main language spoken at home. Although this is preliminary data, and the respondents were fluent in English in order to complete the survey, the results provide the perspective of people who already seek government information online. Results also shed some light on potential demand for online translated government information.

³⁰ Chief Technology Office, Multimedia Victoria, September 2006. The online survey was undertaken by Nielsen NetRatings.

3 What is happening in communities? (cont.)

Consultation feedback

Community leaders and service providers are those most likely to use the internet to find government information. They do this on behalf of their clients.

When possible, I ask clients if they would want me to tell them where and how to find the information online or prefer to come back next day for a print out. If they are happy to access it themselves, I would write down for them the steps. If I know it would be too complex (like with the new DIMA site), I do not even ask. However, 70% of them prefer us to get it for them and come back the next day. (Regional service provider)

Many focus group participants noted that they did not have access to the internet at home and therefore did not use it to find information. Other people did not consider the internet as a serious option for accessing information.

Some who did not use internet to access government information acknowledged that it could be potentially helpful – for example to access information anonymously on sensitive issues such as discrimination or gambling.

Lack of awareness

Lack of awareness was also identified as a barrier to web-based government information – especially where people had no expectation that translated information existed. The recent Australian Government Information Management Office study *Australians' Use of and Satisfaction with e-Government Services*,³¹ also found that a key barrier to accessing online government information was the lack of knowledge about the availability of internet services.

Translated information is difficult to find

The few CALD community leaders who were knowledgeable of some online translated resources commented that they sometimes found this information by accident: *'I stumbled across it'*, one Arabic respondent noted.

Most service providers found the available information valuable and suggested that there should be more 'advertising'. They suggested that government pamphlets should indicate when further information was available online so those who wanted more could access this themselves.

31 *Australians' Use of and Satisfaction with e-Government Services*, Australian Government Information Management Office (AGIMO), July 2006, p. 10.

3 What is happening in communities? (cont.)

One respondent raised the issue of dead links or out-of-date information:

When I first looked at one of the federal sites for information in language it was so difficult to find it. And then, when I tried again a few days later, although I knew it had to be there, I could no longer find it. (Regional Ethnic Community Council Coordinator)

3.2.3 Literacy

In some CALD communities, many people are not literate in their first language (a point often stressed by service providers and community leaders). Some African communities have an oral tradition; older people may have had limited education prior to migration, or have reverted to their first language in old age. This means that written information is not always appropriate.

Some respondents described cases where audio information was usefully provided in CD format. There is potential for audio information in language to be more broadly distributed on the internet. In such a case, an English speaker would be required to locate and download the information.

3.2.4 Topics of interest

Health was the topic of information most sought after. Other key areas of interest were:

- housing
- Centrelink
- education
- immigration
- settlement
- concessions
- legal aid (including police) – ranked high by the Arabic and African participants.

There are a lot judicial issues with young people from an Arabic speaking background. Parents want to be informed on their rights and the police so that they can help their children. (Lebanese participant)

Child protection and domestic violence are big issues with our community. People need to be informed about the laws in Australia. (Sudanese participants)

3 What is happening in communities? (cont.)

Information from community members' countries of origin was also listed as information most sought after. However, some community leaders expressed concern that their community members were better informed, in general, with current affairs and news from their country of origin than current affairs and news within Australia. This suggests that more information is sought in language about local issues and services.

They are aware of the news from Turkey but not really aware of current affairs in Australia as their English is not good enough. SBS radio has about five minutes allocated for local news in Turkish but that is not enough. (Turkish community leader)

Turkish, Macedonian, and Serbian participants also highlighted that community members are not familiar with the government system in Australia and the roles of various government agencies.

To a lesser degree, ethnic communities also expressed interest in the following areas:

Financial

- information on how to transfer overseas pensions
- guidelines on applications for funding
- taxation

Leisure, community

- sport
- traffic
- council services

Language information

- accessing translation and interpreter services
- language-specific guidance on internet usage

Work

- employment
- small business

Rights

- consumer affairs
- child protection
- electoral
- discrimination

Family

- parenting
- aged care
- school holidays

Most young people access the sites in English and their interests were predominantly recreational, including sport, music and games, education and training.

3 What is happening in communities? (cont.)

3.2.5 Access to translated information

Most people interviewed considered that access to in-language information was important. This was particularly so for certain segments of their communities.

For example, Chinese, Eritrean, Afghan, Vietnamese, Croatian, Greek, Italian, Serbian and Macedonian groups reported that information in language is of most use to senior members of their community, or to the newly-arrived communities.

Elderly people, and especially newcomers, will never have that level of English skill and [the] large majority of elderly people still want to find information in their own language. (Serbian service provider)

Other groups highlighted that in-language information was important not just for particular groups, but in particular *situations*.

For example, Polish, Romanian and Iraqi groups considered in-language information most relevant when their communities are dealing with legal and medical issues (for example, at the doctor or pharmacy). They regarded having text available in both English and language as useful given the specialised terminology and fine level of detail involved. A Sudanese participant also commented that, in some circumstances, those in his community who can read would prefer to have information in language – for example, when seeing a doctor.

However, other groups identified needs beyond those relating to medical matters. An Italian community group requested translated information about community grants; Greek grandparents involved in their grandchildren's lives (perhaps as carers) wanted education information.

Printed information in language

When asked about printed information in language, responses varied. Most participants remarked that people tend to take home brochures in language with one of the Arabic respondent declaring that her clients *'take information in Arabic regardless if they are interested or not in that topic at that time'*.

On the other hand, a Serbian respondent considered that brochures in language are, in general, *'a waste of money as people tend to take them (brochures, publications) but never actually read them'*.

A Macedonian service provider noted that, clients often ask for more details about a particular service or program in their language. Normally, further information is only available in English, although they take the English version, it was considered the client does not benefit from the information.

3 What is happening in communities? (cont.)

3.2.6 Quality of translations

Participants frequently commented that agencies should also be mindful of the quality of the translations. Examples were given of situations where language was inaccurate or culturally inappropriate. This is a broader communication issue, and examples were not directly related to current online information. However, a clear message came through that online translations must be of a high quality and culturally sensitive to be seen as credible.

3.3 How can online government information be useful to CALD communities?

Web-based information is yet to be established as a familiar source of government information for CALD communities. As section 3.2 shows, this is due to (a) a preference for interpersonal communication and ethnic media as communication channels, and (b) limited awareness of existing translated government information.

Community forums also noted that some of traditional ways of giving information to CALD communities may need to be revisited. For example, one respondent noted that people from service agencies are becoming less available to come out to speak to community groups. If this is the case, the web may offer an alternative means of communication.

During the consultations, several practical suggestions were put forward as to how the web could be used to communicate in languages other than English.

3.3.1 Quality, relevance, consultation

For online translated information to be credible it must be of a high quality. Quality information is culturally appropriate, clear, up-to-date, easy to read, useable, and well presented.

Information must also be relevant. Some service providers noted that agencies should be careful with the type of information they make available and that it should be based on communities' real needs.

Our consultations showed that people are likely to look for:

- information of a relatively static nature (health issues, for instance)
- basic information about services and agencies, including details of where to go or who to call to find additional information.

3 What is happening in communities? (cont.)

Some service providers also suggested that communities be consulted in the planning stages of major sites. This point was also raised in the panel discussions at the 2006 Open Road Conference. Participants noted that if government information is to be provided online in language, the community should be consulted about content and appropriateness.

3.3.2 'One-stop' access to multilingual information

As described in 3.2.2, the people most likely to access online government information are community leaders and community service providers who assist others by locating information on their behalf. However, many service providers and leaders are not aware of the available translated online information. There is potential to:

- promote information more extensively
- increase categories in addition to health and justice (currently available in the Health and Justice translations directories).

Many people suggested that a centralised WoVG website that contained translated online information would be most useful for them in their dealings with their clients.

I think this would definitely be useful for both us and CALD users. Often users may not know what different State Government Departments' services are offered and this would enable better 'browsing' and generally better access through a one-stop shop. (Community worker)

One Arabic community leader also suggested that an online language dictionary be incorporated in the website to increase understanding of more specialised terms (medical terminology, for instance).

3.3.3 Information that is easy to find

All participants remarked that the success of any central website depends on adequate advertising. As one Chinese respondent noted: *If people would know that it is out there, yes, they would definitely use it.*

As described in 3.2.2, community awareness of online translated government information is limited. Respondents made the following suggestions to improve the current situation:

3 What is happening in communities? (cont.)

- Promotional activities should indicate the sites where users can go to find information when needed
- Pamphlets promoting those sites should be placed in locations highly accessible to CALD members: community organisations, schools, AMES centres, health centres and libraries
- Language-specific cards should be developed that include all government websites holding information in a given language
- Promotional work with community workers and leaders should focus on information they can access on behalf of individuals.

3.4 Conclusion

3.4.1 Internet use and barriers

All CALD communities have internet users, but levels of use vary among language groups. Although overall uptake may be lower than that of the English-speaking community, there is a consensus that perceptions of the internet are changing within CALD communities and there is more interest in gaining skills to use it. There is acknowledgment that uptake is increasing and will continue to do so in the future.

Some barriers to the internet exist for various groups within communities – particularly women, people on lower incomes, seniors, and people on humanitarian visas. This was considered a significant issue within many language groups. This situation can be improved by creating opportunities for language-specific internet training, more options for public internet access (through ethnic organisations, community centres and English languages schools), and associated capacity building for communities and service providers.

3.4.2 Current use of online government information

Currently, translated government information is most likely to be sought after by mediators: community workers or leaders who locate information on behalf of a community member.

3 What is happening in communities? (cont.)

For individuals, web-based information was less sought after, compared to interpersonal contact. Key barriers to using online government information are:

- lack of awareness of translated online government information
- a habit of seeking information by using other means of communication
- difficulty in finding translated online information
- lack of skills among some groups within CALD communities
- lack of access to computers.

Improved promotional strategies that target CALD communities will ensure communities are better informed of existing online resources.

There is also potential to improve the way translated information is added to websites so that information is easier to find. (This is because the difficulty in finding translated information is often related to poor signposting within a site.)

3.4.3 Potential for online government information

The internet has great potential as way for government to provide information to CALD communities. As well as offering translated information, it can provide a directory function. In years to come, audio/visual formats can be used to boost communication.

Consultations showed that CALD communities are most interested in information on health, housing, settlement, concessions and legal aid. The potential of the internet as a communication channel will be realised when there is enough practical information on these topics to meet community needs. That potential will be further realised when more people become aware that the internet is a place where government information in their language can be found.

For translated web-based information to be practical, it must be:

- useful and relevant
- easy to find (people need to know the information is online)
- helpful (so that people find out where to go or who to talk to)
- high-quality

The availability of more content that is optimised for mediation will increase the amount of information that community workers and leaders can access on behalf of a community member.

3 What is happening in communities? (cont.)

An additional communication form – not a replacement

For community members who do not speak English well, there are fewer communication channels than for English speakers.

Inclusion of translated information on government websites should be additional to, not instead of, other forms of communication.

3.4.4 Community input

Information needs and settlement stages are diverse among Victorian CALD communities, and the internet is a new communication channel for many people. Therefore, engagement with CALD communities at the planning stage will help ascertain particular needs, and will assist in the decision-making process. Factors to be mindful of are:

- the age group of the target community
- English-language proficiency of the target community
- the kind of information needed
- whether the internet is a suitable or complementary medium
- the settlement stage (is the target audience an emerging community or a long-established one?).

Recommendation 1: Support CALD communities to use the internet

That more opportunities be provided for CALD communities to access the internet and gain the skills to use it.

This can be achieved by allocating resources for:

- *A detailed needs analysis* that identifies appropriate solutions to the difficulties experienced by CALD communities in accessing both internet training and publicly-available internet computers
- *Development of internet training programs* that respond to the outcomes from such a needs analysis, and enhance CALD communities' skills in accessing online information
- *Increased public internet access points* that respond to the outcomes from the needs analysis, and build CALD communities' capacity to access online information.

4 What is happening with translated online government information?

To find out how the translated content for government websites is currently created (and to identify any areas for improvement), we consulted widely.³² We analysed existing sites with multilingual content and reviewed existing web standards. We also reviewed research into current international practice for the creation of multilingual content.

This chapter answers the following questions:

- How is translated online information created?
- What technical issues arise?
- What role does the language service industry play?

4.1 How is translated online information created?

4.1.1 Mediated and direct access to translated information

Translated information on Victorian government websites can be accessed in two ways: mediated and direct.

Mediated access is where information is contained within an English language website. This means a person with sufficient English literacy is required to locate translated information on behalf of a community member.

Direct access is when all text and links to information are in the required language. This enables CALD community members to navigate and access the translated information using their first language. It does not require English to be used.

Whether intentional or not, most government websites with multilingual content (nearly 70 per cent) require an English speaker to locate the translated information. This is because only a small proportion of government websites with information in community languages have translated navigation signposts (e.g. links and menu options). These signposts are critical if users are to access information in their language directly from the home page and throughout the site.

³² We consulted with government officers involved in creating websites, officers working in communications, CALD specialists, and translators from several major language service providers.

4 What is happening with translated online government information? (cont.)

4.1.2 Why government websites include translated content

Government departments and agencies place translated content online for different reasons. A common reason was access and equity: where English language content was made available online, departments and agencies believed translated content should be equally accessible.

The extent and type of translated information varied greatly. Usually, translations within websites contained much less information than the related English content.

Translated content was also placed online because:

- the internet allowed the widest possible penetration into CALD communities when used with other media
- online translated documents can be distributed broadly and easily
- some smaller units and agencies do not have the capacity or budget to have publications printed
- there is a perception that CALD communities are beginning to use the internet for government information
- the internet is easy to access and read with a minimum cost to the agency.

4.1.2 How languages are chosen

Departmental and agency staff base their choice of languages to be translated on a range of factors:

- department and agency statistics
- statistics on requests for interpreters
- census data and other ABS data sets
- assessments of CALD communities at risk of missing out on important information
- needs assessments and frequency of contact which can help identify client groups within CALD communities most likely to need the services and programs offered
- recommendations from specialist communication consultants
- advice from language service providers.

Current best practice is to identify the potential client base *and* to consult with the target CALD communities.

4 What is happening with translated online government information? (cont.)

4.1.4 How translated information is published on websites

The standard approach to displaying English content on Victorian Government websites is through HTML which is frequently generated by the website content management system.³³ HTML is the mark-up language that web pages are written in and is the means of placing text on a web page that is the most accessible for the end user. For some community languages to be added to a web page and displayed correctly, Unicode is required.³⁴ However, this practice is only used on a few Victorian Government websites.

As Table 2 shows, the most common way of placing translated content on a government website is by placing the translated document on the website as a downloadable PDF file.

Table 2: Format of translated information on Victorian Government websites

Format of translated information	Percentage
PDF only	63
HTML	7
Mixed formats, including text within images	30

Source: Project scan of government websites

When multilingual text is not in HTML format, it is often embedded in an image either on the web page or within a PDF file. The use of images to display text is not accessible for people with visual impairment, and is disallowed by the current Victorian Government web standards.

The practice of including translated information on government websites has evolved over several years without expert knowledge, guidance and coordination; this accounts for the use of PDF files and images. It also accounts for the navigation issues that affect access.

³³ A content management system (CMS) is the software to manage and edit the content of a website. The system allows people to add content without knowledge of HTML, and can be accessed by multiple users.

³⁴ Unicode is a coded character set designed to allow text in diverse languages to be written, exchanged, processed and displayed. Web browsing technologies and HTML standards are built on Unicode.

4 What is happening with translated online government information? (cont.)

In recent years, however, the way translated information is created has improved. The multilingual content under development for the DHS Disability Online website is a good example of the application of HTML in Unicode. This allows members of CALD communities and community leaders to access information directly in their language. Navigation is simple and clear, enabling users to find the information easily.

4.1.5 Prevalence of PDF files

The high use of PDF files for multilingual content is because – until recently – most government officers did not know of an alternative. The practice of embedding text in PDF files was seen as the only way to display non-English characters, particularly those with scripts such as Arabic, Chinese, and Russian. Nor were guidelines available to support the creation of HTML content.

Other reasons why government departments and agencies use PDF files include:

- The Content Management System is unable to support the required languages
- PDF was seen as a relatively easy and universal format to distribute documents for downloading and printing
- PDF was seen as a common and familiar document format used by target groups
- PDF was a good format for official regulatory forms, and also reproduced the required branding of printed documents.

Both language service providers and departmental staff also indicated that some language service providers were reluctant to provide translations in formats other than PDF, even when HTML was requested. This is the case with complex script³⁵ languages, where the language service providers are concerned that their clients could accidentally corrupt the text. Many language service providers prefer to use PDF format, especially for languages they consider difficult to typeset and replicate on the web.

35 Complex script refers to a writing system where the shape and appearance of letters or characters change depending on the context the character is used in. A commonly used complex script in Victorian Government translations is the Arabic script. Arabic letters have up to four alternative glyphs (or shapes) depending on whether the letter is at the beginning, within, or at the end of a word, or is isolated.

4 What is happening with translated online government information? (cont.)

Limitations of PDF files

Most limitations with PDF files are because they are designed for hard-copy printed information, rather than information to be read on a computer screen.

PDF files are:

- high-resolution files created to be suitable for commercial printing. This is not optimal for reading on a computer screen and, when in full colour, is costly for an individual to print on a home printer
- often large files which take a long time to download for users with low bandwidth and dial up internet connections
- dependant on the user having a copy of Acrobat Reader³⁶ which many home users might not have installed on their computers
- usually not tagged with metadata,³⁷ which restricts their discoverability
- often buried within the website without navigational signposts to locate them
- often not generated in an accessible format.³⁸ For example, people with a vision impairment would not be able to view text with a screen reader or a basic text-enlarging application.

Best use of PDF files

PDF files are most suited for situations where information is to be printed. When PDF files are used in English content, preliminary information and navigation is in HTML format and easy to read on the computer screen, and the PDF is a secondary source of information. This should also apply for multilingual content, so that the user experience is not limited to a list of links to PDF files.

It is possible to overcome some of the difficulties encountered with PDF files by creating them in an accessible and more usercentric format:

- When intended for web use, the file size needs to be as small as possible, allowing it to be quickly downloaded
- When intended for end-user printing it is preferable for PDF files to be in black and white.
- Computer screens are low-resolution devices, therefore, it is practical to regenerate the PDF in order to create a small, low-resolution version.

³⁶ Acrobat Reader is a large 20–27MB file.

³⁷ Metadata is information embedded in, or linked to, an electronic document or object and is required to make the content 'searchable'. Search engines retrieve the metadata that describes the document or object.

³⁸ This occurs when text is embedded within an image, or text cannot be successfully extracted.

4 What is happening with translated online government information? (cont.)

- It is possible to create accessible PDF files³⁹ that will work with screen readers and other adaptive devices, or could be converted to alternative formats such as plain text or HTML.
- When appropriately tagged with metadata, a PDF file can be located through a key word search.

It should be noted, however, that creating accessible PDF files tagged with metadata requires more time. It is also more expensive as it involves more work for the typesetter and translator.

4.1.6 How online translated information is promoted

Most government respondents did not have a specific communication or marketing strategy for their translated resources.

Some said this was because providing translated information online was a new initiative and they still relied on agencies or workers to inquire directly about the availability of information.

One respondent also attributed this to difficulties in creating bridges with their CALD target group:

What we are still working on is the distributing/marketing of this [translated] information, which we find very difficult with limited resources and an absence of genuine links with these communities. (Government officer)

4.1.7 Staff involved in creation of multilingual content

The variety of tasks involved when including multilingual information on websites ranges from simple authoring to complex information technology (IT) purchasing decisions. Tasks include:

- writing for the web
- CALD communications
- web internationalisation⁴⁰
- procurement of IT infrastructure that supports multilingual content.

³⁹ These are often referred to as tagged PDF files.

⁴⁰ Web internationalisation is the design and development of a web service, web site or document content that enables easy localisation for target audiences that vary in culture, region, or language.

4 What is happening with translated online government information? (cont.)

Government staff who create and maintain translated content are in diverse roles. In some instances the ‘content owners’ are in communications or program areas and are not likely to have knowledge of the technical aspects of creating multilingual websites. This can impact on decisions made in early stages such as what to translate (including links and document titles) and how to brief a translation provider.

In some cases, uncertainty exists about ownership of content and responsibility for maintenance. (This is because web-based translated information involves people from diverse sections within a department and is a relatively new practice.) Leadership was identified as an influencing factor in determining the future scope of multilingual content within departmental websites.

4.1.8 Visits to translated content on government websites

Only three agencies could provide statistics of site visits to their translated information: Victorian Electoral Commission, Victoria Legal Aid and Victorian Workcover Authority. Other agencies did not have a process already in place, and considered the time required to do so as a barrier.

The number of visits or hits to translated content on these three sites was very small in comparison to visits to their English content. Details of the available website statistics to these sites are in Appendix F.

Despite the small number of recorded visits to translated information, several agencies have received requests from community groups to include web-based information in their language: the Victorian Privacy Commissioner has received requests from the Vietnamese community; Victorian Legal Aid from the Afghan and Sudanese communities; the Country Fire Authority from the Sudanese community; the Victorian Curriculum and Assessment Authority from the Korean community. The Office of the Health Services Commissioner has had numerous requests for specific languages.

4.2 What technical issues arise?

When a website is created, the technical approach influences the quality of the content and how well it can be discovered.

The Victorian Government has web standards in place to ensure that information and services online can be located and used by the widest possible audience. The standards cover translated government information as well as English-language

4 What is happening with translated online government information? (cont.)

content, however, current standards do not include detailed techniques for creating multilingual content.

Several technical issues have presented challenges to staff involved in creating multilingual content, increasing the time involved to produce it, and creating limitations in the end result:

- accessibility
- discoverability
- quality testing and content review
- navigation and design
- web internationalisation
- content management systems.

4.2.1 Accessibility

The main accessibility issues for Victorian Government websites with multilingual content are:

- no identification of language or ambiguous identification of language
- use of images to display non-English text. Images have no alternative text or the alternative text is in English rather than the language of the intended audience
- use of untagged and inaccessible PDF files to display translated documents.

4.2.2 Discoverability

Currently, the metadata for documents or content in community languages is in English only and not in both languages. As a consequence, it is impossible to detect the translated information when searching by a key word in that language.

Users should be able to type a key word into the search engine in their preferred language. This is particularly important as community consultations indicated this is often how CALD community leaders or service providers search for translated information.

My colleagues and I often do a Google search to find out translated information.
(Greek community leader)

4 What is happening with translated online government information? (cont.)

4.2.3 Quality testing and content review

Few interview respondents could confirm that translations had been tested within their communities for language accuracy and appropriateness, or correct online display.

Most respondents indicated that the translated information on their site was current. Some, however, acknowledged that the English content is regularly updated while they were uncertain about how often the translations were updated.

4.2.4 Navigation and design

In over half of the websites with translated information, there is either no indication that translated information is on the site, or it is difficult to find the content. When signposts to multilingual content are in place, there is no consistency in how they are used.

In most cases, the links from home pages are in English, which requires an English-speaking mediator. Common link phrases are:

- other languages
- languages
- in your language
- translations
- multilingual publications
- multilingual
- languages other than English
- community languages
- view more languages.

A number of sites supplemented the English language phrase with a symbol of the globe to identify the existence of multilingual information.

Less than 30 per cent of the websites had links in language from the front page, even though this would enable an individual to access information independently in their first language. In many cases, the next level of navigation signposts were in English, or PDF document names were in English. This limited the extent to which information could be located in language and means the content would be limited to mediated access.

4 What is happening with translated online government information? (cont.)

4.2.5 Web internationalisation

Web internationalisation provides guidelines and authoring techniques which can be applied to the design and development of a website containing content in languages other than English. This includes ways to deal with Unicode HTML and right-to-left writing scripts such as Arabic and Hebrew.

Government staff indicated a need for guidelines on how to develop and implement multilingual HTML – as did people in local government and not-for-profit organisations. There is a need for a LOTE (Languages other than English) web standard and supporting techniques documents to enable web developers to provide efficient and effective multilingual web content.

You need experience to deal with it. A 'how to' guide would assist. (Government officer)

...it's because we have no coordinating principle, guidelines, or governance rules etc., so we were shooting in the dark a bit. I would certainly be open to doing it differently if I knew what the alternatives were... (Government officer)

4.2.6 Content management systems

Many website content management systems are not optimised to handle complex script languages or those languages written from right to left. Therefore, what a person will see on the editing window may not correspond to what will be displayed to the client accessing the website. (Punctuation in right-to-left rendered languages needs particular care.)

Many respondents said they relied on PDF documents because their content management system couldn't support multiple languages:

I don't believe the content management system we use would allow us to publish some languages without the use of PDFs i.e. the languages that don't use the same characters as English. (Government officer)

A number of web development staff in government departments and agencies welcomed the possibility of more advice or information on how to evaluate the multilingual support of content management systems.

In addition to issues with content management systems, problems also occur with website servers. For example, Lotus Notes is not compatible with Unicode, which is required for content in HTML.

4 What is happening with translated online government information? (cont.)

4.3 What roles does the language services industry play?

One crucial stage in the creation of multilingual content is the translation phase. As described in 4.1.4, the most effective way to create online translated content is in Unicode HTML web pages or tagged and accessible Unicode PDF documents. The skills and knowledge of the typesetters employed by the translation agencies – and the contracted translators – is crucial to how well translated content is deployed online.

4.3.1 Industry environment

In Victoria, there are numerous language service providers engaged by government departments and agencies. However, language service providers vary in their capacity to supply translations in Unicode HTML or tagged accessible Unicode PDF documents. Being contractors, translators differ in the access they have to professional development and the latest software. In some cases, language service providers were unable to provide translations in Word documents, which is required when text will be used for HTML web content.

Typesetters used by language service providers also play a significant role in the creation of content for online use. Their knowledge about Unicode HTML and accessible PDF documents will also influence what can be provided.

Several software applications are designed to support the creation of online translations. These include translation memory applications or the translators' content management system. Few language service providers knew of these applications.

4.3.2 Additional skills required

This means language service providers are dependant on the IT skills of their translators and the translators' access to appropriate software. Currently, however, there are limited opportunities for ICT-based professional development for translators.

The national professional association, the Australian Institute of Interpreters and Translators (AUSIT), supports the development of guidelines and training for translators so they can deal with Unicode HTML documents, and related technical issues.

4 What is happening with translated online government information? (cont.)

Following are areas where language service providers need support:

- languages with complex scripts
- dealing with content management systems
- proofreading
- briefing.

Languages with complex scripts

Several language service providers indicated that some South East Asian and African languages were difficult to work with and typeset. The languages most commonly described as problematic were Dinka, Khmer, Burmese and Amharic.

Consultations found:

- In the case of Khmer and Burmese there is currently no national or international standard to display their characters, and alternative approaches are not widely known.
- Some translators did not have knowledge of how to work with certain languages and Unicode. (This included a perception that Arabic is not available in Unicode, which is not the case.)
- Few translators are available for some new, emerging languages.

Dealing with content management systems

Some government agencies have asked that language service providers enter translated content directly into the website's content management system. These requests may increase in future.

Entering text directly into a content management system requires translators to be proficient in working in an online environment.

Some language service providers were unsure how to deal with requests to translate content directly into the content management system, and suggested guidelines that would assist them.

Proofreading

Web-based content needs to be proofread online, otherwise potential problems in the way a web browser displays the content will not be picked up. Proofreading online content requires the translator to have additional expertise. Some respondents suggested that instructions would be needed to support the translator in how to do this.

4 What is happening with translated online government information? (cont.)

Briefing

Language service providers indicated a need for clear direction and precise briefings for online translation jobs. Briefings would cover such things as document formats and required fonts.

Translation companies need to have a clear idea of what is expected of them in terms of format ... It would be helpful to have detailed briefing. (Representatives of two translating companies)

Some government officers identified a need for guidelines on the briefing process for translations suitable for HTML content.

4.4 Conclusion

4.4.1 Most websites require an English speaking mediator

Although new, improved websites are emerging, there are two key problems with many multilingual sites. First, the information is buried. Second, in most cases an English speaker is required to locate it.

While the Health and Justice Translations directories are optimised for mediated access, many other sites require mediation because the links to translated information are only in English.

4.4.2 More content in HTML format

Most translated information is in PDF format, which has some limitations – particularly accessibility and ease of use.

The most accessible format is in HTML because it can be located faster than a PDF file and is easier to read on screen. More use of HTML will increase the amount of information that individuals can access directly in their first language. It will make online government information more accessible to CALD communities.

PDF files remain a practical option for information that is to be printed and, when tagged and created in an accessible format, will provide an improved end user experience.

4 What is happening with translated online government information? (cont.)

4.4.3 Promotion of multilingual content

There are few instances of multilingual web content being cross promoted in other communication channels as is the case with many government websites. Similarly, there are few instances of communities being consulted at the planning stage. Lack of awareness that translated online information exists is a further barrier to CALD communities (see section 3.2.2).

4.4.4 Technical issues

Limitations occur when the website architecture is not compatible with Unicode HTML, and when web staff are not familiar with internationalisation. Other technical issues have been identified with regard to:

- accessibility
- discoverability
- navigation
- quality testing
- internationalisation.

Some website content management systems are unable to support Unicode HTML. This restricts the amount of translated content that is being included on government websites. It also influences the format – resulting in the high use of PDF files or images to display text.

However, PDF files with translated content are often buried in websites, and the use of images does not meet accessibility requirements. Quality content will be greater if it is planned for in the early stages when appropriate technology can be selected. Internal communication between content author and web units will greatly improve this process.

4.4.5 Accessibility of multilingual content

Processes, policies, guidelines and minimum standards are already in place so that people with a disability can access online information.

Similar processes and overarching policies can ensure that material in languages other than English is accessible to CALD communities.

4 What is happening with translated online government information? (cont.)

4.4.6 Need for guidelines

Government officers who create and publish translated content work across diverse roles in program areas, communications, diversity and web units. Different skills sets and knowledge are required for different stages of creating content. For example, understanding CALD communication issues is required when authoring text and coordinating translations, and knowledge of internationalisation is required when a web editor incorporates translations into a web page.

The process of creating multilingual content may become difficult when the choice of website architecture is not compatible with Unicode HTML or when web editors are not familiar with internationalisation. To develop and deploy translated online web content, government departments and agencies require support in several areas:

- tools and tests to evaluate multilingual support in content management systems
- guidelines on preparing online documents for translation
- guidelines for briefing translating companies when translating online content
- web-development standards and techniques for creating online content in community languages.

4.4.7 Measurement of site visits to multilingual content

Measuring the number of site visits and the use of non-English search terms will strengthen evaluations of multilingual content. A standard approach to collecting this data will support officers in their evaluations.

4.4.8 Language service providers

There is a potential to raise awareness of government requirements for web-based translations among language service providers.

There is also an opportunity for related professional development within the language services industry, based on guidelines for:

- working with complex scripts
- working with content management systems
- doing online proofing
- giving initial briefings.

4 What is happening with translated online government information? (cont.)

Recommendation 2: Develop standards and guidelines for the creation of multilingual content

2.1 Guidelines for creating and translating content

That the key existing WoVG communication guide *Improving the Use of Translating and Interpreting Services: A Guide to Victorian Government Policy and Procedures* (VOMA, 2003) be updated to include information on preparing translations for online use. The following information should be included:

- how to brief language service providers on web-based translations
- how to prepare content for translation that is suitable for publishing online
- consultation and communication between web-development departments and other staff.

Agency-specific communication guides should be updated as appropriate.

2.2 Guidelines for technical implementation

That relevant Victorian Government web standards are extended so that multilingual websites meet international best practice – that is, are accessible, discoverable and useable. This will involve:

- updating existing Victorian Government web standards as described in 5.3.2 of this report
- developing a new standard covering languages other than English that addresses web internationalisation issues (as detailed in the technical appendix of this report)
- developing guidelines for PDF accessibility to supplement the Victorian Government's web standard on accessibility.

2.3 Promotion of guidelines and training

That a coordinated program of professional development is provided for Victorian government staff involved in developing multilingual online content. Activities could include:

- targeted seminars
- specialised training sessions
- online support groups
- discussions within appropriate interdepartmental forums.

4 What is happening with translated online government information? (cont.)

Recommendation 3: Support skills development for translators

That translators be supported to improve their technical knowledge and their capacity to provide appropriate translations for online use. This can be achieved through collaborative activities between government, peak bodies (e.g. NAATI and AUSIT) and the language services industry. Activities could include:

- training for translators to update relevant IT skills
- guidelines, toolkits and checklists for language service providers
- specialised professional networks.

Recommendation 4: Introduce content management systems that fully support relevant languages and their scripts

That content management systems for Victorian Government websites have the capacity to support multilingual content.

4.1 To achieve this at a Whole of Victorian Government level:

- The Victorian Government should seek specialised technical advice to ensure that any Whole of Victorian Government web content management platform provides adequate support for multilingual content.

4.2 To achieve this at a departmental level:

- Content management systems that do not support provision of multilingual content should acquire this function either through a migration strategy or future upgrades.
- Departmental information architecture plans and content development plans should be amended to consider the requirements of languages other than English.

5 Opportunities for improvement

5.1 Summary of research findings

The findings outlined in chapters 3 and 4 clearly show that multilingual information can be better incorporated into Victorian Government websites.

Two key concerns relate to awareness and access.

First, we found CALD communities had limited awareness of existing multilingual content online. Second, we found that those community members who did try to find information online in their own language would find it difficult to locate. Even English language links to translated information were hard to locate within websites and weren't widely known by users.

5.1.1 Viability of a WoVG website

One of the key objectives of this research was to identify a potential model for a Whole of Victorian Government (WoVG) multilingual website.

There is interest in and acknowledgement of the potential usefulness of a WoVG site. However, before such a site can be developed, important preliminary steps are necessary. This conclusion is based on both the community consultations and the analysis of current practice.

Why not now?

Prior to undertaking this research, it was anticipated that there was sufficient translated material to populate a centrally coordinated website. However, the research revealed that the current format of most multilingual information is not suitable for inclusion on a WoVG website.

The research also found it was not yet common practice for people in CALD communities to seek out online translated government information. The current limited use of online translations by CALD communities is, in part, related to the difficulty of discovering and accessing translations.

What needs to happen next?

This report concludes that a WoVG website *would be* a practical resource once two things happen. First, multilingual information incorporated into government websites must be accessible, useful and easily located. Second, CALD communities need to view – and use – the internet as a source of government information.

5 Opportunities for improvement (cont.)

The establishment and future development of a whole of Victorian Government multilingual website is therefore dependent on:

- enhancing CALD communities' internet use
- improving the quality of online translated information

The remainder of this chapter describes the changes required to establish the foundation necessary for such a site, and encourages the development of useful, accessible, and discoverable translated online information for Victorian CALD communities.

Chapter 6 outlines the future potential function and benefit of a centrally coordinated WoVG multilingual website.

5.2 Enhancing CALD communities' internet use

An important issue identified in this research is that some segments within CALD communities have not yet been able to access the internet. This has occurred where suitable training has not been available, and public internet access options are not appropriate or available. This issue was apparent in many communities, and applied mainly to women, older people, new arrivals on humanitarian visas and people on low incomes.

This is a general access and equity issue and is currently recognised by the Victorian Government within the *Connecting Communities* programs. These barriers to internet uptake exclude parts of the community from accessing web-based government information.

Recommendation 1 suggests needs analysis and development of activities so that internet access can be provided to vulnerable groups within CALD communities.

5 Opportunities for improvement (cont.)

5.3 Improving the quality of online translated information

The functionality and usefulness of Victorian government websites have increased significantly as a result of continuous improvement since the use of the web for government communication started almost 10 years ago. Because of the complexities involved in creating multilingual content, clear guidelines and appropriate support are needed to provide the foundation for long-term, continuous improvement of multilingual content.

There are now new examples of content that are accessible, well designed, and easily navigated in language. A key reason for this improvement is the use of Unicode HTML to incorporate non-English content into websites, instead of the predominant use of the PDF file format.

Because there is limited support and guidelines for the creation of translated online information, the approach varies according to the skills of individuals. This also can depend on where the task originated: program area, communications, web unit or other.

In Chapter 4 we argued that updated guidelines and standards would improve the accessibility and discoverability of information, and would address the process and content-related issues, making the task easier for those involved.

In addition, language service providers need guides on creating HTML translations. There is also a potential for increased related IT professional development for that industry.

Recommendations 2 and 3 address these needs in broad terms. This chapter outlines in further detail what those guidelines and standards, and professional development, might look like.

Figure 3 summarises the range of tasks involved in putting multilingual information on government websites, and identifies potential bottlenecks and solutions:

5 Opportunities for improvement (cont.)

Figure 3: Technical and process tasks

	Planning	Preparing Translations	Putting content into a website
Process	<ul style="list-style-type: none"> Will content be suitable for the web? Language choice Is content relevant for language groups? Writing content Design & navigation Format choice Determine if direct or mediated target group How will content be promoted? 	<ul style="list-style-type: none"> Select and brief translation provider Text for HTML or Accessible PDF 	<ul style="list-style-type: none"> Content Management System (CMS) capacity Does server support Unicode? Process for managing & updating content Directionality Complex languages
Issue	<ul style="list-style-type: none"> Content owner's knowledge of technical issues related to format Communication between IT and content owners Knowledge of target audience & needs 	<ul style="list-style-type: none"> Knowledge of which format to request Translation industry capacity inconsistent Checking processes inconsistent (text and browser) 	<ul style="list-style-type: none"> Existing systems not Unicode enabled Web staff not familiar with internationalisation Content provided is in unsuitable format Lotus Notes problems
Solution	<ul style="list-style-type: none"> Process to increase internal communication Guidelines & checklists Marketing and promotional plans 	<ul style="list-style-type: none"> Guidelines for government staff Opportunities for translators to update skills Guidelines for industry 	<ul style="list-style-type: none"> Web standards & guidelines Professional development in web internationalisation Support for testing content management systems Systems in place to measure site visits and multilingual search terms

5 Opportunities for improvement (cont.)

5.3.1 Guidelines for creating and translating content

There are more than technical tasks involved in creating multilingual content. Many government officers identified a need for guidelines and advice on aspects of the web-development process such as arranging translations, selecting languages, and identifying appropriate content.

Checklists and guidelines can support program, service delivery, and policy and communications staff to create multilingual content. They may also provide assistance to web editors and developers who may not have experience in CALD communications or with coordinating translations.

Topics could cover:

- issues to do with planning, technical decisions, design, and translations
- authoring
- consulting with CALD communities
- cross-promotional strategies
- determining mediated and direct access
- determining the target audience and selecting languages
- writing content for Unicode HTML
- what to discuss with web staff
- briefing translation agencies
- translations quality testing.

Sample guidelines and checklists are detailed in Appendices G and H.

5.3.2 Guidelines for technical implementation

To improve the quality of government translated online government information, supporting technical guidelines need to address:

- Victorian Government web standards
- PDF accessibility
- web internationalisation
- multilingual support within content management systems.

5 Opportunities for improvement (cont.)

Victorian government web standards

The main purpose of the web standards is to ensure that online information and services can be used, accessed and located by the widest possible audience.

Minor amendments to the existing standards will ensure that CALD communities are part of that widest possible audience. Those amendments could take the form of additional techniques or implementation notes, as required.

Accessibility

The Accessibility standard adequately caters for the mark up of content in community languages. It is important to note that the accessibility techniques are intended to facilitate access to, and use of online content by the audience of that content. In the context of material written in community languages, the audience are members of the public who can read the language of the content.

Guidelines specific to LOTE content should include the following advice:

- Avoid use of images to display text
- Alternative text should be in applicable language
- Language must be identified in metadata
- PDF files must be tagged.

Discoverability

Existing metadata standards need to be reviewed with the aim of implementing, where relevant, bilingual metadata. This is so the metadata for documents or collections in community languages is in the language of the document or collection, and also in English.

In future, widespread inclusion of bilingual metadata will lay the ground for automated aggregation of translated information into a Whole of Government multilingual website.

Content approval and review

Online translations in community languages should involve a quality assurance process that not only checks the quality and accuracy of the translation, but also checks the web browser representation of the content.

5 Opportunities for improvement (cont.)

Consistent user elements

Website navigation should include a mechanism allowing navigation from the home page to translated content available on the website. If there are a limited number of languages supported by a website, the names of the languages (in their own language) should be listed on the home page.

If there are too many languages, a single link should be available from the home page. This link would lead to an index page listing all the languages available on the website. A standardised approach using a single phrase or symbol across government sites would facilitate use of resources in community languages. (This would be similar in concept to the Interpreter logo.)

Information architecture/classification

It would be useful to provide access to online content in community languages using predictable URIs,⁴¹ where content management systems or web servers allow.⁴² This has the added benefit of having a short, memorable URI to use on pamphlets, advertisements and promotional campaigns.

PDF accessibility

Standards, guidelines and techniques documents on creating and using accessible PDF documents need to be developed. The Office of the Chief Information Officer⁴³ has indicated that PDF accessibility will be addressed in a future web standards pack.

Web internationalisation

A set of practical guidelines and authoring techniques need to be developed so that web developers can provide efficient and effective multilingual web content.

The W3C Internationalization task force⁴⁴ has prepared a wide range of documents that would be useful.

41 Uniform Resource Identifier. A unique identifier for a document or digital object on the internet. For instance, <http://www.vic.gov.au/> is the URI for Victoria Online. Previously known as a URL (Uniform Resource Locator).

42 Examples on Vicnet's servers where web server redirects are used include: <http://www.openroad.net.au/dinka> and <http://www.openroad.net.au/harari>.

43 At the time of writing the Office of the Chief Information Officer was responsible for web standards.

44 <http://www.w3.org/International>

5 Opportunities for improvement (cont.)

Guidelines should outline how to:

- identify the language of text within a HTML document
- identify the character encoding a HTML document is written in
- use and control bidirectional text – including how to enable and set up text in right-to-left writing scripts.

Multilingual support within content management systems

As described in 4.2.6 many website content management systems may not support Unicode HTML and are not optimised to handle complex languages and scripts. A toolkit that would allow IT staff to test and evaluate a content management system would provide valuable support when purchasing decisions are made.

5.3.3 Promotion of guidelines and training

Guidelines and checklists are valuable tools to improve the way translated information is incorporated into Victorian Government websites. However, they will be wasted if they remain unknown or poorly used.

Awareness raising

A program of awareness-raising activities will ensure that the right people are aware of the key principles for creating multilingual content and know where to access resources when required.

Training opportunities for web staff to develop web internationalisation skills can further influence the quality of content. Training might also lead to an expert user group being formed.

Following are suggested development strategies that respond to the different roles involved in creating content:

Web staff

- Victoria Online seminar on web internationalisation
- Specialised training on web internationalisation and localisation
- Online support group
- Directory of suitable vendors such as content management systems and software.

5 Opportunities for improvement (cont.)

Communications/program staff

- Specialised seminars
- Information presentations at appropriate communications forums.

Relevant guidelines and checklists should also be incorporated into existing sources of information such as:

- The Victorian Government's policy and guidelines on interpreting and translating
- Departmental CALD communication guides
- Communications guides (both Whole of Government and departmental guides)

External providers

Where applicable, guidelines should be promoted to providers of services to government that relate to ICT and CALD communications. For example, if the Master Agency Media Service (MAMS) provides advice about web communications, recommended practice must be reflected.

In the case of language service providers, awareness of guidelines that outline technical requirements for translations using Unicode HTML will support them to respond to applicable service requests from government. These could be developed in consultation with key government agencies, industry bodies (NAATI and AUSIT), and major language service providers.

Consultancy

Further support can also be provided through a specialised consultancy, where advice can be sought at critical stages, such as early planning, quality testing, and content management service procurement.

6 WoVG multilingual website

This final chapter outlines the medium-term potential for a Whole of Victorian Government website that offers a functionality which can potentially bring together all online multilingual government information. Such a website must be built on the changes outlined in recommendation 1 to 4, and further developed in Chapter 5 – that is, enhanced use of the internet by CALD communities and improved online information.

6.1 Purpose of a WoVG multilingual website

The purpose of a WoVG multilingual website would be to increase access to government services and programs by CALD communities. This web-based resource would act as a gateway or directory for both service providers and members of CALD communities.

CALD communities prefer to obtain information about government services and programs through direct person-to-person communication. An online referral or contact directory would help CALD communities to access government departments.

Also, while there are many examples of multilingual content, there is no means of easily identifying what information is available. A centrally coordinated website would provide greater exposure to content through aggregation in a single website with translated links and navigational signposts.

It is important that both direct user and mediated access models be accommodated within a WoVG multilingual website. This would allow members of CALD communities to directly access information. It would also allow government employees, service providers and CALD community leaders to access information in an appropriate language for clients or community members.

6.2 Benefits of a WoVG multilingual website

A WoVG multilingual website has the potential to:

- increase the distribution of translated information
- provide greater exposure to translated information through aggregation in a single site
- offer translated links and signposts to ensure the site could be accessed directly by individuals in community languages
- provide a useful directory.

6 WoVG multilingual website (cont.)

Any benefits, however, are dependant on two things:

- appropriate promotion
- a commitment to ongoing maintenance.

6.3 Content and functionality

6.3.1 Core information

The core information within a WoVG multilingual website would provide general descriptive and contact information about key government departments and agency services and programs. The website would not need to replicate all information in all languages as content should be tailored to community needs. Since content will be in different sets of languages it will be easier to add links to translated material on diverse Victorian Government websites.

6.3.2 Automated harvesting

The site would also index and allow translated documents to be searched. In the long term it could automatically harvest data about government translations from each government department and agency website. This automated harvesting would require the use of bilingual metadata to describe each document.⁴⁵

6.3.3 Departmental and agency control

Departments and agencies would control the publishing cycle of their own translations, with the content and metadata residing on their own servers. The website would facilitate access to this content, and could be used to distribute other information, including:

- information on telephone interpreting services
- translated information on accessing emergency services
- information on obtaining and using the interpreter card.

⁴⁵ Metadata is information embedded in, or linked to, an electronic document or object and is required to make the content 'searchable'. Search engines retrieve the metadata that describes the document or object. Development of a bilingual metadata standard and harvesting protocol could allow automated harvesting of resources by a central multilingual website.

6 WoVG multilingual website (cont.)

6.3.4 Consolidate CALD communications online

A well-promoted WoVG multilingual website would be a mechanism for government departments and agencies to communicate with CALD communities. News and announcements in English and community languages publicising campaigns, projects, services, grants and new publications and translations should be included on the website.

News items and announcements could be provided on the site via RSS feeds, mailing lists and banner ads. A multilingual website would also provide a central point to consolidate government's online CALD communications.

6.3.5 Audio and audio-visual formats

Information in audio and audio-visual formats could be used to provide information to CALD communities, especially in communities with low literacy rates in their first language. Radio Australia, SBS and other ethnic broadcasters are currently providing podcast feeds in languages other than English for digitised radio programs.⁴⁶ Their initiatives will build up knowledge and awareness of these technologies within their client base, allowing government to leverage off these developments.

Recommendation 5: Review progress towards improved support for provision of multilingual online information

That a review is undertaken by mid-2008 on progress made under recommendations 1 to 4 of this report.

If sufficient progress has been made, that a strategy is prepared for the development of a multilingual online government website, in line with the model recommended in Section 6 of this report.

⁴⁶ A radio podcast is an audio file that contains a radio program that can be downloaded and listened to at any time on a computer or portable audio device. A podcast feed is an RSS file that enables multiple audio files to be easily downloaded.

6 WoVG multilingual website (cont.)

6.4 Demonstration proof of concept description

As an adjunct to this report, an online proof of concept has been developed to illustrate some of the possibilities and potentials of a WoVG multilingual website. The online demonstration has been built using the multilanguage, multiscript CMS developed for the MyLanguage website, www.mylanguage.gov.au⁴⁷ This contains a flexible extended multilingual template with sophisticated language support and web internationalisation features. Using the extended multilingual directory templates available in MyLanguage allowed the rapid prototyping of an online demonstration.

The contents of this demonstration site are taken from the *Guide to Victorian Government Services*. The guide is available in English and in 12 community languages. Four language versions of the *Guide to Victorian Government Services* were used for the illustrative content in the online demonstration.

6.4.1 How to access the online demonstration

The online demonstration is available from the Victorian Multicultural Commission website at <http://www.multicultural.vic.gov.au>.

Further details of how to access the site can be obtained from Vicnet.

6.4.2 Contents and features

The online demonstration provides a multilevel directory. Each topic will list government translations available for that topic in the target language. Indexed resources can differ from language to language.

An English section is also available. The English section has additional navigation features allowing navigation within document and topic sets. Each non-English document or topic is paired with an English language version, allowing navigation from the English document or topic to the corresponding translations.

47 The MyLanguage website is a cooperative project between seven Australian state and territory libraries to facilitate CALD community access to material on the internet in languages other than English. The website provides access to web directories, including search engines and the latest news and headlines in over 60 languages. The website was created and is maintained by the State Library of Victoria.

Appendix A Glossary

Alternative text	Alternative or alt text is text describing a non-textual element within a web page. Textual alternatives are provided in order to make content accessible. Alternative text is often used in conjunction with images.
ASCII	American Standard Code for Information Interchange. A 7-bit coded character set containing 128 characters that represents the basic Latin alphabet, numbers, basic punctuation and other characters used in computer programming and scripting languages. (refer UTF-8)
CALD	Culturally and linguistically diverse.
CMS	A content management system is the software and infrastructure to manage and edit the content of a website.
CSS	Cascading Style Sheets are used to control the presentation and layout of web pages.
Complex script languages	Complex script refers to a writing system where the shape and appearance of letters or characters change depending on the context the character is used in. A commonly-used complex script in Victorian Government translations is the Arabic script. Arabic letters have up to four alternative glyphs (or shapes) depending on whether the letter is at the beginning, within, or at the end of a word, or is isolated.
Direct access	Websites or web services that allow CALD community members to directly access material in their community language.
HTML	Hypertext Mark-up Language. The HTML is interpreted and displayed on the computer screen by web browsers.
Language service providers	Businesses that provide interpreting, translation, multilingual typesetting and multicultural marking services.
Localisation	Localisation refers to the adaptation of an application or document content to meet language, cultural and other requirements (including content and design) to reflect the usage, preferences and expectations of the target audience.
LOTE	Languages other than English.

Appendix A Glossary (cont.)

Mediated access	Mediated access websites and web services require service providers and community leaders to access information for CALD community members. Navigation on mediated access sites is usually only available in English.
Metadata	Information embedded in, or linked to, an electronic document or object that describes the document or object.
PDF	Portable Document Format. This is a type of document file designed to faithfully reproduce a printed version of the document. PDF files are commonly used as an intermediate file that can be sent to printers for printing. It is also a useful format to make longer or colour and graphic-intensive documents available online, when you want the online and printed versions to be the same.
Podcast	Podcasting is a method of distributing multimedia files over the internet. A radio podcast is an audio file that contains a radio program that can be downloaded and listened to at any time on a computer or portable audio device. A podcast feed is an RSS file that enables multiple audio files to be easily downloaded.
RSS	Really Simple Syndication, Rich Site Summary or RDF Site Summary. An XML file format used for web syndication by news websites and weblogs.
RTL	Right-to-left. Refers to writing scripts that are written from the right hand side of a page or screen to the left side in a horizontal direction. Right-to-left writing scripts include Arabic, Hebrew and Syriac.
Unicode	Unicode is a coded character set designed to allow text in diverse languages to be written, exchanged, processed and displayed.
URI	Uniform Resource Identifier. A unique identifier for a document or digital object on the internet. For instance http://www.vic.gov.au is the URI for Victoria Online. Formerly known as a URL (Universal Resource Locator).
UTF-8	An 8-bit, variable-width encoding for Unicode that is compatible with ASCII.

Appendix A Glossary (cont.)

W3C	World Wide Web Consortium. The consortium members and staff, with members of the public, work to develop Web standards and guidelines. http://www.w3.org/
WAI	The Web Accessibility Initiative is an activity domain within the W3C. WAI works with various organisations internationally to develop guidelines and resources to help make the Web accessible to people with disabilities. http://www.w3.org/WAI/ .
WCAG	Web Content Accessibility Guidelines.
Web internationalisation	Internationalisation is the design and development of a web service, website or document content that enables easy localisation for target audiences that vary in culture, region or language.
Writing scripts	A collection of letters and other written signs used to represent textual information in one or more writing systems.
XML	Extensible Mark-up Language. A general-purpose mark-up language for creating special-purpose mark-up languages, capable of describing many different kinds of data.
VOMA	Victorian Office of Multicultural Affairs.

Appendix B Details of Research Participants

1 Community representatives – community leaders, mainstream, ethnic and regional service providers

1. SBS Radio (Croatian and Romanian)
2. Serbian Social Services and Support
3. Serbian Welfare Association of Victoria
4. Co.As.It (Senior Italian Citizens Club) – forum of over 50 participants
5. Northern Migrant Resource Centre (Macedonian)
6. Senior Citizens Clubs of Polish Community
7. Australian Greek Welfare Society
8. Victorian Arabic Social Services (VASS)
9. Australian Arab Multicultural Association
10. Springvale Neighbourhood House (Arabic)
11. Imam Ali Islamic Centre & Northern Migrant Resource Centre (Iraqi)
12. Melbourne Turkish Community Centre
13. Hazara Australian Community Association (Afghan)
14. Council of Turkish Associations of Victoria
15. Victorian Institute for Survivors of Torture (Dinka)
16. Somali Cultural Association
17. African Community Development Centre (Oromo, Ethiopian, Dinka) – forum
18. Federation of Chinese Associations
19. Victorian Eritrean Community Association
20. Vietnamese Community in Australia-Victorian Chapter
21. Australian Burma (Myanmar) Society
22. Centre for Ethnicity and Health
23. Ecumenical Migration Centre (Brotherhood of Saint Laurence)
24. Eastern Access Community Health
25. Rangers Community Health Service
26. Women's Health West
27. Centre for Multicultural Youth Issues
28. Migrant Resource Centre North West – Youth
29. Migrant Information Centre Eastern Melbourne
30. South Central Migrant Resource Centre
31. Ethnic Communities' Council of Victoria
32. Ethnic Communities' Council of Shepparton and District
33. Ethnic Communities' Council of Gippsland
34. Sunraysia Ethnic Communities' Council – Mildura
35. Bendigo Regional Ethnic Communities' Council
36. Gippsland Multicultural Services
37. Breastsreen

Appendix B Details of Research Participants (cont.)

2 Darebin/Vicnet community focus groups

Forty participants including members of the following organisations:

- Ghana Association of Victoria
- North East Sudanese Association
- Serbian Welfare Association
- Youth workers working with migrant and refugee youth.

Other language groups represented were: Chinese, Italian, Portuguese, Macedonian, Greek and Arabic. The focus groups were undertaken by MyriaD Consultants Pty Ltd.

3 Government

3.1 Victorian Government

Department	Unit	Area of work
Department of Education and Training (DE&T)	<ul style="list-style-type: none">• LOTE, ESL, Multicultural education• Internal communications	Projects Communications
Department of Human Services (DHS)	<ul style="list-style-type: none">• Rural, Regional Health & Aged Care Branch• Internal web communications• Diversity Unit• Disability Services	Management Web Communications & Web Services Health Translations Directory Policy Projects CALD Projects and Disability Online
Department of Justice (DOJ)	<ul style="list-style-type: none">• Diversity Issues Unit• Victoria Legal Aid	Justice Translations Directory Communications and Community Education
Department of Innovation, Industry and Regional Development (DIIRD)	<ul style="list-style-type: none">• Small Business Unit• Web Editing and Business Master Key	Online Services Delivery
Department of Premier and Cabinet (DPC)	<ul style="list-style-type: none">• Office of the Chief Information Officer• Communications and Online Communications	

Appendix B Details of Research Participants (cont.)

Department	Unit	Area of work
Department of Sustainability and Environment (DSE)	<ul style="list-style-type: none"> • Resources & Regional Services Unit • Customer and Web Services 	
Department for Victorian Communities (DVC)	<ul style="list-style-type: none"> • Office for Senior Victorians • Victorian Multicultural Commission • Information Victoria • Victorian Office of Multicultural Affairs 	Policy Projects
Department of Infrastructure (DOI)	<ul style="list-style-type: none"> • Multimedia Victoria 	Community Development E-government Resource Centre Victoria Online

3.2 Agency/local government

Agency/municipality	Unit
City of Darebin	Multicultural Affairs
City of Monash	Public Relations
Brimbank Library	Information Services
Yarra Melbourne Regional Library	Multicultural Services
Yarra Valley Water	Communications

Appendix B Details of Research Participants (cont.)

4 Language Service Providers

- Australian Institute of Translators and Interpreters Incorporated (AUSIT) – Regional Administration
- National Accreditation Authority for Translators and Interpreters (NAATI) Regional Administration
- All Graduates – Operations Management
- International Translation Agency – Management and Practitioner
- LOTE Marketing – Management
- Victorian Institute of Translation Services (VITS), Translation Services – Management
- On call – Management
- e-translate – Management
- Cultural Partners Australia – Project Management

5 Other Interviews/Consultations

- Komodo
- Centrelink Head Office – Communication & Language Services
- Optimedia (Victorian Government Master Media Agency)
- Melbourne University Computer Science Department

Appendix C Victorian Government websites with translated content

Department of Education and Training

Department/Agency/Unit	Examples of type (or title) of translated information	Number of languages
Department of Education and Training	Parents Information Handbook	3
Victorian Curriculum and Assessment Authority	Parent Report; Victorian Essential Learning Standards; Info for Students & Parents	14
SOFWeb (merging three DE&T entry points: SOFWeb, DE&T Corporate and Victorian Education Channel)	Includes: Info for Newly Arrived Parents; Choosing Books for Prep Schools; Consent Form for Head Lice Management.	22
Victorian Government Schools – International Students	Information about Victorian government schools for international students.	1

Appendix C Victorian Government websites with translated content (cont.)

Department of Human Services

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Privacy	Information on privacy policy	
Ambulance & Acute Programs Section, Metropolitan Health & Aged Care Services Division. Having a Baby in Victoria	Models of Care; Hospital Guide; Care Options Before & After the Pregnancy	8
Disability Services	Disability information and support	10
Disability Online	Translated information under development	15
Office of Housing	Customer Service Charter; Standards of Service; How to Make a Complaint	9
Office for Children	Information for Parents about custody, interim protection; guardianship order; starting kindergarten	27
Emergency Management	Fact sheets on flooding, essential services disruption, hygiene etc.	19
Victorian State Concession	Entitlement for State Concession	22
Office of Health Services Commissioner	Problems with a health service; Concerns about health privacy or translating/interpreting services	15
The Intellectual Disability Review Panel	General information about the service	6
Food Safety	Information on food safety; prevention of food poisoning (info. varies depending on language)	25
Food Smart	Telephone number to call to create a food smart program	8
The Victorian Ambulance Service	Contact details and advice on how to make a call	14
Health Translations Directory	Information on health topics and other (links to justice, education etc)	60 (approx.)
Go for your Life	Part of 'Go for Your Life' campaign; ways to remain healthy etc.	5
Problem Gambling	About gambling; contact details	11
Public Hospital Patient Charter	Patient charter pamphlet and fact sheet	17

Appendix C Victorian Government websites with translated content (cont.)

Department of Infrastructure

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Department of Infrastructure	Multilingual information line-contact numbers	12
Multimedia Victoria	Achievement of Connecting Communities Brochure	10
i@ public internet access	How to Use the internet Guide	11
Marine Safety Victoria	Victorian Recreational Boating Safety brochure	3 (1 in progress)
Energy Safe Victoria	Information on safety switches; certificate of electrical safety/ ethnic media ads	4
VicRoads	Information for seniors: assessing driving skills, medical conditions	6

Department of Innovation, Industry and Regional Development

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Business Victoria	Child Employment Act; How to buy a franchise; Selling a business (information varies dependent on language)	15
Invest Victoria	Investor's Guide to Victoria	6
Visit Victoria	Information on Melbourne: Welcome to Melbourne	3
Office of the Small Business Commissioner	Information sheet	10
Puffing Billy	General information on Puffing Billy	4
Federation Square	General information	8
Victims Support Agency	Applying for Intervention Order; Going to Court; Reporting on a Crime	11

Appendix C Victorian Government websites with translated content (cont.)

Department of Justice

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Equal Opportunity Commission Victoria	About discrimination; rights to be treated fairly	20
The office of the Public Advocate	Refusing medical treatment; power of attorney; guardianship	11
Legal Aid Victoria	Police powers; if you have a legal problem etc (info varies with language)	24
Justice Translations Directory	Various information	50 (approx.)
Victorian Law Reform Commission	Changing the law	12
Consumer Affairs Victoria	Guide for tenants and landlords; on renting for newly arrived; fact sheets in some of languages	13
Dispute Settlement Centre of Victoria	What can I do about a Dispute?; DSCV Mediation; If you're in Conflict with Someone; Wise Ways to Win.	21
Victoria State Emergency Service	Short introduction about the service and contact details	14
Victorian Electoral Commission (VEC)	A Quick Guide to Enrolling and Voting	18
Office of the Emergency Services Commissioner -Water Safety	Part of campaign: Who's looking after you?	15
Children's Court of Victoria	General Guide to Court; The Criminal Division, The Family Division	8
Office of the Victorian Privacy Commissioner	Information about Privacy Victoria	13
Country Fire Authority	Information on what to do in case of fire or to prevent fire	15
Crime Prevention Victoria	Prevention Tips for Home Burglary	9
Crime Stoppers Victoria	Contact details and how to report on a crime	18
Legal Service Commissioner	List of How to Collaborate with Your Lawyer	10

Appendix C Victorian Government websites with translated content (cont.)

Department of Premier and Cabinet

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Department of Premier and Cabinet	Growing Victoria Together Booklet	11
Museum Victoria	About people/language group who migrated to Australia	Over 50

Department of Sustainability and Environment

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Melbourne Water Corporation	Sewage System; Drainage	10
Our Water, Our Future	Water saving rules	10
Sustainability Victoria (Sustainable Energy Authority Victoria)	Policy and planning guidelines for development of wind energy facilities in Victoria	2

Department of Treasury and Finance

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Victorian Work Cover Authority	Insurance on Work Place Injury; Info. for Employee, Employer	5
State Trustees Limited	Information on the genealogical service	6

Appendix C Victorian Government websites with translated content (cont.)

Department for Victorian Communities

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Victorian Multicultural Commission	Problem with a health service or concerns about translating and interpreting services?; Information on grants	24
Skilled Migration – Living in Victoria	Information on business visa	1
Victorian office for Multicultural Affairs	Information on content of site; Guide to Victorian Government Services	29

Other

Department/Agency/Unit	Type (or title) of translated information	Number of languages
Metlink Victoria	Link to Interpreting Services Number	12

Appendix D Open Road Conference

Themes from round table discussions:

- Community needs to be considered as part of the package of developing content – there is value in interaction between translators, clients and community to ensure appropriateness of content.
- Translation industry is seeing increase in demand for translated material appropriate for electronic applications, particularly in HTML format. This presents a challenge in terms of skills of translators, software packages, complex scripts and computer capacity of end-users. Workflow issues and planning for multilingual content at early stages of a project are other considerations.
- Organisations creating content are challenged to provide multilingual online information that is accessible and up to date to the same degree as English language content.
- There is potential to improve the way online government translated material is created. There are currently technical solutions available, and awareness raising is needed to show what is possible.
- There are challenges meeting the information needs of emerging communities. For example, there are approximately 102 languages spoken within new African communities. Some languages have low literacy rates, and not all languages are in written form. Not all languages are represented in the census information.
- There is wariness about moving significant information into the web without regard for community preference for face-to-face meetings and word of mouth. Research on how information is sought is important when considering best use of resources.
- Audio can be a practical format where literacy levels are low, however, drawbacks exist in relation to web architecture's capacity to store files, and the download capacity of the end-user's computer.
- Possibilities for incorporating multilingual content are greater when planned for in early stages of the whole site where appropriate technology can be selected.
- Use of PDF format can be problematic. For example, when a brochure intended for printing is uploaded to a website, problems arise when the document is large. Colourful documents are unsuitable for an end-user to print. This is avoided where content is limited in pages, and in black and white.
- There is wariness about shifting resources from traditional means of providing information (hard copy brochures and face-to-face contact) to online format. Allocation of resources is complex – particularly when balancing needs of larger, established communities with needs of emerging communities with much smaller populations.
- There are new challenges with new communities. It is important to ensure there is flexibility to meet demands and to be open to new approaches.

Appendix D Open Road Conference (cont.)

Themes from round table discussions (cont.)

- Many of the issues around multilingual content are similar to those for English content, for example, issues about suitability of PDF.
- Bilingual members of the workforce can also provide insight into testing effectiveness of translated materials in terms of format and accessibility.
- Resources for new means of communication are unlikely to increase, so organisational willingness and capacity to do more will be important. Leadership is essential to bring about this kind of change.
- Local government is fast moving from a representative democracy to a participatory one – with more importance on an informed community. Policies and plans are available for communities on council websites.

Appendix E 2001 ABS Census: internet use by age and language group

The following data analysis was undertaken by Express Information, State Library of Victoria, 2006.

Analysis is based on data from the 2001 ABS Census of Population and Housing.

NOTES

n.f.d. not further defined

n.e.c. not elsewhere classified

African Languages (excl. Nth Africa); nec (incl. Bemba, Fante, Malagasy)

The actual number & proportion of people usually residing in Victoria, who do, or do not, use the internet by the language spoken at home. Data sorted by proportion of those who use the internet.

Language spoken at home	Do not use the internet	Proportion of language speakers who do not use the internet	Use the internet	Proportion of language speakers who do use the internet	Total numbers
Telugu	245	21.19%	911	78.81%	1156
Indonesian	2084	22.98%	6986	77.02%	9070
Kannada	154	24.64%	471	75.36%	625
Gujarati	256	25.27%	757	74.73%	1013
Japanese	1498	29.42%	3593	70.58%	5091
Korean	926	29.97%	2164	70.03%	3090
Swedish	310	30.82%	696	69.18%	1006
Malayalam	321	30.90%	718	69.10%	1039
Bengali	596	31.96%	1269	68.04%	1865
Indo-Aryan, nfd	196	32.89%	400	67.11%	596
Hokkien	964	34.06%	1866	65.94%	2830
Afrikaans	550	34.63%	1038	65.37%	1588
Hebrew	1124	35.63%	2031	64.37%	3155
Malay	620	35.76%	1114	64.24%	1734
Urdu	1029	35.85%	1841	64.15%	2870
Serbian	10850	40.65%	15843	59.35%	26693
Thai	1575	42.24%	2154	57.76%	3729
Tamil	3294	42.25%	4503	57.75%	7797
Hindi	4472	42.37%	6082	57.63%	10554
Danish	430	43.00%	570	57.00%	1000
Mandarin	16672	43.42%	21726	56.58%	38398
Sinhalese	5544	48.00%	6005	52.00%	11549

Appendix E 2001 ABS Census: internet use by age and language group (cont.)

The actual number & proportion of people usually residing in Victoria, who do, or do not, use the internet by the language spoken at home. Data sorted by proportion of those who use the internet.

Language spoken at home	Do not use the internet	Proportion of language speakers who do not use the internet	Use the internet	Proportion of language speakers who do use the internet	Total numbers
African Languages (excl. North Africa)#	425	52.08%	391	47.92%	816
Cantonese	31189	52.14%	28634	47.86%	59823
Punjabi	1952	52.25%	1784	47.75%	3736
Burmese	290	52.35%	264	47.65%	554
French	5793	52.49%	5244	47.51%	11037
Auslan	503	53.68%	434	46.32%	937
Czech	937	55.54%	750	44.46%	1687
Spanish	12871	56.82%	9782	43.18%	22653
Chinese, nfd	2464	57.41%	1828	42.59%	4292
Other Language	6294	57.77%	4601	42.23%	10895
English	2008227	57.92%	1459105	42.08%	3467332
Russian	8063	58.34%	5757	41.66%	13820
Southern Asian, nfd	1072	58.36%	765	41.64%	1837
Teochew	885	59.28%	608	40.72%	1493
Portuguese	2379	60.97%	1523	39.03%	3902
Finnish	441	61.25%	279	38.75%	720
Tagalog	10624	62.26%	6439	37.74%	17063
Persian	3664	62.28%	2219	37.72%	5883
Somali	1788	63.40%	1032	36.60%	2820
Polish	12352	63.66%	7051	36.34%	19403
Romanian	2717	64.84%	1473	35.16%	4190
Tigrinya	362	64.87%	196	35.13%	558
Slovak	1191	64.98%	642	35.02%	1833
Armenian	1287	65.40%	681	34.60%	1968
Bosnian	3815	65.56%	2004	34.44%	5819
German	13440	66.15%	6876	33.85%	20316
Netherlandic	7224	67.30%	3510	32.70%	10734
Oceanian nfd Pidgins & Creoles	748	68.50%	344	31.50%	1092

Appendix E 2001 ABS Census: internet use by age and language group (cont.)

The actual number & proportion of people usually residing in Victoria, who do, or do not, use the internet by the language spoken at home. Data sorted by proportion of those who use the internet.

Language spoken at home	Do not use the internet	Proportion of language speakers who do not use the internet	Use the internet	Proportion of language speakers who do use the internet	Total numbers
Yiddish	1499	69.75%	650	30.25%	2149
Amharic	504	70.00%	216	30.00%	720
Lithuanian	631	70.98%	258	29.02%	889
Arabic (incl. Lebanese)	32810	71.10%	13337	28.90%	46147
Turkish	20112	71.43%	8046	28.57%	28158
Lao	1491	71.44%	596	28.56%	2087
Greek	86917	71.82%	34112	28.18%	121029
Hungarian	6334	71.97%	2467	28.03%	8801
Ukrainian	2983	72.07%	1156	27.93%	4139
Croatian	18371	72.18%	7082	27.82%	25453
Vietnamese	45350	72.25%	17420	27.75%	62770
Pashto	588	72.86%	219	27.14%	807
South Slavic nfd	3341	72.96%	1238	27.04%	4579
Latvian	1345	73.94%	474	26.06%	1819
Macedonian	23998	74.05%	8408	25.95%	32406
Maori (NZ)	647	74.28%	224	25.72%	871
Italian	110500	74.73%	37372	25.27%	147872
Hakka	3339	75.87%	1062	24.13%	4401
Slovene	1759	76.05%	554	23.95%	2313
Albanian	4350	76.95%	1303	23.05%	5653
Khmer	6521	77.55%	1888	22.45%	8409
Assyrian (incl. Aramaic)	3568	79.63%	913	20.37%	4481
Maltese	17252	81.19%	3997	18.81%	21249
Tongan	1327	81.91%	293	18.09%	1620
Maori – Cook Is.	858	91.86%	76	8.14%	934
Samoan	3347	96.90%	107	3.10%	3454

Appendix F Statistics from Victorian websites with translated content

Victorian Electoral Commission

Statistics were provided for hits to multilingual pages over a recent local council elections period: 18 October to 30 November 2005.

Details of both the HTML and PDF content were provided. The HTML visits were up to four times higher than the visits to PDF files.

The languages most accessed were Arabic, Chinese, Italian, Greek, Croatian, and Vietnamese (on average 180 to 200 visits). In comparison the number of visits to the English language pages on the site was 57,710 for the same period.

Victorian Workcover Authority

The website has five PDF documents available for downloading in six languages, including English. The statistics of total PDF document downloads for March 2006 are tabled below:

Language	Downloads
Arabic	49
Chinese	74
Greek	48
Italian	32
Vietnamese	48
English	3,724

The ratio of LOTE to English downloads is therefore less than one.

Appendix F Statistics from Victorian websites with translated content (cont.)

Victoria Legal Aid

The website has a range of PDF documents available for download. All documents are available in English, and various documents have been translated into a range of languages. Not all documents are in all languages.

The table below shows the total download statistics for 2004–05 financial year for nine documents:

Brochure	Number of languages	Total 'in language' downloads	English downloads
Applying for an Intervention Order	8	1,539	2,265
Are you a refugee?	5	969	1,052
Child Support Legal Service	3	681	323
Do you have a legal problem?	26	6,144	6,119
Fines	10	2,229	2,106
Police Powers	7	1,480	3,648
Power of Attorney	10	1,573	14,825
Responding to an intervention order	8	1,607	1,480
Your Day in Court	4	325	2,524

Only four of the documents have more downloads in English compared to the cumulative number of LOTE versions.

Appendix G Using the web for CALD communications

This appendix identifies key areas that require consideration when planning to place translated government information online.

Why use the internet?

Is the website a suitable means of communication? Are there specific functions that can be practical?

- Will web-based information be continuously available?
- Will it have a directory function, directing people to phone numbers and call centres, or to phone interpreters?
- Is there a capacity for cross promotion?
- Is there an opportunity for:
 - wider distribution of print material (and more languages than in print copy)?
 - online access to audio/visual material
 - updating information
 - promoting special events & activities?

Which languages?

- Are the chosen language groups those most in need of the particular information?
- Are you targeting a particular age group? Census data may show language groups with large numbers within the target age group.
- Have assessments been made of the English proficiency of the target groups? Have age groups been considered?

Cross promotion

How will people know that information is available in their language on the website? Are there opportunities to cross promote the web content?

- Ethnic media
- Events
- Posters & brochures
- Radio advertisements
- Bookmarks
- Promotion to service providers

Discoverability

- Is the URI memorable – e.g. Business.vic.gov.au/Italian
- Can information be found on Victoria Online?
- Have you applied bilingual metadata & tagged PDF files?

Direct or mediated access?

Are there third parties who work with the target group and frequently access the internet who may benefit from online information? How can the information be promoted to them?

Appendix H Workflow checklists for multilingual online information

The following checklists identify processes that need to be addressed when planning for translated online government information. Many of these topics require liaison between content authors and web communications staff.

Technical Checklist

- Will the website be able to incorporate content in non-Latin fonts?
- Can the website accommodate Unicode?
- Can the server and relevant software accommodate Unicode?
- How will information be incorporated into the CMS (wysiwyg window)?
- Can the website accommodate languages with right to left directionality (e.g. Arabic)?
- If a new site, CMS tender to include multilingual functionality?
- Metadata to be translated in order to provide bi-lingual metadata?

Design checklist

- Is 'in-language' navigation required (direct access by language speaker)?
- If yes, how many and which languages? What form will the front-page navigation be? (Language links as text, or index page listing all the languages?)
- Are translations required for navigation links?

Content checklist

- Will content be in HTML format? Can it be contained in one onscreen page?
- What text will be incorporated in the main page?
- Will there be a contact phone number, or instructions for a phone interpreter?
- Does a call centre/service require briefing about multilingual content?
- Will there be a translated privacy statement?
- Will additional information be provided in PDF format? If yes, links need to be in languages.
- Is an English version available for mediators who may be locating information?
- Is the format of PDF files suitable for printing from a home computer?
- Is the PDF accessible and tagged?
- If PDF already exists, is it appropriate for the web? (It may not be suitable if full colour and large number of pages.)
- Are font instructions required for problematic languages (e.g. Khmer)?

Translations checklist

- Are the Unicode fonts specified?
- Is the file format of completed translations specified? (Word, Notepad, direct to CMS?)
- Has the content been written for the Web (e.g. uses plain concise English etc)?
- Is translated text required for front page and navigation links?
- Is translated text required for file names and metadata?
- Is translated text required for download instructions (if required)?
- Have you confirmed with agency that the purpose is for web?
- Have you implemented quality checking processes to check translations?
- Do you have a quality process to check the correct display on the web browser?

Appendix I Technical appendix

1 Web internationalisation

It will be necessary to develop a set of practical guidelines and authoring techniques to enable web developers to provide efficient and effective multilingual web content. These guidelines will need to cover five key areas:

- specifying language
- specifying encoding
- bidirectional mark-up
- using a Unicode Normalization form, if appropriate
- multilingual content and CMSs.

The W3C Internationalization working groups have published a range of tutorials, techniques documents and articles on various aspects of web internationalisation and developing multilingual web content. These resources are available at: <http://www.w3.org/International/>.

1.1 Specifying language

Areas that need to be covered include the identification of the language of text within a HTML document. The following areas also need to be covered:

- declaring the text-processing language
- specifying primary language metadata
- documents with multiple primary languages
- choosing values for language codes
- identifying in-document language changes
- indicating the language of a link destination
- styling a web page by language.

W3C's Internationalization working group and the Web Accessibility Initiative stress the importance of specifying the languages used within a HTML or XHTML document.

The authoring techniques make a distinction between *primary language* and *text processing language*. The *text processing language* is the language in which the text of the document is written. It is processed to be displayed or read by a screen reader. The `lang` and `xml:lang` attribute are used to indicate the text processing language.

It is also possible to indicate the primary language or languages of a document using the HTTP header's `Content-Language` or the equivalent `meta` element. In this context we are not discussing instructions for a web browser regarding the language of content; rather we are describing metadata identifying the language or intended audience of the document.

It is necessary to declare the default text processing language for the whole document. Declaring a text processing language in the `html` element will specify the default language for the whole document.

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- For HTML documents you use the `lang` attribute.
E.g. `<html lang="mi">` to identify the default text processing language as Maori.
- For XHTML 1.0 served as `text/html`, both the `lang` and the `xml:lang` attributes should be used.
E.g. `<html lang="so" xml:lang="so">` to identify the default text processing language as Somali.
- For XHTML documents served as XML, i.e. `application/xhtml+xml` the `xml:lang` element should be used.
E.g. `<html xml:lang="km" xmlns="http://www.w3.org/1999/xhtml">` to identify the default text processing language as Khmer.

If the document has multiple main languages, you will need to decide whether you declare one of the languages as a text processing language in the `html` element or leave the default text processing language undefined. If the navigation or metadata is in one specific language, then that language should be identified as the primary text processing language.

You also need to declare any language changes within a document. Use the `lang` and/or `xml:lang` attributes around any changes within a document. If there is no appropriate element to add the language declaration to use the `div` element for a block change and use a `span` element for an inline change:

e.g. `<p>The Chinese title is 世界人权宣言 </p>`

If there are multiple main languages within the document, the web developer should divide the document up into blocks at the highest possible level. The appropriate text processing language should be declared for each of these blocks.

It is important to use a valid language code. W3C Internationalization working group recommends:

- Use the guidelines in RFC3066 for language attribute values.
- Use the two letter ISO-639 codes for language attribute values when a language has both a two and three letter code.
- Consider using the codes `zh-Hans` and `zh-Hant` to refer to Simplified and Traditional Chinese.

1.2 Character encoding

Areas that need to be covered include character sets, character encodings and entities:

- Choose a page encoding
- Specify a page encoding
- Use the HTTP header
- Declare the encoding in-document

Appendix I Technical appendix (cont.)

- Declare the encoding in more than one place
- Choose names for your encodings
- Design and process multilingual forms.

The W3C Authoring techniques for XHTML and XML stress the need to choose and identify an appropriate character encoding for the web documents or website you intend to develop.

Choose a character encoding for the web document

- Declare the encoding in more than one place.
- Choose UTF-8 or another Unicode encoding.
- If you do not use Unicode, select an encoding that contains the greatest number of characters that are present in your web document. This is especially important if your site is using forms to submit data.

For some languages, it is not possible to use Unicode, and you'll need to use a legacy character encoding. Languages in this category would be those languages whose writing scripts are not currently supported by the Unicode standard, or languages that are encoded in Unicode, but not widely supported by available font rendering technologies.⁴⁸

- It is important that the character encoding you have selected is supported by user agents used to access your website.

Specify the web page encoding

- It is possible to specify the encoding of the document via the web server, or within the web page, or in both places. A web browser will look for information on the character encoding value in the **charset** parameter in the Content-Type specified in the HTTP response header. This value will be used in preference to another method of identifying the character encoding.
- If no **charset** value is sent in the HTTP header, the browser will next look for information on the character encoding within the web page.
- Use the preferred names from IANA's registry for the value of the **charset** parameter.

Use the HTTP header

Since web browsers will take the **charset** value identified in the HTTP header in preference to **charset** value identified by other mechanisms, it is important to use this mechanism correctly.

⁴⁸ Information on writing scripts awaiting inclusion into Unicode is available on the Unicode website at <http://www.unicode.org/pending/pending.html>. Many of the pending scripts are writing scripts in minority languages in South-East Asian. Refer to summary proposals to encode Tai and other South-East Asian scripts in the UCS at <http://www.evertype.com/standards/tai/tai-scripts.html>.

Appendix I Technical appendix (cont.)

This is only practical when the web page author is able to change the information that is sent in the HTTP header. Changes to the web server's configuration, or upgrades to the web server may change the `charset` being identified, resulting in an incorrect `charset` value being transmitted in the HTTP header.⁴⁹

You'll need to set the `charset` value via the HTTP header when the server is converting (transcoding) a document from one character encoding to another, before transmitting the document.

Declare the encoding within the document

For HTML documents and XHTML documents served as `text/html`:

Use a `meta` element, as early as possible within a web page, to identify the encoding of a web page. The declaration will take the form:

```
<meta http-equiv="Content-Type"
      content="text/html; charset=utf-8" />
```

For XHTML served as `application/xhtml+xml`:

Specify the document's character encoding in the XML declaration is mandatory, except when the document is served as UTF-8 or UTF-16 or the character encoding is specified in the HTTP header. (It is recommended that the encoding still identifies within the XML declaration.)

The XML declaration would take the following form:

```
<?xml version="1.0" encoding="utf-8"?>
```

If you are serving an XHTML document as `text/html`, it is recommended that you declare the encoding in both the XML declaration and in a `meta` element.

The XHTML 1.0 specification requires that any XHTML document that does not identify the character encoding of the document, either via the HTTP header or in the XML declaration, must use either UTF-8 or UTF-16 as the document encoding.

1.3 Bidirectional text

You need to know how to mark up documents that require bidirectional support.

Relevant topics include:

- enabling easy localisation for RTL scripts
- general use of bidi mark-up

⁴⁹ If someone viewing your web page saves the document to a local storage medium, the information identifying the character encoding is 'lost'. For this reason, the authoring techniques recommend that if you identify the charset using the HTTP header you should also identify the charset within the document.

Appendix I Technical appendix (cont.)

- basic setup for pages in RTL scripts
- changing the directionality of a block element
- mixing text direction inline
- handling parentheses & other mirrored characters
- overriding the Unicode bidirectional algorithm
- UI mirroring issues.

In HTML and XHTML Unicode documents, you can add the `dir` attribute to a HTML entity to indicate the directionality of text within that element. For a web page written in a right-to-left script, the overall document direction should be indicated in the `html` element:

```
<html lang="ar" dir="rtl">
```

Do not add `dir="rtl"` to the body element.

The authoring techniques for handling bidirectional text recommend that web developers:

- Do not use CSS to control directionality. Markup should be used instead.
- Only add bidi markup to a document when it is needed. The Unicode bidirectional algorithm should be sufficient in most cases.
- Avoid HTML attributes with values of right to left (**align** and **clear** attributes). Use CSS in a linked style sheet instead. This will make the document easier to localise into a language using a right-to-left script.

To change the direction of a block level element, add the `dir` attribute to that element. The content of all nested block elements will inherit directionality.

To control the direction of inline elements:

- Use the Unicode LEFT-TO-RIGHT MARK (U+200E) and RIGHT-TO-LEFT MARK (U+200F) to control the directionality of direction neutral characters in relation to directional text surrounding them.
- Use the **dir** attribute on an inline element to resolve nested direction runs.

Unicode provides a series of bidirectional control characters:

LEFT-TO-RIGHT EMBEDDING (U+202A),

RIGHT-TO-LEFT EMBEDDING (U+202B),

LEFT-TO-RIGHT OVERRIDE (U+202D),

RIGHT-TO-LEFT OVERRIDE (U+202E), and

POP DIRECTIONAL FORMATTING (U+202C).

Appendix I Technical appendix (cont.)

Do not use these control characters for bidirectional control if markup is available.

It may be necessary to use control characters for attribute text or element text that does not allow internal markup.

For non-Unicode Hebrew HTML and XHTML documents use logical rather than visual order. The preferred ISO-8859 character encoding is ISO-8859-8-I.

1.4 Normalisation

One key issue with resource location tools, whether they are search engines, web directories or other tools, is the need for Unicode normalisation. The Vietnamese phrase “Tiếng Việt” can be represented in Unicode in three ways (1) a sequence of single discrete characters for each letter of the Vietnamese alphabet, (2) the vowels with diacritics could alternatively be represented as a base character followed by combining diacritics, or (3) the Microsoft approach, which uses precomposed characters for the vowels “a, ă, â, e, ê, i, o, ô, ơ, u, ư and y” and combining diacritics for the tones.

1	Tiếng Việt	NFC based input (composed)
2	Tieông Vieot	NFD based input (decomposed)
3	Tiêông Viêt	Windows 2000/XP keyboard layout

Unicode considers these three sets of character sequences to be canonically equivalent although they are distinct Unicode codepoint sequences.

The Unicode standard includes a process, referred to as normalisation, which allows Unicode text to be converted to one of four preferred forms: canonical decomposition, compatibility decomposition, canonical composition and compatibility composition.⁵⁰

For most languages we deal with, data will invariably be fully precomposed (NFC). Vietnamese is an example of a problematic language. Most Vietnamese third party input software by default uses precomposed characters. Some software also offers the option of using decomposed character sequences. Microsoft added Vietnamese support to the International English edition of Windows 2000. The keyboard layout it uses in Windows 2000 and Windows XP does not produce normalised character sequences.

⁵⁰ Refer to Unicode Standard Annex #15 ‘Unicode normalization forms’: <http://www.unicode.org/reports/tr15/>

Appendix I Technical appendix (cont.)

1.5 Content Management Systems

The World Wide Web Consortium (W3C) produces technique documents, articles and tutorials on web internationalisation. These documents form a core set of documents outlining how to author and deploy multilingual content.

W3C tutorials: <http://www.w3.org/International/tutorials/>

W3C techniques documents: <http://www.w3.org/International/technique-index>

These documents form a core resource for developing multilingual content on websites, and cover the topics listed above. Additional implementation guidelines could be developed to address issues relating to content management systems, including:

- Guidelines on implementing multilingual content within a CMS that does not have appropriate Unicode support, or where there are barriers to multilingual input into a CMS
- Guidelines for evaluating and testing multilingual support for a CMS
- A test suite to enable evaluation of
 - input into a CMS
 - rendering of content in community languages
 - language tagging
 - bidirectional support
 - Unicode normalisation support
 - Support for embedding CSS and other semantic markup
 - Support for numerical character references and HTML entities
 - Support for control characters: CGI, LRM, RLM, ZWJ, ZWNJ, etc.

2 Accessibility issues

Accessibility issues centre on the:

- use of images to display non-English text
- use of untagged and inaccessible PDF files for display of translated documents
- ambiguous identification of language.

2.1 Images

The need to use an `alt` attribute for images is probably the most well known aspect of web accessibility. Small images containing text are often used for language specific navigation on websites containing resources in multiple languages.

The `img` element often looks like the following HTML snippet:

```

```

Appendix I Technical appendix (cont.)

Although on the surface this is fine, there is one issue: the text within the image would be written in Italian, and may say “italiano” or a welcome message in Italian, yet the `alt` attribute value is in English. The image is designed for one audience, while the `alt` attribute value is relevant to a second audience.

This situation is very common in Australian Government websites that contain multilingual documents.

The text used for the `alt` attribute should be for the same audience as the image itself, and should reflect the content and meaning of the image. The following versions of the `img` element would be more relevant to the intended audience:

```

```

```

```

A second problem with images concerns websites that use images to display large amounts of non-English language text. This was a common practice in the early period of the World Wide Web since browsers were unable to render text in most languages.

The current level of language support in modern web browsers makes such a crude ‘fix’ unnecessary. Unfortunately, such extended text images are still used by a small number of government websites, even for languages that are supported by the default character encodings used for English. Typically, these sites do not provide alternative text versions nor use the `longdesc` attribute.

2.2 PDF Files

Translation agencies and government departments and agencies find the use of PDFs with embedded fonts more convenient than working with HTML or other document formats for translated material.

Some screen readers can handle the PDF document format; tools also exist that allow PDF files to be converted to other document types including HTML. Adobe (the developers of the PDF specification) provide an online conversion tool that allows for the conversion of PDF files to HTML documents.

For PDF documents to be accessible, the documents should be tagged and accessible PDF files. The languages used in the document should be identified, with all language changes tagged.

Additionally, only well-formed TrueType font programs should be embedded in PDF files. It is important that the fonts contain information to identify the Unicode character code for each glyph: *This character identification can occur if either the font uses a standard named encoding or the characters in the font are identified by standard character names or CIDs in a well-known collection.*⁵¹

⁵¹ Adobe PDF, version 1.6. p. 441.

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If it is not possible to determine a Unicode codepoint for each character when the text is extracted from the PDF, then it is not possible to correctly identify the character.

Additionally, when preparing a translated document in Microsoft Word, the language of the text should be set within MS Word.

To be considered accessible, PDF documents must have the following characteristics:⁵²

1. The document is a searchable text file, not an image-ready scan
2. The document's form fields, if any, are accessible
3. Document structure is indicated by tags
4. Reading order is clear and easy to follow
5. Descriptive text is available for all graphics, links, and form fields
6. Navigational aids are available
7. A document language is specified
8. The document uses fonts that allow characters to be extracted to text
9. The security settings don't interfere with screen readers

2.3 Useful resources

Useful resources on PDF accessibility include:

Creating accessible PDF documents with Adobe Acrobat 7

http://www.adobe.com/enterprise/accessibility/pdfs/acro7_pg_ue.pdf

Accessible Content Online, Vol. 1, Num. 2

<http://www.accessiblecontent.com/online/v1n2/index.php?view=toc>

Guide to Creating Accessible PDF Documents

www.section508.gov/docs/PDFGuidanceForGovernment.pdf

⁵² Creating accessible PDF documents with Adobe Acrobat 7: http://www.adobe.com/enterprise/accessibility/pdfs/acro7_pg_ue.pdf

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